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CONFERENCE PROCEEDINGS CONTENTS

EDUCATION AND EDUCATIONAL RESEARCH

SECTION EDUCATION & EDUCATIONAL RESEARCH

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A QUALITATIVE RESEARCH ON EDUCATIONAL LEADERSHIP IN DAMBOVITA COUNTY, ROMANIA

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ABSTRACT

The study aims to highlight the leaders' auto-perception on their leadership style, through a semi-structured interview. We analyze data collected during a series of eleven face-to-face and telephonic interviews, conducted in Dambovita County, Romania, with educational leaders from pre-university institutions. The interview guide was designed to include five variables (motivation, leadership, team relations, success and challenges) and twenty questions. The research objective was to emphasize the transformational leadership practices, within the wider context of the leaders' past and present-day motivations, of their vision on the best leadership actions, of their ability to relate with the team members and their perceptions of success. The leaders also provided descriptions of their challenges and of the way they tackle difficult situations. A formal mentoring system for the educational leaders emerged as a solution that could allow leaders to improve their work. The findings of the research may be used to design training programs for educational leaders, tailored on their strengths, weaknesses and their perception on the leaders' role within the education system.

Keywords: Transformational Leadership, Semi-structured interviews, Education, Romania

INTRODUCTION

The concerns on educational leadership, in general, and on transformational leadership, in particular, are increasingly present among the new generation's leaders of the educational establishments in Romania. Introduction of a merit-based selection system for persons holding leadership positions in pre-university education played an important role in setting this direction. Though perfectible, this system created a new framework of legitimisation and accountability of the leaders in the education field, different from the previous system based on political appointees. Given the fact that the contest for the leadership jobs laid emphasis on both professional skills and leadership-related theoretical skills, the investigation on the leaders' perception relating to how such knowledge was used in practice has taken the shape of an necessary approach which should enable correlation between the realities in the Romanian education system and the leadership practices recommended by the literature.

The main objectives of the research were to highlight the specific attitudes and practices of the transformational leadership [1], [2], [3], [4] among the leaders in the education system, and to understand their perception on leadership, the qualities and role of a leader, the success and challenges entailed by the leadership activity.

METHODOLOGY

This research is a part of a much larger approach which focuses on the analysis of the transformational leadership in the Romanian education system [5], which includes both quantitative methods (use of the Multifactor Leadership Questionnaire [6]), and qualitative methods. In order to meet the objectives mentioned above, this stage of the research involved 11 semi-structured interviews, conducted between May and July 2018. Designed for a better understanding of the leaders' perception on their activity and the relationship with the team, the interview guide comprises five general themes and 20 questions concerning: career choice (context, motivations, aspirations); perception on leadership and qualities of a good leader; mentoring in educational leadership; role of the leader; successful leadership and challenges relating to educational leadership. The questions were adapted to the objectives and the field of study, starting from interview guides used in similar qualitative research [7].

With one exception, when the communication was face-to-face, the interviews were conducted by phone, after a preliminary discussion on the goal of the research held with each participant. The interviews lasted between 20 and 35 minutes and were audio recorded. Each conversation was then transcribed and the key themes were identified.

The 11 participants to this stage of the research held leadership positions in pre-university education (headmasters and deputy headmasters of schools and high schools in Dambovita County). The distribution by gender was balanced (6 female participants, 5 male participants). Their age ranged from 38 to 47 years (average 40.6). The seniority in leadership positions was 1 to 19 years, with an average of 4.6 years.

RESULTS AND DISCUSSIONS

Context and Motivation of the Career Choice

For this section of the interview, the interview guide comprises four questions. The interview starts with questions regarding the motivation of applying for a leadership position. The respondents were then asked to describe the circumstances under which they decided that a leadership position is appropriate for them. The responses mainly aimed two major themes. The first was the existence of some motivations associated with the desire to develop professionally and personally as well as the desire to advance their career. To some respondents, getting a leadership position was a natural stage, which was justified, in their opinion, by experience, vocational training and their own qualities.

> "I have decided that a leadership position is suitable for me when I understood that I have certain people skills, good organisational skills as well as some managerial qualities and skills, such as interpersonal skills. I am a good listener and I am able to consider other people's opinions. I have the capacity to control." (Woman, 38, headmistress, one year of service in leadership position).

The second theme focused on the motivation relating to the desire to make a change, some progress within the institution where the respondent worked. Other sources of motivation described by the respondents were the ambition and the desire to accept challenges.

The next question aimed at the aspirations of the respondents upon taking the position over. They highlighted the desire to make a change, either in terms of institutional growth, better performances and image countywide or in terms of mentalities and solutions provided to pupils with learning difficulties.

> ”[My aspirations were oriented on] «building» a new school which should encourage pupils to challenge themselves, where there is collaboration and not constraint. The school should help, not punish.” (Woman, 43, headmistress, 19 years of service in leadership positions).

To most leaders interviewed, keeping the motivation alive derives from the support of the colleagues, the accomplishments and the desire to have better results. There were also two exceptions: a situation when the power of habit was provided as an example (by a leader who had been holding leadership positions for nearly two decades) and another who described demotivation:

> ”There are numerous times when I want to give up, so I am hardly motivated.” (Woman, 38, headmistress, 3 years of service in leadership positions).

Leadership

The section on leadership (definition, perception on characteristics and role of a leader, mentoring, improving leadership style) is the widest part of the interview and consists in nine questions.

The first question requests the respondents to explain to what they associate the term leadership. The responses were various and in most cases they fell under the scope of the terms “responsibility”, ”inspiration”, ”influence”, ”strategy” and ”vision”. It is worth noting that some subjects associate leadership with dynamism, involvement, the idea of power which sets things in motion, the images used at times being highly suggestive:

> Question (Q): With what do you associate the term leadership?
>
> Answer (A): ”The leader has to be a magnet which should “attract” the whole department to him/her. He/she should be a motor, an engine. And the rest should come naturally. […] There is vision. However, one must have the capacity and skills to move things forward.” (Man, 42, high school headmaster, 2 years of service in leadership positions).

In terms of a good leader’s characteristics, the responses aimed at a series of traits, namely: self-confidence; empathy; taking responsibility; charisma; vision; openness to novelty; impartiality; the capacity to build a team; integrity; devotion; modesty; creativity; innovation; effective communication; seriousness; authority; team spirit; logic; courage; skills.

It should be highlighted that many of these match some factors of the transformational leadership, as described in the Multifactor Leadership Questionnaire, respectively

Idealised Influence, *Inspirational Motivation* and *Individual Consideration*. In the next sequence of the interview, the respondents were asked what characteristics of the ones mentioned previously they considered they possessed; most of them believed that such characteristics defined them and implicitly made them good leaders.

Of all the participants to the research, five leaders stated that they had mentors from among their colleagues or persons who used to hold leadership positions. Three respondents provided more nuanced responses and were of the opinion that they assimilated other leaders' influence only partially, either by taking ideas or directions over from several mentors or by letting themselves inspired by these leaders' accomplishments.

As for the question on the role of the leader within an educational establishment, all respondents referred to the attributes specific to transformational leadership, outlining the image of the leader as model (*Idealised Influence*), as factor which defines the vision of the organisation and motivates the team (*Inspirational Motivation*) and as agent which supports the evolution of the people around (*Intellectual Stimulation*) and pays attention to them (*Individual Consideration*). Only one subject referred to features specific to the transactional leadership style, namely *Contingent Reward*: "control, monitoring" (man, 41, school headmaster, 3 years of service in leadership positions).

Relationship with the Team

The following section of the interview guide includes three questions concerning the relationship with the team, the contribution made by the leader in relation to the team and the leaders' dissatisfactions.

The subjects were requested to describe the details of the contribution made in relation to the team and they mentioned the change of the work environment within the institution (trust, communication, support), attitude (perseverance, initiative, devotion, optimism) and personal example.

In reference to the question on the discontents generated by the relationship with the subordinates or the members of the coordinated team, the following were mentioned: lack of involvement, disinterest, lack of initiative and responsibility (seven responses), conflicting attitude of some collaborators (three responses) and professional quality of the collaborators (one response).

> Q: What are your discontents with regard to the relationship with your subordinates?
>
> A:"Their attitude, the lack of involvement. I am unable to motivate them to do certain things. I consider that the most important skill of the leader should be to understand what each person can and cannot do, to try and help each of them to grow and, by doing so, to develop the entire structure. The disappointment comes from the fact that some refuse to grow and to contribute therefore to the development of the department." (Man, 42, department headmaster, 2 years of service in leadership positions).

Successful Leadership

The leaders who took part to the research associated a successful leadership style to three main aspects:

a. achieving the objectives set, obtaining good results and making progress as an organisation, under lower pressure on the decision-making factors;

b. the cohesion of the team who works together towards a common goal;

c. communication with the beneficiaries of the education process and with the local community, especially getting a positive feedback from them.

As far as the subjects were concerned, being successful firstly meant effort and personal qualities (e.g.: perseverance, organisational qualities, self-confidence, passion, ambition, empathy, diligence, impartiality within the team). The team effort was mentioned to a lower extent (two responses).

Obstacles and Challenges in Leadership

In the last section of the interview, the subjects were asked to describe an obstacle or a challenge that they had to face up to as a leader and also how they managed to overcome such situations. Three types of situations were mentioned:

1. Administrative difficulties.

2. Obstacles associated to the relationship with the team: mentality (inertia, resistance to change), conflicting or indifferent attitude, professional deficiencies of the team members (one response).

3. The general context in the education system and the frequent changes of legislation and of educational policies.

When presenting how they overcame difficulties, two respondents made references to attitudes and practices associated with transactional leadership (imposing some rules and using objective annual assessments). The others described strategies which may rather be associated to transformational leadership. They were: better communication with the members of the teams, attempt to combat inertia and accountability by power of personal examples as well as attempts to minimise the negative effects of an unstable education system. Two leaders brought attention to situations which they found impossible to overcome, due to reasons relating to traits of the team or overload of the leader.

CONCLUSION

The results of the semi-structured interviews have highlighted some very strong intrinsic motivations for accepting the leadership positions, derived from personal aspirations of the leaders regarding both the evolution of the institution and their own career advancement. The leaders who participated to the research tend to compensate the lack of a formal mentoring system by selecting some attitudes and/or behaviours observed in relation to some persons holding leadership positions, which they adapt and to which they add their personal touch. The informal discussions, the observation and the individual study are methods used by the leaders interviewed to build their own

leadership style. The relationship with the team tends to be marked by discontents due to low involvement of the collaborators in projects proposed by the leader, which explains why in this stage the leaders interviewed tend to associate successful leadership to personal skills and not with the collective effort of the members of the organisation.

We consider that the results indicate the need for a formal mentoring system in educational leadership, which should enable leaders to discuss with unbiased persons about the issues they are forced to cope with. Such a system would create a psychological security framework for leaders and would reduce the anxiety relating to avoidance of negative results; therefore, the leaders may explore new ways to overcome obstacles, including those generated by their collaborators' inertia.

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ACCURACY OF PEDAGOGICAL STUDENTS' FORECASTING OF TEST SCORES THROUGHOUT THE ACADEMIC YEAR

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ABSTRACT

According to the requirements to in-service teachers in the Russian Federation pedagogical forecasting is considered one of the educator's professional functions. Pedagogical students are to be taught acquisition of forecasting skills in undergraduate and postgraduate teacher training programs. The difficulties of forecasting lie in the accuracy of predictions. One of the means to teach forecasting accuracy to pedagogical students is to train them to predict their academic success early and late in the academic year. The paper introduces the definition of pedagogical forecasting, its structure and methods. The process of forecasting in teachers' activities is described. The methodology applied includes case study. Data sets have been obtained collecting students' opinions via conversational interviewing. The research sample consists of students enrolled in foreign languages teaching programs. The research conducted in a Teacher Training University in 2018-2019 shows students' forecasting accuracy of test scores early and late in the term. The level of students' accuracy of forecasting test scores is analyzed. To explore the relationship between students' forecasting accuracy and achievement the Pearson product moment correlation is implemented.

Keywords: forecasting skills, accuracy of forecasting, teacher training

INTRODUCTION

Effective activity of in-service teachers depends largely on their ability to forecast educational process and its components. This assumption in the Russian Federation leads to the fact that pedagogical forecasting is considered one of the educator's professional functions. In connection with the task to enable teachers to forecast their professional activity it is required that pedagogical students should be taught acquisition of forecasting skills. Pedagogical forecasting can be applied in three aspects of pedagogical activity: self-forecasting of own activity (most often as predicting grades), forecasting school students' activity, forecasting the teaching-learning process. In the present paper the first aspect of activity – students' forecasting of grades (test scores) in undergraduate and postgraduate teacher training programs will be studied.

Forecasting has been studied by scholars since 1960s up to now [3], [5], [7]. Forecasting of grades by students has been the focus in the works of European [8], [11] and Russian educators [6]. The primary difficulty of forecasting in students' activity is the accuracy of predictions. One of the means to teach accuracy of pedagogical students' own activity forecasting is to train them to predict their academic success early and late in the academic year.

Pedagogical forecasting is viewed as determining the tendencies of the development of a subject or an object of pedagogical activity [9].

This paper aims at answering the research questions: *1) What is the structure of pedagogical forecasting in students' forecasting test scores? 2) What process might be applied in students' forecasting test scores?3) What are the criteria to determine students' forecasting test scores accuracy? 4) What is the level of forecasting accuracy in students' activity? 5) Is there any the relationship between students' forecasting accuracy and achievement?*

RESEARCH METHODOLOGY

To study pedagogical students' accuracy of forecasting test scores the following methods have been applied.

Case study has allowed to select groups of undergraduate and graduate students representative of the direction of training (Pedagogy). The groups include students enrolled in teacher training programs. They consist of junior and senior students of a Teacher Training University licensed and accredited in the Russia Federation.

Documentary research has been applied to analyze educational literature (books and articles) to summarize and select stages of forecasting and forecasting methods to be used.

Data collection techniques include *conversational interviewing*. Data sets have been obtained from students' opinions about their forecasting. The data have been obtained from undergraduate and postgraduate students (n=98). Partially the quantitative data were obtained from pedagogical students' examination scores.

SAMPLE

To study the pedagogical students' forecasting accuracy seven groups of respondents (n=98) have been engaged. The respondents have been higher school students, enrolled in teacher training undergraduate and graduate programs: senior undergraduate and post-graduate students (n=69), junior students (n=29).

The respondents come from the region of the Urals. The amount of students majoring in the Humanities (n=82) is larger, as the majority of the University graduates are teachers of languages, History. Students majoring in Science (n=16) come from the Faculty of Mathematics and Physics. The sample is representative of the University, which is qualified as "humanitarian-pedagogical".

DOCUMENTARY RESEARCH

The documentary research addressed three research questions: 1) What is the structure of pedagogical forecasting in students' forecasting test scores? 2) What process might be applied in students' forecasting test scores? 3) What are the criteria to determine students' forecasting test scores accuracy?

Since pedagogical forecasting is connected with determining tendencies of a subject's or an object's activity, forecasting test scores is also based on the correct anticipation of tendencies in competence development. The process of anticipation has a certain structure. The description of pedagogical forecasting structure in certain aspects of prognostication has been made in the previous research [6]. It includes the following stages: pre-forecasting orientation; setting the task for the forecast; forecasting retrospection; forecasting diagnosis; forecasting prospectus; verification and correction of the forecast.

In the present paper prognostication stages connection with forecasting test scores will be interpreted. *Pre-forecasting orientation* is analyzing the student's previous work with the related subjects. *The task for the forecast* is the actual test. *Forecasting retrospection* consists in the analysis of the previous academic performance in the given subject or related subjects. *Forecasting diagnosis* requires taking into consideration the student's self-evaluation of his/her own actual level of competence in the given topic. The *forecasting prospectus* is the prognosis, i.e. the decision about the expected test score. *Verification* implies comparing the actual core with the predicted one. *Correction* is the conclusion about improving the forecasting, analyzing the reason of the prognosis deviation from the score.

Forecasting is based on forecasting methods. They have been studied in pedagogy [1], [2], [4]. The methods to be applied by pedagogical students in forecasting test scores might be: heuristic (Scenarios), Stationary time series (Moving average).

1. Scenarios are helpful when a detailed analysis (reflection) of the situation is required, if the student is to analyze own competences, drawbacks and plan activities to improve the situation. It consists of the steps: identifying and characterizing the student's actual competences, comparison of the actual competences with the ones to be obtained, making prognosis about improving the competencies, anticipating difficulties, making a scenario of mastering the necessary competences.

2. Moving average in forecasting the test score can be applied if training competences is based on several preliminary tests. Moving average shows the direction and pace of changes in the level of competences to be obtained. The method is not helpful in suggesting ways to master the competences; it is to be applied to predict the test score more precisely.

To identify the criteria of forecasting accuracy the following documentary sources have been studied [2], [3], [6], [9]. The degree of coincidence of the forecast and the actual score acquired by the student has been selected as the criterion of accuracy.

The numerical indicators of accuracy levels are as follows:

The high level (I) envisages the coincidence of the forecast and the test score acquired by the student or discrepancy up to 0.5 point.

The medium level (II): envisages the discrepancy between the forecast and the test score acquired by the student above 0.5 point and up to 1 point inclusively.

The low level (III): envisages the discrepancy between the forecast and the test score acquired by the student more than 1 point.

FINDINGS

The answers to the research questions – "What is the level of forecasting accuracy in students' activity?" Is there any the relationship between students' forecasting accuracy and achievement? – have been obtained in the empirical part of the research.

Data about the students' levels of forecasting were measured in the beginning of the academic year in the beginning of September 2018 (Table 1) and before the examination test in the end of December 2018 (Table 2).

Table 1. Pedagogical students' levels of forecasting accuracy in the beginning of the academic year

Groups	Pedagogical students number	Levels					
		high		medium		low	
		number	%	number	%	number	%
7	98	17	17,3	37	37,7	44	45,0

Source: own study.

As seen from the table the majority of students (80,7%) had a discrepancy between the forecast and the test score acquired by the student above 0.5 point or 1 point. They failed to forecast accurately.

Throughout the term students were offered tasks on different aspects of forecasting. The first group of tasks was connected with a definite subject – FL teaching. The examples of tasks were: "listen to the story and predict the end", "think of the adjectives to be used with the following nouns", "read the text and predict the response of the character", "pick out the end of the sentence (out of three-four variants)" etc. The second group of tasks could be applied in any subject. The examples of tasks were: "predict the score for the presentation", "plan the appropriate activities to master the topic…", "predict the span of time you need to acquire skills of… on a definite level" etc.

In the end of the term, before the examination test predictions were different.

Table 2. Pedagogical students' levels of forecasting accuracy before the examination test

Groups	Pedagogical students number	Levels					
		high		medium		low	
		number	%	number	%	number	%
7	98	23	23,5	68	69,4	7	7,1

Source: own study.

The difference between the first forecasting and the second forecasting is evident. The second forecasting has shown a better accuracy of prediction.

To explore the relationship between students' forecasting accuracy and achievement the Pearson product moment correlation is implemented.

It was assumed that a sufficient level of pedagogical students' performance and the level of forecasting accuracy are directly connected. The Pearson correlation, *r* [10] has been calculated.

$$r = \frac{bc - ad}{\sqrt{(a+c)(b+d)(a+b)(c+d)}} \quad (1)$$

a - the number of students with a good level of performance and a low level of forecasting accuracy;

b - the number of students with a good level of performance and a good or excellent level of forecasting accuracy;

c – the number of students with a low or medium level of performance and low level of forecasting accuracy;

d - the number of students with a low or medium level of performance, but a good level of forecasting accuracy.

The following values of a, b, c, d were obtained:

a = 4; b = 17; c = 76; d = 1.

In accordance with formula (1): r = 0.84.

The value of the Pearson correlation shows a direct connection between the level of students' performance and the level of forecasting accuracy.

DISCUSSION

In the process of forecasting pedagogical students showed a tendency which has already been registered by western scholars [8]. The first forecasting in the beginning of the academic year shows more of students' confidence in positive testing results, while the forecasting before the examinational testing makes predictions more pessimistic.

Though predictions seem to become more accurate, the deviations in the beginning of the term and in the end of the term bore a different character. In Table 1 the amount of pedagogical students with a low level of forecasting consisted of respondents anticipating much higher scores than the ones acquired later. In table 2 the amount of

pedagogical students with a low level of forecasting consisted of respondents anticipating much lower scores than those acquired later.

Pearson product moment correlation has shown the existence of the direct connection between the student's achievement and the forecasting level.

CONCLUSION

Pedagogical labor market requires that pedagogical students should be taught acquisition of forecasting skills. Pedagogical forecasting means determining the tendencies of changes in a subject or an object of pedagogical activity. Students' predicting test scores assists in training students pedagogical forecasting.

Teaching students the process of forecasting one should follow certain stages: pre-forecasting orientation; setting the task for the forecast; forecasting retrospection; forecasting diagnosis; forecasting prospectus; verification and correction of the forecast. Forecasting test scores might be made on the basis of the following methods: heuristic (Scenarios), Stationary time series (Moving average).

To train forecasting skills in students two types of tasks were practiced throughout the term. The first group of tasks was connected with a definite subject – FL teaching. The second group of tasks could be applied in any subject.

Students' forecasting of test scores is more accurate in the end of the term. In the beginning of the term pedagogical students tend to anticipate higher scores. In the end of the term students anticipate lower scores than they actually get. Consequently, long-term forecasting is more optimistic than short-term forecasting.

Accuracy of forecasting is to be practised. The Pearson correlation shows that it is directly connected with the performance. Consequently, it contributes to pedagogical students' professional training.

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AN OPEN INFORMATIONAL AND EDUCATIONAL ENVIRONMENT AS A FACTOR IN THE DEVELOPMENT OF STUDENT RESEARCH ACTIVITIES

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ABSTRACT

Introduction: Society demands the improvement of modern transport education. Therefore, a key target in the system of higher transport education is the development of the student's research activity. The most important factor here is an open informational and educational environment. The core of such an environment is informational and remote technologies. A society's demand is interpreted and translated into reality by the teaching faculty of a specific university, therefore training a student to become a specialist in his sphere. The following issues are considered in the article:

1. The problem of using information technologies in terms of the development of student's research activity in the open informational and educational environment;

2. Problems of the student's methodology and the theory of the student's research activity in such an environment;

3. Peculiarities of the open informational and educational environment, which affect the development of student's research activity.

Research methods: the authors used theoretical methods of research: examining psychological studies of the analysis of student's research activity formation, Case method and observation of the development of students' motivation for pursuing their research and experimental methods.

Results: On basis of competence, operational and personally oriented approaches to studying, the influence of the informational and educational environment on the development of the student's research activity has been explored. The approach to future transport engineers' studying in a technical university is based on interactive learning methods and the implementation of modern educational informational technologies according to the needs of each subject.

Conclusion: The approach is interesting as a model of the process of preparing transport university graduates' doing research. The competitiveness of future transport engineers is defined by level of their research activity and their ability to maximally use the capacities of the informational and educational environment.

Keywords: an open informational and educational environment, research activity, self-organization, a systematic approach.

INTRODUCTION

Society demands the improvement of modern transport education. Therefore, a key target in the system of higher transport education is the development of the student's research activity. The most important factor here is an open informational and educational environment. The core of such an environment is informational and remote technologies. A society's demand is interpreted and translated into reality by the teaching faculty of a specific university, therefore training a student to become a specialist in his sphere. The following issues are considered in the article:

1. The problem of using information technologies in terms of the development of student's research activity in the open informational and educational environment;

2. Problems of the student's methodology and the theory of the student's research activity in such an environment;

3. Peculiarities of the open informational and educational environment, which affect the development of student's research activity.

DISCUSSION

One of the prioritised development trends in the modern education policy in the sphere of natural sciences is development of student's research activity. Philosophers have influenced the development of the student's research activity in the following theories: self-developing and self-cognition (Socrates, Democritus); independent work and independent knowledge of students (M. Quintilian); treatises – recommendations for the child about feeling the "taste" of things through independence, independent choice of the way, learning the reality. (M. Montaigne); systematic assimilation of the material (J.-J. Rousseau). The student's research activity and the independent activity of the student cannot exist without each other.

A task of searching for the new ways of the development student's research activity under the conditions of the new informational and educational environment has been arisen [8,9,10,11,12]. These tasks are enlightened in Federal State Educational Standards of higher education of the Russian Federation. Completed theoretical analysis of the matter's state has demonstrated that, regardless of growing attention towards it, the problem has not been studied enough. The necessity of a holistic theoretical approach of problem's conceptualization as a dynamic process that is being developed in the new informational and educational environment occurs.

Two approaches to determination of the concept "informational and educational environment" have been formed. According to the first one, the program technical, researches treat the informational and educational environment as a set of "program-methodical", "organizational-technical", "electronic-educational" and others informational resources, that is oriented on satisfaction of needs of participants of educational process (I. G. Zakharova, E. V. Lobanova). According to the second one, researches treat the informational and educational environment as a pedagogical system, which is targeted towards organisation of conditions of purposeful interaction of participants of educational process with resources of the information and educational environment (V. V. Gura). The information and educational environment has a dual nature, i.e. the above two approaches are closely intertwined with each other.

Taking into account the impact of open information and educational environment is conditioned due to the following needs:

- implementation of mechanisms of individual self-learning paths;
- introduction of elements of remote technologies in the educational process.

The methodological basis of the theory of the development of research activity was a set of philosophical, sociological, psychological and pedagogical provisions that have a paradigmatic character and reveal the categories “open informational and educational environment” “socialization”, “identification”, “systematic approach”, “self-organization”, “cognitive activity”, “cognitive independence, “diagnosis of cognitive independence”, “system”. The modern educational environment is a complicated dynamic system. Many researchers treated it as an open, self-organizing, nonlinear system of active interaction with the external educational environment and changes under its influence [9].The educational environment is doubtless a part of the external educational environment and consists of the following components:

- students;
- teaching staff;
- electronic educational resources;
- information studying technologies.

The personality of a student and a tutor is an activity’s subject, it communicates with the external environment and becomes an open system. The openness implies an ability of the personality to perceive the diversity of social connections and to transform them, bringing its internal organization to a new level and realizing itself. Thus, the personality must be treated like an open system that, for preserving its internal order, violates dynamic balance with the environment trying to actualize itself [1,2].

Electronic educational resources deepen the interactivity of the communications between students and teaching staff under the external environment conditions.

The information studying technologies provides communication between students and teaching staff in the educational environment of a University.

The core of the open informational and educational environment are information technologies and electronic educational resources that affect the development of the motivational and the active components of research activity. The motivational component includes goals, values and motives of a student’s activity, which provide him with the opportunity of his research activity realisation. The active component includes miscellaneous types of educational activity: the reflexive activity (realizing the place of professional activities of acquired knowledge in a particular area), research activity, independent cognitive activity, communicative activity, creative activity. [1,2,3,4,5,6,9]. The modern information technologies penetrate more and more into all spheres of our life, expanding the possibilities of making, processing and analyzing information. Usage of computer technologies has allowed reaching a new level of pedagogical process’ modernisation in the informational and educational environment. Usage of new informational means and improvement of the whole system of educational activity by transforming the methods and the ways of teaching allows the increasing interest of students and the development of their creativeness. In particular, in the context of teaching different courses on the specialisation “Rolling stock of railways”, several directions of usage of informational technologies can be distinguished:

- ✓ computer simulation of studied transport processes
- ✓ virtual laboratory practices in Moodle;
- ✓ usage of the modern technologies for providing students with remote access to information, and for the organisation of periodical and final assessment of students' knowledge;
- ✓ designing of electronic auxiliary tools and learning aid for the specialisation's subjects (presentations for lectures, educational films, etc.)

In addition, the usage of the remote technologies opens several possibilities:

- the access to internal and external informational sources, lecture notes is opened
- the opportunity of online/offline interaction, dispatch of completed tasks, the testing with results output, the resitting the failed tests or examinations, extra information (program, examination questions list, news).

The testing in the Moodle system allows reducing checking time of completed tasks, to guarantee openness and objectivity of contest tasks' assessment. The remote technologies will reach their educational goals only if three essential components are combined: visualization, gamification (an introduction of gaming mechanics into non-gaming processes) and interactive action. The following pros of suggested technologies can be marked:

- A high degree of autonomy. Listeners can ask a lecturer their questions, while the latter can immediately explain unclear for audience moments;
- As a rule, after finishing a lecture, the listeners acquire a record of the webinar, that can be useful during a revision of the material;
- Significant time economy. A lecturer and listeners do not need to hurry to where a lecture takes place. They can even be in different countries;
- Anonymity. The participants of a webinar may not know the personal information about each other.

For the development of the student's research activity, the ***Mirapolis*** system is widely used. This system allows realizing a technology of organizing of sectoral internet conferences. Leading specialists of the transport sphere, students of senior years, undergraduates and graduate students take part in these conferences. In any sphere, especially as fast developing as the transport one, many changes happen simultaneously. It is important for the market participants (students and lecturers of transport universities, transport companies' staff, scientists of research institutes) to exchange their investigations and achievements. During an internet conference, it is possible to ask speakers and get answers back. Participants can be far away from each other. To take part in a conference you simply need to connect to a webinar. Such events are an ideal environment for spreading new ideas and technologies, which contributes to the development of student's research activity during their studying. Participation in conferences allows for developing personal and professional skills. Employers value the presence of such experience since they find this experience useful and necessary for becoming a professional.

The features of the open self-developing information and educational environment of a University are:

- availability of various resources of the environment from any from anywhere in the world,
- the organisation of online educational events with others Universities from all over the world.

- focus on the student's personality;
- the most favourable conditions for self-development;
- flexible individualized nature of education;
- rich professional content;
- creating of professional competences

In general, an informational and educational environment of any educational institution can have these features:

Structural features: an informational and educational environment may consist of several educational (sociocultural) environments - the organization where the student works (for extramural and evening students), the educational institution (institutes, universities); the professional sociocultural environment (professional communities, literary sources, information networks, etc.).

Information features: an information sphere (conceptions of studying and upbringing, educational and studying programs, study plan, textbook and teaching literature and etc.);

Methodical features: forms and methods of organization of education (forms of classes organization - seminars, lectures, laboratory work; seminars, lectures, laboratory work using remote technologies; conferences; excursions; research societies, etc.; forms and methods of organization of research activities – traditional methods, using remote technologies, etc.)).

Communication features: features of interaction with the external environment (open and closed); features of informational and educational environment's subjects (gender, age and national characteristics of students and teachers, their values, attitudes, stereotypes.); communication sphere (style and activity of communication (the student – the teacher, the student – the student; the student – the open educational environment, the teacher – the teacher); spatial and social density among the subjects of education, etc.

Organizational features: features of the managerial culture of teachers and students, presence of creative unions of teachers and students, presence of teachers' skills to organize the student's research activity, presence of student's ability to organize the self-education process.

Along with that, a number of contradictions hinders the development of the student's research activity in an open informational and educational environment:

- the contradiction between the fact that the university education plays a significant role in the organisation of the independent cognitive activity and the modern higher education school that still remains closed for interaction with the outside world in many areas;
- the contradiction between the necessity of new educational programs' introduction, in which many hours are devoted to the independent student's work that is closely related to the research activity and inadequacy of the current technical and educational and didactic support of the independent student's work;
- the contradiction between the potential of new didactic and technical opportunities for the organisation of the student's research activity and poorly developed a higher school that remains unprepared for the usage of these innovations;
- the contradiction between rapid ground-breaking changes in the information technologies' sphere and low level of readiness of pedagogical staff to use them.

For surmount of the mentioned contradictions, it is necessary to consider that one of the features of modern education is informatization of society, hereupon the educational environment has become the informational and educational environment.

Those contradictions have predetermined a problem that is in finding necessary and sufficient conditions to overcome them, to which we refer*:*

Structural conditions: accounting influence of educational (socio-cultural) environments on studying process and the personality of a student – organizations where he or she works directly (actual for correspondence and evening forms of education); an educational institution (institutions, universities, etc.); a professional socio-cultural environment (professional societies, literary sources, informational networks, etc.).

Subjects conditions: topicality of educational content for the development of the student's personality; contextual learning; integrative approach to learning content; the openness of the educational contest for changes, the inclusion of topical problems to the context.

Methodical conditions: variability of educational problems; diversity of methodical and educational tools; the variety of educational forms; emphasis on dialogical communication; taking into account the various personal characteristics of the perception of information.

Communicative conditions: mutual understanding of the all participants of the educational process: the student – the teacher, the student – the student; the student – the open educational environment, the teacher – the teacher.

Organisational conditions: the variety of organisation and managerial skills of the development of the student's research activity of teachers, availability of the student's self-educational skills.

The power of influence of the open informational and educational environment on the development of the student's research activity is expressed through the law that suggests that purposes, methods, educational technologies must match the level of development of modern society; the level of actual development that has been reached by students, the zone of the closest development of a student, that is determined by his possibilities that he or she could implement by cooperation with a teacher by the Internet technologies.

Internet technologies have several possibilities for the development of research activity:

1. Contribute to the development of the reflexive activity of the process of knowledge (realizing the place of the professional activities of the acquired knowledge in a particular area). For instance, it is advisable to have thematic conversations about the role of a studying subject in the further professional activity by independent search of information in several sources by students and preparation of presentations and reports on a given topic. Also, it is advisable to involve students to participate in international Internet conferences that help the development of the students' research activity.

2. Internet technologies help to solve educational problems that are raised in numerous network projects – research projects, search projects, etc. (Webquests, Crowdsourcing) [1,2].

3. The Internet technologies are used during the organisation of remote studying of subjects for solving of risen educational tasks (creation of multimedia resources collection) [1,2,7,8,9,10,11].

RESULTS

On the basis of competence, operational and personally oriented approaches to studying, the influence of the informational and educational environment on the development of the student's research activity has been explored. The approach to future transport engineers' studying in a technical university is based on interactive learning methods and the implementation of modern educational informational technologies according to the needs of each subject.

The characteristic of the informational and educational environment is given by us and и several features have been discovered:

1) the features of an informational and educational environment of an educational institution;
2) the number of contradictions hinders the development of the student's research activity in an open informational and educational environment;
3) conditions to overcome the contradictions of the development of the student's research activity in an open informational and educational environment.

CONCLUSION

Open educational environment is an important factor in the formation and further development of student research activities. The approach is interesting as a model of the process of preparing transport university graduates' doing research. The competitiveness of future transport engineers is defined by the level of their research activity and their ability to maximally use the capacities of the informational and educational environment. The result of completed researches allows making a conclusion that the modern educational process is unthinkable without an open informational and educational environment, new information technologies and electronic education sources. The research activity is a powerful developing tool of intellectual abilities of students, coupled with such educational factors as the open informational and educational environment and the information technologies it develops a student-professional in his own sphere. We could say that the research activity invests into the future professional activity of students by developing their intellectual abilities in the open informational and educational environment by the implementation of new information technologies and electronic education sources.

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ANALYSIS OF EUROPEAN COOPERATION THROUGH STRATEGIC PARTNERSHIP FOR HIGHER EDUCATION PROJECTS

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ABSTRACT

The higher education providers play a main role in facilitating the acquisition of valuable skills and international experiences for their students, fostering the attractiveness and international dimension of education, and bridging Europe's knowledge, skills and competences gap.

Within this sphere, the Erasmus+ programme represents one of the most powerful investment tools of the EU in the field of education and training. It aims to strengthen the European identity based on meaningful contributions which target a wide range of cooperation between institutions and organizations from different field in a joint attempt to innovate ways to support learners in their personal, educational and professional development.

The paper is focused on one of the key action area targeting cooperation for innovation and the exchange of good practices through the Erasmus + programme, as significant means to support the European cooperation in education and training for the period up to 2020.

The methodology of the paper entails a secondary literature research on the current challenges related to the projects undertaken in the field of higher education (HE) and within the frame of Erasmus+ programme. Secondarily, the authors performed a comparative analysis of strategic partnership for higher education projects within European Union (EU) countries, identifying the most performer countries and the frequency of good practices projects.

Finally, in the attempt to explain the difference between countries′ performance, the authors drew up several findings related to models of good practices with respect to European cooperation through strategic partnership for HE projects.

Keywords: sustainable higher education, research and innovation, inclusive education, continuous improvement.

INTRODUCTION

In the context of growing competition in the labor market, the need of empowering people and young graduates with more key competences which stimulate innovation and sustainable development is of utmost importance for Europe cohesion and

economic growth. Supporting the transnational and international cooperation between organisations in the fields of education and training is going to facilitate the circulation of ideas, best practices and expertise, thus contributing to a high-quality education [1].

The higher education providers play a main role in facilitating the acquisition of valuable skills and international experiences for their students, fostering the attractiveness and international dimension of education, and bridging Europe's knowledge, skills and competences gap.

Within this sphere, the Erasmus+ programme represents one of the most powerful investment tools of the EU in the field of education and training. It aims to strengthen the European identity based on meaningful contributions which target a wide range of cooperation between institutions and organizations from all learning levels and contexts in a joint attempt to innovate ways to support learners in their personal, educational and professional development [2].

The outcomes of Erasmus+ programme are directly linked to better adaptability and employability of individuals i.e. learners and students who are involved in circulation of ideas and the transmission of best practices and expertise, thus contributing to a high-quality education. In this view, the key action of cooperation for innovation and the exchange of good practices (KA2) is geared to the achievement of several strategic objectives in the context of the framework spanning education and training systems as a whole, in a lifelong learning view.

The paper aims to investigate the current challenges related to the projects undertaken in the field of higher education and within the frame of Erasmus+ programme. Secondarily, the authors performed a comparative analysis of strategic partnership for higher education projects within EU countries, identifying the most performer countries and the frequency of good practices projects. The research methodology also entails the analysis of data drown up from Erasmus+ projects results platform managed by European Commission, in the attempt to analyze the frequency distribution of finalized projects per countries, per years of programming period of 2014-2020, and according to several quality criteria.

The study is bound on the area of cooperation for innovation and the exchange of good practices within higher education level and do not take into consideration other levels of education as youth, school education, adult education or vocational education and training.

RESEARCH BACKGROUND

The quality of higher education has a pivotal role in increasing the competitiveness of young generation and thereby enhancing their employability. In this context, the Erasmus+ programme proved to be the most significant instrument which added value to individuals, organizational and system level across EU [3].

As presented in table 1, the intervention logic of the Erasmus+ programme is steering to contribute to the objectives of Europe 2020 strategy, including the headline education target i.e. rates of early school leavers below 10% and at least 40% of people aged 30-34 having completed a form of higher education [4].

Based on the principle of subsidiarity, the Erasmus+ programme is contributing to the benchmarks defined in the strategic framework for European cooperation in education and training (E&T 2020) and subsequent areas where cooperation should be reinforced to improve the performance of education and training systems and to optimise the capacity of these sectors to respond to economic and societal challenges such as: i) making lifelong learning and mobility a reality; ii) improving the quality and efficiency of education and training; iii) promoting equity, social cohesion, and active citizenship and iv) enhancing creativity, innovation, and entrepreneurship at all levels of education [2,5, 6].

Table 1. The scope of Erasmus+ programme and the EU strategic documents, [1,2,5,7]

EU strategic documents	**Erasmus+ level of intervention**	**Key action**	**Outcomes**	**Long-term impacts**
1. Europe 2020 strategy 2. E&T 2020 Framework 3. New skills Agenda for Europe 4. EU agenda for HE	Individual	KA1. Learning mobility of individuals	• Improved skills and competences • Better intercultural awareness • Improved motivation of staff • Personal development and changes in attitudes	• Improved education completion • Improved employability • Improved transition to other levels of education • Improved career progression of staff • Improved solidarity
	Organization	KA2. Cooperation for innovation and the exchange of good practices	• New teaching methods/curricula • Recognition of knowledge, skills and competences • Connection with businesses • International network	• Improved quality of teaching • Long lasting partnerships
	System	KA3. Support for policy reform	• Awareness about key policy challenges • Understanding of EU tools and policies • Better research about the EU	• Implementation of reforms in education and training • Implementation of EU tools at national level

In addition, the programme is designed to make an important contribution to strengthening Europe's skills base through a set of actions that support the priorities set in the New skills Agenda for Europe i.e. to improve the quality and relevance of skills

formation, to make skills and qualification more visible and comparable, and to advance skills intelligence [8].

Also, the intervention logic of the Erasmus+ programme is geared toward meeting the goals set out in the renewed EU agenda for higher education in four key areas: excellence in skills development, inclusive and connected HE systems, HE institutions contributing to innovation, effective and efficient HE systems [9].

Thereby, the scope of Erasmus+ programme embraces three levels of interventions such as individual, organisational, and system levels, as illustrated in table 1. The individual level is supported by KA1 that creates opportunities for learners and practitioners across all different areas and within education and training to undertake a learning and/or professional experience in another country. The organisational level is supported by KA2 that provides opportunities for cooperation and internationalisation of organisations. The systemic level, promoted by KA3, contains funding actions to define and implement new and better coordinated policies in the field of education, training, and youth [1,2, 7].

In this context, higher education institutions are crucial partners in delivering the European Union's strategy, and thus the outcomes, impact and state of play of Erasmus+ projects undertaken in the area of cooperation for innovation and the exchange of good practices are required to be further analysed.

RESEARCH RESULTS

The Erasmus+ programme is the flagship initiative of European Commission in the attempt to achieve the strategic objectives of European Education Area such as: i) to promote cross-border mobility and cooperation in education and training; ii) to create a genuine European learning space; and iii) to support Member States to improve their education and training systems toward more inclusive, lifelong-learning based and innovation-driven approach [10].

The outcomes and long-term impact of Erasmus+ programme represent meaningful ways of strengthening the education, training and culture dimensions of the Europe through an ambitious set of actions (e.g. KA1, KA2, KA3) that boost people's resilience in a world of diversity, mobility, globalisation and technological change.

In this context, by tacking stock of European cooperation through strategic partnership for higher education projects it is possible to have a better understanding of the benefits, geographical spread and intensity of the international dimension of HE institutions. Thereby, the analysis of Erasmus+ project results database has started with selecting the projects which were in line with the following criteria [11]:

- The projects have been carried out: a) under the key action of cooperation for innovation and the exchange of good practices (KA2) and targeted the partnership in higher education (e.g. strategic partnership in higher education KA203); and b) during the programming period 2014-2020;
- The projects have the status of being finalized;

- The projects activities were developed based on the topics: research & innovation, overcoming skills mismatch, green skills, new innovative curricula, digital skills, and ICT-new technologies.

Considering the period of 2014-2020, the results of selection displayed a number of 149 finalized projects under the 2014 and 2015 calls, and, for 2016 year, 163 projects were marked as ongoing projects.

The analysis goes through the next level of selection by taking into consideration other two additional criteria such as good practices and success story. According to the of Erasmus+ project results database, the projects with a well-managed structure during the implementation period are seen as good practices projects. The projects with a wide impact and a significant contribution to policymaking have been point out as success story [11].

As presented in table 2, for 2014 and 2015 calls, Romania counted for 10 strategic partnerships for HE projects being closely to countries as France (11) and Germany (11), and also being still far from Poland and Spain with 16 projects each. However, the figures are strictly related to the share of the budget assigned to each of EU-28 countries by the ERAMUS+ programme.

The analysis should be approached by considering the distribution of resources allocation for the programming period which encountered a significant budget increase compared to the previous period (e.g. EUR 16.4 billion, +40%). Notably, as per mid-term evaluation and without taking into account fully 2016 data, the Erasmus+ programme had already benefited over 1.4 million leaners and 400,000 practitioners meaning the aim of the programme related to founding fewer, but more multifaceted projects with larger average numbers of participants [7].

Another notable aspect is related to the share of Erasmus + budget split per different sectors from which the higher education sector counts for 37%, vocational education and training -VET with 20%, HE international with 11%, schools with 11%, etc. [7].

This acknowledges the significant support geared toward fulfilling the headline education targets for HE sector as min. 40% of people aged 30-34 should have completed some form of higher education, and at least 20% of higher education graduates and 6% of 18-34 year-olds with an initial vocational qualification should have spent some time studying or training abroad [5].

Considering the quality of implementation, the share of good practices projects is spread out between 20% and 100%, and Romania has displayed a share of 30% well-managed projects out of 10 projects coordinated during the analysed period. Compared with the other countries′ results, the same share of good practices was attained by the countries as Belgium (33.33%), Cyprus (33.33%), Luxembourg (33.33%) and Poland (31.25%), as presented in table 2.

Looking at the projects that had a significant contribution to policymaking, a few numbers have been classified in this category. This is because of the scope of intervention logic of KA2 action which targets mainly the organisational level outcomes with positive changes in the work methods and long-lasting cooperation. However, a spill-over effect is expected since the performance of individual organisations (as main beneficiaries of KA2 action) would generate modernising effects on national systems

and reforms prompted by the open method of coordination and the action of supporting the policy reforms (KA3) [7].

Table 2. EU-28 country′s distribution for strategic partnership in HE projects, [11]

Country	Finalized projects	Good practices		Success story	Country	Finalized projects	Good practices		Success story
	(No.)	(No.)	(%)	(No.)		(No.)	(No.)	(%)	(No.)
BE	6	2	33.33 %	0	LT	5	4	80%	0
BG	1	1	100 %	0	LU	3	1	33.33%	0
CZ	7	0	-	0	HU	5	2	40%	0
DK	2	1	50 %	1	MT	0	0	-	0
DE	11	3	27.27 %	1	NL	8	6	75%	1
EE	1	0	-	0	AT	5	4	80%	0
IE	1	1	100 %	0	PL	16	5	31.25 %	0
EL	2	0	-	0	PT	2	2	100 %	0
ES	16	4	25 %	1	RO	10	3	30%	1
FR	11	6	54.55 %	2	SI	4	2	50%	0
HR	3	3	100 %	1	SK	3	3	100 %	0
IT	4	0	-	0	FI	1	1	100 %	0
CY	3	1	33.33%	0	SE	5	1	20 %	0
LV	4	3	75%	1	UK	10	2	20%	0

Notably, thanks to the KA2 action, the degree of cross-sectoral cooperation has increased compared to the previous programming period 2007-2013 (+23%), and the European added value was acknowledged by the cooperation opportunities and internationalisation of organisations, quality improvements based on learning from others, as well as the promotion of common European values and intercultural awareness [7].

Considering the findings, the authors underline the benefits of developing projects aimed at transferring innovative results and fostering cooperation and the exchange of practices among participating organizations and institutions within HE sector. The quality of education and pedagogical approaches might be improved thanks to the professionalization of work methods by the implementation of lessons learnt resulted from cooperation process and mobility exchanges.

In terms of geographical sphere, the analysis investigated the EU countries′ performance with respect to the Erasmus + projects implemented so far and highlighted the main differences between good practices entailed by projects in the field of higher education.

CONCLUSION

The quality of higher education has a pivotal role in increasing the competitiveness of young generation and thereby enhancing their employability. So far, the Erasmus+ programme proved to be the most significant instrument which brought significant European added value with respect to scale of actions between countries, target groups covered, processes translated into internal organisational practices, cooperation between programme countries, and innovation mainstreamed across EU.

By analysing the Romanian context related to the projects for cooperation and innovation in higher education, the authors shared their views on the benefits at individual level (e.g. improvement the relevant skills for employability), and organizational level (e.g. development of innovative methods and/or teaching materials, improved capacity, new assessment or evaluation methods, etc.), especially with particular regard to the alignment of higher education offer to the labour market needs.

The findings facilitate the understanding of Romanian challenges compared with other EU countries with particular regard to strategic collaboration projects aimed to increase HE internationalization, research and innovation, and knowledge transfer across borders and different academic specializations and disciplines.

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ANALYSIS OF THE FOREIGN LANGUAGE TEXTBOOK OF THE 19TH CENTURY AS A WAY OF RECONSTRUCTING TEACHING METHODOLOGY

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ABSTRACT

The article deals with the problem of foreign language textbook analysis as a way of reconstructing teaching methodology. Modern textbook analysis schemes reflect requirements of modern language pedagogy and are not applicable to textbooks of the 19th century. Therefore, it is necessary to develop a scheme that would match peculiarities of language pedagogy of that time.

The purpose of the study is to develop a scheme for analyzing foreign language textbooks of the 19th century and carry out its approbation. Research methods are the following: (1) analysis of foreign language textbooks of the 19th century to identify their typological features and create a scheme of textbook analysis; (2) approbation of this scheme by analyzing one chosen foreign language textbook; (3) comparison of the textbook analysis results with the author's methodological views.

The designed scheme is based on the following typological features of textbooks: theoretical or practical orientation, use of translation, peculiarities of linguistic and socio-cultural content, way of organizing the learning content in the textbook and its lessons, presence of pictures, adaptation to the students' needs and possibilities. This scheme was tested in the analysis of the French language textbook for Russian students "Initial rules for learning French" (1832) by J. H. Ph. Seidenstücker. The study revealed that the textbook presented a variant of grammar-translation method. It was aimed at developing speaking skills based on the ability to build sentences. Comparison of the textbook analysis results with descriptions of Seidenstücker's methodological views revealed their coincidence in many aspects. It confirms the validity of the applied scheme as a means of reconstructing teaching methodology reflected in foreign language textbooks of the 19th century.

The results of the study are significant not only for the history of teaching foreign languages. A modified version of this scheme could be used in university pedagogical courses for analyzing modern foreign languages textbooks.

Keywords: teaching of foreign languages, reconstruction of teaching methodology, scheme of textbook analysis, 19th century, Johann Heinrich Philipp Seidenstücker.

INTRODUCTION

One of the important research tasks of history of education is reconstruction of teaching methods in cases when these methods are not described at all or are described superficially. A possible and sometimes the only way to solve this problem may be analysis of educational materials in which these methods are reflected.

Specialists of the textbook theory have repeatedly stressed the significance of analyzing educational materials to study the teaching methodology. Inessa Bim noted that a textbook is a micromodel of the teaching methodology and its analysis allows us to identify its components (goals, content, principles, methods, techniques, etc.) [1]. Mark Vyatyutnev pointed out that teaching methods are reflected in textbooks, and linked their typology with the types of textbooks [2]. Thus, analysis of a textbook can be considered as a way of reconstructing methodological views of its author. However, it is important to solve the following questions: How to analyze the textbook, and how to evaluate analysis results?

Specialists on the foreign language methodology have developed various schemes for textbooks analysis [3-5]. It is obvious that many parameters of these schemes (personal orientation, presence of problem tasks, communicative orientation, authenticity of educational materials, functional approach to their organization, etc.) reflect requirements of modern pedagogy and foreign language methodology. They are not applicable to textbooks of the 19th century because they should be analyzed from the standpoint of pedagogy and methodology of the same time. For the historical studies of education, there should be a new scheme of textbooks analysis, in which the pedagogical context of the textbook creation time is taken into account.

PURPOSE, MATERIAL AND METHODS OF THE STUDY

The purpose of this study is to develop and evaluate an analysis scheme of the foreign language textbook of the 19th century.

The material of the study is the French language textbook for Russian students "Nachal'nyye pravila dlya obucheniya Frantsuzskomu yazyku. V pol'zu Rossiyskogo yunoshestva. Ch. 1 [Initial rules for teaching French. In favor of the Russian youth. Part 1]"by I. H. Ph. Seidenshtücker, a German teacher. This work originally written in German was translated into Russian and published by the bookseller Jacob Brief [6] in Saint Petersburg in 1833.

Research methods are the following: (1) analysis of foreign language textbooks of the 19th century to identify their typological features; (2) creation of an analysis scheme which takes into account typological features of textbooks of the 19th century; (3) approbation of this scheme by analyzing one chosen foreign language textbook; (3) comparison of results of the textbook analysis with the author's methodological views.

RESULTS OF THE STUDY

Scheme of analysis of a foreign language textbook of the 19th century.

To design a scheme for analysis of foreign language textbooks of the 19th century, it was necessary to identify their typological features. For the purpose, various textbooks

of foreign languages for Russians (French, German, English, Latin, Greek), published in Russia in the 19th century, were analyzed. Also, works on the history of teaching foreign languages [7-9], which describe methods of teaching foreign languages of this period, were studied.

As a result, the following peculiarities of foreign language textbooks of the 19th century were identified: taking into account the addressee's specific features, way of organizing learning material in the textbook and its lessons, nature of components of the lesson, use of translation, peculiarities of the content, presence of pictures. On the basis of these peculiarities, a new scheme of textbook analysis was built. It contained the following questions:

1. Does the textbook indicate the addressee? If so, are the addressee's specific features taken into account?

2. What is the basic didactic unit?

3. How is the learning material organized in the textbook?

4. How is the learning material organized in the textbook lesson?

5. Does the textbook have exercises? What is their typology?

6. Does the textbook have tasks to train pronunciation, reading and writing?

7. Does the textbook have grammar rules and summary tables?

8. Does the textbook have texts? What function do they perform?

9. Does the textbook have dialogues? What function do they perform?

10. Is translation into the native language applied in the textbook? Is comparison with the native language applied? What is translated into native language?

11. What socio-cultural content is presented in the texts and dialogues?

12. Does the textbook have pictures? What function do they perform?

This scheme was applied to the analysis of the textbook of the French language for Russian students by I. H. Ph. Seidenshtücker, published in Russia in 1833.

I. H. Ph. Seidenshtücker and his foreign language textbooks.

A German teacher Johann Heinrich Philipp Seidenshtücker (21.08.1765 - 26.05.1817), Ph.D., professor at Helmstedt University (1790-1796), rector of gymnasiums in Lippstadt, Soest and Bremen (1796-1817), taught Greek, Latin and French. In 1811, he published the first, and in 1814, the second part of the French textbook "Elementarbuch zur Erlehrnung der französischen Sprache" [10], which immediately became very famous – in 1830, its 17th edition was published in Germany. He created his Latin and Greek textbooks by analogy with this one.

Seidenshtücker's textbooks were widely used in Russia in the 1830-1860s. The French language textbook, translated into Russian by the bookseller Jacob Brief [6], caused the greatest interest. Further, the first part of this textbook was published several times in the translations of Eustafy Oldecop (1843), Jakob Langen (1844), Leon Nouvel (1847) and A. S. Stepanov (1853). In addition, in Russia, Seidenshtücker's textbooks of Greek and Latin were published, as well as textbooks of German and English which were

compiled according to his teaching method. Methodological ideas of Seidenshtücker, embodied in all these textbooks, influenced development of theory and practice of teaching foreign languages in Russia not only in the 19th century, but also in the 20th one.

Analysis of the Seidenshtücker's French language textbook.

For this analysis, the first version of the Seidenshtücker's initial French language course for Russian students (translated by J. Brief) was taken. The main conclusions of the analysis are given below.

1. The textbook is considered to be addressed to students of classical gymnasiums, because topics of its texts are connected with ancient history and culture. Selection of the vocabulary, denoting phenomena close to students, also shows that the addressee's features are taken into account.

2. The basic didactic unit is a sentence. Mainly, this is a simple sentence (*Le père est bon. La mère est bonne*.), but a complex sentence is also introduced already on the first pages of the textbook (*Nous avons le père qui est bon*).

3. The learning material in the textbook is organized according to the genetic principle: in the first lessons, it is proposed to study speech patterns built on simple syntactic structures, then these structures are complicated.

4. The learning material in the lesson is organized according to the principle: from the study of speech pattern to the construction of similar sentences in translation exercises.

5. The textbook provides exercises for translating from French into Russian, and then from Russian into French.

6. There are no tasks to train pronunciation, rules of reading or writing.

7. In the first part of the textbook there are no grammar rules, sometimes summary tables are presented.

8. The textbook includes texts for reading and training translations from French into Russian.

9. There are no dialogues in the textbook.

10. The textbook includes translation of French words into Russian, but no comparison with the native language.

11. The texts and phrases present material for everyday communication, as well as historical and cultural material.

12. The textbook does not contain pictures.

Evaluation of the textbook analysis results.

Results of the Seidenshtücker's textbook analysis were compared with the preserved data on the methodological views of this author. It should be noted that, despite the popularity of Seidenshtücker's textbooks, there has been no chance to find detailed systemic descriptions of his methodological ideas. Separate recommendations of Seidenshtücker in the preface to his Latin textbook for Russian students [11] do not

provide a complete picture of his methodology. Therefore, information on his methodological views was taken from works of O. Wendt, G.P. Nedler, E.E. Lambeck and G. Christ [12-15] and summarized in this article.

The above mentioned authors note that Seidenshtücker's textbooks are addressed to students of secondary schools. They are to organize practical foreign language courses providing constant student activity through phrases and texts translations. The instruction is organized on the basis of a sentence. In the first lessons, these are simple sentences containing a subject and predicate, and their composition is further complicated. Organizing the lexical and grammatical material in the textbook, Seidenshtücker follows a strict sequence of its introduction, without overloading students with new material. From time to time he provides exercises for repetition of the studied material. Each textbook lesson contains new phrases that become examples for constructing similar phrases in exercises. Although most of the exercises are for translation from the target language to the native one, there are exercises to translate from the native language to the target one. Already the first lessons propose work with study texts. Students should read them and translate into their native language. There are no tasks to train pronunciation, reading or writing. There are no grammatical rules, but some elements of grammatical generalization are applied [12: 52-53; 13: 3-8; 14: 37-38; 15: 6-7].

Thus, results of the Seidenshtücker's textbook analysis coincide with descriptions of his ideas in methodological works of the 19th – 20th centuries in many aspects. This study shows that the above-presented scheme for analysis of a textbook of the 19th century makes it possible to reconstruct teaching methodology implemented in the textbook, with a high degree of accuracy.

CONCLUSION

The presented in this article scheme for analysis of foreign language textbooks of the 19th century is based on the study of methodological theories of that time. It reflects such typological features of foreign language textbooks of the 19th century as taking into account of the addressee's specific features, way of organizing learning material in the textbook and in the lesson, nature of components of the lesson, use of translation, peculiarities of the content, presence of pictures.

The analysis of the Seidenshtücker's French language textbook reveals that it implements a variant of grammar-translation method in teaching foreign languages. It is the variant aimed at forming not grammatical knowledge, but speaking skills based on the ability to build sentences.

The presence of speech patterns, exercises and texts, but not of grammar rules shows that it is a textbook for practical foreign language learning. Comparison of its analysis results with descriptions of Seidenshtücker's views shows their coincidence in many aspects. It confirms validity of this scheme as a way of reconstructing methodology of the 19th century.

The results of this study are significant for research not only in the field of the history of foreign languages teaching. A modified version of this scheme could be used in university pedagogical courses for analyzing modern foreign language textbooks.

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ARTS THERAPIES IN THE CZECH REPUBLIC WITH A FOCUS ON DRAMATHERAPY

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ABSTRACT

The paper presents a comparative analysis of arts therapies in the Czech Republic with a focus on dramatherapy. The aim of the introduction is to offer an overview of arts therapies in the Czech Republic and their historical development. This is followed by two literature reviews with the aim to compare published results about arts therapies and to analyse more thoroughly the scientific results about types of published research in dramatherapy. The first review was carried out in the National library of the Czech Republic. The published results related to main specialisations in arts therapies were compared to find out how much are these specialisations represented by scientific publications. The second review is focused only on dramatherapy. All available bachelor, master and doctoral theses about dramatherapy in the Czech Republic were analysed according to research methods used and client populations. Outcomes of these two reviews may be useful for further development of the profession.

Keywords: arts therapis, expressive therapies, dramatherapy

1 INTRODUCTION

Arts therapies (AT) have a long tradition in the Czech Republic. Their development has been influenced by more than 40 years of the communist regime, separating them from the European cultural space. This situation persisted also long after the revolution in 1989. During the second half of 20th century, specific therapeutic approaches were formulated in the Czech Republic. Some are now internationally known due to the emigration of their founders (S. Grof, F. Knobloch and others). Most of them, however, continue its development only in the Czech Republic.

Since the 1990s, professional associations of AT have begun to establish a community of arts therapists and restore relationships with AT associations in foreign countries. Although a number of important milestones has been achieved over the last 30 years (e.g. organising international conferences and long-term training programs) the recognition of AT practice in the Czech Republic remains low at the international level.

For the further development of AT and its recognition abroad it is important to reflect the historical development and the current state of the profession. This paper offers a

contribution to this task. In the first part of the paper a historical overview of the development of main specialisations of AT in the Czech Republic is described. In the second part results of two literature reviews are presented and discussed. The former is focused on the comparison of published results concerning the main specialisations of AT. The latter is focused only on dramatherapy and the analysis of absolvent, bachelor, master and doctoral theses. Results are related to the current situation of AT in the Czech Republic and their further scientific development will be reproduced exactly as submitted and will not be edited in any way.

1.1 Historical development of arts therapies in the Czech Republic

There are several AT specialisations organised by professional associations in the Czech Republic – art therapy, music therapy, dramatherapy and dance-movement therapy. These specialisations developed separately and only a few years ago a comparative analysis of the respective fields of AT had been initiated. The identification of common, different as well as unique characteristics of these specialisations is of utmost importance for the future professional development and legislative purposes [1].

The development of **art therapy** as a profession in the Czech Republic is linked to a psychologist D. Kocábová, whose approach combined the artistic experience with verbal psychotherapy and corresponds with the beginnings of art therapy in the United Statet [2] or in Great Britain [3]. Art therapy has been used in psychotherapeutic facilities (e.g. in the form of open studios) since the 1950s, and in the 1970s it became a common part of psychotherapeutic treatment. The 1980s brought an increase in art therapy among students of special pedagogy [4] and this trend persisted after 1989. At the beginning of the 1990s, the first bachelor's program in art therapy had been opened at the University of South Bohemia, based on the foundation of the so-called Rožnov art therapy school (with psychoanalytic and interpretative orientation).

In 1994, Czech art therapy association (ČAA) was founded based on art therapy section of the Czech Medical Society of Jan Evangelista Purkyně. It created a somewhat different type of training program that is a modification of artpsychotherapy for group psychodynamic therapy. Since 2002, ČAA started to publish a professional journal Arteterapie.

At the beginning of the 1990s we see the first stirrings of an open confrontation between advocates of various concepts in art therapy, e.g. in psychotherapeutic or pedagogical area. As one solution to the rising problems a separate field had been defined, art philetics. Art philetics is considered a "reflexive-creative concept of arts-based pedagogy focused mostly on visual art culture" [5]. Art philetics refers theoretically to the philetic approach that emerged from the 1970s' constructivist pedagogy in the United States. Considering this historical context, many of the art therapists in schools label their work as art philetics.

J. Schanilcová-Vodňanská is a founding personality of **music therapy** in the Czech Republic, who developed it as part of the treatment of persons with alcohol addictions in the 1970s. A number of prominent personalities of music therapy have come out of psychodynamic foundations. An alternative to the psychotherapeutic concept was the Anthroposophical music therapy [6], music therapy in neurorehabilitation [7] and the special education area, which is today the dominant area of music therapists [8]. Many

specific Czech approaches are primarily focused on persons with special educational needs (SEN) and are practiced in schools and social care services [9]. Several research analyses also focused on persons with special needs [10] [11]. From foreign approaches, the FMT method is used in the Czech Republic by K. Grochalova and there is an interest in vibroacoustic therapy nowadays.

Notwithstanding a long tradition, music therapy started to be professionally organised only after 2005, when the Czech Association of Music Therapy and Dramatherapy was founded and in 2012 when the Music therapy Association of the Czech Republic was established. The development of music therapy has been significantly influenced by a number of foreign personalities such as W. Mastnak or C. Robbins. Art therapy and music therapy have a much longer history compared to dramatherapy and dance-movement therapy in the Czech Republic.

The beginnings of **dramatherapy** in the Czech Republic are associated with the American drama therapist M. Reisman, who at the end of the 1990s worked in the Prague Fokus sanatorium for persons with psychotic experience [12] and later with B. Kolínová, the co-founder of the Czech Association of Music Therapy and Dramatherapy. In 2008, the Association of dramatherapists of the Czech Republic (ADCR) was formed from graduates of the first long-term training course in dramatherapy (lecturers F. Prendergast and S. Jennings). Study in dramatherapy was also formed as part of a special pedagogy program at the Palacky University in Olomouc (guaranted by M. Valenta).

In addition to dramatherapy in the Czech Republic, there is also a related field called theatrotherapy (modification of the therapeutic theatre), creative drama (represented by J. Valenta, Z. Mikotova or V. Broulikova), or psychogymnastics – the method of group psychotherapy based on the pantomime [13].

Dance-movement therapy has the shortest history in the Czech Republic. According to K. Čížková [14], references to the use of dance and movement techniques in psychotherapy, psychogymnastics and music therapy can be found in the Czech environment. An important milestone was the first training of dance therapists in the Czech Republic, which took place between 1996 and 1999 under the auspices of the American dance therapy association (ADTA). In 2002, the Czech association of dance and movement therapy (TANTER) was formed by the graduates of this training [15]. Unlike some foreign countries (e.g. Great Britain), Czech dance-movement therapy is mainly oriented to adults and health care professionals, while practitioners in educational institutions are only now emerging in current training programs.

In addition to these main trends in AT, there is an important tradition of intermodal concept of **expressive therapy** in the Czech Republic. A number of subjects such as the studio Extraart (founded by B. Albrich) has long been trying not only to offer education in various specialisations of AT, but also support their interconnectedness.

2 REVIEWS

2.1 The first literature review: The percentages of publications on art therapies in the Czech and Slovak languages

The objective of this literature review is to identify the proportions of ATs in professional publications available in the Czech cultural environment.

Research question: What are the percentages of various types of art therapies in professional publications in the Czech and Slovak languages?

Databases: Catalogue of the National Library of the Czech Republic, http://www.nkp.cz/

Keywords: Expressive therapy, creative therapy, music therapy, art therapy, drama therapy, movement therapy, dance therapy, art therapy. For each keyword a separate search was performed.

Year of publication: The lower limit was different for each category (see below) and was determined to include all relevant publications in the search. The upper limit was determined by the date of the review – all results indexed until 5 January 2016 were included.

Search strategy: The content of all search results was analysed in order to include only those results that relate to relevant ATs in terms of their content. Each publication was included only in one of the five categories.

Exclusion criteria: Music, posters and sound tracks (not related to the focus of the review), online links (excluded due to possible time instability of the content), foreign literature unless translation to Czech is available, and resources that include only marginal or insignificant information about AT.

If a publication had several editions, only the last edition was included. Periodicals (1 journal and conference proceedings) were included only once. Electronic publications on CDs or DVDs were included only if related to the review. Publications with a paper and electronic version were included only once.

Results: Table 1 shows the number of results based on keyword search for each category (initial results) and the final numbers after content analysis and application of all inclusion or exclusion criteria (final results), including percentages by types of AT.

Table 1. Results and percentages by categories (based on a search in the National Library in the Czech Republic)

Category of AT	Initial/final number of results	Time period of the search	Percentage (counted for the whole sample)
Arts/expressive therapies	41/15	2001-2016	14.25%
Art therapy	171/29	1969-2016	27.55%
Music therapy	191/27	1836-2016	25.65%
Drama therapy	47/16	1994-2016	15.2%
Dance-movement therapy	48/8	1981-2016	7.6%
Total	498/95	-	100%

The largest number of results concerned the oldest types of AT– art therapy and music therapy. One of the results in the category of art therapy is an industry journal named Arteterapie, issued between 2001 and 2016 (total of 40 issues). This journal was primarily dedicated to art therapy, but ever since issue 6 it also included articles on drama therapy and music therapy. A summary of publications in this journal showing the numbers of various papers was performed by S. Dobalová (2016).

Due to its complexity, the category of Arts/expressive therapies was analysed separately, taking into account general publications as well as publications specifically aimed at concrete AT specializations. The second group included 4 articles on art therapy, 3 articles on music therapy, 1 article on drama therapy, and 3 articles on dance-movement therapy. An interesting finding is the number of foreign publications translated into Czech or Slovak. This included a total of 7 translated publications on art therapy, 5 on music therapy, 2 on drama therapy, and 3 on dance-movement therapy.

Conclusion of the first review: The number of published results in the National Library of the Czech Republic corresponds with the length of development of the different AT directions. The largest proportion is occupied by art therapy and music therapy, a significantly lower proportion was observed in drama therapy and dance-movement therapy. Although drama therapy is ranked among AT specializations with a lower number of publications, it can be assumed that there will be an abundance of first-rate qualification theses on drama therapy.

2.2 The second literature review: Analysis of qualification theses in the field of drama therapy

Drama therapy is the only AT specialization that can be studied at university in the Master's or Bachelor's degree in the following combination: special education-drama therapy. Some graduates from this course continue in the doctoral degree programme in special education with a research and professional focus on drama therapy. It can therefore be assumed that in the area of drama therapy the analysis of qualification theses could provide stimulating results for the development of AT. Moreover, no analysis of these theses has been performed so far. Regarding the nature of the review, it will also be useful to focus on the scientific aspects of the results.

Research questions: 1. What are the percentages of various types of Czech or Slovak qualification (graduation, Bachelor's, Master's, diploma, dissertation) theses in the area of drama therapy? 2. What types of research methodologies are used in the theses? 3. What types of special needs appear in the theses?

Database: Theses.cz web-based database (this database contains information about qualification theses published in the Czech Republic).

Keywords: drama therapy.

Year of publication: 2005-2016 (the database did not include theses published earlier than 2005).

Search strategy: To identify all qualification theses inclusive of Bachelor's theses, Master's theses, and dissertations which contain a practical part on drama therapy research. The review included only those full-texts or results the text of which was available. Limited access constituted a reason for exclusion (some universities in the Czech Republic offer full access to qualification theses only to employees and students).

The results were further analysed and using a content analysis the texts were scanned for information relevant to the review. The resulting numbers were calculated in terms of percentage.

Results: Of the total of 842 theses, 48 relevant papers were accepted against the required criteria. Of the final number of theses, 2 were graduation theses (4.17%), 28 were Bachelor's theses (58.33%), 16 were Master's theses (33.33%), and 2 were dissertations (4.17%). The theses were dominated by qualitative methods, only the two doctoral theses used a mixed design. Theses without a research focus often described a practical drama or drama therapy project.

Table 2. Types of research in published theses

Category of AT	Number of outcomes	Focus on clearly specified research	Types of research	Other outcomes
Graduation theses	2	2	SWOT analysis, qualitative methods	0
Bachelor's theses	28	17	Qualitative methods	5 completely without research, 5 theses include a description of a practical project
Master's theses	16	12	Qualitative methods	2 completely without research, 1 includes a description of a project, 1 contains research without sufficient specification
Doctoral theses	2	2	Mixed design	-
Total	498/95	-		100%

Another objective of the review was to identify the special needs and populations involved in drama therapy research. The following groups were identified (numbers in brackets are given only in cases where more than one result was identified): psychiatric diagnoses (11 theses) including addictive behaviour (5 theses), children with psychiatric diagnoses (2 theses), ADHD (2 theses), schizophrenia, neurotic personality disorder; intellectual disability (8 theses), multiple disability, disrupted communication ability, blind-deafness, children with various special needs, children from asylum shelters,

children in foster care, homeless people, seniors, people of Roma origin, prisoners, university students, general population without a specific diagnosis.

Another aim of the review was to analyse the thematic focus of the theses. The topics related for example to interdisciplinary relationships between drama therapy and other disciplines, significance of drama therapy in various types of populations, specificities of drama therapy in various types of institutions (prisons, community centres, low-threshold centres, police, home for disabled persons, psychiatric hospitals, therapeutic communities), descriptions of relevant techniques and intervention programmes, examining the differences in relation to other types of interventions, etc.

Conclusion of the second review: The percentages of graduate theses, Bachelor's theses, diploma theses and dissertations show the proportion of students in higher vocational schools and in Bachelor's, Master's and doctoral degree programmes. With the exception of dissertations, no quantitative research study was found. As was expected, there were many practical theses. The absence of quantitative research studies raises questions concerning students' methodological skills, understanding the importance of various types of methodologies, etc. The diversity of populations and special needs is reflected in the broad focus of qualification theses, whose topics to a large extent correspond with the students' primary qualification. However, there are many exceptions, which are particularly obvious in the case of dissertations.

3 CONCLUSION

The results of literature reviews presented in this paper show the percentages of the types of AT and provide an analysis of qualification theses in the area of drama therapy in terms of the type of thesis, type of research, and special needs/populations. The results of the first review allow understanding of the current state of AT in the Czech Republic based on an overview of published resources, which are used as a background by most art therapists. A limitation of this review is the absence of publications about art therapies published in scientific journals, which is a suggestion for another literature review. The results of the second review provide an understanding of the current practice in the area of qualification research studies aimed at drama therapy. Also in this area it would be desirable to compare the results relating to drama therapy with other types of AT. To implement this plan, another study would have to be performed.

The results of the first review suggest an unbalanced representation of publications concerning the types of AT. For example in the area of dance-movement therapy there are only few publications, which corresponds with the lower proportion of the community of dance-movement therapists [8]. Although these theses are extremely valuable for therapeutic practice and education of therapists, further development of the profession requires a systematic effort to improve the scientific knowledge of dance-movement therapy in domestic conditions. The deficit of literature in drama therapy is counterbalanced by the large number of qualification theses. Unfortunately, their level of expertise varies.

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AUTOMATED INTELLECTUAL TRAINING SYSTEMS IN MATHEMATICS AS A MEANS OF DEVELOPMENT OF PROBABILITY THINKING STYLE

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ABSTRACT

Currently relevant are the issues of improving the intellectual management of the educational process in the structure of subject mathematics teaching. The solution of this problem is aimed at ensuring the individual needs of each student in self-education and self-actualization, at the activation of cognitive, intellectual, motivational processes in the context of the new digital educational paradigm.

The leading idea of the study is the development of an automated intelligent learning system in mathematics (ILS), serving as a means of developing a style of thinking (PST). Probabilistic style of thinking is a professional tool of the modern specialist, by means of which the efficiency of making optimal decisions in the context of incomplete data or redundant information is achieved. Effective development of probabilistic style of thinking is carried out through the individualization of mathematical training and its interactive management based on information about the dynamic individual characteristics of students, according to the criteria for the development of probabilistic style of thinking.

The core of an intellectual educational system are logical modules that are implemented on the basis of a combination of artificial intelligence methods (fractal methods, fuzzy logic, neural computations, etc.). The study shows the main stages of the design of ILS: (I) the representation of the external interface of ILS; (II) description of the ILS core structure (user authentication block; information and guidance block; accumulative information bank for users; Internet interface; interface with administrators; graphic visualization module; educational information material; diagnostic material; artificial intelligence block; verification and qualimetry); (III) establishing the main links between the components of the core architecture. The proposed ILE allows you to form dynamic links of pedagogical control with training for effective management of the educational process, ensuring the maximum developmental effect for the future specialist. ILS is focused on improving the quality of the educational process both from the informational, prescription side, and in the context of the development of high-speed work on the basis of the implementation of artificial intelligence methods.

Keywords: probabilistic way of thinking, learning systems, artificial intelligence.

INTRODUCTION

Due to the changes in the methods of creating, knowledge transfer and fixation based on the global use of digital and networking technologies, the demand for new competencies and means of training is increasing. This process is triggered by the dynamics of economic development in conditions of uncertainty and multiparameter. In this regard, the issues of improving the intellectual management of the educational process in the structure of subject learning are currently relevant. The solution of this problem is aimed at ensuring the individual needs of each student in self-education and self-actualization, the activation of cognitive, intellectual, motivational processes in the context of a new digital educational paradigm.

A modern specialist working in the conditions of increasing diversity of random factors, lack of information, when the decision-making process is based on knowledge of the nature and characteristics of the internal and external random processes, needs a new style of thinking — probabilistic (PST). The peculiarities of the modern style of thinking are non-linearity, systemic nature, predictability, the ability to generate non-template ideas, flexibility, criticality, creative activity, the fundamental nature of interdisciplinary knowledge. It is the disciplines of the mathematical cycle (probability theory and mathematical statistics, optimization methods, theory of differential games, etc.) that play a leading role in the formation of students ' probabilistic style of thinking, which is equivalent to the probabilistic nature of the processes occurring in the world and is a key structural component of mathematical culture.

Analysis of psychological and pedagogical research on the problem of establishing the probabilistic nature of thinking showed that in science there is a large number of works devoted to this topic. The probabilistic nature of thinking is discussed in the works of W. McGuire and P. N. Johnson-Laird. In his research W. McGuire gives the definition of "probabilogical" or probabilistic-logical style of thinking, by which the author understands the specifics of the general influence of probability disciplines on human thinking and which also indicates the dependence of reasoning on the laws of probability.

In a number of works it is shown that the probabilistic style of thinking allows to understand the world by means of construction of probabilistic mental models [Collins, Michalski, 1989; Gigerenzer, Hoffragc, Kleinbolting, 1991; Johnson-Laird, 1994]. The construction of the probabilistic mental models, according to research by A. M. Collins and R. Michalski, is based on certain rules, with certain degree of certainty. From the standpoint of the theory of mental models, the probabilistic thinking style is also considered in the researches of Philip N. Johnson-Laird. According to this theory, probabilistic thinking uses, in its basis, both an induction method and a deduction method, which make it possible to arrive at probabilistic conclusions. The authors found that General knowledge and beliefs, as well as descriptions of situations lead to such mental models that are used to assess the probabilities, and these models themselves constitute the probabilistic thinking of a person [Johnson-Laird, 1994]. D. Kahneman highlights the heuristic features of the probabilistic style of thinking, among which are accessibility, representativeness, consolidation and correction [Kahneman, Frederick, 2005]. The study of I. Gal discusses the features of probabilistic thinking style, to which the author refers the ability to interpret and critically evaluate probabilistic information

and random phenomena, and focuses on the importance of the context in which this information is embedded [Gal, 2005].

In the studies of M. Borovcnik, it was shown that at a certain stage of solving a problem situation, probabilistic thinking dominates. Probabilistic thinking is at the junction of intuition and logic, and is understood by them in the form of the following abilities: to balance between psychological and formal elements; to understand the lack of direct criteria for making the right decision; to separate chance from causality; the ability to distinguish criteria for thinking about a random situation from those that can be used to choose a solution [Borovcnik, 2016,].

Under the probabilistic style of thinking we understand an individual system of ways to identify and formulate the problem situation with elements of uncertainty, search for means of its resolution, including the following abilities: to differentiate randomness and causality; to predict the possibility of its development, taking into account the random nature of the constituent elements and their relationships based on a combination of intuition and methods of deduction and induction; to make the optimal right decision in a situation with a high degree of uncertainty, in the conditions of a variety of choice of ways, alternatives and opportunities [Dobrin, Lopukhin, 2019]. Effective development of probabilistic style of thinking is carried out through the individualization of mathematical training and its interactive management on the basis of information about the dynamic individual characteristics of students, according to the selected criteria for the development of probabilistic style of thinking.

In connection with the above, the leading idea of our study is to develop an intelligent learning system in mathematics, based on the principles and methods of fractal approach and serving as a means of development of students, the control mechanism of the educational process. The intellectual training system in mathematics provides development of the probabilistic style of thinking which is the professional tool of the modern expert.

RESULTS AND DISCUSSION

Information tools and technologies are the key tools for the implementation of operational correction and diagnosis of cognitive processes in the direction of individualization and personalization of educational routes, providing personal orientation to the student with his cognitive needs and requirements for its development and self-development. The possibility of individualization of the learning process, strengthening the abilities of mental activity in modern automated learning systems is provided through the use of various intellectual tools and methods. The basis of scientific directions in the field of intelligent systems and artificial intelligence put D. Dubois, A. Kofman , A. Prad, P. L. Brusilovsky, D. Kapka, S. Osuga, Yu. Saeki, H. Suzuki, etc. [Dubois D., Prade H., 2001; Kofman, 1992]. Among Russian researchers, we should note the works of A. averkina, N. Brusentsov, A. Kolesnikov, A. Kuzmitsky, O. Kuznetsova, V. A. Emelianova, D. Pospelov, D. Popov, V. Petrushin, A. Ostroukh, I. Fomin and others.

The most effective and fruitful strategy for creating an intelligent learning system are the methods and principles of the fractal approach. The fractal approach is based on fundamental ideas of the works of M. Barnsley, B. Mandelbrot, R. Introduction, K. Falconer, and others. The role of fractal methods in systems of education is determined

by the possibility of making links between the individual concepts of the subject area, assessment of their depth, the ability to control, optimize and algorithmization of the process of integration of knowledge in General. This approach is especially important for mathematical education, where naturally occurring multistage abstractions of subject matter create conditions for the development of complex knowledge constructs that set the value imperative of the development of the mental sphere.

We highlight the main stages of the design of the author's intellectual training system in mathematics, providing effective development of probabilistic thinking style.

Phase I. P Presentation of the external interface of the intelligent learning system.

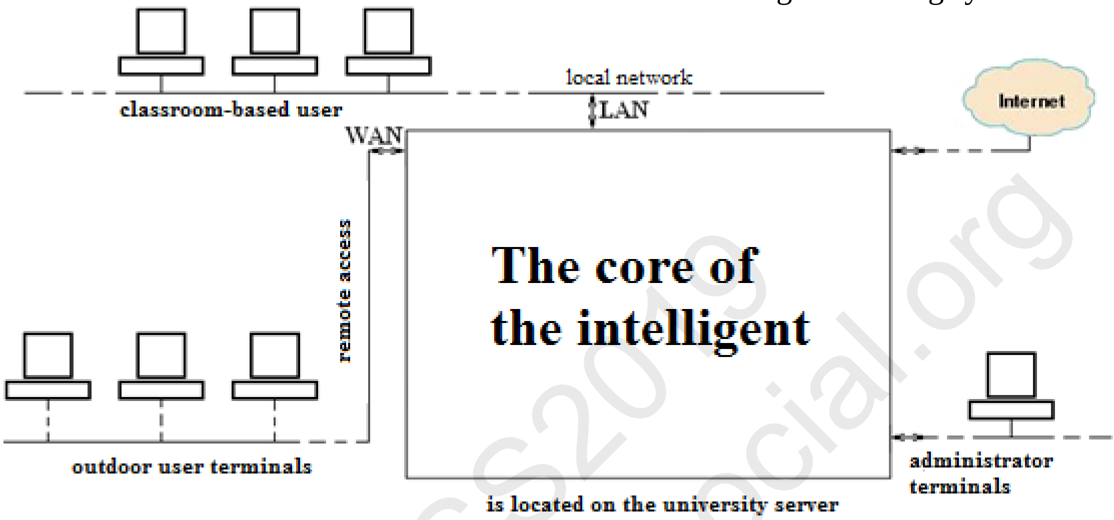

Figure.1. The external interface of the intelligent learning system

Phase II stage — description of the core structure of the intelligent learning system.

The core of the intelligent learning system includes the following blocks: access control of students; information and instructional; cumulative Bank of information on users; interface with the Internet; interface with administrators; graphical visualization of user success; educational and information material; diagnostic material and Artificial intelligence.

Student access control unit (user authentication) with LAN and WAN interfaces controlled by Artificial intelligence (Ai) unit. The system maintains strict control so that each student performs all tasks independently. To do this, the student must log on to the network under a personal account that gives access to the core of intelligent learning system. The user can perform a number of actions: 1) login; 2) receive indirect, controlled by AI block system or administrators, access to the block of educational and information material; 3) be able to access the extensible key system of probabilistic and statistical concepts with a fractal description of the structure for each module of training and work programs in the discipline; 4) receive information about the success of their educational and cognitive activities in comparison with the average data on the group to strengthen the motivational component; 5) pass repeatedly the intermediate control procedure initiated by the teacher, and the final certification procedure initiated by the Commission (administrator with unlimited rights); 6) carry out the process of self-testing for the purpose of self-testing.

The information and instructional block contain the name of the direction of training; the name of discipline; the purpose of training; the name of modules; methodical recommendations on the organization of process of training with use of ILS of tasks; the expanded system of key mathematical concepts with the fractal description of structure on each module of training constructed with use of hyperlinks; working programs. Due to the information-instructive block with fractal interdisciplinary representation of key mathematical concepts, the student can deeply and multifaceted master the educational material.

Cumulative information Bank for users, which stores automatically generated dossier for each student, containing all the parameters of the student (the total time of work in the classroom in an automated and "manual mode"; time spent on solving each problem and the free search for missing information, etc.).

Interface with the Internet as an external information space. The block under consideration, managed and controlled by Ai block, expands the horizons of knowledge, not limiting the student's activities within a fairly wide, but not sufficiently dynamically changing information and instructional block.

The interface block with administrators provides a number of opportunities for both administrators with limited rights (teacher) and administrators with unlimited rights (consultation of leading specialists). The administrator with limited rights can: 1) authorize the user; 2) monitor the success of educational and cognitive activities of the group of authorized users; 3) to correct the trajectory of each user to the sections of the block of educational and information material in the "manual mode" in the limit of the set level block Ai with the fixation of the results for further automated analysis; 4) to limit the search time for additional or missing information; 5) to initiate the procedure of intermediate control of each user and group of students. Administrator with unlimited rights has the ability to: 1) adjust the algorithm of the analysis unit; 2) Supplement, expand and change the block of educational and information material, as well as the block of diagnostic material; 3) delete the user's dossier and clear the memory of the results of their interaction with the ILS; 4) initiate the procedure of final certification of the group of users at the end of the study of the discipline with a printout of the results for each student; 5) appoint an administrator with disabilities. The interface block with administrators includes a WEB-Configurator and an algorithm designer, which provide the most convenient interface for configuring and managing the tasks.

Block graphic visualization of the success of educational and cognitive and research activities of the user allows you to summarize the data and in a convenient form for rapid visual assessment to provide them on external request. Information on the user's request is limited to a visual comparative analysis of the indicators of success of their educational activities and the average graphical data on the group.

The block of educational and information material contains an expandable Bank of educational, cognitive and research tasks on various branches of mathematics, presented in the form of a matrix and coordinated with the fractal structure of the conceptual apparatus. Horizontal levels establish the implementation of the dialogue of mathematical, humanitarian and natural science cultures in the learning process in accordance with the first iteration of the fractal structure of the educational element (concept): mathematical profile, natural science profile, humanitarian profile. Vertically, we distinguish the levels of mastering the educational mathematical material

according to the further growth of fractal sets: propaedeutics of mathematical knowledge; basic fundamental mathematical knowledge; the level of general professional training (the ability to apply mathematical knowledge to the field of professional disciplines); the level of practical self-realization (personal and professional self-awareness, self-esteem and self-development). Through the process of solving problems there is an intellectual management of mental activity of students and the direction of their further development. The developed system of tasks takes into account the individual characteristics of students, satisfies personal educational needs and is focused on the required depth of presentation of the material and on various areas of training.

Block diagnostic material contains control tasks to determine the initial level of assimilation of educational material, midterm and final control tests, as well as tasks for each module. Training in each module begins with the presentation of the first basic task (modular level). Its successful implementation leads to the transition to the task of the next problem level – subject, in case of failure, the student receives additional tasks from this section. Thus, the individual educational trajectory of each student on the offered educational material is provided. Information about the results and parameters of the tasks is automatically recorded in the cumulative Bank of information on users. Performing most tasks at all levels vertically and horizontally allows you to get the maximum degree of filling the volume and depth of detail of the training element.

The Artificial intelligence unit includes the Department of forming the strategy of interaction with the verification module and the forecasting module; the Department of current analysis with the correction of trajectories and limiting the progress of users by levels according to the totality of parameters taken into account for each student with the module of operational analysis at the request of the user and its rapid certification for self-testing, the module of operational analysis for the administrator with limited rights, the module of analysis of the development of the intellectual potential of the user and generation of correlating recommendations; Department of intermediate testing procedures and final certification with the module of evaluation and diagnosis of students ' success; Department of correlation with other departments of IOS. Fractal methods form the basis of the functioning of the program module for assessing and diagnosing the success of students. This module is focused on the individual assessment of the quality of educational and cognitive activity of students in two ways — the depth of knowledge on the basis of the fractal H-Hurst indicator and the magnitude of the synergetic effect of educational and cognitive activity [Dvoryatkina, 2017].

The basis of the forecasting module is also the mathematical apparatus of the theory of fractals and Markov processes. The selected vertical levels of the task Bank correlate with the States of the process and, having the initial information, it is possible to theoretically predict the probability of a possible finding of the system in a certain state at any point in time. The graphs of the state probability distribution functions are constructed on the basis of the transmitted data. To assess the state it is necessary to determine the intensity of probabilistic processes that lead the system from one state to another, which is set by the rate of accumulation of educational information. Application of fractal theory allows to solve this problem.

The verification module confirms (or refutes) the results of the forecasting module by means of statistical comparison of empirically obtained data on the user with theoretical ones, and further influences the Department of interaction strategy formation.

Phase III– a description of the main connections between the components of the architecture kernel of IOS: 1) bi-directional information channel between the control unit of the access of students and unit Ai; 2) bidirectional information channel between the cumulative Bank of information and unit Ai; 3) the bidirectional information channel between the interface unit with the administration and unit Ai; 4) unidirectional information channel between the unit a graphical visualization and Ai block; 5) unidirectional communication channels connecting unit a graphical visualization interface unit with the administrators and with the interactive information and guidance unit; 6) a bidirectional information channel between the interactive information and guidance unit is Ai; 7) bi-directional information channel between the interface unit with the Internet and unit Ai; 8) bi-directional information channel between the control unit access to students and interactive information and guidance unit; 9) bidirectional information channel between blocks Ai, diagnostic material and educational information material; 10) unidirectional information channels between blocks of diagnostic and educational information material and interactive information and instructional unit; 11) bidirectional information channel between the interface unit with the Internet and interactive information and instructional unit.

CONCLUSION

The proposed model of intellectual learning system in mathematics provides the effectiveness of the development of probabilistic style of thinking through the individualization of mathematical training of students and interactive management of the learning process on the basis of information about the procedural characteristics of educational and cognitive activity. The study scientifically substantiated the structure of the system core.

The main links between the components of the architecture of the core of the intelligent learning system, allowing to implement the dynamic structure of the learning scenario, to control the quality of learning. The proposed ILS in mathematics allows to form dynamic links of pedagogical control with training and management for the effective organization of the educational process at the University, providing the maximum developmental effect for the personality of the future specialist and focused on improving the quality both from the information, prescription point of view, and from the point of view of effective development of the probabilistic style of thinking. The didactic value of the developed ILS is that the intellectualization of the system through the use of fractal methods contributes to the deep assimilation of interdisciplinary knowledge, activates different ways of perception of information, the formation of different types of thinking, which provides a fractal development of probabilistic thinking.

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BASIC PROBLEMS OF EDUCATION IN SLOVAKIA IN THE CONTEXT OF BUILDING A KNOWLEDGE SOCIETY

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ABSTRACT

Immediately after the collapse of socialism, post-socialist education remained relatively good. With the end of negative ideological pressure, however, adverse changes began that, unfortunately, have survived. We can identify five negative changes. First came the melding of what was previously the separate training of teachers in primary and secondary schools. Then came the rejection of a predetermined number of graduates within certain disciplines. Third, schools became financed according to their student enrollment. Fourth, minister Mikolaj's school reform divided educational hours into a pre-compiled state educational program and an optional school curriculum. Fifth, the EU lowered the bar on exams. Until recently, the university rightly considered the minimum exam success rate as 70%. EU institutions, however, have adopted a standard according to which the threshold for granting the minimum degree of recognition for the exam is respectively 50% or 51%. To ameliorate these deficiencies, the Slovak educational system requires better pedagogical training for university teachers. If we want to build a knowledge society, we must correct the mistakes we have made in Slovakia over the last 35 years.

Keywords: system of education in Slovakia, knowledge society, enterprise

INTRODUCTION

The first systemic degenerative changes, which unfortunately survived to this day, began at the end of the socialist period. It was an unreasonable coeducation of the previously separated preparation of primary school teachers and secondary school teachers. Previously, the unequivocal dichotomy of teacher training has suddenly united. Centuries of separate preparation, underlined by a differentiated addressing (teacher and professor), which still remains as a relic, suddenly united. It is clearly an unreasonable step. A primary school teacher needs well-educated pedagogical training to master pedagogical techniques, mastering mainly pedagogical, but also didactic skills. (AH et al) These are more dominant with regard to professional competence. The situation in secondary school is the exact opposite. Here the teacher needs a large professional database, well beyond the secondary school curriculum, but they need much less pedagogical competences compared to primary school. The fixed idea of producing a universal teacher is unwise.

Another bad move was to abandon the planned number of graduates in individual fields. This plan was linked to the current needs of the state economy. To a large extent, it

reduced the surplus of graduates in some fields. The intersection of the state economy and education in a common approach meant approximate copying of labour market needs. The abandonment of this concept, along with other indicators, brought a shortage in some professions in the Slovak labour market (medicine, informatics), on the other hand a labour surplus in some fields (law, philosophy). Interest in studying foreign languages is quite constant [11, 12]. This decision made it possible for new students to be accepted exclusively according to their subjective interest, regardless of the needs of the state labour market.

Unfortunately, the sequence of incorrect decisions made by the Slovak education system's highest management is not over. At the turn of the millennium, an infamous decision was made to finance schools for the number of pupils. This meant a radical break in the concept of school management per pupil. Until then, the rarity phenomenon meant education as a precious commodity, after changing the financial concept, education wasn't a rare commodity but the pupils themselves. In some cases, this meant even adopting a behavioural model that makes it advantageous to hold the pupil up to the final grade because it is a source of income. Not every teacher has identified with this model, but many servile short-sighted educators preferred to let the pupil to get to the final year just so it is a source of rewards, personal bonuses, and other financial benefits. They did far-reaching damage to the state economy. Not every teacher acts according to the behavioural pattern in question, but a significant percentage does so. In this case, only the final exam at the end of the study remains certain, when it is no longer about finance. What is the probability that a graduate of a teacher who intentionally required only little from a pupil will continue to educate themselves after the graduation process? Fortunately, there are also holistically thinking educators who take the quality of graduates needed for the development of the state or region into account more than their school's sources of income. „Existing forms and types of teacher assessment, however, are largely focused on what teachers do, how they teach, and less on what students learn in terms of the new requirements of the time and society" ([13], 80). The question is important because "the economic benefit of lifelong learning as well as a learning organisation is undisputed" ([2], 98].

Another in a series of bad decisions by top education management is the reform of the workshop of Minister Ján Mikolaj. He prepared a reform that ultimately only brought a radical reduction at graduate level. Its only advantage is that it's practically easy to bypass. The reform consists of dividing the hours into a state education programme that is pre-set and an optional school curriculum. Unfortunately, even with the optimum effort to adapt the school education programme to the pre-reform state education programme, this isn't technically possible. The new state education programme is a far-reaching endowment of some of the few subjects to the point that the possibility of adjustment to the original peace is no longer possible because some subjects have used an unprecedented subsidy, compared to the original state education programme. However, this is not the only turning point in the reform. Editing the curriculum in many subjects means radically reducing it. It happened in almost every subject, in mathematics, physics, history, Slovak language, etc.

The last big poor decision on education was made by EU institutions. Until recently, in academic evaluation at university, the minimum threshold for passing the exam, or crediting it to be recognised, was 70%. Some educators even applied a minimum of 80%. The EU institutions adopted a binding normative legal act whereby the threshold

for granting a minimum degree of recognition for passing an examination or crediting is 50 percentage success rate, or actually 51%. This means a 20% reduction for the graduate.

„Issue of the higher education institutions (HEIs) quality is most often linked to results of evaluations which are done by various agencies“ ([10], 160). What still needs to be changed is the constant deprivation of pedagogical training for university teachers. Under current Slovak legislation, a university graduate is not obliged to complete a university education if they have an ambition to teach at a university. According to the legislation in force, they can do so at least with a second degree of university education completed, theoretically at the age of 23, without the need for any education at university. Some universities apply higher education courses, but within Slovakia they are just a few exceptions. Often, even top scientists have considerable difficulty in mastering elementary pedagogical competences, failing to set appropriate levels of interpretation, evaluation scale keeps moving for them, etc., compare [14]. School Heads must supplement the so-called functional education. What is its content? "Emphasis is placed on leadership skills, understanding of education development and management" ([1], 168). It therefore seems incomprehensible why a university educator should not be trained with the appropriate education.

Let us summarise comprehensively indicators of deterioration in the level of Slovak education over the last 35 years. Reducing the level of minimum assessment of the success of a final assessment at a university; a reform that theoretically admits half the volume of curriculum taken over by the curriculum in force; enabling the pupil to be perceived as a precious commodity, which in many cases can mean their artificial stay at school due to educators who, value their account more than their graduates level; disproportion between the state economy’s real need and the actual indicators of the number of graduates; hybrid training for secondary and primary school teachers; almost complete absence of any university education. This creates a negative synergistic and multiplier effect.

First and foremost, the following measures should be abolished: repeal the EU regulation of 50% threshold, such as the minimum needed to complete the final evaluation and replace it with the previous level of 70%, abolish Mikolaj's reform and replace it with the original, well-established curriculum; to abandon education for pupil numbers and replace it with a previous education system, to reintroduce the number of graduates with regard to the number of needs of the state economy, and if someone wants to be educated beyond the necessary numbers, let them pay for education. Furthermore, it is necessary to abolish co-educational education for secondary and primary school teachers, to separate it as it was before. If there is a necessity to introduce something, it is some form of higher education pedagogy needed for future college teachers. "There must also be valid criteria, methods and tools which are supposed to be used in different forms of teacher assessment" ([4], 189). It is necessary to introduce powers other than reforms. "Integration of modern technologies into the school environment changes relationships in the cognitive process, changes the objectives of education, its priorities and forms" ([6], 4).

Human knowledge is the fourth production factor of the economy at work, land and capital. Nota bene, the impact of fiscal variables on economic growth is not unambiguous, the view of economic theorists on this problem is not uniform [(9), 162].

If knowledge is weak, the state economy will also be weak, economic gain will be replaced by economic loss.

So how do we perceive the future of institutional education in Slovakia? Optimistically, if all the nonsensical decisions of the last 35 years can be cancelled. „During as near as three decades after the political changes in Slovakia its system of education has undergone many reforms“ ([15], 299). Otherwise, quite pessimistically - businesses will develop their education system that completely ruins some of the existing educational entities. It is up to the decision-makers of the competent education leaders which way they will follow. If school reforms are not implemented, but the good aspects will be kept, there is a real hope of returning to a state of high level education.

The phenomenon, deterioration in the level of education over the last 35 years, is considerably unfavourable for building a knowledge-based economy. It is one of the indicators of the progressing state economy. It’s connected with a phenomenon called information globalisation. Information can be given on its own and is perceived without structural connections. Knowledge means connection with interpretation and connections. [7].

Some researchers believe that IT has an integral role to play in Industrial Revolution 4.0. A distinctive feature of the 4.0 industry is the crucial role of the organisation effectiveness on the information exchange ([8], 73). It is a key skill as effective strategic decision-making significantly increases the performance, success and survival of enterprises ([5], 737).

Gruzkov suggests a "cognitive person" model, which is considered to be one of the fundamental results of the emergence of an "economic person" under the influence of scientific and technological progress and innovative development of the economy and society as a whole ([3], 235).

CONCLUSION

The centuries-old tradition of building education in Slovakia has left a remarkable heritage in the form of a relatively high-quality education system. This fact could not be denied even by a relatively strong ideological pressure during the period of leading Communist Party. Relatively high-quality education remained not due to the aforementioned ideological pressure, but despite it. Paradoxically, most of the deformations in the Slovak school system occurred in a period that was no longer marked by any ideological pressure. It can be said with the exception of linking primary and secondary school teachers training to one that was carried out during socialism. Later, several wrong decisions were made. Consensus between assumptions based on macroeconomic indicators and certain training plans based on the anticipated figures needed to estimate the need for graduates of particular disciplines were abandoned. There was a redistribution of funds in direct dependence on the number of pupils. At the highest level, harmful Mikolaj's school reform took place. On the higher education level, the European Union authorities lowered the criterion required to pass the exam from 70% to 50% or 51%. In this respect, it can be stated that this is a shift towards a lower quality of school graduates. The trend of developed countries is to build a knowledge-based society. If there is an intention to transform Slovak society into a knowledge-based society, we must eliminate the above-mentioned wrong decisions as soon as possible.

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BEING INTENTIONAL AND PURPOSEFUL WHEN WORKING WITH ENGLISH LANGUAGE LEARNERS

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ABSTRACT

Serving English language learners (ELLs) has been a major focus of the Reading Recovery (RR) early literacy intervention since its inception in New Zealand and continues to be a focus in the United States. In 2017-18, in the United States, RR served more than 6,000 ELL students in 1st grade. A recent randomized control trial conducted over 4 years, with 6,888 students, of which 19% were ELL, concluded, "The growth rate we observed in students who participated in Reading Recovery over approximately a five-month period was 131 percent of the national average rate for 1st-grade students. Moreover, these results were similar in two subgroups of interest to the i3 program: English Language Learners and students in rural schools." (May et al.,2016, *Reading Recovery: An Evaluation of the Four-Year i3 Scale-Up*, pg. 3). Teachers must be intentional and purposeful when planning for lessons and working with all students. For ELL students, this may include spending more time focusing on oral language development. This thoughtfulness may also include being aware of the idiosyncrasies in the English language, such as the lack of gender specific word endings, the curious nature of prepositions, and how the inflection of words can impact the meaning of a sentence. In this paper we explore the intentional techniques embedded in the framework of a RR lesson and demonstrate why they are important to the language acquisition process and overall literacy development of ELL students.

Keywords: Early Literacy, English Language Leaners, Reading Recovery, Literacy Instruction

INTRODUCTION

Population shifts, in response to economic, political, or environmental factors, have long been a substantial change factor over the course of human civilization. Recent trends, however, show that societies are dealing with the influx of new citizens on an exponentially larger scale. These changes in populations, as well as globalization and the need to communicate across languages, have created the need for language shifts as

groups and individuals attempt to assimilate into new social and economic settings. And, logically and historically, it is the education system that is charged with primary responsibility in facilitating this acquisition of language. Over the last 13 years, Reading Recovery has been at the frontline in helping with these global shifts by successfully serving more than 133,000 English language learners in the United States of America.

WHAT IS READING RECOVERY?

Reading Recovery (RR) is made up of three components working together to provide a comprehensive national literacy network. The first component is the RR intervention itself. RR is a one-to-one literacy intervention for 1st grade students (children between the ages of 6 and 7) who are having difficulty learning the complex set of concepts that make reading and writing possible. Students work with specially trained Reading Recovery teachers for 30 minutes daily. The intervention lasts 12 to 20 weeks with the goal that the intervention stops as soon as a student can meet grade-level expectations and demonstrate that they can be independent in the classroom.

The second component of RR is professional development (PD). It starts with RR teachers who take graduate-level coursework and receive ongoing PD from a supervising Teacher Leader. Teacher Leaders have completed additional graduate-level, sometimes PhD-level coursework and receive ongoing PD from University trainers (professors) from one of fourteen Universities in the United States. University trainers have completed PhD-level coursework and are involved in on-going research related to RR and literacy.

The third and final component of RR is the International Data Evaluation Center (IDEC). IDEC is responsible for collecting and reporting on all RR data in the United States. In 2017-18, IDEC collected data on over 43,000 children [9] in 1st grade and produced about 7,000 reports for schools, school districts, and Universities participating in RR. Additionally, IDEC conducts research internally and collaboratively with other academic institutions using RR data.

A HISTORY OF SERVING ENGLISH LANGUAGE LEARNERS

During the decade between 1966-76, Dr. Marie M. Clay was concerned with documenting how young children developed literacy, including the special population of children who were attempting to acquire English as a second language. Her research led to a central elegant question, “What is possible when we change the design and delivery of traditional education for children that teachers find hard to teach?” ([5], pg. 97) which led her to design, test and implement RR in New Zealand. From its inception, RR procedures and practices were designed to be able to be used and adapted for ELL students. Furthermore, research and results across several decades in the United States, England, and New Zealand ([1] Ashdown & Sirnic, 2000; [8] Hobsbaum,1995; [13] Neal & Kelly,1999; and [14] Smith, 1994) have shown consistent positive results, with ELL children's success rates comparing favorably with others involved in this intervention by achieving scores within the average range of their peers and within the normal 20 weeks available to RR students ([3]). Beyond these findings, are the newly published results of an independent, four-year research study conducted by the Consortium for Policy Research in Education (CPRE). As the result of the federal grant from the U.S. Department of Education, RR was awarded 56 million dollars to increase access to this powerful, research-based, early intervention and resulted in an additional 67,264 students getting RR nationally. From these children which included substantial numbers of ELL students, approximately 6800

students were further studied in one of the largest controlled studies ever conducted. "Analyses of impacts on Iowa Test of Basic Skills (ITBS) Total Reading scores of ELL students showed a highly significant positive effect of Reading Recovery. The impact estimate for the difference between ELL treatment and control students' Total Reading Scores on the Iowa Test of Basic Skills was…an effect size of 0.57 standard deviations" ([11], pg. 42). These results show definitively that RR works well for ELL students because "…these procedures are designed for adapting instruction to the learning needs of individual children that they can be applied…to English language learners…who need foundational instruction in English literacy ([3], pg. 3).

ORAL LANGUAGE SUPPORTS EARLY LITERACY

Since its inception, RR has upheld its commitment to meeting the needs of individual learners. Marie Clay's theory of literacy processing, which guides the work of RR professionals, posits that children take different paths to literacy learning ([3]). Through daily individualized lessons, specially trained RR teachers adapt instruction to meet the diverse learning needs of individual children. As opposed to a one-size-fits all approach, this view acknowledges and welcomes the diversity of children's prior learning experiences.

Language is a central component of Clay's theoretical perspective. Through her observation of young children, during the acquisition stage of literacy, Clay explains that both reading and writing "involve linking invisible patterns of oral language with visible symbols" ([3], pg. 5). Every language is extremely complex, full of subtle intricacies and distinctions that native speakers are not even aware of. Nevertheless, children master their first language in about five or six years. Children become adept at reformulating their phrases and sentences to ensure that their ideas and messages are understood. Clay states, "every sentence the child constructs is a hypothesis about language" ([4], pg. 69). Therefore, the more opportunities children have to communicate, the more they learn about expressing themselves. In this way, oral language development is a child's first self-extending system.

The written word *is* language in the form of printed symbols that follow a code. As children learn to read and make sense of the code, they begin to use their established oral language competencies as a resource - anticipating letters, words, phrases, and sentences. Thereby speaking, reading, and writing become interrelated and interdependent processes that increase in power and flexibility the more they are practiced together. The child that enters school with a wide range of language competencies and numerous rich experiences with books, will find it easier to understand the various forms of language that are seen in books. As children begin to make sense of the code by linking world knowledge, linguistic knowledge, and letter-sound knowledge together, the child that has a larger and more flexible linguistic reservoir, has a greater foundation upon which to choose. As Clay states, "he simply has to select the appropriate structures from his speech repertoire" ([4], pg. 82). However, it is well understood that not all children come to literacy learning with the same language abilities or the same prior experiences with print.

The RR intervention creates a personalized space for RR teachers to expand the oral language competencies of children participating in the intervention. The individualized, one-to-one lesson structure allows for increased opportunities for students to participate in personalized conversation, which is necessary for language learning. As Clay states, "We have known for a long time that conversation in the company of an adult was best

tutorial situation in which to raise the child's language functioning to a high level" ([4], pg. 70). For children who are acquiring another language, this frequent and sustained access to an adult language model is critical for early literacy success. This concept is demonstrated in a study conducted by Van Dyke. In her study, Van Dyke explored the interactions between RR teachers and their students. She found that the conversations between teachers and students supported the students with "trying out" new language in their conversations during RR lessons. In this study, RR teachers used the discourse techniques of personalization and reformulation. These two techniques supported the appropriation of the new language ([15]).

Personalization is defined as the means by which a teacher creates a space for the student to bring his or her personalized experiences to the topic ([2]). This discourse pattern assists with being understood and, as previously stated, is essential for language learning. Reformulation happens when an adult, or a more mature speaker of the language, reformulates a child's utterance into a more mature grammatical form ([2]). This "new" language is now available for the child's appropriation if it is the "just-in-time" language that is needed to be understood ([2], pg. 96). The one-to-one setting of the RR intervention offers the unique opportunity for teachers to form a close relationship with their students, allowing them to capitalize on these important discourse techniques that contribute to an increased opportunity to expand and develop oral language learning.

There are a myriad of particular teaching moves, useful for all students acquiring literacy, that support ELLs particularly well. Most basic of these is the actual lesson design because each part of the RR lesson framework is suited for learning, practicing, and expanding upon language skills. Across all lesson components described below, the teacher engages in vigorous note-taking which is analyzed, along with the daily running record, as formative assessment. Only after this analysis of emerging competencies, evidences of successful processing, and identifying next steps can the teacher plan the next day's lesson.

Below is brief explanation of each lesson component with the understanding that this is not a program or script but a framework within which teachers design a series of lessons suited for an individual child based upon the child's strengths. Before using the framework, teachers spend approximately ten days in a period of time called Roaming Around the Known (RATK) that is characterized as using and building upon a particular child's prior knowledge. This prior knowledge is not just about school learning but includes all the images, home-language knowledge, social understandings and past personal experiences that can be used to make sense of something new ([4]). During this time, talk is valuable between the teacher and child. "Create opportunities for him to talk, and to talk more. Any child with limited language skills needs more opportunities to talk" ([3], pg. 31).

Familiar Reading: After the RATK period, the daily framework begins to be used. Each lesson begins with the child re-reading multiple texts that have been successfully read in previous lessons. This component does much to build and extend the child's language and exposure to the language structures particular to English texts. During this time, the teacher supports the student with prompts (verbal commands that remind the student to engage in some strategic action) and feedback that support the student's use of prior learning. Familiar reading also promotes fluency, including the phrasing and intonation associated with understanding texts. Because the texts are already familiar, though not

memorized, the child is free to notice something new about the language and structures, how words work, or meanings. Every book re-read is talked about briefly which both models for and extends a child's growing language competencies.

Running Record of Yesterday's New Book: Daily, the child is asked to re-read a particular text that was introduced and read with the teacher's help at the end of the previous lesson. During this time, the teacher records the child's reading behaviors using a running record. As much as possible, the teacher is a neutral observer of what the child is doing and saying, offering no direct teaching until after reading is completed. First, the teacher makes a comment or question about the text to "give the message that we must understand what we have read" ([3], pg. 121). Then the teacher is free to point out one or two points that are aimed to help the child be able to process text more strategically, often accomplished by returning to an error and prompting the child to try again, giving necessary help to ensure success. Or the teacher may return to a place in the text where the child already demonstrated successful problem-solving to reinforce the use of strategic behaviors. The teacher notes what is taught for and makes efforts to watch for and support these behaviors in subsequent lessons.

Writing: One third of a typical RR lesson is devoted to composing a message with the child, writing it on paper with prompting and support, and then cutting up the sentence and re-arranging it correctly. This is important and different from many other interventions because one of Clay's basic tenets underlying literacy development is that reading and writing are reciprocal processes which can be used to benefit one another, with teacher guidance. In this component, the teacher first engages the child in a genuine conversation about something meaningful—classroom experiences, home or playground events, or a discussion about a book—anything that captures the child's attention and interest. During this time, the teacher helps the child shape thoughts into a sentence or two, supporting as needed to "help the child to learn more about composing messages by contributing to the language he offers" ([3], pg. 81). Then, sharing the pen, the child contributes anything s/he can independently (anything from a letter or word to complete stretches of phrases) with the teacher supplying what she judges to be too difficult. During this time, the teacher selects a few items to work with on a practice page, using Elkonin boxes to help children begin to engage in sound analysis, developing phonemic awareness and letter sound correspondences, which give way over time to more formal attention to orthographic features common to English or by supporting the child to use analogies to already known words or word parts. And finally, once the message has been written to convention, the teacher re-writes the child's message on a one-inch sentence strip and cuts the child's sentence apart as the child re-reads the message aloud. Then the child re-arranges the cut-up sentence, carefully identifying words or parts of words and recalling how the sentence was structured. Because the message belonged to the child because it came from him, there is great success in completing this task. In fact, adult second language learners also benefit from this procedure and remark at how beneficial it is to understanding syntax and word order in English! The sentence is then put into an envelope and sent home for the child to re-arrange as a brief homework task that night.

New Book Introduction and First Read: The final lesson component involves the selection of a new text to be read by the child that will provide opportunities for new learning while also not being overly difficult. The teacher has previewed the book and provides a book introduction before reading. During this introduction, the teacher talks about the meaning of the story to be read, rehearses a few language structures that may

be difficult and locates and discusses a few vocabulary words and helps the child to attend to how the words work. After the introduction, the child reads the entire text aloud with the teacher actively supporting problem-solving and teaching or reinforcing as necessary. And, there is always a brief conversation about the meaning of the text or something that caught the child's attention after reading is complete. Throughout this lesson component, the goal is not really about helping the child be able to read *this* text well—the real goal is for new learning gained from this experience to be applied to any text.

Each task is designed to elicit and utilize language at every juncture. In re-reading familiar texts that support language structures, in composing a message and re-arranging it, and in hearing the teacher's introduction and then successfully processing a new, instructional text daily and discussing its meaning, the child has ample opportunities to generate and use language. Added to this are the models of language provided by the teacher using both personalization and reformulation and the language models provided by the texts being read that help to extend the child's control and competency. These facets work together to make RR such a successful intervention for students acquiring language.

DATA COLLECTION

Data collection for RR is handled by the International Data Evaluation Center (IDEC) which is located at The Ohio State University. Data are entered by RR Teachers and Teacher Leaders using a specially designed website maintained by IDEC. In 2017-18, more than 4,700 RR Teachers and Teacher Leaders [9] entered student-level data on the IDEC website. The website has three key features to help ensure the accuracy and reliability of the data. The first is computer data validation. As data are entered, the IDEC website is checking for illegal values, such as invalid test scores and testing dates that are out of range. The website will warn teachers when mistakes are found and not allow them to save data until mistakes are fixed. The next feature is conditional logic. This feature is responsible for enabling and disabling questions based on the responses to other questions. This allows IDEC to enforce specific data entry rules without relying on a teacher's knowledge of the data entry process. The final feature is the website's data review process. At the core is the human validation of data, which is a 2-step process. Step one involves teachers entering data on the website. Once a teacher is done entering data on data entry page, they click a SUBMIT button which saves it and marks the data as ready for review. The second step of this process is the reviewing of data by RR Teacher Leaders. When reviewing data, Teacher Leaders check data entry against physical hard copies of student records to ensure against keystroke errors or omissions. They have the choice to either approve the data, correct errors, or return it to the teacher for correction. These features, working together, help ensure that data in IDEC's database are accurate and reliable. In the following sections, we will discuss the data collected about ELL students served by RR and highlight the 4-year randomized control trial that evaluated the effectiveness of the RR intervention with ELLs.

HISTORICAL DATA ANALYSIS

IDEC currently has more than 2 million student records in the database going back to the 1999-2000 school year. For the purposes of this analysis we will be examining only the last 13 years of data from 2005-06 to 2017-18. In 2005-06, IDEC adopted a new coding system for students' native language and English proficiency levels. Prior to 2005-06,

teachers had the option of selecting from one of four categories English, Spanish, Chinese and some other language. IDEC now has 39 languages for teachers to select from.

STUDENTS SERVED

As stated earlier, RR is committed to serving English language learners. This commitment is clearly seen in Table 1, which contains information about the number of students served and some characteristics of these students. The second column from the left shows the total number of students served for all students, both ELL and non-ELL students. The next column to the right details how many of those students were ELL and what percentage they represented of all students served. In 2005-06, RR served 16,475 ELL students, which represented 15.4% of the 107,119 students served. Looking down the table we see, except for few years, ELL students have slowly become a bigger part of the population served by RR. In 2017-18, ELL students made up 17.7% of the population being served, an increase of 2.3% from 2015-16. Over the last 13 years, RR has served more the 800,000 students with 16.2% of students, just over 133,000, being ELL students, which is substantial for research purposes.

Table 1. Description of students served by school year

	n			
	All students	ELL students (%)	Languages spoken[a]	Male
2005	107,119	16,475 (15.4)	36	54.9%
2006	97,495	15,419 (15.8)	37	54.6%
2007	89,231	14,645 (16.4)	36	55.3%
2008	81,680	13,088 (16.0)	36	55.2%
2009	72,746	11,121 (15.3)	36	55.0%
2010	61,734	9,687 (15.7)	36	55.2%
2011	52,935	8,417 (15.9)	36	54.0%
2012	49,098	8,100 (16.5)	37	53.8%
2013	47,009	7,925 (16.9)	36	53.7%
2014	46,621	8,089 (17.4)	35	54.4%
2015	42,199	7,469 (17.7)	36	52.6%
2016	38,112	6,633 (17.4)	35	51.6%
2017	35,379	6,248 (17.7)	36	51.0%
TOTAL	**821,358**	**133,316 (16.2)**	**37**	**53.9%**

Source: Data collection International Data Evaluation Center, The Ohio State University, 2005-06 to 2017-18

[a] excludes students whose indicated language was "some other language" or "English"

Table 1 also shows that ELL students come to RR speaking a diverse number of languages. The column titled "Language Spoken*"* shows the number of distinct languages that were recorded by teachers during data entry. The number of languages ranges from

35 to 37. For the last 13 years, most ELL students have been speaking Spanish at home, ranging from 70% to 75%. In the next section, we will examine the status of ELL students at the end of their interventions compared to their non-ELL counterparts.

END OF INTERVENTION OUTCOMES

The effects of RR begin to show as we look at the first set of outcome data or end of intervention status. There are 5 status outcomes in RR. Three of these outcomes all share common quality that the child was not able to receive a full intervention, such as the child moving, parent withdrew the child from the intervention, or the school year ended before a full intervention could be completed. Therefore, Table 2 shows only students that received a complete intervention. There are two status categories that fit this definition of a complete intervention. The first is *Substantial Accelerated Growth.* This category is for students who made accelerated literacy growth, caught up to their peers and showed evidence of having self-extending literacy skills. The second status category belonging to completed interventions is *Referred.* These are children who got 20 weeks of the intervention, the longest an intervention can last, made accelerated growth, but did not catch up to their peers and did not show adequate evidence of possessing self-extending skills. These children are usually referred for further testing for special education because they are likely to require other long-term services to give them continued support.

Table 2. Percentage of students by intervention status, ELL vs Non-ELL students, by school year

	ELL students		Non-ELL students		
	n	Substantial Accelerated growth	n	Substantial Accelerated growth	Difference
2005	12,218	75.3%	83,788	75.6%	-0.3%
2006	11,479	72.8%	75,801	73.2%	-0.4%
2007	11,035	73.8%	70,302	74.8%	-1.1%
2008	9,972	74.6%	64,970	75.2%	-0.6%
2009	8,702	74.5%	58,609	74.8%	-0.3%
2010	7,481	73.4%	49,404	74.4%	-1.0%
2011	6,473	72.5%	41,924	73.6%	-1.2%
2012	6,193	72.6%	38,473	74.3%	-1.7%
2013	5,978	68.7%	36,332	71.8%	-3.2%
2014	5,964	69.2%	35,489	72.5%	-3.2%
2015	5,567	71.0%	32,431	73.0%	-2.0%
2016	4,924	70.5%	29,490	71.8%	-1.3%
2017	4,530	69.8%	26,841	70.2%	-0.5%
TOTAL	**100,516**	**72.8%**	**643,854**	**73.9%**	**-1.1%**

Source: Data collection International Data Evaluation Center, The Ohio State University, 2005-06 to 2017-18

Table 2 reports the percentage of children who made substantial accelerated growth out of the total number of students who had complete interventions. It also compares substantial accelerated growth rate between ELL and non-ELL students and reports the difference between the two categories of students. Starting at the first row, in 2005, out the 12,218 ELL students who received a complete intervention, 75.3% made substantial accelerated progress. Compared to the 75.6% of non-ELL students making substantial accelerated progress out of a total 83,788 students, which is a difference of -0.3% between the groups. Looking down the table, we see that the differences are all negative, but these differences range from small to trivially small, -3.2% to -0.3% respectively. Thus, we feel confident in saying that ELL students are achieving substantial accelerated growth in similar proportions to their non-ELL counter parts. In the next section, we will briefly describe the assessments used to measure RR student's literacy growth.

THE OBSERVATION SURVEY OF EARLY LITERACY ACHIEVEMENT

RR uses the Observation Survey for Early Literacy Achievement (OS) to assess student literacy growth across the school year. The OS is made up of 6 sub-tasks. The first is a Letter Identification task to assess knowledge of the English alphabet, both lowercase and uppercase letters. Another task assesses Writing Vocabulary where the child is given ten minutes to write down as many words as possible. Next is a Concepts About Print task, which tests a child's knowledge of printed materials such as directionality and book handling knowledge. The Ohio Word Test assesses knowledge of high frequency words while the Hearing and Recording Sounds in Words task tests phonemic awareness. The final assessment task is Text Reading Level, where teachers take running records while children read from carefully leveled texts of increasing difficulty to identify instructional reading level and to analyze reading behaviors. For the analyses below, we will use a scale score called the Observation Survey Total Score. To get a child's total score, you take the scores from all 6 sub-tasks and add them together to get a raw score. You take the raw and go to U.S. Norms and Correlation document [7] and look up the scale score. The OS Total Score represents a child's overall early literacy awareness [6]. In the next sections, we describe the methodology used to analyze student growth, explain a recent randomized control trial RR was involved in, briefly summarize its findings; especially the findings on ELL students, and compare the growth on literacy measures using IDEC's historical data and data from the randomized control trial.

METHEDOLOGY

For Table 3, we used effect sizes to compare the differences between different groups of students. This first effect size computed examines the differences between two groups of RR students. Students who received the intervention at the start of the year and students who received the intervention at the middle of the year. We subtracted the mean score of the mid-year students from the mean score of the fall students and divided the result by the mid-year student's standard deviation.

Effect sizes were also computed in Table 3 and Table 5 to compare the differences between RR students and a national random sample of 1st grader students. Every year, half of the schools participating in RR randomly select two 1st grade students and test them at the start of the year, the middle of the year and at the end of year. This random sample allows us to establish the growth of the typical 1st grade student throughout the school year. The mean values on the OS Total Score for the national random sample at fall and mid-year were 432.95 and 513.19, respectively [7]. The standard deviations from

the national random sample at fall and mid-year were 53.44 and 43.96, respectively [7]. To compute the effect size, we subtracted the national random sample mean from the RR student group mean and divided the result by the national random sample standard deviation. For all effect sizes, we used a standard that .2 is a small effect size, .5 a medium effect size, and .8 a large effect size [10].

THE I3 GRANT AND ITS FINDINGS

In 2010, The Ohio State University was awarded a $45 million Investing in Innovation (i3) grant from U.S. Department of Education's Office of Innovation and Improvement. An additional $11 million of funds were secured from private donors. The purpose of the grant was to fund the expansion of RR and to fund an independent evaluation of the expansion efforts between 2011 and 2015. Part of this evaluation included one of the largest randomized control trials (RCT) ever conducted in educational research. The final report from the external evaluators stated, "the RCT includes nearly 7,000 randomized students in more than 1,200 schools over four years." ([11], pg. 2) It also stated that

With 6,888 student participants, the RCT of short-term impacts in the scale-up schools is among the largest such studies ever conducted. Its rigorous design and large sample offer strong evidence of the effects of RR on the short-term progress of struggling students. ([11], pg. 3).

The study also had additional goals of estimating the impacts of RR on two subgroups of interest: English language learner (ELL) students and students enrolled in rural schools. The evaluators concluded

This four-year evaluation revealed significant positive impacts of Reading Recovery on students' reading achievement. Treatment students who participated in Reading Recovery outperformed students in the control group on the Total Reading battery of the ITBS, Reading Comprehension and Reading Words subscales of the ITBS, and the OS..... Moreover, these findings were generally similar for students attending schools in rural [areas] and their counterparts in non-rural areas and for ELL students and their non-ELL counterparts. ([11], pg. 44)

LITERACY MEASURE OUTCOMES

Table 3 shows effect sizes at two points in time, at the start of the school year and the middle of the school year. At both time points, the table shows three different effect sizes. The first is the effect size difference between the fall-start and mid-year-start RR students (RR Groups). The second compares fall-start students to the national random sample (Fall-start). The third compares mid-year start students to the national random sample (Mid-year-start). Data for RCT ELL students are in the first row of the table followed by IDEC historical data by school year. The last row contains data for all non-ELL students over the entire 13-year period. All rows use data for all students whether they got a complete intervention or not.

Table 3. Effect sizes for fall-start and mid-year-start students, all students served

	Effect Sizes					
	Fall			Mid-year		
	RR groups[b]	Random sample compared Fall-start[c]	Random sample compared Mid-year-start[c]	RR groups[e]	Random sample compared Fall-start[d]	Random sample compared Mid-year-start[d]
RCT ELL[a]	0.05	-1.34	-1.34	1.01	-0.45	-1.65
2005	-0.36	-1.59	-1.32	1.14	-0.33	-1.45
2006	-0.44	-1.57	-1.24	1.1	-0.34	-1.4
2007	-0.42	-1.52	-1.2	1.09	-0.29	-1.33
2008	-0.43	-1.45	-1.12	1.1	-0.29	-1.32
2009	-0.49	-1.37	-1.01	1.06	-0.24	-1.16
2010	-0.48	-1.35	-0.99	1.09	-0.25	-1.19
2011	-0.47	-1.26	-0.9	1.06	-0.21	-1.17
2012	-0.44	-1.24	-0.9	1.05	-0.19	-1.17
2013	-0.47	-1.25	-0.9	0.98	-0.3	-1.22
2014	-0.33	-1.25	-0.98	1.08	-0.3	-1.32
2015	-0.45	-1.27	-0.89	1.04	-0.24	-1.26
2016	-0.43	-1.27	-0.92	1.12	-0.26	-1.33
2017	-0.38	-1.32	-1.02	1.08	-0.32	-1.37
Non-ELL	-0.75	-1.27	-0.78	0.94	-0.27	-1

Source: Data collection International Data Evaluation Center, The Ohio State University, 2005-06 to 2017-18
Note: Data for RCT ELL was adapted from Table A7, [11]
[a] RCT = Randomized Control Trial
[b] uses mid-year-start fall SD for school year
[c] national random sample fall SD = 53.44, mean= 432.95, weighted n=318,433 [7]
[d] national random sample mid-year SD = 43.96, mean= 513.19, weighted n=298,678 [7]
[e] uses mid-year-start mid-year SD for school year

We'll start by examining the effect sizes in the fall for the RCT ELL students, which is the first row in Table 3. We see that the effect size difference, at the start of the year, between fall-start and mid-year-start student is negligible, -.05. This means that both of student groups are essentially same. Next, if we look at both groups of students compared to the national random sample, we that the effect size is very large and negative, both having an effect size of -1.34. This means that both the fall-start students and mid-year start students are significantly behind the national random sample at the start of the school year, by more than one standard deviation.

If we move on and examine the results at middle of the year, the fall-start students have received the intervention while mid-year-start students have not. We can clearly see the effects of the intervention on the fall-start students. The effect size between these group students went from 0.05 to 1.01, from a negligible difference to a positive large difference. We can also see that our fall-start students have significantly narrowed the gap between them and the national random sample, from -1.34 to –0.45, from a quite large difference to a small difference, a change of 0.89 standard deviations. Meanwhile, the gap between mid-year-start students and the national random sample has widened from -1.34 to -1.65. Thus, reconfirming the large positive impacts reported in final report

of the randomized control trials. We will now examine whether IDEC's historical data follows this pattern or not.

As with the RCT ELL students we'll start by examining fall effect sizes for data between 2005 and 2017. When looking at the difference between the fall-start and mid-year-students we have negative values ranging from small to almost medium, -0.33 to -0.49. Meaning our fall-start students are weaker on their literacy skills than mid-year-start counterparts. This is different from the trivial effect size reported for the RCT ELL. This is due to the fact the, as a part of the RCT, students were assigned randomly to the treatment or control condition. The goal of this randomization was to create two equal groups. You can see the equality of the groups reflected in the 0.05 negligible effect size. Historically, RR teachers are trained to take the lowest, hardest to teach, students first. You can see this reflected in the historical data with small to medium effect size differences.

If we compare our RR students to the national random sample, we can see that both sets of data have large, negative, effect sizes. Meaning that both fall-start and mid-year-start students are starting significantly behind the national random sample. Just like their RCT ELL counterparts.

If we move on and examine mid-year data, we see very similar results to the RCT ELL. The fall-start students have now got the intervention and we see that effect sizes have changed drastically. In fall, our fall-start students were starting out father behind than the mid-year-start students. They have now leapt ahead, and the effects size are all large and positive. Ranging from 0.94 to 1.14. This is like the effect size reported for the RCT ELL which was 1.01. We also see that fall-start students have narrowed the gap on the national random sample, having small effect sites ranging from -0.19 to -.0.34, just like the fall-start students in the RCT. Meanwhile, we see the similar pattern of still a large gap between our mid-year-start and national random sample students, with large, negative, effect sizes ranging from -1.16 to -1.45. Thus, we conclude that our historical ELL data follows the same pattern as the RCT ELL, with the minor exception that RCT ELL results were influenced by the randomization process at the start of the school year which accounted for a negligible effect size difference at the start of the school year.

Finally, if we look at the effect size results for non-ELL students, we once again see a similar pattern. The effect size between fall-start and mid-year-start students is almost large with value of -0.75, implying that our fall-start students are starting with weaker skills. Just like the historical ELL and RCT ELL data. The differences between the random sample and these students range from almost large to large, -0.78 to -1.27. Implying that both groups of students are significantly behind the national random sample. Once again, just like the historical ELL and RCT ELL data. Moving on to mid-year data we once again see that our fall-start students are now ahead of the mid-year students and the between these students being large with an effect size 0.94. The fall-start students have narrowed the gap (-1.27 to -0.27) between them and the national random sample while the gap has widened (-0.78 to -1) for the mid-year-start students. Thus, for the past 13 years, IDEC's historical data consistently replicates the results that were found in the i3 randomized control trial. In the next sections, we discuss the importance of social justice and narrowing the achievement gap between ELLs and their native-speaking counterparts.

SOCIAL JUSTICE AND NARROWING THE ACHIEVEMENT GAP

In the United States, federal and state laws require all children have equal access to an education. Children acquiring English are not exempt from this law. Responding to the specific talents, experiences, interests and needs of all children is essential for academic achievement, however, it is especially critical for students acquiring English as an additional language. All too often ELL students are isolated in their school environments. Many do not find themselves represented in the posters, art, books, and other curriculum resources. These spoken and unspoken messages may reinforce a deficit view, indicating that students of various backgrounds, cultures, and languages are not welcome in the new school community. When students do not feel valued and accepted, learning does not happen. Furthermore, if children are not literate in English, they cannot have equal access to the curriculum. And, in order students to become enfranchised economically, socially, and viable within their new environment, they must become literate. Both of these facts make becoming literate a social justice issue. Because RR teachers are taught to value all the language experiences and learning each child brings, an environment of acceptance and value is created, thereby creating conditions for learning to occur so that children become literate. With ever growing numbers of ELLs, education systems need to be able to adapt and change to meet the needs of such learners and RR has demonstrated successfully the ability to adapt and meet the needs to set young students on course for being able to access learning and to become literate.

ELL STUDENTS IN THE UNITED STATES

Since 2000, the United States has seen a steady increase in the number of ELL students in public schools. The National Center for Education Statistics reported in their 2018 Digest of Education Statistics [12] that there are 4,858,377 ELL students in public schools, making up about 9.6% of total student population. This is an increase of 1,064,613 students, or 1.5%, over the last 16 years.

Table 4. Number and percentage of ELL students in the United States, 2000 to 2015

	2000	2005	2010	2013	2014	2015	2016
n	3.79M	4.47M	4.46M	4.56M	4.67M	4.79M	4.86M
%	8.1	9.2	9.0	9.2	9.3	9.5	9.6

Source: Adapted from table 204.20 [12]
NOTE: Student counts are reported in millions (M).

NARROWING THE ACHIEVEMENT GAP

Table 5 displays pre and post intervention effect sizes for students who were served in the fall and had a chance to receive a complete intervention. Those students who either made substantial accelerated growth, caught up to their peers and demonstrated self-extending literacy skills and students who made accelerated growth but didn't quite catch up to their peers after 20 weeks in instruction and were referred for additional support services

Table 5 presents data in three ways. First, it shows the substantial accelerated growth and referred students combined. Then it reports on just the substantial accelerated students. Finally, it reports on just the referred students. In all three categories, on the pre-intervention scores, we see that is a large, negative, gap between our RR children and the

national random sample, with values ranging from large to very large (-.95 to -1.85). The negative effect size tells us that the national random sample is starting out the school substantially more proficient than our RR students.

By the time students are finished with the intervention, we see that they have closed or, in some cases, have surpassed the national random sample. Examining data for all students, we see that there is a small, negative effect size difference ranging from -0.19 to -0.26. We see even more impressive results looking the post-intervention effects sizes for the substantial accelerated growth students. There we see positive effect sizes ranging from 0.26 to 0.4. This means that these students not only caught up to the national random sample but surpassed them by a small amount by the end of their interventions. Finally, if we look at just referred students, we don't see quite as considerable results, but they are no less impressive. The effect size values range from -0.81 to -0.99 indicating still quite a large difference between the referred children and national random sample. What should be noted is that these students narrowed the gap from 0.64 to 0.86 standard deviations from where they started at the beginning of their interventions.

Table 5. Pre and post intervention effect sizes for students served in fall and received a complete intervention, by school year, compared to national random sample.

	All			Substantial accelerated growth			Referred		
	n	pre[a]	post[b]	n	pre[a]	post[b]	n	pre[a]	post[b]
2005	6,794	-1.58	-0.24	4,068	-1.39	0.26	2,726	-1.85	-0.99
2006	6,541	-1.55	-0.26	3,689	-1.35	0.28	2,852	-1.81	-0.96
2007	6,278	-1.51	-0.23	3,595	-1.3	0.3	2,683	-1.8	-0.94
2008	5,620	-1.44	-0.22	3,272	-1.24	0.29	2,348	-1.71	-0.94
2009	4,850	-1.36	-0.19	2,785	-1.15	0.31	2,065	-1.64	-0.86
2010	4,188	-1.34	-0.2	2,339	-1.13	0.32	1,849	-1.61	-0.87
2011	3,756	-1.25	-0.16	2,132	-1.04	0.33	1,624	-1.53	-0.81
2012	3,649	-1.23	-0.14	2,050	-1	0.39	1,599	-1.52	-0.83
2013	3,573	-1.24	-0.25	1,810	-0.95	0.39	1,763	-1.53	-0.91
2014	3,673	-1.24	-0.24	1,955	-0.96	0.36	1,718	-1.55	-0.92
2015	3,349	-1.26	-0.19	1,846	-0.98	0.4	1,503	-1.6	-0.91
2016	2,972	-1.26	-0.21	1,627	-1.02	0.34	1,345	-1.55	-0.87
2017	2,797	-1.3	-0.26	1,500	-1.04	0.35	1,297	-1.61	-0.97

Source: Data collection International Data Evaluation Center, The Ohio State University, 2005-06 to 2017-18

[a] national random sample fall SD = 53.44, mean= 432.95, weighted n=318,433 [1]

[b] national random sample mid-year SD = 43.96, mean= 513.19, weighted n=298,678 [1]

CONCLUSION

From its inception in New Zealand to its current usage in the United States, RR has a long history of helping ELLs acquire literacy and language. Through the use of intentional instructional techniques, such as increasing the amount of productive oral language exchanges and massive opportunities to read continuous text and collaborate during writing time, RR has helped ELL students narrow and even eliminate the achievement gap compared to native speakers. Over the last 13 years, of the 100,516 ELL students that received a complete intervention, 73% made substantial accelerated growth and caught up to or surpassed their native-speaking peers, in many cases, making almost 1.5 standard deviations of growth from pre to post intervention in as little as 12 to 20 weeks. For the

27% of students that were referred for additional support, they still made substantial gains equal to .7 standard deviations of growth on average, thus making significant improvements in the skills necessary to develop and acquire literacy. These types of results are replicated over and over in both the recent i3 randomized control trial and historically throughout RR data. With an ever-increasing population of ELL students, schools are likely to continue to be on the frontline of dealing with changing linguistic demographics and will continue to face the challenge of helping students to have access to the necessary literacy skills to compete in a global economy—a reality that is a form of social justice. Using interventions such as RR and embedding the intentional instructional techniques found in RR in classroom instruction might help with this task.

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CLASSROOM CLIMATE AND ITS IMPORTANCE IN THE TEACHER-PUPIL RELATIONSHIP

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ABSTRACT

With the changing socio-economic conditions in the 21st century schools and teachers as the organizers of the educational process should perform new tasks. Teachers' didactic activities alone are not sufficient in current conditions of the educational process. Teachers are faced with a new challenge, i.e. the need to create positive social climate in the classroom. In the contribution we describe optimal interpersonal relationships among teachers and school leaders, among the teaching staff, but also between teachers and students significantly affect the climate and hence the effectiveness and results of the educational process. Adequate development of the student's personality as the main aim of the educational process is only possible in a classroom characterized by positive interpersonal relationships between teachers and students but also between students themselves. Teachers' task is to reach this objective and to dedicate all of their efforts to create positive and safe climate in the classroom.

Classroom climate is a qualitative indicator that not only helps to express the quality of the environment and material and technical equipment of the school, but also to determine the quality of interpersonal relationships within the school.

Classroom dominated by positive climate is a prerequisite of a successful and effective educational process. Pupils feel good only in a classroom dominated by positive climate, where they can express their opinions and are encouraged to be active and creative, and this ultimately results in a full development of their personality.

Teacher plays an important role in the shaping of the climate in the classroom and helps to determine the success of the educational process. While shaping the climate, the teacher affects the students by employing individual educational and management style greatly influenced by his/her personality and personality traits, authority being a part of them.
Our research focused on primary school pupils who assessed the climate in classroom, where he was an authoritative teacher. We distributed Classroom Environment Scale (CES) to pupils and based on the analysis of the obtained data, we found that the classroom which lead by authoritative teacher was characterized by a positive climate was it important in the teacher-pupil relationship.

Keywords: classroom, positive classroom climate, pupils, teacher-pupil relationship, authoritative teacher

INTRODUCTION

A school classroom in which a positive climate prevails is a precondition for an efficient educational process. Pupils feel good only in a classroom with a positive climate. They can express their opinions, they are encouraged to activity and creativity, which ultimately leads to the full development of the pupil's personality. A teacher should be the main participant (though not the only one) in creating a desirable (positive) classroom climate. His role is to reach the aforementioned full-fledged development of the pupil's personality, which is considered to be one of the main goals of the educational process.

CLASSROOM CLIMATE AND ITS IMPORTANCE IN CLASROOM

The school classroom climate must be understood as a complex that involves the quality of interpersonal relationships, communication and interaction between teacher and pupil, long-term socio-emotional attitude and relatively stable behavioural patterns based on implicit and explicit values and classroom rules. The outcome of foreign research indicates a significant impact of the classroom climate on the results of the pupils' educational process, not only in terms of their cognitive but also their social-emotional development. Classroom climate influences the values, attitudes, motivation, self-confidence and self-respect of pupils in a fundamental way (Spilková [1]).
According to J. Štefanovič [2], the teacher's personality plays a dominant role in creating a positive classroom climate. It may have a positive impact through:

- Personal characteristics such as honesty, fairness, frankness, straightness, discretion, conscientiousness, thoroughness.
- Emotional-temperament characteristics, including self-control, mental balance, patience and serenity.
- Working skills, manifested by accuracy, punctuality, excellent command of the subject matter and conscientious fulfilment of duties.
- Pedagogically tactful behaviour, reflected by understanding the pupils, respecting their personality (does not offend, humiliate, disregard, ridicule, has the same attitude towards everyone), in the adequacy of the requirements, encouraging healthy self-assurance and self-confidence.

V. Švec [3] divided the possible indicators of shaping the classroom climate into several groups. Instead of indicators, he prefers the term “factors” in his classification:

- Factors relating to individuals (pupils, teachers) – including satisfaction, independence, spontaneity and subordination.
- Socio-psychological factors of the school classroom - pupils’ prospects, in the classroom, competition, class cohesion (even in difficult situations), classroom differentiation,
- Pedagogic-psychological factors - variability of pupils' learning activities, classroom organization, teacher's effort to help his pupils, difficulty, focus and orientation on teaching, teacher leading.

According to A. Doušková [4], the Quality Factors of Educational Environment may be divided into:

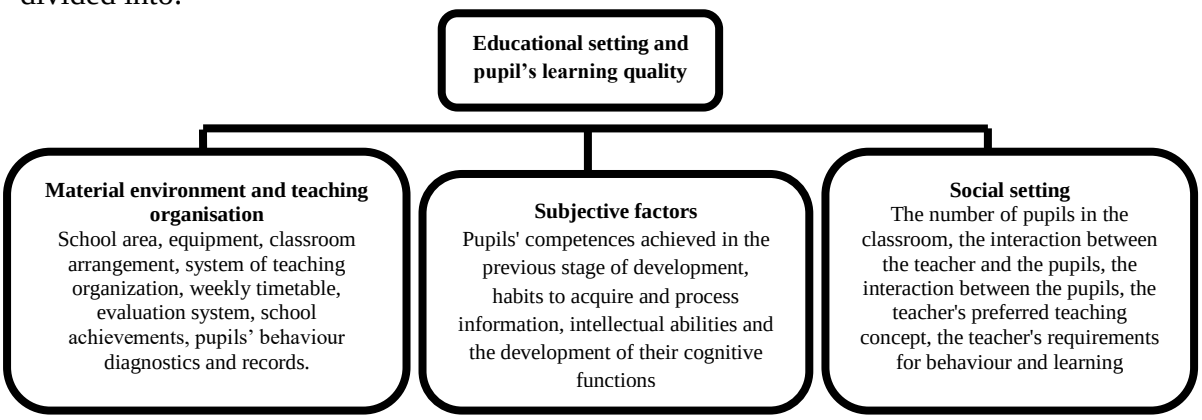


Figure 1 Quality Factors of Educational Environment

In the given opinions, it is believed that the teacher's authority can be a significant factor in creating a positive climate in the school classroom. A. Vališová [5], confirms and states that a teacher who has authority creates a positive climate in the classroom, which is characterized by purposefulness, focus on tasks and relaxed, sincere and supportive environment with a sense of order. On this basis, it was concluded that the classroom climate depends on the teacher's authority and the teacher-pupil relationship, which should be based on mutual respect. In order to create mutual respect, it is essential that students, on the basis of teacher's activity and behaviour see that the teacher is competent and interested in their progress. Ultimately, it will be reflected by enthusiasm and efficient management of the teaching process, but also in the interpersonal relationship between teacher and pupil. In the light of the above, there is a presumption of a positive climate in school classrooms where an authoritative teacher teaches.

RESEARCH METHODOLOGY

The aim of the research was to determine the level of social climate in the classrooms where an authoritative teacher teaches. We used the Classroom Environment Scale (CES) questionnaire to diagnose the social climate of the classroom. The subject of this questionnaire is integration, affiliation, teacher support, focus on tasks and competitiveness. The system dimension includes order and organization, clarity of rules, teacher's management and innovation.

N = 411 pupils participated in the research. Their task was to assess their teachers interaction style in Slovak language and Mathematics[1] [2]. Research sample of pupils (N = 411), to which 23 teachers distributed the CES questionnaire, in terms of gender: n = 316 (71.77%) male students and n = 95 (23.11%) female students.

[1] Hereinafter referred to as teachers.

[2] The reason for the selection of Slovak language and Mathematics probation is the fact that these subjects have the greatest time allocation in the curriculum.

RESULTS

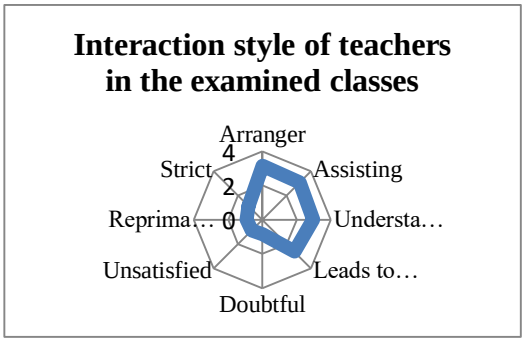


Figure 2 Circumplex model of teachers' interaction styles in the examined classrooms

The higher average teacher scores in the dimensions (Organizer, Assisting, Understanding and Leading to responsibility) suggest that authoritative and tolerant-authoritative teachers carried out the educational activity in the examined classrooms. According to T. Wubbels et al. [6], details can be observed by comparing the circumplexes of the teacher's interaction style in the examined Figure 3 classrooms and their 8 models of the circumplexes of the teacher's interaction style.

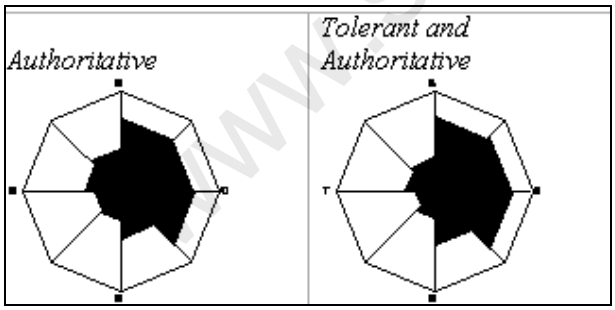


Figure 3 Circumplex model of authoritative and tolerant-authoritative teacher

Table 1 Arithmetic means of dimensions forming the classroom's social climate in the examined classrooms

Arithmetic means of classroom social climate dimensions	*Relationships between pupils*	*Assistance to pupils*	*Pupils engagement in learning*	*Class orientation towards learning*	*Organization and order*	*Clarity of the rules*
Class 1	9.25	7.41	7.83	7.25	9.00	8.12
	good	weak	weak	weak	good	good
Class 2	9.75	7.81	7.76	7.50	9.50	8.65
	good	weak	weak	weak	good	good
Class 3	8.40	8.86	7.33	6.80	7.73	9.13
	good	good	weak	weak	weak	good
Class 4	9.89	9.31	7.26	7.31	7.94	9.15
	good	good	weak	weak	weak	good
Class 5	8.64	9.23	7.76	7.82	8.47	9.52
	good	good	weak	weak	good	good
Class 6	9.00	10.69	8.53	7.46	8.69	10.3
	good	supportive	good	weak	good	supportive
Class 7	9.14	9.00	6.85	7.00	11.92	9.64
	good	good	weak	weak	supportive	good
Class 8	9.65	10.18	7.81	7.31	8.43	10.43
	good	supportive	weak	weak	good	supportive
Class 9	9.62	9.93	7.06	7.18	7.62	9.56
	good	good	weak	weak	weak	good
Class 10	7.77	9.66	6.77	7.38	7.66	9.11
	good	good	weak	weak	weak	good
Class 11	9.17	9.46	7.35	6.94	7.23	9.88
	good	good	weak	weak	weak	good
Class 12	8.86	10.04	7.60	7.00	8.00	10.33
	good	supportive	weak	weak	weak	supportive
Class 13	9.38	10.07	6.76	6.61	7.69	9.69
	good	supportive	weak	weak	weak	good
Class 14	8.37	10.00	8.06	7.56	8.18	10.37
	good	good	good	weak	good	supportive
Class 15	9.92	9.46	7.71	7.42	8.07	10.57
	good	good	weak	weak	good	supportive
Class 16	9.06	10.12	8.06	7.75	7.81	10.00
	good	supportive	good	weak	weak	good
Class 17	9.86	10.02	8.53	8.60	9.13	10.46
	good	supportive	good	good	good	supportive
Class 18	9.94	9.66	6.72	6.27	7.22	9.72
	good	good	weak	weak	weak	good
Class 19	9.55	9.55	6.77	7.00	7.50	9.50
	good	good	weak	weak	weak	good
Class 20	9.03	9.30	6.61	6.84	8.86	9.30
	good	good	weak	weak	good	good
Class 21	10.00	10.93	9.00	8.75	9.56	10.87
	good	supportive	good	good	good	supportive
Class 22	9.35	9.17	6.52	6.76	7.29	9.41
	good	good	weak	weak	weak	good
Class 23	9.46	10.04	6.71	6.08	7.85	9.61
	good	supportive	weak	weak	weak	good
Total	9.26	9.56	7.45	7.24	8.32	9.71
	good	good	weak	weak	good	good

Legend - AM - arithmetic mean

Based on the arithmetical average, the following characteristics were determined in Table 1 Firstly, whether the climate of the classroom was formed by the dimensions (such as the relationships between the pupils, assistance to pupils, pupils engagement in learning, orientation towards learning, organization of the classroom for learning, clarity of the rules), secondly, whether the climate of the classroom formed by dimensions was supportive, good, weak, inappropriate.

Research findings in Table 1 show good relationships between pupils in all classes where an authoritative or tolerant-authoritative teacher teaches. Also, higher assistance to pupils was observed in classes where an authoritative and tolerant-authoritative teacher teaches.

In addition to some exceptions (Classes 6, 16, 17, 21), pupils are less interested in learning in classes where an authoritative and tolerant-authoritative teacher teaches. Similar findings can be observed in the dimension of class orientation to learning where, except Class 17 and 22, authoritative and tolerant-authoritative teachers, direct their pupils to teaching in a lesser extent. Concerning the classroom organization, classrooms (Classes 1, 2, 5, 6, 7, 8, 14, 15, 20, 21) where authoritative and tolerant-authoritative teachers teach, organize their pupils well. It is not the case in other classes where the organization is shown to be lower. A positive finding is that there are clear rules in all classes where authoritative and tolerant-authoritative teachers teach. In the light of the given characteristic, it should be stressed that the examined classroom climate creates the dimension of the relationship between pupils, as well as the dimension of assistance to pupils, pupils' interest to learning, classroom orientation to learning, classroom organization and clarity of rules. A good climate characteristic for the examined classrooms.

In connection with the empirical findings presented in Table 2, it is important to draw attention to the research of M. Dupkalová and N. Krajčová [7], which examined the social climate of classrooms in grammar schools. Even though they did not focus their research on lower secondary education pupils, their findings are considered to be encouraging. They have focused their attention on classes (like us), where Mathematics and Slovak language and Literature teachers have conducted their educational activities. In the following table the arithmetic means of the individual social climate dimensions of all the examined 7th grade classrooms (lower secondary education), as well as the arithmetic means of the individual social climate dimensions of all examined grammar school classrooms by the above mentioned authors are presented:

Table 2 Arithmetic means of individual dimensions of all examined classes (our research and research carried out by M. Dupkalová and N. Krajčová, 2015)

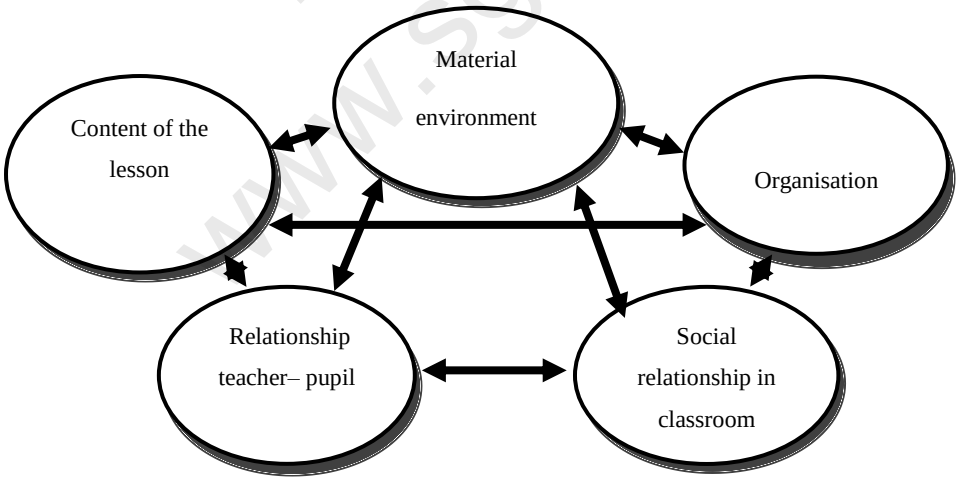
Social classroom climate	***Relationships between pupils (AM)***	***Assistance to pupils (AM)***	***Pupils engagement in learning (AM)***	***Class orientation towards learning (AM)***	***Organization and order (AM)***	***Clarity of rules (AM)***
Research carried out by us	9.26	9.56	7.45	7.24	8.32	9.71
	good	good	weak	weak	good	good
Research carried out by M. Dupkalová and N. Krajčová	9.80	10.64	9.60	7.12	6.50	7.29
	good	good	weak	weak	good	good

The empirical findings of Table 2 showed good relationship between pupils in the classrooms of both 7th grade of lower secondary education and the grammar school. Average achieved score of both classes (AM = 9.26, 9.80). Teachers in the classes examined by us, as well as in the classes examined by M. Dupkalová and N. Krajčová [7], assist pupils. It is evidenced by a higher average score (AM = 9.56, 10.64) in the

examined classes. The average score in grammar school classes is higher. Both teachers and pupils seem to realize that subjects such as Mathematics and Slovak language and Literature belong to the most important graduation subjects. While in the 7th grade classes of lower secondary education a lower (weaker) level of learning is observable, in the grammar school classes it is evaluated as good. The arithmetic means of the above findings are (AM = 7.45, 9.60). The research undertaken has shown a weaker class orientation in 7th grade of elementary school classes, as well as in the grammar school classes. This is evidenced by similar arithmetic mean values (AM = 7.24, 7.12). The 7th grade lower secondary education classes are considered to have better organization of the class compared to grammar schools. The achieved arithmetic means of the above findings were (AM = 8.32, 6.50). The clarity of rules in the classrooms' social climate is similar. 7th grades of primary schools are characterized by a significantly higher degree of clarity compared to grammar school classes (AM = 9.71, 7.29). Despite the above-mentioned research, it should be pointed out that neither the 7th grades of lower secondary education, nor the grammar school classes were at an average score in any of the social classroom's climate dimensions which could be interpreted by the class climate questionnaire as inappropriate.

CONCLUSION

Based on research findings, Haynes [8] states that motivation for success, collaboration between pupils, parents, teachers, and school heads as well as deciding about school life, justice and equality regardless of gender and ethnicity, quality of interactions between all participants (teacher, pupil, parent, school heads), the atmosphere and spirit of the school can be seen as decisive determinants of classroom climate. Last but not least, discipline should also be included. It points to the importance of authority in creating a positive classroom climate. Applying authority together with creating a positive classroom climate is considered as important elements in the teacher's teaching practice. Gillen et al. [9], classified the dominant factors in creating the classroom's social climate into five dimensions:



The material environment dimension includes the arrangement and equipment of the classroom. The organization of the classroom is united in the behavioural rules, including behavioural and learning requirements and the system of evaluation. The classroom's social relations dimension is formed primarily by tolerance, respect and cooperation. Teacher-pupil relationships are manifested primarily by respecting the

mutual views of both participants in the educational process. The content of the lesson consist in the clarity of instructions and requirements for the pupil, in the choice of diverse, optimal methods and learning activities, in the support of the teacher and in the overall structure of the lesson. Assuming that the teacher's authority is built up through social relations and manifested within the teacher-pupil relationship, it is clear that the teacher's authority is a prerequisite for a positive classroom climate. It was confirmed by our research findings. Teachers should be more aware of the importance of the classroom's social climate in real world education and ensure that they have adequate knowledge about the classroom's social climate and are able to influence it positively. Based on research findings, they should rely on their authority. Recognizing the relationship between authority and the classroom's social climate, teachers should more frequently use questionnaires to identify the classroom interaction and social climate, thus forming a learning that adequately prepares teachers to use the measuring tools. Seeking to sustain authority while creating a positive climate in the classroom is one of the priorities that every teacher should strive for.

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COGNITIVE PSYCHOLOGICAL ASPECT OF ANALYTICAL READING OF LITERARY TEXT IN A FOREIGN LANGUAGE

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ABSTRACT

The purpose of the present study is to use analytical activities while reading a literary text to influence the personality of a foreign language learner. The teacher's tasks are not only to facilitate perceiving, comprehending, memorizing or reproducing processes, but to foreground personal capacities of deep understanding, rethinking and reconsidering as well as to empower reflecting and self-reflecting. The research uses multi-paradigmatic and interdisciplinary approaches; general scientific methods (analysis and synthesis, induction and deduction, comparison, hypothesis method); communicative methods. Research materials are reading assignments, practical activities and exercises being used to analyze English and French literary texts: lexical and semantic analysis, contextual analysis as well as project methodology. Only at the meta-cognitive level the student's reflexive and critical thinking characteristics can be effectively influenced or formed to learn more about their personal nature and essence, their own creative and analytical skills. The student should be able to reflect whether or not he/she comprehends the key ideas of the given literary text, its structure, the motivation of the characters. Such activities are transformed into self-assessment activities performing self-educational, self-improving and self-discipling functions. In that sense, the implementation of meta-cognitive strategies gains more and more importance.

Keywords: self-assessment, reading assignments, literary text, English and French as foreign languages

INTRODUCTION

The purpose of the present study is to use analytical activities while reading a literary text to influence the personality of a foreign language learner.

An important stage of metacognition in the process of analytical reading is meta-communication analyzed by D. Kuhl [1], E. P. Louka [2], while D. Schiffrin [3]

proposed another approach focusing on evaluative components and calling it "meta-talk". Analytical reading can be effective if it is based on cognitive, metacognitive motives of learning. It fulfills educational, self-educational, upbringing functions. The psychological aspect of analytical reading can successfully turn into a self-analytic, reflexive activity.

The same literary text can cause – with intention or involuntarily – a different reaction. Moreover, the one who perceives the text can get some very different information than the author information out of it completely different from the writer intended to report. The situation of communication includes many non-linguistic factors.

The relationship between the author of the text and the reader is multi-layered: the author is imagining a reader (this is the presupposition of the author). And the reader, through the elements of the text and the situation while reading understands and responds to the text. Consciously or unconsciously, even before reading the text he creates a presupposition in his individual consciousness. A lot depends on expectations, on the opinion formed before the beginning of communication, on the style of the text and its form, on the ability of participants to understand the etiquette and the code of communication, on the ability to catch the subtleties of the situation.

METHODS AND MATERIALS:

The research uses multi-paradigmatic and interdisciplinary approaches; general scientific methods (analysis and synthesis, induction and deduction, comparison, hypothesis method); communicative methods.

Research materials are reading assignments, practical activities and exercises being used to analyze English and French literary texts: lexical and semantic analysis, contextual analysis as well as project methodology.

RESULTS

It is necessary to consider the individual properties, inclinations, stories of life of communicating people, because the interpretation of the text depends on all this.

An even more complex factor affecting the interlocutors (the author of the text and the reader) is the situation, readers' ideology, moral and societal positions. Consequently, students who read foreign fiction, by definition, are not part of the readers imagined by the author. Their national culture and conventions of artistic perception can distort text interpretation.

Accordingly, there are two variants of the reading result:

A. The student may experience rejection of the values and ideas of the text.

This happened when reading the autobiographical novel *My father's Glory* (French: *La Gloire de mon père*, 1957) by Marcel Pagnol elected to the Académie française. During the discussion, one of the students expressed her indignation and condemnation of the author, who, in her opinion, took the rubbish out of the house, wrote about his father's shortcomings, mocked him. The discussion did not change her opinion, even after having quoted an interview with the author ("Pagnol et le Midi", Revue Marseille, n°180, 1997 [4]) in which M. Pagnol explains that his memoirs are mainly an

enhancement of the personalities of his father, an anticlerical teacher, and his mother, a very nice woman. She concluded: « He shouldn't have done that! ». We found lately that it is a normal reaction of some Russian readers about *My father's Glory*, for example: « English humor is funnier than French, this thing I would not call it fun at all », we read in a notice (https://www.livelib.ru/book/1002868331).

B. The student learns a new view, a picture of the world of a foreign culture through the features of the literary text.

In this area, a certain training is required, aimed at teaching the methods of correlation between the formal and substantive components of the text.

Let's define how we will understand the terms «text» and «content». We will understand the text, the subject of our activity, as a form of communication of some information, as a set of significant units which create a certain content in their interaction. Content is a multicomponent system that includes purely semantic and stylistic, axiological and pragmatic components. And of course, you need to know the communication purpose in advance or at the beginning of reading. What goal does the author want to achieve as a participant of the communication? This pragmatic aspect of understanding is not ensured by a high foreign language proficiency – it is not enough. It is necessary to acquire background knowledge on culture and history, on the peculiarities of life in the country in question.

The teacher's tasks are not only to facilitate perceiving, comprehending, memorizing or reproducing processes, but to foreground personal capacities of deep understanding, rethinking and reconsidering as well as to empower reflecting and self-reflecting.
Therefore, first we propose a procedure for building a system of exercises for the formation of reading skills from the text to its components. It means working with the whole text that are being practiced.

Special attention is paid to the phenomena related to the fact that English and French have a different structure than the Russian language: inter-phrasal semantic relations, Theme-Rheme analysis, logical connectors. And only then we move on to the traditional set of exercises for the analysis of fragments, when the thought processes of extracting and recoding the content of the text go from word to text (word – phrase – syntactic structures – text): precision words (proper names, units of measure), phraseological units, metaphors, syntactic constructions.

Materials and tasks reveal the cultural aspect of the text. In methodical terms, the sequence of exercises in this section is built classically: from word to text.

Before starting the discussion, students carefully read the text and think what intention the text is created with. Note that a right conclusion comes out of knowledge of the actual situation with which the text relates.

The theory of levels of understanding of Z. I. Klychnikova [5] is preliminary introduced. It takes some five minutes and students learn to assess their level at once and forever. Let us briefly describe the essence of this study:

The first level of understanding of the text: I did not understand anything, I saw some familiar words, but did not connect them into a single thought, I added or made an unfounded conclusion;

The second level of understanding of the text: I caught the meaning of one or more fragments, I understood separate groups of words, I defined grammatical structures;

The third level: I understood what the text is about, I caught the main idea based on some fragmentary sentences;

The fourth level: I understood the logic and how the content is built (what is general, what is particular, cause-and-effect relationships), but I do not think critically, I have taken it as truth;

The fifth level: I understood the general content of the text and all the details. Such a reader can say «I know this foreign language»;

The sixth level: I understood the attitude of the author of the text to the ideas he expresses in the text, to the very subject of which he reports. This depth of understanding should create similar emotions and evaluations as for a native reader;

The seventh level: I understood the main idea, I understood the logic of the message, the emotional and evaluative components of the text, what the author wants from the reader (I understood the pragmatic orientation of his text).

In this domain, there are often difficulties even for those who do not need a dictionary to understand the content of the text. For example, there is a historical element of clothing in the fairy tale *Cinderella* (Charles Perrault) unknown in Russian:

"- Moi, dit la cadette, je n'aurai que ma jupe ordinaire; mais, en récompense, je mettrai mon manteau à fleurs d'or et ma **barrière de diamants**, qui n'est pas des plus indifférentes."

At the lesson we analyze 20 translations into Russian finding many variants of the equivalents for this object:

*Cape with gold flowers and **diamond clasps / the precious headdress** that was brought to me from across the sea / a cloak embroidered with gold flowers and **a diamond belt**, which no noble lady has / I'll be in my simple dress, but I'll wear a mantilla with gold flowers and **a diamond pin** - it will not be better.*

In this case, the translation of the fairy tale into English helped, in which the subject is clearly named – this is a stomacher - a triangular panel of a woman's gown or bodice as it is determined in the English-Russian Great Britain dictionary [6].

It is a trigger for a big and deep students research regularly becoming a core of students' projects that our research team led by N. Zhabo organize for years [7]. The result has an after-tasting: presentation with animation, students' papers for Linguistic and French culture conferences, participation at the Christmas party in the University, shows (Figure 1).

Figure 1. Left to right: Fairy, the presenter, Cinderella, her stepmother with a French version for little children, Cinderella's father – Roles played by students of the faculty by correspondence at the opening of the conference dedicated to the year of friendship between France and Russia in Moscow State Linguistic University.

Based on R. Craig [8], we compare the interpretation of the characters in the text of Charles Perrault and in translations into Russian. At some moment, crucial for the educational impact of these activities, the students realize, for example, that the stepmother is not as bad as we used to think when children. This is indeed a wicked and jealous person, but her arrogance makes part of the comportment code of a lady of the high society. She loves her daughters. She is loyal to her husband always busy and far from his family. And she begs pardon at the end. In contrast, Russian versions interpret this character with much more hatred which is proper to folk tales about stepdaughters.

The discussion of how it turned out that famous Russian translators could not understand this polysemic word *barrière*, leads to a discussion of the concept of glamour in modern society.

As a result, two of our students of the last two years took as a bachelor thesis the theme of the evolution of glamour.

The teacher developed a questionnaire with two core questions:

1. What concepts, places and objects do you associate with the word glamour?

2. What definition would you give to the concept of glamour?

To this end, we conducted a survey among the 17 people in Moscow from the age of 20 to the age of 55 and 5 people in France to find out the connotations and associations of modern glamour.

Psychologically, it was important to stipulate the condition: Write what first comes to mind.

An analysis of the interviewees' responses shows that they associate the notion of *glamour* with establishments where meetings and exhibitions related to fashion and art take place (fashion shows, concerts, beauty centers, festivals, boutiques) and places where rich people gather to relax and boast about their luxury possessions (restaurants, clubs, health resorts, luxury hotels, etc.).

In addition, it makes them think of things that are unnecessary but desired such as expensive designer clothing, sports cars. On the other hand, glamour for them is linked to something artificial, pretentious and maniéré. But the main result this year was that new glamorous themes were revealed: ecology, nutrition, medicine, new technologies, problems of provincial life, education, science (!!!).

According to their point of view, the glamour discourse is becoming more and more present in our daily life and is changing rapidly, absorbing socially significant topics, becoming an essential part of intercultural communication and requiring a complex contrasted analysis.

The results and conclusions of these works were reported orally to the students' group, the authors of this article are going to hold a student scientific conference on the topic of glamour each in their Universities.

The Internet is the first source of reading training. It is a tool that provides high quality and high speed of comprehension of implicit text levels [9], [10]:

• The ability to "read" information on a narrow topic during the analysis of the text;

• Accurate knowledge of cultural phenomena (www.britannica.com, Wikipedia);

• The detailed definition of the meaning of the word, its history, expressions with this word (for example, English: www.m-w.com, www.oed.com; French: www.cnrtl.fr/, Spanish: www.iicm.edu/meyers; Italian: www.garzanti.it);

• Word equivalents in different contexts, its translation (e.g., multitran.ru), including sound form;

• Photos, drawings, videos on the topic;

• The ability to store an unlimited amount of material, structure and receive it instantly;

• The most accurate terminology correspondence (corporate glossaries, bilingual terminology resources; dictionaries of the Russian language www.slovari.ru);

• Assistance of the Internet community in case of difficulty;

• Communication (correspondence, Skype conversation, etc.) with experts in a narrow area to obtain the correct interpretation of the concept.

We are talking about real activity and real efficiency, which are based on inward motives and stimulation [11]. That is why it should be accompanied by appropriate, well-thought, properly introduced and designed pre-text and post-text tasks, assignments and exercises. For instance:

Task 4. Determine what kind of assessment contains each of the fragments of the text (are two or three excerpts of the text under study).

Step-by-step instructions are given:

a) When thinking about the text, select the units that determine the mood of the author.

b) The author controls the process of communication by inserting units of connectivity and technical organization into his text. Specify them.

c) Discursive words reflect the strategy of the conversation, the writer's position in relation to the reported facts, the logical relationship between them, the interaction of the participants of the speech act (writer and reader). Specify them.

d) The writer responds to the implied opinion of the reader, warns him of possible objections, etc. Find such elements in the text.

e) The object of evaluation is what we evaluate: any part of the discussed situation, the situation of communication, the participant and the action itself. Reveal the subject of evaluation (the one who evaluates): the writer; the participant of the events that are described in the text in the following excerpts of the text.

CONCLUSION.

It is necessary for the students to realize, evaluate and give the due weigh to the purpose of the analytical reading, its objectives, strategies and technologies namely from the angle of applying meta-cognitive strategies.

Analytical reading can be effective if it is based on appropriate learning, cognitive, as well as meta-cognitive motivations and motives. It also performs educational, self-educational, self-improving and self-discipling functions.

The psychological concept of analytical reading is covered not only at the cognitive but also at the meta-cognitive level. The student should be able to understand how he/she comprehends the basic idea of the literary text, its structure, the behaviour of the characters.

Analytical activities can be effective when they are transformed into self-assessment activities. It is apparent that only at the meta-cognitive level a teacher reveals the student's reflexive and critical thinking characteristics.

Communication, which occurs while reading of literary text, is transformed into a meta-communication. It involves textual analysis, when students share with their impressions of interaction and the results of the analysis. In that sense, the implementation of meta-cognitive strategies gains more and more importance.

While performing the analytical reading, students discover not only the linguistic, literary, cognitive, communicative, pragmatic features of the proposed text, but also their own creative and analytical skills.

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COMMUNICATION POSSIBILITIES OF SENIORS WITH NEUROCOGNITIVE DISORDER IN THE CONTEXT OF EXPRESSIVE THERAPEUTIC AND DIAGNOSTIC PROCESS

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ABSTRACT

The authors of the text depict basic parameters of research activities which are currently realized in order to support the communication of persons with neurocognitive disorder. These persons represent a specific diagnostic group that occurs especially in the elderly population. At the same time this group is a typical representative of problems connected with aging of population. Research activities are realized in terms of specialized research projects designated for universities, specifically in terms of a project at the Faculty of Education of Palacký University Olomouc. The project is led by professor Milan Valenta (between the years 2013-2019). The main targets are: the setting of communication scheme of a target group (detection of specific deficits and their impact on interactions) and the setting of such model of expressive therapeutic and diagnostic intervention which respects verified and functional non-farmacological approaches and which is compatible with this communication scheme. The authors of the arcticle present partial results of the research which was carried out between the years 2018-2019 at Senior Home in Hrubá Voda near Olomouc. A research sample was created especially by representatives of helping professions.

Keywords: neurocognitive disorder, elderly person, communication, communication scheme, expressive therapeutic intervention, diagnosing

1. INTRODUCTION

The current society faces a specific phenomenon of population aging, especially in industrially developed countries. According to the report of EU (issued: May 15, 2012) we can await a significant change of age structure of EU inhabitants during next decades. Its total number will not significantly increase by 2060, however the population will be much older – 30 % of Europeans will be the members of an age group 65 years and more (Greying Europe – we need to prepare now, 2012) [3]. This trend also applies to the Czech Republic. The above-mentioned phenomenon will show in various social areas where the problems of the quality of life of all elderly people will have to be solved.

A special group among the elderly is represented by people who predominantly suffer from mental disorders – for instance so called neurocognitive disorders. The increasing number of mental disorders brings the need of specialized care that requires a whole

complex of rehabilitation measures. These measures can function only when a basic condition is met: the provision of authentic communication between clients and representatives of helping professions.

The analysis of changes of communication skills of the elderly with neurocognitive disorder as well as the evaluation of effective factors that can support these disrupted skills have become a major target of long-term research realized in terms of a project at the Faculty of Education of Palacký University Olomouc. Its partial phase was realized between the years 2018-2019 and its target was to get as many pieces of knowledge as possible of disrupted communication (and its support) from the point of view of helping professions – parallelly the research activities focused on putting disrupted communication into context of possibilities of expressive therapeutic and diagnostic intervention.

Researchers based their work on a number of epistemological bases (especially those of methodological character), mainly on well-established psychosocial interventions such as leading to social contacts, work with memory using aids, using memories, reminiscence, work with life experience and stories, validation, reality orientation, expressive-formative approaches (using music, movement, singing, expressive words), psychobiography and sensobiography, psychobiographical model according to doctor Böhm, pretherapy (based on initial touches and mirroring).

2. THEORETICAL BASES

Neurocognitive disorder is a syndrome that is generally characterized by a decrease of previously achieved level of cognitive functions. Its etiology and symptomatology may be various, therefore the fifth edition of Diagnostic and Statistic Manual of Mental Disorders (DSM-5, 2013) [2] gives a common framework for its diagnosing – there are, besides other things, specifications of serious disorders (Major Neurocognitive Disorder). It is a set of symptoms caused by a brain disorder, usually of a chronic or progressive character, which causes damage to many higher nervous cortical functions such as memory, thinking, orientation, comprehension, counting, learning skills, language and opinion. All of these are disrupted to such an extent that self-reliance is significantly reduced and it lasts minimally six months. As an example, we can state a disorder of short-term memory and attention leading to a reduced skill in remembering new situations, places and people or the loss of control of own social behavior.

One of the crucial problems of a serious disorder is a disrupted communication skill. So called cognitive communication deficits (Cséfalvay, 2013) [1] caused by deficits in a cognitive area can manifest themselves as follows:

- disorders in an attention area can lead to changes in the process of communication, for instance to the reduced comprehension of a spoken speech or a read text, to an inadequate speech as for a content, to a reduced skill in keeping a conversation topic, or to the need for repeating questions and instructions…
- disorders in the area of memory can lead to unsuccessful conversations containing cohesionless and incoherent language, disruption of recalling words, confabulation and repeating, disruption of comprehension of spoken and read units, they can lead to an inability to fulfil instructions composed of more steps,

an inability to connect old information with new ones, the lack in the area of logic and accuracy…

- disorders in the area of thinking can lead to the disruption of comprehension of abstract concepts, the disruption of social communication, the inability to argue verbally, the incomprehension of metaphors and indirect questions…

There are more cognitive communication deficits – it depends on an individual state of each client, on a stage of their illness and other factors. Nonverbal communication in persons with a serious disorder has a specific position. It features various communication meanings, especially it influences the character of interpersonal relationships and emotional state. On one hand its meaning varies but also - in a certain sense – it increases as an illness progresses. Persons in a mild stage can comprehend and express social signals, persons in a serious stage – on the other hand – rather tend to react to the tone of voice, facial expression… At the same time, it is the most efficient communication channel. For a caring person it is important to monitor the level of so called contact behavior of clients which is predominately of a nonverbal character (verbal skills disappear). For instance, it is about micro movements (smile, nodding a head, eye contact…), simple sounds, a word…

Disrupted communication is closely connected with the need for finding efficient tools of its reeducation or compensation. The possibilities of efficient facilitation are – for the time being – a subject to research. Experience proves that communication can be, among other things, facilitated by expressive formative approaches, eclectically modified by aforementioned established non-farmacological approaches. It seems that one of partial problems is an issue of necessary factors participating in activities of workers of helping professions.

3. METHODOLOGICAL PART

The aim of the research was identification, description and comparison of communication determinants of a target group of workers of helping professions working at the Home with a special regime (DZR) which has been established at Senior Home located in Hrubá Voda (Olomouc Region, Czech Republic). The researchers have chosen this facility because of the previous fruitful reciprocal cooperation between the workers of the Faculty of Education, Palacký University Olomouc and the workers of the earlier mentioned facility.

For the methodology of research, the researchers have chosen a qualitative approach which was applied also during the selection of an assessed sample of workers. They used an intentional purpose-built selection, at the same time the only criterion conditioning the selection of the sample of people who took part in the described research was a condition of at least one-year work with clients in a chosen facility. There were altogether 8 persons taking part in the research, all of them were women.

Table 1. Profession and years of professional experience of monitored workers of DZR Hrubá Voda

Name	Professional experience (years)	Age	Job classification
A.	12	41	Carer
B	3	26	Social worker
C	4	23	Nurse
D	20	55	Activation worker
E	16	53	Activation worker
F	17	43	Activation worker
G	21	59	Chief nurse
H	2	32	Ergotherapist

In order to get the sufficient amount of qualitative data the researchers have chosen the method of a group interview – focus groups (OS). The researchers introduced their research plan to all participants of focus groups a few days beforehand. They were informed that they were going to become participants of a discussion on a chosen topic ´´communication with the elderly´´ and that the discussion will be recorded, a video will be made that will be analyzed later on. It was guaranteed to keep anonymity of all participants of the focus group in order not to break the protection of personal data and also to create safe surroundings for all the participants of the focus group. The focus group was realized in a spacious therapeutic room of the Senior Home early in the afternoon on a common working day.

The authors set three basic scopes of subtopics relevant to the chosen target of the research:

a) The issue of informal relationships among clients of Home with a special regime (the issue of informal hierarchy, the existence of bullying,…)

b) Identification and description of stimulators of verbal and nonverbal communication between professionals and clients

c) Description and comparison of efficiency when getting useful information, identification of ´´sore points´´ that negatively influence the communication at DZR

When the focus group was subsequently realized, all recommended standard procedures were kept. That is to say, it included an introductory part, a basic principal part and also a final thrilling part. All the participants took part in an active discussion. They mostly adhered to set topics and they also actively expressed their opinions. The researchers gained a 90-minute video recording which was subsequently - in laboratory conditions - transformed into so called verbatims and it was elaborately analyzed. In terms of open coding they prepared following categories and subcategories and marked probable strong ties (a, b, c) related to three observed spheres:

Categories and subcategories	Sphere
A) **Aggression**	a, b
B) Disability grading	a, c

C) **Unsatisfied needs**	a, b, c
D) The way of communication	b
E) Addressing users	b
F) Singing as a calming element	a
G) Sensitive approach	a
H) Supervision vs. intervision	a, b, c
I) Animotherapy	a, b
J) **Verbal comments – pretherapy, basal stimulation**	b
K) Trial and error	b
L) Variable program	a
M) Alternative and augmentative communication	c
N) The need for other experts	a, c
O) Recommendation of EU vs. Czech way	b

(Note: Categories in bold appeared in verbatim many times)

In the next phase of axial coding the existence of bonds between categories and subcategories was indicated and the separation and filtration of them was made.

4. DISCUSSION AND CONCLUSION

Based on a detailed evaluation of verbatim and complementary interviews with participants of the research and the management of Senior Home in Hrubá Voda a selective coding of ascertained data was made. This coding included an outline and evaluation of success of communication indicators and communication schemes.

First of all it was proved that the success rate of internal communication between helping staff and users (seniors with neurocognitive disorders) is inversely proportional to manifestations of aggression. We can declare the same when we speak about the rate of security of their psychosocial and physiological needs. It is always important to know a cause of their inappropriate behavior, watch their body language, speak slowly, listen to them actively and interrupt conversation if a senior is not listening. It is also important to avoid giving orders and chaotic information.

The research also proved the usefulness of informal (spontaneously created) hierarchic relationships among seniors. The dynamics of small social groups of seniors produces their natural roles and – thanks to their ´´spokepersons´´ enables better communication with the nursing staff. However, this reality means the of danger of formation of subordinate and superordinate roles and bullying.

The workers of helping professions also repeatedly expressed their opinion on the need for strictly individual approach to each senior. They also mentioned the counter-productive uniform efforts of superordinate authorities (regulations of ministries, recommendation of EU…). They stated for instance illogical efforts to introduce unified

addressing users by first names and surnames that does not enable to create and maintain desirable family atmosphere at Senior Home. An alternative addressing seniors does not automatically mean belittling of their dignity.

The realized research also proved the usefulness of stimulating therapeutic techniques, mainly pretherapy and basal stimulation. During the recorded interview the workers many times referred to their own positive experience in inducing of successful communication with seniors using similar approaches and techniques. In this context there is the need for gaining professionally trained staff as well as for a regular help of other experts – psychologist, psychiatrist…

The authors of this contribution firmly believe that their research has helped to optimize the communication between nursing staff and seniors at the chosen facility. It has enabled also the realization of not very common group reflection of interesting and useful information of workers at Senior Home.

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COMPUTER MODELING OF POLYHEDRAL AREAS OF CONE SURFACE AS A FACTOR OF PROFESSIONAL DEVELOPMENT OF THE PERSONALITY

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ABSTRACT

In this paper computer and mathematical modeling with synergetic effects present one of the «problem zones» in mathematics concerned with the surface area of three-dimensional bodies. The main activity of students is to construct the multifaceted surfaces (for example, Schwartz cylinder (or "boot")) using computer and mathematical and adapt the most important generalized constructions of surface area to the actual positions of mathematical knowledge and fractal parameters. The computer design and mathematical modeling of nonlinear dynamics of synergetic effects manifestation are developed by systematically and dynamic invariants are revealed in the course of surface area mastering. Namely, the means of the QT Creator and GeoGebra environment are used for computer design of non-linear dynamics of functional and fractal parameters and technological constructs and students reveal the regularities and irregularities of surface area of Schwartz cylinder, sphere and cone approximations. The investigation was carried out on the basis of surface triangulations with regular and irregular limiting grinding by layered polyhedral complexes using computer and mathematical modeling tools**.**

Keywords: Mathematics Education, Visual Modeling, Computer Design, Surface Area.

INTRODUCTION

The development of personality is impossible to imagine without the presence of situations of intellectual tension in the conditions of uncertainty and lack of future activities prediction, opportunities to overcome the problem areas that arise in an education and in real life. The presence of such problem areas and situations of overcoming is directly related to the development of complex knowledge and is an important attribute of qualitative changes in the development of personality. It is quite significant that in this case, the transition from chaos to order (and vice versa) occur through the universal mechanisms of system complexity. In particular, this can be implemented, for example, through a cascade of doubling bifurcations period, implementing the scenario of P. F. Verhulst in the development of the Feigenbaum tree, or by opening a step-by-step process of moving to the object essence by means of

mathematical and computer modeling. Thus, the introduction of the processes of mastering complex knowledge into student's mathematical education creates the conditions for synergy manifestation in teaching mathematics and, thereby, contributes to the development of intellectual operations of thinking and creative independence of students. In this article we study one of the "problem areas" of mathematics, which concerns the problem of measuring and understanding the complex concept essence of surface area. Usually in school mathematics on a visual level (in the sense of Y. Comenius) the development of formulas of the area of three-dimensional bodies: sphere, cone, cylinder is updated. Although for some reason, the essence of this concept remains inaccessible to the student (as the limit of the areas of multi-faceted complexes of tangent planes fragments on the crumbling triangulations of three-dimensional surface of mathematical object). Therefore, it is necessary to be able to stage-by-stage design of cognitive activity of students to develop the manifestations variety of surface area concept. Namely, functional parameters and regularities of approximation will be revealed and the areas of layered multi-faceted complexes will be investigated at the limit grinding of regular and irregular triangulations of surface are by means of computer and mathematical modeling.

Methodology, methods and technologies. The possibility of setting and solving the individualization problems of mathematical education and motivation to study mathematics both at school and at university in modern Russia can be based on the actualization of leading pedagogical technologies and the adaptation processes of complex knowledge (including modern achievements in science). At the same time, the effectiveness achieving of teaching mathematics is possible on the basis of synergetic effects manifestation and research approaches in the development of educational activities of students in the creation of rich information and educational environment. Thus, it is possible to potentially, in a generalized sense, to implement in the process of learning mathematics the integration and mathematical dialogue of humanitarian, information and natural science cultures at different levels of actualization of forms, methods and means of multifunctional and multi-stage cognitive activity. Mathematics education as a complex and open social system carries a huge potential of self-organization and positive manifestation of synergetic effects in different directions: the development and education of the individual, the orderliness of the content and structure of cognitive experiences of communication and social interaction of subjects based on cultures dialogue. The student should technologically comprehend a series of specific mathematics problems or "problem areas" (as well as natural science and humanitarian problems) as integrative points of relevant information, solved by mathematical and information methods and technologies.. The content-technological stage of mathematical education synergy is aimed at the development of the adaptation stages of generalized construct of "problem area" of mathematics learning to the current state of mathematical knowledge and methods of students educational activity. It is necessary to design the techniques and methods of reflection and research of technological parameters of generalized construct. It show the background of the adaptation system and obtaining new results: in our case of generalized construct of scientific knowledge – the concept of surface area is indirectly updated through computer and mathematical modeling of research processes of surface area of Schwartz cylinder [1], sphere and cone [2], [3].

Tasks:

- To master by means of mathematical and computer modeling the basic constructs of adaptation techniques of generalized scientific knowledge (surface area) to the current state of school mathematical knowledge and methods of educational activities of students;

- to identify and justify the new mathematical results in the course of development and exploration of generalized construct; to build the graphs of harmonizing educational elements of mathematics with the elements of generalized structures; to ensure the visibility of simulation and high level of student's learning motivation;

- to reflect and update the thesaurus of mathematical education synergy in the course of students research activities: fluctuations, bifurcation points, attractors, attraction pools, etc.;

- to develop of divergent thinking and creative independence of students on the background of integrative constructs development of mathematical knowledge and procedures, taking into account the probable and incredible circumstances, design content, stages, basic and variable characteristics of the object design;

- to develop the ability to adapt and develop in social communications and cognitive activity on the basis of mathematical, information, natural science and humanitarian cultures dialogue.

Technological constructs of cognitive activity

Multiple goal-setting of research processes of generalized construct of scientific knowledge (examples: actualization of surface area concept by research methods of Schwartz cylinder "area" (content aspect) and cone surface area).

4.1 Pathological Properties of the "Area" of Cylinder Lateral Surface

Pathological properties of the "area" of cylinder lateral surface are well studied in the so-called "regular" case (see for example [4], [5]). This occurs when its height H is divided into equal parts (respectively-the layers of the cylinder), and the circle lying at the base is divided into n equal parts, followed by a shift φ on each layer on $\frac{\pi}{n}$. With such a triangulation of lateral surface of Schwartz cylinder, the formula for calculating its "area" by means of the resulting polyhedral with $m,n \to \infty$ have the following draw:

$$S_q = 2\pi R\sqrt{R^2 \frac{\pi^4}{4} q^2 + H^2}\,, \qquad (1)$$

where

$$q = \lim_{m,n\to\infty} \frac{m}{n^2}. \qquad (2)$$

Thus, the "area" of the lateral surface Sq of Schwartz regular cylinder with height H and radius R (if this limit exists – finite or infinite) is completely determined by the limit (2). It is clear that the true value of lateral surface area (q=0) can be obtained by considering the tangent planes at the points of triangulation and then moving to the limit

of the areas of external polyhedral with unlimited refinement of partitions. At the same time, due to the independent nature of $m,n \to \infty$ aspiration, the result of limiting process becomes weakly predictable, multi-valued, with the absence of regularities in the chaotic deployment of fractal structures of polyhedral. B. Mandelbrot in [6] showed that with $m = n^k$ the area of a polyhedral surface grows as n^k $(k \neq 2)$.

In the work of E. I. Smirnov and A. D. Uvarov [7] the behavior of function (1) and the angle between triangulation triangles with common base is studied, if $m = f^n(\mathrm{a}_0) \cdot \mathrm{n}^2$ and $m,n \to \infty$, where $f(\mathrm{a}_0) = xa_0(1-a_0)$ - logistic mapping adequate to the scenario of P. Verhulst [8].

The authors obtained the following bifurcation diagram (Fig.1.) using information technology (Qt Creator environment).

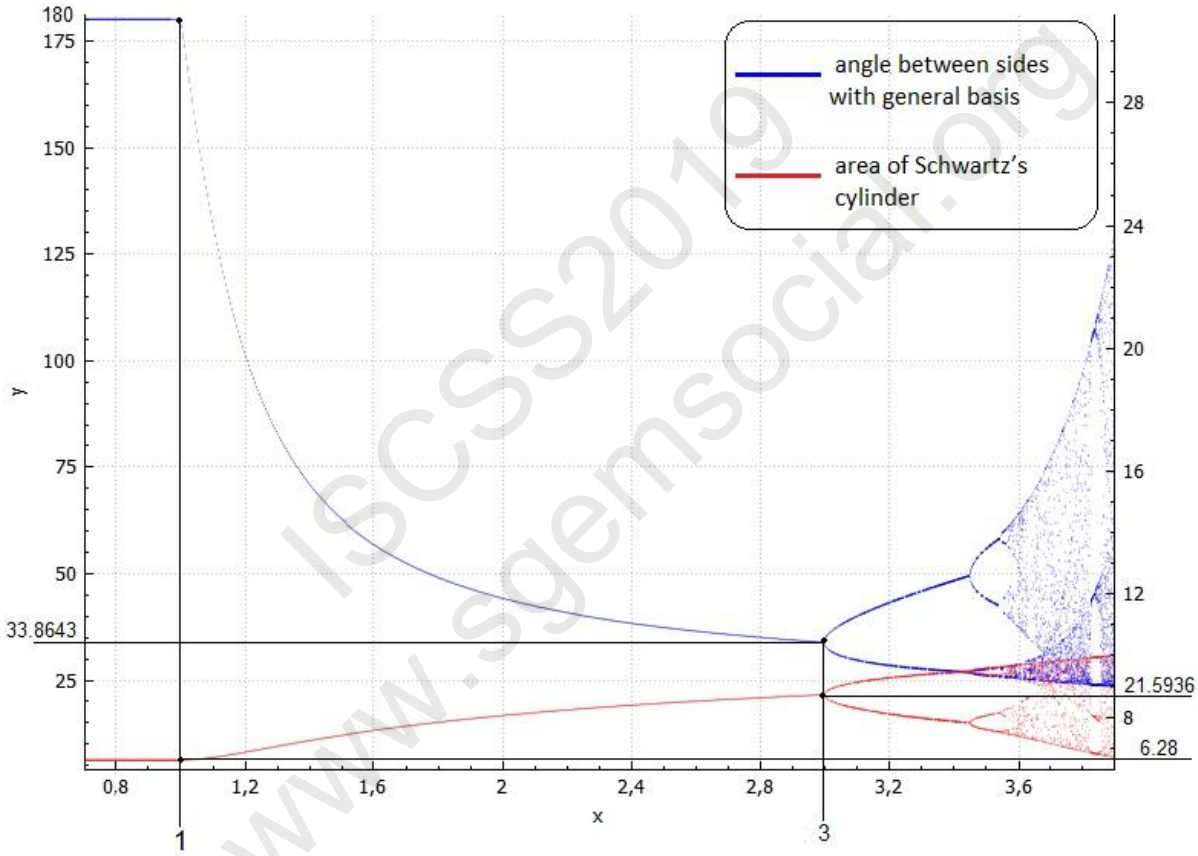

Fig.1. Bifurcation diagrams of the area and angle between triangle faces

For Fig.1 two bifurcation diagrams for which $0.7 \le x \le 3.9$ and $a_0 = 0.2$ are shown at once. We show that on the left vertical axis the values of the angle between the faces with common base calculated by the formula $\alpha = 2 \cdot \arctan\left(\frac{1}{1-\cos\frac{\pi}{n}} \cdot \mathrm{m}\right)$ and on the right axis the values of the "area" of Schwartz cylinder calculated by the formula (1) with $R = H = 1$, taking into account that n varies from 500 to 1000. There are the

hierarchies of issues related to Fig.1 and it solved by means of computer and mathematical modeling. The technology uses the research activities in small groups of students in remote environment [9] or in research activity solving of multi-stage mathematical and information tasks [10].

4.2 Schwartz Cone

Let us consider the cone of height H and radius R and divide the height H into m equal parts. Through the obtained points we draw m planes parallel to the plane of the cone base so each plane crosses the cone in a circle. On these circles we evenly distribute n points. At the same time each correct n - gon in the layer turn out relatively to the n-gon of the previous layer by an angle $\frac{2\pi}{n}$ so the layers are counted from the top of the cone. Let us triangulate the resulting set of points on the cone in the same way as the triangulation of the set of points for the Schwartz cylinder [7].

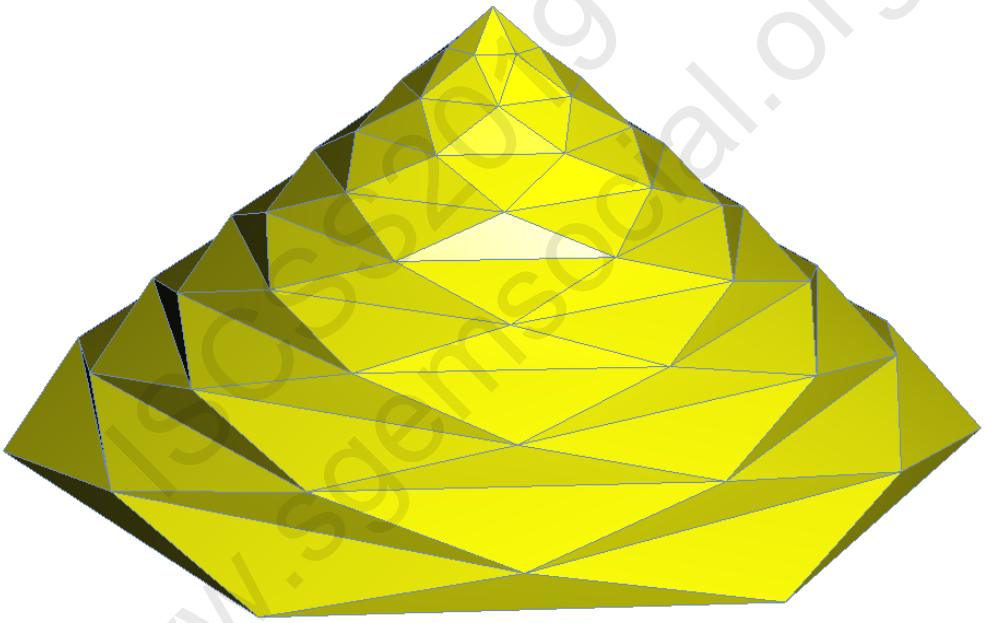

Fig.2. Schwartz Cone

As a result of the performed manipulations we get Schwartz Cone (Fig. 2). There is a questions naturally arise as to whether a formula similar to formula (1) for the area of the side surface of Schwartz cone and whether the limit value (2) affects the area of Schwartz cone. We derive a formula for the area of the lateral surface of Schwartz cone. For certainty, we consider a cone with a height $H = R = 1$. Consider in more detail the two layers of the cone (Fig. 3).

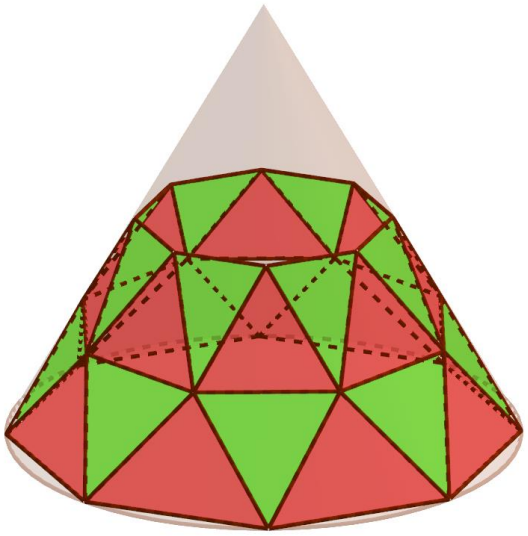

Fig.3. Two layers of Schwartz cone

As can be seen from the figure, each layer of Schwartz cone consists of two types of isosceles triangles. The vertices of the triangles of the first type are directed upwards, and the vertices of the triangles of the second type are directed downwards. It is easy to understand that triangles of different types have different areas even within the same layer. And, it is obvious that their areas vary from layer to layer. Let us calculate the area for each type of triangle in one layer. To do this, consider the following Fig.4.

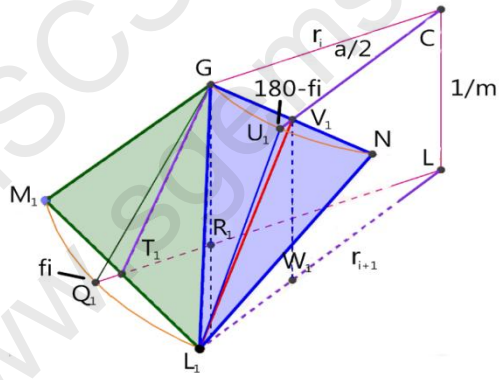

Fig.4. Fragment of triangulation of Schwartz cone

At first time let us calculate the area of second type triangle $S_{\Delta GNL_1} = \frac{1}{2} GN \cdot L_1V_1$, where L_1V_1- height, drawn to the base of the triangle GNL_1. So $GN = \sqrt{2r_i^2 - 2r_i^2 \cos a} = 2r_i \sin\frac{a}{2}$, where $a = \angle GCN = \frac{\pi}{n}$.

$L_1V_1 = \sqrt{L_1U_1^2 + U_1V_1^2 - 2L_1U_1 \cdot U_1V_1 \cdot \cos(180 - \text{fi})}$, $U_1V_1 = r_i - CV_1 = r_i(1 - \cos\frac{a}{2})$ and

$L_1U_1 = GQ_1 = \frac{\frac{1}{m}}{\sin(\text{fi})} = \frac{1}{m\sin(\text{fi})}$. Remark that $\angle fi = \angle GQ_1T_1 = \arctan(\frac{H}{R})$. Finally we have:

$$S_{\Delta GNL_1} = r_i \sin(\frac{a}{2})\sqrt{4r_i^2 \sin^4(\frac{a}{4}) + \frac{2}{m^2} + \frac{4r_i \sin^2(\frac{a}{4})}{m}} \quad (3)$$

Similarly, you can calculate the area of first type triangle so:

$$S_{\Delta GM_1L_1} = r_{i+1} \sin(\frac{a}{2})\sqrt{4r_{i+1}^2 \sin^4(\frac{a}{4}) + \frac{2}{m^2} - \frac{4r_{i+1} \sin^2(\frac{a}{4})}{m}} \quad (4)$$

The area S_i of the layer with index i is equal to $2n \cdot (\mathrm{S}_{\Delta GNL_1} + \mathrm{S}_{\Delta GM_1L_1})$. Finally the area of lateral surface of Schwartz cone is calculated by the formula:

$$S = \sum_{i=0}^{m-1} S_i \,. \quad (5)$$

Let us remark that in the case $R = H = 1$, radius $r_i = \frac{i}{m}$.

CONCLUSION

The generalized constructions of the content and computer design of revealing the essence of "problem zone" of mathematics – surface area are revealed and characterized. Mathematical modeling in details of nonlinear dynamics of areas growth of multi-faceted complexes in the grinding of triangulations of Schwartz cylinder lateral surface and Schwartz cone by means of computer and mathematical modeling are presented. Bifurcation points, attraction pools, computational procedures and fluctuations of state parameters, computer design and side results of the "area" of lateral surface of regular and irregular of Schwartz cylinder and cone are identified and characterized. Hierarchies of forms and means of research activities of students are built: resource and laboratory-calculation lessons, complexes of multi-stage mathematical and information tasks, project methods and network interaction based on the use of QT Creator – a cross-platform free IDE for development in C++. Specific fragments of cognitive activity of students can be implemented using small means of informatization as ClassPad400, GeoGebra, WebQuest by means of Web-technologies integration with educational activities, as well as using Wiki-sites, Messenger, Skype. The quality of mathematical education of students depends from development effects of student's manifestation in the course of rich information and educational environment implementation. This is possible in the study of «problem zones» of mathematics with the identification of complex objects essence, processes and phenomena by means of computer and mathematical modeling with the reflection of synergy procedures attributes. At the same time, self – organization and self-development of a person reflect the complexity, openness, non-equilibrium of learning content constructs - in our case, a computer design and technology for the study of nonlinear dynamics of the "areas" of

lateral surface of Schwartz cylinder and cone are developed and implemented. Pedagogical experience shows a significant increase in educational motivation of students and development improving to quality of mathematics education and computer science using in the integration context of mathematical and information knowledge and procedures.

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CONCEPTUAL READING OF RUSSIAN CLASSICAL LITERATURE IN THE FOREIGN AUDIENCE

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ABSTRACT

The article deals with reading treated as representation of belles-lettres embedded in the modern culture of performance; offers a review and analysis of fancy-dress forms of presenting fiction in diachrony and synchrony. The article also presents an analysis of existing aids on Russian as a foreign language and as a mother tongue, which learning guides use the forms of handling the literary text that are close to those proposed in the present article. As a result, this engenders a concept of reading belles-lettres as based on the principle of shifting attention from the plotline, that is, the event-driven informative line of text development to the figurative motive-driven perception where conceptual reading is the most important component. The connection between class work and youth culture of post-teen performance, including urban, is indicated, which makes it possible to use bodily practices, namely, the choice of conceptual costume details for a hero and/or a storyteller, as well as free movement in the classroom space. Authorial substantiation is proposed for the concept of *live illustration* as a variety of *live pictures*. The objective is to activate the student's figurative ideation, along with the intellectual work involving the analysis of the verbal component of the text and the hero's characteristics - that is, to initiate transformation of the verbal component of the text into the visual-bodily perception pattern. The methods include the analysis of the verbal aspect of the literary text, interactive work in the classroom, selection of texts and the live illustration, its modification after presentation and discussion in the classroom. The result is creation of a creolized text which makes it possible to identify the general and unique meaning inherent in the literary text, to activate the student's figurative thinking and to make foreign learners' perception of the Russian classical literature more profound.

Keywords: reading, Russian literature, performance, perception

INTRODUCTION

We can use a modern term *creolization* to represent Russian classical literature to a foreign audience in the 21st century. The term *creolized texts* was introduced by Yu.A. Sorokin and E.F. Tarasov and means *texts with two inhomogeneous elements in its structure: verbal language (speech) and non-verbal (belonging to other semiotic systems than a natural language)* [9]. Combination of the printed word, that is, the verbal component of Russian literature, and visual forms has always allowed readers to

apprehend new hues of social and cultural content of belles-lettres that the author attempted to imply.

This paper focuses on visual forms of apprehension, namely bodily practices that had existed long before the modern *visual turn* in the late twentieth - early twenty-first century, which changed attitudes towards the written word, including fictional literature. The body in such practices acquires ambivalent meaning and functions: on the one hand, the body carrier, acting in the costume of a literary character, speaks on behalf of that hero, as if inside the text, while on the other hand, the carrier turns out to be beyond the text, since he/she can evaluate actions of the character and express his/her opinion about those actions.

It should be noted that non-professional representation of verbal images cannot be considered as a typical feature of our time. Bodily practices for verbal representation were called *live pictures (Fr. tableaux vivants),* charades *(Provence charrada), (Fr. charades en action)* and other amateur carnival and theatrical literary and musical events known in France since the 18th century; in the 19th, *live pictures* and their varieties were wide spread in Russia, that is, they were acted out in the heyday of book civilization and had the same entertaining function as nowadays.

Among well-known evidence of such amateur performances are costumed portraits of the first Smolny Institute graduates made in 1776 by D.G. Levitsky, among them a portrait of E. Khrushcheva and E. Khovanskaya in shepherd costumes, who were acting out a pastoral scene.

Some *live pictures* became really important for Russian literature, like a winter season charade of St. Petersburg high life in 1819-1820: the *charades en action* in the Olenins' house became a *wonderful moment* of A.S. Pushkin's meeting with A.P. Kern [6], and perpetuated it in one of the most famous works of Russian love lyrics *I remember a wonderful moment ...* (1825). This quotable episode of acquaintance at the *live pictures* show, a love story to follow and creation of a poem confirms that a reverse procedure - from a literary text to a *live picture* - is also possible.

Another type of amateur performances - home shows on literary works - were often played for charitable purposes: thus, on April 14, 1860 St. Petersburg saw the play *The Inspector General* in favor of the Society for Benefit of Writers and Scientists in Need (Literary Foundation), among the actors were F.M. Dostoevsky, I.S. Turgenev, N.A. Nekrasov and other famous writers. [5] First appearance of each of them aroused delight of the audience: for example, appearance of the writer Turgenev on the stage in the role without words and in the costume of a merchant with a sugar head in his hands caused a thunder of applause. This image without words can be called a *live picture* inside the plot.

Home performances were also staged in the noble estates of the Sheremetyevs, Yusupovs, Olenins, Stolypins, L.N. Tolstoy, N.A. Durasov, P.S. Saltykov, A. Blok and others [10], the amateur and home performances were described in the stories of A.P. Chekhov (*Ionych*, *The Grasshopper*, *My Life*, etc.), in the novels and plays of L. Tolstoy and other literature works of the 19th- early 20th century.

In other words, non-professional theatrical performances on literary works were an integral part of cultural high-class life in pre-revolutionary Russia, enjoyed both by those playing roles and those watching from the audience. In addition, while getting

ready for the performance participants had to deeply penetrate into the text, which caused different versions, interpretations and, in general, broadened the emotional worldview and ensured discovery of new layers in the artistic text. [8]

In Soviet Russia at the initial stages of absorbing the heritage of Russian and foreign classical literature there was a shift from entertainment towards a serious contemplation, however, also involving bodily practices, in which team actions were considered important. Ideological and educational aspect was of paramount importance in selecting pieces for artistic amateur performances, and behavior of literary characters was seen in the light of mistakes to be learnt from, so that comparing personal and collective experience people could avoid those mistakes in the bright communist future

The 1920s and 1930s gave rise to popularity of the so-called trials over literary characters in schools. The schoolchildren participating in such events dressed in the costumes of Chatsky and Sophia, Salieri and Mozart, Onegin, Tatiana, Dubrovsky, Pechorin, Oblomov, Raskolnikov and other characters, answered questions from other schoolchildren, as well as from selected judges, prosecutor and attorney; after disputes and discussions each character was sentenced. In the novel by V. Kaverin *Two Captains* (1940), the literary trial is described as a typical form of discussion of works by A. Pushkin in the 1930s. At that trial, Evgeny Onegin speaks as the accused, and witnesses are Tatiana Larina, the elderly Larina and other costumed heroes who accused or defended the respondent. [3]

Teachers still use this practice today [1, 2], but less often, since literary trials have certain special features: in the twenty-first century teachers ambiguously assess this form of literature representation: firstly, this procedure illegally mixes literature and jurisprudence, thus promoting a discord between a superficial criminal approach and deep experiences of the literary character, and secondly, it has an unacceptable criminalist approach to the aesthetic, reminding a totalitarian approach to a person subjected to collective condemnation in the past. Therefore, if teachers use such a method, the character of such trials is, largely, a real criminal felon - Raskolnikov or *Dubrovsky, the Robber* [2]. It is also indicative that the history of ideological and criminal acts in *The Crime and Punishment* is used not only in literature classes, but also in jurisprudence classes: not only children, but adult professionals, who are experts in civil and criminal law, participate in the trial procedure performing the roles of a prosecutor, attorney and judge [1].

Nowadays, theatrical forms are successfully used in study and promotion of the Russian language in a foreign language environment. Non-professional Russian-speaking theaters, as well as professional theaters - members of the Association of Russian-Speaking Theaters Abroad - hold festivals and master classes in Russian in different countries of the world: for example, St. Petersburg Festival-Theater *Baltic House* has housed annual Russian-language festivals for amateur and professional theaters abroad since 2014. The amateur theater is viewed as an extremely tenacious, time-tested and, at the same time, free phenomenon in terms of text representation: *…amateur theaters are surprisingly tenacious. <...> It is amazing that they create breakthrough projects, experimenting with form and content, where professionals often capitulate before traditions or established opinions about non-theatrical nature of the text* [4], which also testifies to the benefit of using theatrical forms in the Russian language classes.

In Paris there is a theater directed by L. Drobich that works as a *model of preserving the Russian language* for children born in Russian-speaking families. The head of the theater highly appreciates valuable experience received by children of 13–16 years acting in the play *Lermontov*: *They got older in the process, older and more beautiful spiritually. Before my eyes, their faces were transformed, their eyes became wiser. Complex experiences of a restless soul plunged them into another world, totally different, not as simple and straightaway as their lives. But these children have been in a new world! And they have grown upwards and better, their soul has developed.* [6] This experience is yet another proof of successful application of theatrical forms in introducing classical fiction to students living in a non-Russian speaking social and cultural environment.

There are a lot of textbooks for reading fiction: it is enough to name a series of textbooks published by the *Zlatoust* Publishing House with adapted texts, ranging from *The Queen of Spades* by A.S. Pushkin to *Nicky* by V. Pelevin and many others. There are also manuals on role-playing games, which promote acquisition of typical discursive models of the language. However, there are not so many textbooks for learners of Russian language with worksheets and scripts of lessons on fiction. First of all, this is the manual of R. Todorova and R. Dimitrova on Russian fairy tales, but it is intended for teaching young children. [7] However, at a beginning level, this manual can be used in work with adult students, too.

Considering that reading by roles and role-playing games have been well established in teaching Russian, we would like to add into this pool some forms associated with physical representation of the characters – as a way and means of *settling in* (*Einleben*), according to F. Schleiermacher, or *feeling of* (*Einfühlung*), according to W. Dilthey, a literary image. The founder of philosophical hermeneutics argued that psychological *settling in* the literary world created by the author ensures its understanding. [13].

Talking about elements of performance, that is, unexpected solutions that come during reading, inevitable in classroom work with young people, we should distinguish between role-playing and models used in the performance as between different types of figurative and conceptual thinking [11]. Performance has no such concept as a *role*: what an artist does in creating a performance should be called a choice of a certain behavioral pattern that meets the goal. Experts think that performance boldly develops new territories, it is open, mobile, contains tremendous potential to *becoming a productive space of creativity and cooperation with any kind of art* [12]

Turning to another source of our reading concept - creolization forms of classical literature at street performances - it should be noted that these forms are reviewed here in order to give an idea of diversity in presentation of fiction texts in the urban space accessible to everyone. Thus, classical literature goes into the streets and approaches the reader, which students should be told about in the classroom, before being offered to have a costume reading of Russian literature.

In this regard, we can recall, for instance, the Dickens costumed festival in Kent, England (*Kent County, Rochester*), as well as a fashion show of popular characters of F.M. Dostoevsky in St. Petersburg presented by St. Petersburg actors. Recognition of episodes and discussion of what is happening by the audience is a part of target events to promote Russian fiction and, at the same time, an ironic alternative to glamorous shows.

The fashion show involves characters of Dostoevsky's novels: not only Sonya Marmeladova, Katerina Ivanovna, Pyotr Petrovich Luzhin, Prince Myshkin, but also an old money-lender Alyona Ivanovna with an ax in the head, Rodion Raskolnikov with a bleeding ax, Nastasya Filippovna with a knife in the chest, Nikolai Stavrogin with a lace around his neck and a blue face. This terrible grotesque seems to fully correspond to the aesthetics of St. Petersburg novels by Dostoevsky, however, in this show young people perceive visual effects rather through the mass culture aesthetics, like the *horror* sages about vampires, Freddy Krueger *(Frederick "Freddy" Charles Krueger)* or *Halloween*: appearance of Alyona Ivanovna with an ax and Nastasya Filippovna with a knife is regularly accompanied with shouts of approval from the youth.

Apart from human actors, street performances use giant street puppets. Each year, the writer's apartment-museum holds Dostoevsky's Day, when a two-meter-tall Dostoevsky figure with grotesque features is placed on the balcony of his apartment, while the money-lender Alyona Ivanovna and Raskolnikov of the same size stand at the entrance to the museum. In July 2018, as part of Dostoevsky's Day, the New Holland Island housed an annual *ball-promenade* of giant puppets, walking in St. Petersburg in summer and representing various heroes of classical literature. In the *ball promenade* of 2018, there were three old women - the Queen of Spades by A. Pushkin, the old woman by D. Kharms and the money-lender Alyona Ivanovna by Dostoevsky. Alyona Ivanovna would take small items from the audience as a security and lent them money at interest. Various parts of the island park saw an immersive theatrical performance based on the *Idiot* novel [7], with participation of the audience.

The entertaining touristic nature of street performances is obvious; however, the audience that participated in the promenade with literary heroes became actors in *live pictures*, thus plunging into conversations with Dostoevsky's heroes. Performances with grotesque street puppets are very wide spread, so students compare them with those made in their home countries and make conclusions. The aesthetics of youth *horrors* and crudely brutal *Bakhtinian* forms of giant puppets as means of representing Russian classical literature can cause bewilderment, criticism and other discontent, however, debates on these topics is just as useful in the class of Russian as a foreign language, like any other conversational practices.

At the same time, regardless of the opinion of specialists in classical literature, *live pictures* acquire modern grotesque aesthetics and energy, involve a large number of viewers (the promenade on the 2018 Dostoevsky's Day gathered several hundred people). Every show pursues its special goals, the main is to allow the viewers and readers to penetrate into the world of fiction, to connect a contemporary person and great writers and poets of the past, to link the times and thoughts. We pursue the same goals in Russian reading classes for a foreign audience.

Thus, we propose to consider the *live pictures* as an invariant form of presentation, the closest to our goals of conceptual reading. *Live pictures* include a mini-performance (amateur play), a defile of writers and/or literary characters, accompanied with a story about the character and its deeds, a trial over a literary character, charades (of a training type); in each type of literary representation there are elements of the unpredictable, i.e. of the performance.

A full-fledged mini-performance on the writer's biography, for example, *Lev Tolstoy* or *A.S. Pushkin* can be made under two conditions: C1-C2 language level and a possibility

to extend the work for at least 2-3 classes. However, we also practice conceptual forms of biographic presentation limited to two or three phrases: a student studies materials on the author's biography at home or in the classroom, goes in front of the group and, using the *settling in* method, first-person reports the most important things from the author's life: the shortest monologue was: *I am Lev Tolstoy, I wrote the novel Anna Karenina*. Not all students feel eager to speak in the first person, being called by a different name, in this case the word *I* can be replaced with *him* and *it*: *This is Lev Tolstoy. He … etc.* There can be variants of biography presentations, like performance without words, but experience shows that such a task requires a lot of knowledge, both from the student and from the audience. In any case, students ask questions and add information familiar to them. After reading, the text with a biography can be extended with information about the literary work.

In the same way, we can arrange defile of writers or literary characters; linguistic form of such events will be brief, that is, conceptual *settling in*, speaking first-person, when the student reports about most memorable and personally important things about the character, accompanying the story with appropriate gestures and details. Messages can be stated verbally or written on paper in large letters, for example, *I am Sonya Marmeladova, I love my family*; *I am Luzhin, I want to marry a poor girl*, etc. After such representation, students ask questions *why, where, when, what for, etc., if a family is large*, etc., agree or disagree with the stated sentence.

A trial over a literary character is a role-playing game and a specific form of work, depending on the willingness of the group: we used this form in groups of C1-C2 level to work on the images of Evgeny Onegin, Raskolnikov, Ivan Karamazov, Smerdyakov. It should be noted that the trial over a character is a very expressive role game.

Finally, the most popular events in our experience are *live illustrations*, a kind of *live pictures*, especially good for the B1-B2 level. A *live illustration* is an independent pre-text or after-text task: the most popular task that students are keen on and eagerly do with high motivation for a polylogue. Students choose subjects (episodes) themselves or use those offered by a teacher, they work in pairs or small groups of no more than 3-4 people; the task is done directly in the classroom or given as home assignment. Each student who was previously assigned with a certain role can make a first-person mini-story about the character and read it in front of the group - this experience is borrowed from the K.S. Stanislavsky system: according to his system, it was customary to write biographies of the characters before they appeared on the stage in order to imagine the *internal logic of the character* [14]. That is, students read or tell biography of their character, and then proceed to *live illustration*.

A variety of *live illustration* is called an *educational charade*. A pretext task can be given home only to participants of the illustration - to read, understand and prepare. Students choose an episode (possibly make costumes) and perform actions corresponding to the episode: this is a training charade, the idea behind it is to make the group guess. Therefore, other students ask questions *who, what, where, when, why, and so on,* that is, the illustration can be used as a pretext task, after which you can start reading.

The illustration can also be made as an after-text task: students can evaluate and correct the illustration, if the text is already familiar to them and was read in the audience or was known before the class, etc. The text is read aloud by roles, the characters utter

their remarks. In weak groups, the *illustration* freezes and does not move, and the narrator names an episode: for example, Raskolnikov and Sonya read the Gospel or Nastasya Filippovna throws a hundred thousand into the fire. Illustrations can prompt interesting solutions: for example, in one of the groups in the above-mentioned Gospel-reading scene, a student portraying Sonya turned on a flashlight on a mobile phone, while Raskolnikov, who had not expected such gesture, was trying to turn away from the light. It was a metaphoric illustration of the light, which Raskolnikov should have felt from reading the Bible; thus, the scene used elements of performance [11, 12]. Viewers can also criticize the illustrators, which happened in the case described above, make adjustments, argue or suggest their own versions, which leads to an emerging polylogue in Russian.

In a C1-C2 level group, you can ask questions about the character's biography before reading, based on analysis of the character's chronotope, nature, whether he plays an active or passive role in the plot. In such representations of characters, we can make some clarifications of the plot before reading, and after reading give assignments to predict development of the plot and actions of the characters. This stage has the most active lexical representation of a literary text, since students ask questions, share assumptions, express opinions, compare and give examples of similar situations, they enrich and train their vocabulary.

CONCLUSION

Visualization of literary images directly by the readers in the forms close to the *live pictures* and charades that arose in the 18th century or in the forms of modern shows and performances can be considered one of permanent forms of fiction representation.

Active participation in understanding and creating chronotope of episodes and the whole texts motivates the students, makes the literary work closer, contributes to emotional and intellectual mnemonic work, ensures acquisition of new language forms and socio-cultural realities.

Participating in shows and live illustrations, students appear in an interactive situation, which also contributes to subjectification and generation of spontaneous and keen speech in Russian.

A conceptual biography of the author or character allows the students to focus not only on the information, but also on their own reflections expressed in verbal and bodily practices, which is equally important for understanding the literary text.
Such types of *live pictures* as a *live illustration* or *a training charade* stimulate communication in the classroom, motivate to making statements, generate a polylogue.

The *live pictures* use elements of performance, namely, unexpected actions of the participants, which is eagerly accepted by the youth audience and brings together the characters of the Russian classical literature and the modern times.

Elements of performance contribute to a spontaneous speech about literary text.

Speech practitioners get double support. On the one hand, free bodily movement around the audience activates a visual perception channel and a visual-motor memory, liberates a speech potential of the students, on the other hand, it enables to use mnemonic

abilities (memorization, classification) that help to master the language cliché or other speech acts.

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CONNECTION HIGHER EDUCATION IN THE FIELD OF SECURITY WITH NEEDS OF PRACTICE

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ABSTRACT

Current security situation declares that company necessarily needs more effectively react to current threats. They need higher education security experts who are able to identify, to analyse and to assess risks in a different environment. There is important step linking study with practice in the form of controlling methods of crisis management and eliminate their negative consequences for people, for environment and for material values. Higher education of security and safety in central Europe serve the state, public and private institutions which, however, in most cases are oriented towards one respectively two partial security areas e.g. police academies, military academies, colleges focused on fire protection etc. Faculty of Security Engineering, University of Zilina offers study programs both horizontal and vertical security with the basic aim of protecting life, health, property and the environment. Security education priority declared by security situation studies however, it will not tolerate delay in the world and in Europe. For the company it is desirable to increase the interest of high school students of study of university programs focusing on security and safety and create conditions for them to support the study of technical subjects.

Keywords: University, the study, practice, security

INTRODUCTION

The current security situation shows that society inevitably needs to overcome the contemporary threats more effectively. It needs the university-educated security and safety experts who have mastered the methods of solving the crisis events and are able to utilise them in practice, who are able to identify, to analyse and to assess the risks in various environments, to manage the preventive activities as well as inadequate responds to the crisis phenomena and to reduce or eliminate their negative effects on people, material values and the environment.

The current lack of qualified security and safety experts is also connected with the negative demographic development and decreasing interest of the secondary-school students in the university study programmes with technical orientation. However, the high-quality university education of the security and safety experts is determined by mastering the technical subjects. The Faculty of Security Engineering of the University of Zilina (FSE UNIZA) offers in the European framework unique study programmes in

the area of the horizontal and vertical security and safety and its graduates are required experts in practice. FSE UNIZA has been working in the area of the university education for sixty-five years and is developing educational, scientific and research activities in the area of ensuring comprehensive security of the society and the individual inhabitants as well. [1]

In the framework of this profile it links the theory and practice; it takes into account the special aspects of the security and safety environment and the security system of Slovakia on the one hand and the requirements of the current era and the strategic partners on the other hand. It aims at training the crisis managers, the employees of the fire and emergency units, experts dealing with managing the processes of protecting persons and property in all areas of the social life and the managers in the area of coping with the crisis situation in transport. [2]

PROFILE AND STRUCTURE FACULTY OF SECURITY ENGINEERING

The history of the Faculty of Security Engineering began in 1952 when the Faculty of Railways at the Military Technical Academy (VTA) in Brno was founded. Due to the reorganisation of the university system in the year 1953, the VTA was incorporated into the Technical College of Railways in Prague and named the Military Faculty. The University moved to Žilina in 1961 and it was renamed the University of Transport, later on the University of Transport and Communications. In 1998, the Military Faculty was renamed the Faculty of Security Engineering of the University of Žilina and the military studies were ended towards the year 2004. All these changes influenced the structure of educational programmes offered by the Faculty. The courses aim mainly at solving natural, ecological, economic, social and other crisis situations, civil security and rescue services.

The Faculty of Security Engineering is oriented towards the managerial and technological studies. The Faculty offers university education in accredited fields of study at all levels, i.e. in Bachelor's, Master's, and Doctoral degrees as well as in lifelong education. The Faculty develops scientific and research activities in those fields. University education and scientific and technical research activities contribute considerably to the economic and social development of the Slovak Republic and the Žilina region. The Faculty cooperates with many institutions, develops international scientific research and pedagogical relationships, and shares publication activities with foreign universities.

The FSE's Departments are listed below:

- Department of Fire Engineering,
- Department of Security Management,
- Department of Technical Sciences and Informatics,
- Department of Crisis Management,
- Department of Security and Safety Research.

CONCEPTION OF MARKETING STRATEGY

The negative development of the demographic curve (see the figure 1) can be transparently recognised also in the numbers of the applicants for the study at the FSE UNIZA. Due to these facts and the long-term negative trends concerning the numbers of the applicants especially for the bachelor study, the faculty top management decided to introduce a new marketing conception in the interest of fulfilling the requirements of

practice on improving the attractiveness of the university study programmes at the faculty through innovation marketing tools and newly-formed information and study materials oriented on the target group of the secondary-school students with a potential to study the university study programmes in the area of security.

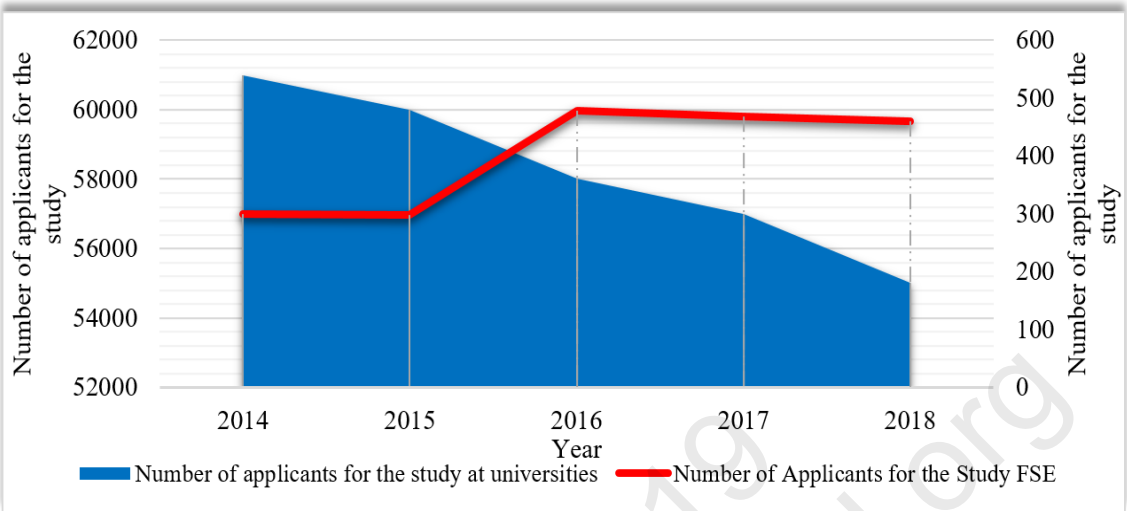

Fig. 1: The maximal assumed Number of applicants for the study at universities and number of applicants for the study FSE

The entrance exams to the first level of the study confirmed the expected growth of the number of applications due to the successful Faculty Open day and other marketing activities. 478 candidates sent their applications for the study of the bachelor programmes in the daily form in 2016 and it means, compared with the previous year, a growth by 180 applicants – a percentage growth by 37.7 %.

Taking into account the fact the technical universities recorded a decrease of the interest in the study by almost 30 %, we can speak about high effectiveness and appropriately adjusted goals and procedures in the framework of the newly created marketing strategy. The conception utilised in 2017 confirmed this trend. The study attractiveness coefficient (the ratio of the enrolled and admitted students) has a positive value of 0.94 at the FSE UNIZA.

Phases of Creating the Marketing Strategy [4]

- **1st phase**: analysing the current state of the area being solved:
  - identifying the target group and specifics of the selected stakeholders in compliance with the goals of the marketing conception,
  - analysing the current trends in the framework of the marketing activities aimed at making the study programmes in the area of security more attractive,
  - analysing the tools and forms of communication towards the stakeholders.
- **2nd phase**: the selection and specification:
  - summarising the acquired outputs and their implementation to the designed conception,

  - identifying and selecting the relevant tools aimed at increasing the interest in the techniques aimed at the university study in the area of security.
- **3rd phase**: the realisation:
  - verifying the created conception in the framework of the pilot project at FSE UNIZA,
  - the statistical assessment of the pilot project and taking changes for making the marketing conception more effective.

The activities and tools implemented in 2016 based on the new marketing strategy were new and innovated in comparison with the previous years. The main activities were as follows: [5]

- the fairs of education (Slovak and Czech Republic),
- Christmas at the university (tradition),
- bilateral meetings with the secondary school headmasters (related to faculty field of study),
- the Faculty Company Days,
- the promotion campaigns on the social networks (Facebook, Instagram…)
- promoting the activities in the media (printed media, TV, radio, billboards),
- the Faculty Open Day and others.

Fig. 2: Faculty Open Day, accompanying program - Traffic accident simulation

Admission procedure to the first stage of study in 2016 confirmed the expected increase in the number of applications for study considering the successful marketing concept.

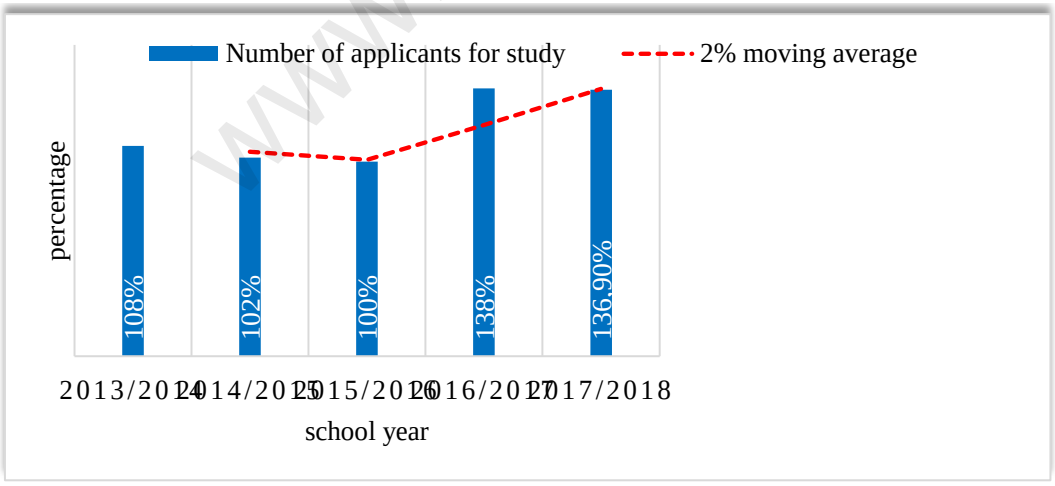

Fig. 3: Number of applications to FSE UNIZA before and after the introduction of measures

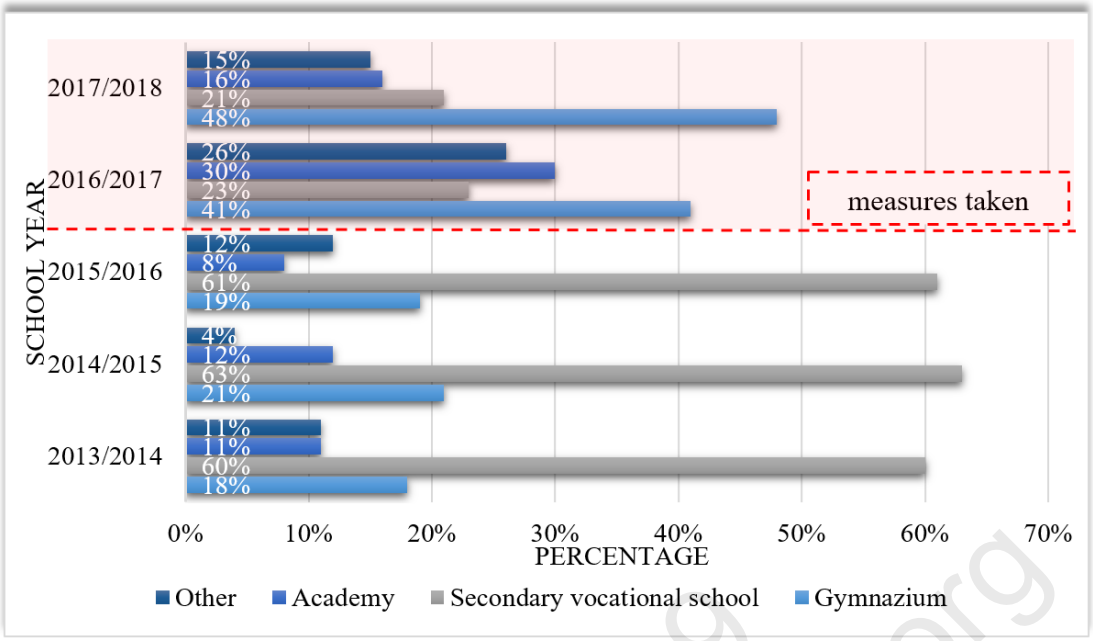

Fig. 4: Applicants by school category before and after introduction of measures

FSE UNIZA given negative trend study success technical subjects and problematic the transition of high school students for university studies had in a relatively short time adequately reflect the situation and prepare multiple process and system changes. The main priority of the faculty is to offer attractive and study programs required by the company secure them well implement project learning learn practical solutions in applications use laboratory equipment and devices, software products as a prerequisite for the successful application of graduates in practice.

Measures in place:

- **Promoting better student adaptation from secondary to higher education:**
  - Optional subject "Propedeutics of Higher Education" introduced into the 1st year study plans, in which students become acquainted with the processes and conditions of higher education, recognize the university environment and various educational and leisure activities.

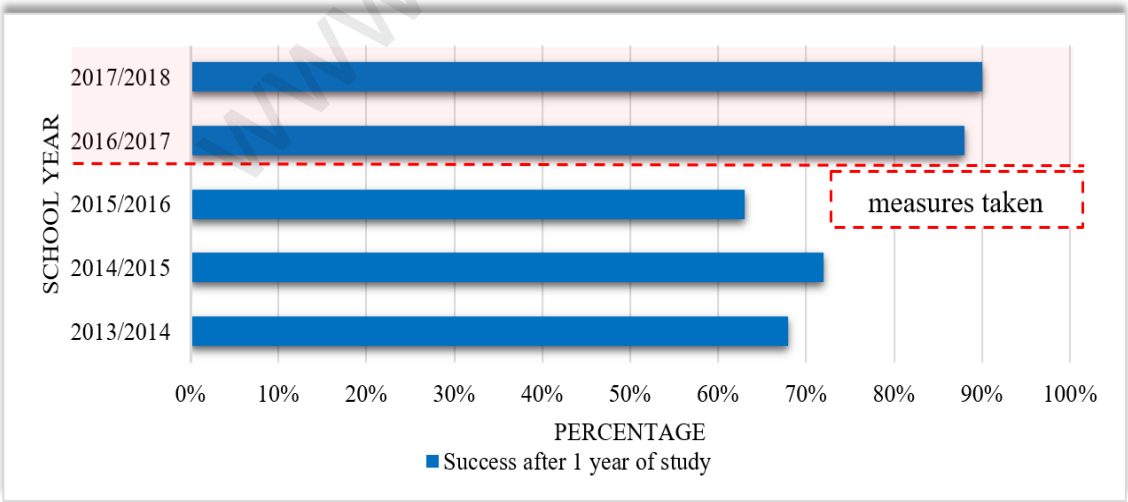

Fig. 5: Success after 1year study at FSE UNIZA before and after introduction of measures

- **Promoting better graduate employment increasing students' competences and skills response to practice requirements:**
  - In selected profile subjects practical exercises and project teaching have been introduced. Practitioners are involved in teaching. During their studies, students have the opportunity to attend courses to prepare and obtain multiple certificates and certificates which will increase their application in practice. Opponents of diploma theses are practitioners, who are also members of the State Examination Commissions. Since 2016, the faculty has been organizing it once a year "Job Days" whose main objective is a job offer, traineeships and study visits for students and graduates of the faculty. (Fig.6)

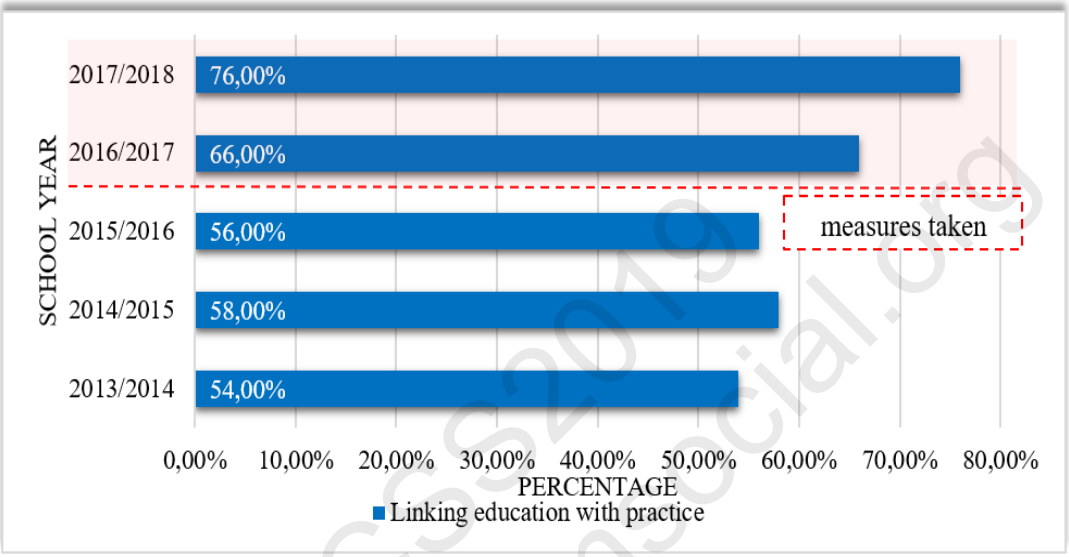

Fig. 6: Evaluation of the link between education and practice to FSE UNIZA before and after introduction of measures (student survey)

DEVELOPMENT INTENTIONS FSE UNIZA IN THE AREA EDUCATION AND SCIENTIFIC RESEARCH AREAS

Objectives and tasks of the faculty for the 2019 calendar year are conceived in accordance with the objectives of the University of Zilina in Zilina, arising from the "Long-Term Strategy UNIZA for the years 2014 - 2020".

Education area **in the educational process** to FSE UNIZA is necessary priority these activities:

- to monitor and meet the requirements and stakeholders' expectations (candidates, students, graduates, employees, professional experience)
- to provide quality educational process with emphasis to link theory and practice
- attractive way to promote study and present the faculty's educational activities with regard to the target groups within FSE UNIZA Open Day event and education fairs
- to promote student mobility abroad and teachers
- to watch the level of employer satisfaction with graduates to the profession, involved external organizations and practitioners into the evaluation of diploma theses and consultancy when processing final works of students ensure the

participation of experts from other institutions than members of State Examination Commissions in order to promote the objectivity of the evaluation.
- to organize FSE UNIZA Business Days with the goal increase competitiveness and the applicability of the graduates of the faculty in the labour market.

Further development of **scientific research activities** is based whereupon the broadest involvement of departments into new project types offered by state institutions, agencies and grant agencies. The aim is to improve the results of the scientific research activities of the faculty thereby ensuring maximum use their research capacity. In scientific research activities is necessary in the near future:

- to create conditions for continuous expansion and improving the quality of scientific research infrastructure, laboratory and specialized classrooms (Eg. Through the Structural Funds)
- to maintain quality international scientific conferences and seminars organized by the faculty with emphasis at the 24th International Scientific Conference Resolution of crisis situations in a specific environment and 13th year Young Science Conference
- to increase and improve presentation of results scientific research activities through higher output in the first and second quartiles - category "A" and outputs in the journals,
- to increase the share of publishing activity language and language skills of faculty staff,
- to increase scientific research faculty capacity by planning new positions for scientists in projects submitted,
- annually at least one research project European grant structures (eg H2020) as coordinator,
- to fulfil the created plan graduate growth of faculty staff in terms of personnel structure of individual workplaces,
- to ensure higher international participation in the student science competition (eg participation of Erasmus + students, resp. students of foreign partner schools).

CONCLUSION

Due to the decrease of the demographic curve in Slovakia and other EU countries it is necessary to make stronger effort by the universities for acquiring students for the technical specialisations. In the area of the marketing strategy the faculty integrated and utilised the long-year experience with ensuring the quality with support and using various initiatives and models in the quality assurance of education and research at the FSE UNIZA.

The faculty top management respecting the interest of the stakeholders determined procedures for individual defined areas which fulfil the determined minimal level for achieving the defined goals. The verification of the designed conception confirmed an increase of attractiveness of the technically oriented university study programmes in the area of security. The results can serve as an inspiration also for other educational institutions. In spite of the positive results the faculty determined the following objectives for the nearest time period except for developing the verified activities and tools: [3]

- increasing the number of the students from abroad studying in the Slovak language (Czech Republic, Ukraine and others),
- the further utilisation of the only successful marketing tools verified by the pilot projects,
- improving the promotion of the Faculty Open day towards the general public, not only the secondary school student.

The quality of employee must be a strong point on the way to prosperity. Effective co-operation of universities with employers means teaching for work, by harmonizing study plans with the needs of employers. Therefore, project-based teaching is a step towards success. Exceptional partnership means active collaboration between students, graduates, universities and companies. Application of project-based teaching at FSE UNIZA is for its students very important and for its graduates very effective on the labour market.

Based on the acquired results we can say the outputs of the pilot projects are implementable also in the V4 countries and the Baltic States due to the similar demographic trend and historical development.

AKNOWLEDGEMENTS

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CREATIVE TEACHER IN THE SOCIAL WORLD – INTER-PERSONAL COMPETENCES OF YOUNG EARLY SCHOOL EDUCATION TEACHERS

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ABSTRACT

Creativity constitutes an important feature in teachers' development, enables for application of the original methods in work and for creating the climate of openness and independence. However, researchers quite frequently notice that creative functioning, correlated also with non-conformism, is often coupled with low social competences, which results in incomprehension, rejection and criticism from co-workers. On the other hand, some investigators point out that creative teachers are expressive, have a lot of co-workers, create science or artistic schools. It is also worth noticing that the majority of creative works is presently realized jointly. Hence, it seems to be interesting to formulate a question about relations between the level of creativity and teachers' social competences. Author's own researches, including questionnaires and tests, were carried out in 2019 onto the group of 49 Polish young teachers of pre-school and early-school education. For the conducted investigations there were used TCT-DP test by K. Urban and H. Jellen in elaboration of A. Matczak, A. Jaworowska and J. Stańczak [1], diagnosing the general level of creative thinking, and Inter-personal Scale of Attitude by J. Stanik [2] describing the dimensions of inter-personal competences such as the following types of functioning: "directing and autocratic", "supporting and caring", "co-working and friendly", "submissive and depending", "retreating and masochistic", "rebellious and suspicious", "aggressive and sadistic", "competing and narcissistic". Other styles include operating: "in self-acceptance" or "in self-sufficiency", "in jealousy", "in realism and relative autonomy", "in pessimism, helplessness, calling for help". The Scale distinguishes also three syndromes of: pro-social behaviour, hostility and ego-centrism. Preliminary results of researches indicate that more creative teachers more often present the behavioural styles correlated with pro-social syndrome (especially this concerns supporting and caring behaviour) and most of all with strong self-acceptance of the own social actions with relative low narcissism. Significant is also the fact that high level of creative thinking at examined teachers correlated well with high suspiciousness and low social resourcefulness as well as with overall syndrome of hostility towards the others. Results that were obtained show the complicated nature of features connected with social relations of creative people, which – according to ideas of D. Simonton [3], K. Szmidt [4] and E. Nęcka [5] – may present behavior full of contrast and "contradiction integration".

Keywords: creativity, inter-personal competences, early school education teachers

INTRODUCTION

Teacher in social world

Compatibility and need for adaptation to the external conditions (social, environmental) constitutes one of the basic personal structure of individuals. However, socialization process brings conformism to behaviour. Some researchers define this as a constant tendency of individuals for submitting to external pressure, assimilation of their own views and behaviour to commonly accepted standards within particular group [6]. Conformity of school life reveals itself mostly in activities of teachers, who constitute the professional group most sensitive to the social impact. Teachers at school are unlearned of spontaneous, non-typical and original statements, are subjected to group or authority related pressure. The negative role of the standard school in developing the creative attitude is accentuated by E. Nęcka [5, p. 149], who writes: *"school is a place [...] that teaches conformity"*. Submission of teacher to political pressure for many decades shaped a habit of succumbing to more or less conscious expectations from the side of various subjects influencing the educational process. For teachers, the closest pressure group are other teachers (the principle: "do not lean out") and school management ("be humble and obedient"), creating the specific educational climate (the hidden school program concerning expected and accepted teachers behaviour), subject advisors as well as the pressure from the institution of education supervision expressing the political and cultural tendencies. Teachers who resign from subjectivity, get used to passiveness and to the situation that all decisions are made *beside* them and not *by* them. In connection with performing their function, teachers may mostly expect the pressure from pupils and parents. Also W. Dobrołowicz [7] formulates negative opinion on the creative competencies of teachers in contemporary school – teachers are individuals with low level of creativity, conservative, limited with many different barriers (social, system, mental) that inhibit their creativity. They not only do create to a small extent by themselves, but also reluctantly notice and accept novelties created by the others. Algorithmic behaviour and thinking, conventionalized answers are not only safe – they also guarantee economic of time, allow for intellectual passiveness and facilitate the teachers control over the pupils community.

S. D. Brookfield [8] characterizes three significant barriers for independent social functioning, resulting from the specific condition of teachers profession – paradigms of "culture of silence", "culture of individualism" and "discretion". The first one concerns avoiding and selling in silence of the real questions connected with teachers profession, their needs, adaptation and social importance. In Poland, years of ideology destroying manifestation of criticism and independency created the situation where all previous governments tacitly accepted the complete erosion of the social authority of this profession as well as economic and political marginalization. The second barrier is joined with the specific anti-collectivism of this profession and with teachers solitude – most frequently teachers have to make decisions and choices, solve problems by themselves. The last limitation is a tendency to keep in discretion all defeats, problems and doubts. In common opinion, teacher is a person who should not make mistakes and all deviations from the standard are bashfully covered up ("sweep under the carpet"). Such tendencies are also confirmed by the hidden program of official state documents. Acceptation of this perspective limits the social control over the teachers work, but also de-motivates teachers to the critical self-analysis.

Hence, the reason for conformism is dependence, insecurity and low self-esteem as well as the need for the adequate behaviour, keeping (or non-forfeiting) social, economic and/or moral gratifications and rights, especially when the basis for community consolidation constitute informal social conventions. Subjecting teachers to political pressure in the past, shaped a habit of succumbing to more or less conscious expectations from various subjects influencing the educational process (politics, supervision, representatives of publishers, parents and even pupils). Unfortunately, historical past of the Polish society, and especially several dozen years of moral and intellectual slavery of the political system, left an mental imprint – Poles despite the last 30 years of transformation still maintain the set of habits that were effective in the past: dominative social culture put an emphasis onto collectivism, reducing individuality and personal responsibility, promoting mediocrity, "not leaning out" , fusing with the background. All of this perfectly translates into the visible opposition to openness to democracy and liberalism, rewarding the neo-conservative and neo-traditional attitudes at the part of society. Such tendencies are also observed in the field of education.

Perspective of passive, subjective to pressure teachers, does not harmonize with the modern ideas of education – being open, flexible and adapted to the requirements of changing civilization. It is dangerous within the context of shaping the basis of mental and institutionalized enslaving and forming of foundations of authoritarian and dogmatic personality – this will be analysed and characterized further on in the next subsections. Dogmatists not only "blindly" accept the views and opinions of authority recognized by them (ideas, values, people), but also condition their own absolute and categorical estimation of the other people based exclusively on the criterion of their attitude towards this specified authority. Researches indicated that majority of interviewed teachers does not consider themselves as dependent, submissive or shy person – however, they admit that there was a time in their life when shyness occurred. According to significant part of examined teachers, the factors that may contribute to the occurrence or intensification of shyness are fear of negative estimation and lack of self-esteem. During previously conducted researches on the self-esteem [9], teachers most frequently located their advantages within the group of features describing positive inter-personal relations, such as: openness, protectiveness, sense of humour, empathy, faith in traditional values, co-operation with parents and good contact with pupils, patience and indulgence. The least appeared answers concerned motivational features and those behaviour actuated, such as: ambition, willingness, energy and some additional attributes (personal culture, musical talents).

Despite numerous factors limiting the resourcefulness of teachers, they have to create internal structures that make it possible to adequate engagement in shaping their own disposition and working style. The source of feeling safe, strong and certain must be formed in teachers themselves, in their reflections over restraints and limitations, in internal resistance, resourcefulness and understanding of their work – such convictions are expressed for ex. by people with high resilience, who notice alternative sides of critical events, search for constructive counterweight and strengthen their own positive self-esteem.

Social conditions of creativity

The question of the influence of social and economic space onto creativity is still relatively sparsely undertaken in Polish elaborations concerning creativity. The most

convincing, interactive and system models of creativity accept the assumption of co-existence of personal features, socially variable and cultural-historic features. Those researchers regard that creativity may be received and strengthened or inhibited in determined social, historical and cultural context. But K. Brocławik [10, p. 85], summing up those researches, states that it is hard to define all factors of *"fruitful social field"*, although it is possible to identify initially *"creativity of social and geographic environment"* and to strengthen its potential. That is why, so frequently social and cultural conditions are analysed through the prism of barriers and stimulators of the creative process [11]. For in social attitude of creators there may be noticed plenty of contradictions. On the one hand, they are characterized with extraordinary managerial skills and leadership abilities, they are more socialized, perform more functions, more often spontaneously help the others. They usually have strong personality and may exhibit tendency for domination. But they often have problems with adaptation to the environment, show attitude full of reserve, prefer individual work rather than the group one. Quite often they are isolated by others, criticized or even rejected. Sometimes in their behaviour there is observed the lack of emotional balance and they may exhibit greater aggression which may also turn into associative behaviour. Some researchers [3] indicate for vanity and needs for social approval, and in some cases for psychopathic features.

In the conception, being the synthesis of previously mentioned approaches, S. Popek [12, p. 49-52] identifies the sphere of social relations, from which it may be concluded that creative individuals: are characterized with specific emotional properties (for ex.: they manifest above average sensitivity or even emotional sensitiveness; more often than the others exhibit inclination for emotional disintegration or experience melancholy and periodical depression – especially creators within the frame of artistic domain; sometimes they are shy and exhibit the emotional inhibition in social situations; in empirical tests they have a tendency to intro-version and increased neuroticism, but at the same time they are able to exhibit emotional self-regulation, they are resistant to stress and can draw creative energy from the emotional experiencing the conflicts; they exhibit a strong need for loneliness of choice at the high level of the social empathy, but also have an ability to spontaneous expression that becomes for them the instrument of development and standing out. Creative people distinguish themselves also with: strong will and stubbornness in achieving the goal even in highly unfavourable situation; self-confidence and creative courage; very strong cognitive and active motivation, passion and enthusiasm for work, internal discipline and energy. Creators have some specific characterological properties – people of such type exhibit constructive non-conformism that is expressed by: strong need for independency and psychical freedom (need for autonomy); adaptive flexibility and less inhibition in new situations; attitude on transformation and not onto adaptation; originality in behaviour; openness towards the world; high level of identity and integrated *ego*, but with symptoms of immature personality; creative courage, self-confidence, activity and vitality (expressive behaviour) with self-discipline at the same time; high creative aspiration and self-esteem as well as aggression in defending their own "me"; enthusiasm, joy of new ideas, taking risk; tendency for disorder (mess and chaos) in closest surroundings and place of work; tolerance towards other people and different values.

Creative individuals are also in a special manner socialized. In connection with this creators: by choice condemn themselves to periodical loneliness that favours

concentration and intellectual reflection as well as giving in to the creative process without unnecessary distraction; are characterized with restraint and shyness in social contacts, especially in new surroundings; do not submit to authorities and appreciate personal and not formal values; have critical attitude towards the surroundings and at the same time they are resistant to the outside critics, exhibit the abilities to accept conflicts and social tensions (non-conformism); are concentrated more on the ideas then on the matters of the social life (for ex.: economic).

METHODOLOGY

The aim of the investigations was to determine the relationship between creativity and selected styles of inter-personal teachers behaviour. The major question was formulated as follows: what are the relationships between the level of creative thinking and teachers inter-personal competencies. Researches, including questionnaires and tests, were carried out in year 2019 onto the group of 49 Polish young teachers of pre-school and early-school education. For the researches there were used TCT-DP test by K. Urban and H. Jellen in elaboration of A. Matczak, A. Jaworowska and J. Stańczak [1], diagnosing the general level of creative thinking, and Inter-personal Connection Scale by J. Stanik [2] - useful, short method for testing personality within the aspect of contacts and attitudes.

The basis for creating the scale is the circular model of inter-personal connections, based on two dimensions: *control* (domination – submission) and *emotional connections* (love – hostility). Test consist of 12 scales and 3 *profile syndromes* connected with typical configurations of results in particular scales. There are distinguished:

1. Managerial and autocratic style (SUI 1) – expressed by adopting leadership tendencies with maintaining the ability to arrange contacts with others, domination with co-operation skills.

2. Supportive and caring style (SUI 2) – representing behaviour set to friendly contact with others, such as help offering, but with the component of domination and firmness.

3. Co-operative and friendly style (SUI 3) – including friendly, compromise, syntonic and afiliative attitude towards partners.

4. Submissive and dependent style (SUI 4) – determining social activity forms characterized with submission, readiness for establishing contact as well as for fidelity and dependence. Such types of behaviour aimed to persuasion the others for expressing support, help and advices.

5. Withdrawal and masochistic style (SUI 5) – expressed by submission with the component of social isolation and withdrawal, self-indictment and distrust, hostility towards themselves and the others. This scale reveals self-description connected with hostile submission, inner self-destruction, negative attitude towards people.

6. Rebellious and suspicious style (SUI 6) – presenting behaviour of hostility, distrust and suspiciousness towards people, emotional cold, tendency to rebel against the external prohibitions, demonstrative manifestation of hostile, negative, suspicious attitude towards the others (in the form of displaced or direct aggression).

7. Aggressive and sadistic style (SUI 7) – including destructive behaviour, physical and verbal aggression (excessive criticism, sarcasm, insults), hostility towards themselves and the others with the undertone of domination, sense of towering over others, lack of emotions and objective treatment of the others.

8. Competing and narcissistic style (SUI 8) – with tendencies for domination, independency, competing and with objective attitude towards the others.

Self-acceptance or self-satisfaction scale (SUI 9) – determines the self-esteem of the people, especially created by comparing with the others. High results within this scale reflect low self-esteem connected with hostility, neurotism and high anxiety tension. The highest scores were obtained by depressive and neurastenic persons.

9. Lying scale (SUI 10) – joined with the intention of falsification of picture of one's own person or willingness to present yourself in the positive light.

10. „Jealousy, realism and self-autonomy" scale (SUI 11) – tested the degree of self-acceptance and with regard to social contacts – assertiveness, initiative and optimism.

11. „Pessimism, helplessness and calling for help" scale (SUI 12) – indicated the sense of low value, passiveness, fear, pessimism as well as negative self-estimation and plans and attitude towards the other people.

J. Stanik [2] characterized also three syndromes connected with some configurations of results in particular scales:

1) „Pro-social" scale syndrome (SUI PRO) – average or high results within the scales no: 2, 3, 4 and 11, which characterizes socially desirable behaviours, focused on co-operation with the others. .

2) Hostility syndrome (SUI WRO) – average or high results within the scales no: 5, 6 and 7, which includes tendencies of hostility (and sometimes aggression), distrust, suspicion and defensiveness.

3) Egocentrism syndrome (SUI EGO) – average or high results within the scales no: 1 and 8, which characterizes people with the permanent trend for starting behaviours directed to defence, treating the own person as a centre of the social context, over-estimation of their own value and under-estimation of the other.

RESULTS

Results of researches indicate that more creative teachers present the behavioural styles correlated especially with hostility syndrome and seldom - with pro-social syndrome (only with supporting and caring behaviour). The study confirmed a correlation between higher level of creativity and rebellious and suspicious style ($r_{Pears.}$= 0,39; p<0,01), and especially between synthetic thinking ($r_{Pears.}$= 0,36; p<0,05), creative emotions ($r_{Pears.}$= 0,41; p<0,01), abstractness ($r_{Pears.}$= 0,31; p<0,05) and non-stereotypy ($r_{Pears.}$= 0,38; p<0,01), as well as between withdrawal and masochistic style and creative emotions ($r_{Pears.}$=0,18; p<0,05). Results in test group also indicated a statistically significant correlation between low level of self-acceptance, coupled with assertiveness, initiative and optimism, and high results obtained in some scales measuring elementary creative processes – especially between creative emotions ($r_{Pears.}$= 0,31; p<0,05), non-stereotypy ($r_{Pears.}$= 0,36; p<0,05). Another results are presented in Table 1.

Table 1. Pearson correlation coefficients ($r_{Pearson}$) between level of creative thinking and inter-personal types of functioning

Name of syndrome for inter-personal connections / TCT-DP test scale	Going beyond the frame (scale 7 of TCT-DP test)	Creative emotions (scale 9 of TCT-DP test)	Abstractness (scale 11 of TCT-DP test)	Non-stereotypy (scale 13 of TCT-DP test)	General TCT-DP test result
pro-social syndrome	$0,19^{NS}$	0,31*	0,51***	0,39**	0,34*
hostility syndrome	0,41**	0,51***	0,31*	0,34*	0,42**

significance: NS – not significance; *p< 0,05; ** p< 0,01; *** p< 0,001;

source: own research

CONCLUSIONS

Significant is the fact that high level of creative thinking at examined teachers correlated well with high suspiciousness and low social resourcefulness as well as with overall syndrome of hostility towards the others. Surprising turned out to be the results of strong correlations between creativity and social (but more intra- than inter-personal) isolation, alienation or even hostility. However, more creative teachers more often present the behavioural styles correlated with pro-social syndrome (especially this concerns supporting and caring behaviour), but at the same time within the light of obtained results it should be considered that creative teacher may be the person representing the behaviours of hostility, helplessness, distrust and suspiciousness towards people, as well as the emotional cold, tendency to rebel against external warrants, demonstrative manifestation of hostile, negative and suspicious attitude towards the others. With this style, there also may be coupled destructive and aggressive behaviour (in the form of displaced or direct aggression). Such individuals often are non-conformist, competing with others and hence less frequently directed to friendly contacts with people (like for ex.: offering help), and their behaviours are often coloured with the component of domination and firmness, or even include destructive behaviours, physical or verbal aggression (excessive criticism, sarcasm) hostility towards themselves and the others with an undertone of domination, sense of towering over others, lack of emotions as well as instrumental treatment of people and most of all – low self-acceptance of their own social activities. Results may explain quite frequent situation where truly creative, non-conformist teachers are not accepted by their own environment, are rejected or isolated – being essential Masters, they often can't properly communicate with their superiors, colleagues and even pupils. Results that were obtained show the complicated nature of features connected with social relations of creative people, which – according to ideas of D. Simonton [3], K. Szmidt [4] and E. Nęcka [5] – may present behavior full of contrast and "contradiction integration".

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CREATIVITY AND MOTIVATION OF EXTREMELY GIFTED STUDENTS – RESEARCH BASED ON THE ACTIVITIES OF THE "UNIMAN" PROJECT

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ABSTRACT

Gifted children are characterized with above average abilities in one or more domains (subjects) or with high versatility and proficiency in many disciplines. They may also be described by accelerated development and unceasing motivation coupled with the interests, persistence and enthusiasm as well as passion and creativity. J. Renzulli [1] recognizes these features as the most important predictors of outstanding achievements of gifted children. On the other hand, numerous children indicate the Inadequate Achievements Syndrome – they suffer from the lowered motivation and inhibition of creativity. Hence, the aim of conducted researches was to determine the relationship between motivation and creativity within the group of 60 gifted children. Investigations were carried out in 2019 and included pupils with the age from 7 to 14 from 3 different schools, who took part in additional classes, aiming to develop creativity, social and critical competences and scientific thinking, within the frame of program UniMaN ("Uniwersytet Małego Naukowca") „University of Young Scientist – knowledge, curiosity, passion" realized for the years 2018-2020 at the Pedagogical University in Cracow with the financial support from EC. In the paper there will be presented the major assumptions for the project together with results of surveys for determining the relations between the learning results, creativity and motivations of gifted students, which constituted the main research problem. There were applied 8-Item Grit Scale for Children worked out by A.L. Duckworth [2] and 3 devices measuring children creativity: TCT-DP test by K. Urban and H. Jellen in elaboration of A. Matczak, A. Jaworowska and J. Stańczak [3], C. Frank (The Franck Drawing Completion Test) [4] and T. B. Ward tests [5]. Preliminary results indicate the positive correlation between children motivation and results obtained by pupils in creativity tests. Especially significant relationship was observed between the results indicating the general abilities within the range of creative thinking (TCT-DP test) and high motivation. There was also noticed the meaningful increase in motivation after completing the activities realized within the frame of the UniMaN program. Results obtained prove the accuracy of applied activities within the scope of developing the interests, curiosity and passion at children as well as their creative competences, and confirm the strong relationship between children motivation and creativity.

Keywords gifted students, creativity, UniMaN project

INTRODUCTION

Characteristic of gifted children

Gifted children are characterized with easy memorization and learning, are smart observer who easily see the details and quickly understand the essence of many problems. In plays they indicate above average inventiveness, prefer performing mental tasks, speaks a lot, possess lush fantasy and imagination. Together with mental abilities quite often co-exist specific abilities in some selected artistic domains (in music, plasticity, rhythmic, expression of movement). Gifted children are independent and critical or even stubborn. Such children are equipped with cognitive curiosity, are critical towards the knowledge, have wide range of interests, like to experiment and be faced with difficult tasks, like to connect and transform data they got from the others [6]. As pupils, during school classes they show curiosity and interest in many different fields, they ask more logical questions then their equals and exhibit perseverance at work.

Within the frame of emotional and motivational sphere, gifted children are characterized with inclination to constant engagement (this feature is named "persistence" by J. Renzulli [1]), enthusiasm, strong internal motivation, diligence, perseverance and internal orderliness. They exhibit self-steering – not waiting for teacher's instructions and leads, they start working over the task or problem, less frequently they ask teacher for help. They also show emotional lability and high sensitivity, but they are usually brave, self-confident, exhibit higher self-esteem and self-acceptance as well as less fear in comparison to their equals. Gifted children are more resistant to failures, it's easier for them to tolerate risk and postponement of the activity gratification. More often they think about problems of existential or ethic nature and are less competitive.

Motivation of gifted children and Inadequate Achievements Syndrome

Success in the adult life depends on the minimization of numerous development dangers and crises. Gifted pupils earlier than the others are touched with the difficulties inherently connected with creative activity such as: solitude, unbelief in their own strength, fails and failures, emotional crisis. Those children are characterized with idealism, respect for the truth and honesty. Higher values constitute the strengths energizing the children behaviours and may motivate to austerities – but, unfortunately, the contact with relative reality (and lack of experience within the frame of social relations and high sensitivity) causes quite often the frustrations and disappointments (sometimes they constitute ethical dilemma, such as for ex.: confrontation of high values with promotion, assuming compromises lowering the value of product). Gifted pupil often deals with issues not connected with school subjects and versatility of their interests may be the reason for many life dilemmas, especially with strong need for using their own abilities. Such children work in different pace then equals, often fixing themselves on one particular problem and neglecting the other issues, less important from their [point of view. Pupils experience strong emotions when they are not able to realize their goals and expectations. It leads to negative self-estimation that results from excessive perfectionism coupled with ambitions and self-criticism. It is also typical that while dealing with not important and temporary problems, they may feel fear before failure, but while solving difficult and serious task they are characterized with resistance and perseverance in enduring failures.

Problems of endogenous nature are also connected with reluctance to routine and complying with rules or the lack of patience. At the moments of boredom and frustration gifted pupils often do not control their impulses, may behave impolite and provocative. They show weariness for actions and tasks for which they see no sense or when given task is not attractive and not being the challenge. Quite often they refuse to participate in actions where they do not succeed.

Gifted pupils are self-critical towards themselves, but they are also inclined to estimate the others. This high level of criticism may lead to conflicts with the environment, may arouse aversion and sense of danger. Difficulties appear while trying to reconcile high standards with tolerance for mistakes and imperfections as well as for resistance to defeat. Important trait of gifted pupils is their independency – they prefer individual work, depending only on themselves. It is hard to adopt them for the group work. They often disregard equals or adults who do not possess the adequate knowledge and could not understand their passion. Their premature maturity may be interpreted by the environment as pretentiousness, intensifying the sense of incomprehension and negative attitude towards the other. Unconventionality and eccentricity in behaviour often contributes to isolation of gifted pupil from a group of peers.

Educational difficulties for gifted children may result from numerous features of behaviour in school situations (and in contacts with adults). Those reactions are often interpreted as arrogance, arbitrariness, conceit, excessive self-confidence and exaltation. Vivid temperament, hyper-activity and impatience may disturb the other children or teacher. Such children not always follow instructions of teacher and often got involved in discussions undermining their purposefulness. Gifted pupils often manifest open criticism to the contents which in their opinion is illogical or unauthorized, they analyse legitimacy of assumed axioms and authorities.

It is worth noticing that abilities revealed in early childhood do not guarantee outstanding abilities in adult life. Analysing this phenomena, the researchers additionally assume the importance of numerous factors, such as: motivation, peer and family environment, school, professed values, teachers, masters and even happy case. Presently, the questions of *underachievement* syndrome and the opposite one – *overachievement*, are analysed through the prism of occurrence of many others non-intellectual factors, such as: motivation, persistence in striving for the goal, aspirations and need for achievements, high self-esteem and faith in your own possibilities [7].

Some difficulties in functioning may exhibit people who as a child were recognized as "wonderful", but did not realize their potential or did not meet the expectations. It is assumed that frequent contact with specific domain may at these children result in enrichment of their natural potential or discouragement and frustration. Despite the natural born pre-dispositions, the individuals may not develop themselves in environment where children do not have possibility to exercise and check, where there is no encouragement, directed help and support. The interesting question, located on contact between development and pedagogical perspectives, is the problem of "creativity crises". It is assumed that threats for creativity actualization may occurred every 2 years, starting from the age of 5, but the most dangerous crises are for 4^{th} and 7^{th} classes, which are connected with the strongest socialization and acquiring the knowledge giving the cognitive representation the cultural character. Reverse phenomenon in the literature is known as "decade rule" which assumes that from the

moment of starting the activity it is required at least one decade of training to win a championship and to manifest individuality in given domain. Difficulties may also arouse from the situation where pupils notice that with minimum effort they will achieve better results than their peers (and will have relative success at school). Such attitude results in the lack of motivation and engagement, and indirectly may contribute missing even high abilities.

Inadequate Achievements Syndrome [7] characterizes children with learning results below their potential abilities. This syndrome is expressed by inadequate, in comparison with their abilities, results and behaviours in school situation. Lower then possible children achievements may concern one subject or in all subjects and this may have chronic or situational character. It is recognized that Inadequate Achievement Syndrome includes even the half of the population of gifted children [8, p.129]. Unfulfilled geniuses are characterized with inadequacy of behaviour in comparison with adults commands, are undisciplined, have negative attitude towards school, frequently consciously leave lessons or feel as victims of educational system or specific teacher. With their behaviour they evoke dissatisfaction or disappointment of environment. Such pupils easily de-concentrate themselves, have problems with focusing attention and planning the tasks, express boredom and desire of quick finishing the task, they lack organization and ability to manage the time. Works of such children are marked with chaos, airiness, deficiency. Pupils with this syndrome have dysfunctions within the frame of basic school abilities and exhibit slower and unequal learning pace. They reach low results from tests despite relative high level of intelligence and abilities, exhibit the lack in ambition, and their self-criticism and dissatisfaction from their own work lead frequently to destruction of their products. They are original pupils, but their unconventional ideas do not have values, are useless, sometimes even pathological and anti-social.

Presented phenomena let judge that disproportions between children abilities and their real achievements should be minimized by deliberate pedagogical activity from the side of teachers, educators and parents.

Creativity of gifted children

Creative attitude is connected with the openness to new experiences, readiness for risk taking and flexibility in transformation of the own life, originality and generativeness of ideas. Characteristic feature of creative personality is specific motivation expressed by passion and persistence. Creative attitude of children may be connected with: sensitivity to problems (allowing for noticing the shortcomings, for discovering the needs and deficiencies at people and things), openness and fluency in thinking (variety of responses to given stimulus), plasticity and flexibility (ability to quick adaptation to new situations and effective reaction for changes), originality, ability to transform and give new meanings to objects, ability to analyse and distinguish the details as well as find differences, ability to synthesis (creating the whole from the parts and the holistic perspective of reality perception) and finally with coherent organization (ability to consistent expressing and harmonizing the thoughts, aspirations and desires).

Relationship between the overall abilities and creativity is high in reference to scientific and school abilities, but in reference to the other abilities (for ex.: artistic) is rather low or described by the *"threshold conception"* that was presented before. From the other hand, from the observation made by A. Gruszka and J. Orzechowski [9] it may be

concluded that remarkably gifted pupils often indicate shallow erudition coupled with the conviction about significance and dogmatism of the acquired knowledge, conservatism and stiffness in thinking.

METHODOLOGY

The aim of conducted program was to determine relationship between motivation and creativity within the group of 60 gifted children. In the surveys, carried out in 2019, there were participated pupils from three schools within the age between 7 and 14 who took part in activities realized within the frame of the program UniMaN „University of Young Scientist – knowledge, curiosity, passion" (run with EC financial support at Pedagogical University in Cracow). The author of conception and project co-ordinator is prof. Iwona Czaja-Chudyba, and funds for its realization were raised from EC program POWER (POWER.03.01.00-IP.08-00-UMO/17).

There were formulated two major research problems: 1/ what is the relationship between creativity and motivation for gifted children? 2/ what are the results of activities carried out within the frame of UniMaN project within the range of creativity and motivation for their participants? For conducted investigations there were used A.L. Duckworth test (GritS) [2], and 3 devices measuring children creativity: TCT-DP test by K. Urban and H. Jellen in elaboration of A. Matczak, A. Jaworowska and J. Stańczak [3], K. Frank (The Franck Drawing Completion Test -FDCT) [4] and T. B. Ward tests [5].

The aim of the UniMaN project was development of abilities at children from primary schools within the range of creativity, critical thinking and problem solving. Children's parents are to acquire educational competences connected with stimulation of interests, passions and social abilities of their children. Realization of this task contributes to development of offer of Pedagogical University in Cracow within the scope of the "third mission" – deepening the co-operation with the environment and local community integration around the academic centre. Project implementation period is from 3rd September 2018 to 31st March 2020.

Within the project there are planned activities with facultative character, based on the Author's course program worked out by scientific and didactic employees from the University. Actions undertaken have multi-plane character and include: workshops of social abilities, creative and scientific thinking as well as meetings at university with thematic lectures. Additionally, there were realized special activities during the event titled "Day at the University" (presenting for children the specifics of work at this type of institution, introducing academic traditions and curiosities) and there was organized "University Festival of Science and Children Art" where pupils could present their achievements and passions. The next event is planned at December of 2019 which will be the scientific seminar "Scientific passion of child – young explorer". All activities are run by academic teachers from Pedagogical University in Cracow. It is also foreseen: academic teachers tutoring for pupils to prepare presentations being the results their discoveries and surveys as well as the lectures given by scientists – specialists from different domains. Within the conducted project there are engaged experts from the Institute of Pre-School and Early-School Education, teachers from primary school participating in the project and parents who are taking part in workshops and consultative lectures, broadening their educational abilities within the frame of

discovering and supporting self-reliance, creativity, abilities and passions of their children, appreciating their originality, scientific and investigative interests.

Activities within the project makes it more attractive the school activities realized on the base of Polish Ministry of Education core curriculum for primary schools. Additionally, they broaden the University experiences in engagement with social development processes as well as they strengthen local community integration around the academic centre. They also enable for creating "young scientist community" and for providing support by "Young Scientist University" as well as for elaborating the mechanisms of co-operation between University and external environment by the common realization of actions with subjects working for education.

RESULTS

Results that were obtained indicate the positive correlation between pupils' motivation and the outcomes of their creativity tests. Especially significant relationship was noticed between the results indicating the general abilities within the range of creative thinking (TCT-CP test) and high motivation. Detailed results are presented in Table 1.

Table 1. Pearson correlation coefficients ($r_{Pearson}$) between level of creative thinking and results of Duckworth (GritS) test for the group of gifted pupils

Level of motivation / Name of creativity tests	General Ward test result	Result of fluency (Ward test)	Result of originality (Ward test)	General The FDCT result	General TCT-DP test result
GritS	$0,20^{NS}$	0,24*	0,48**	0,35*	0,52***

significance: NS – not significance; * p< 0,05; ** p< 0,01; *** p< 0,001;

source: own research

There was also noticed the meaningful increase in motivation and interest at pupils as well as slight increase of creative abilities after activities realized within UniMaN project. Almost 75% of pupils defined their activity during these extra classes as satisfactory, and 10% - as excellent. A bit less significant effects were obtained during the classes in improvement of the general creative abilities. This results are included in Table 2.

Table 2. Values of t-Student test for comparing results obtained by group of gifted children in creativity tests before and after participation in UniMaN project.

Name of creativity tests	Mean in pre-test results	SD pre-test results	Mean in final test results	SD in final test results	Value of $t_{Student}$	p-value
General TCT-DP test result	14,07	6,12	18,73	8,60	-1,71	$0,10^{NS}$
General The FDCT result	17,47	2,70	20,07	2,74	-2,62	0,01
General Ward test result	15,13	4,31	15,80	6,92	-,32	$,075^{NS}$

significance: NS – not significance; * p< 0,05; ** p< 0,01; *** p< 0,001;

source: own research

CONCLUSIONS

Obtained results indicate the accuracy of action taken within the field of developing interests, curiosity and passion at children, as well as their creative competences, and confirm the relationship between motivation and creativity at children.

Within the light of conducted researches it may be stated that the theory of J. Renzulli [1], who indicated the importance of correlation between creativity and motivation as well as the significance of immanent motivation (underlined also in works of A. Tokarz [10]), was partially confirmed. According to A. Tokarz [10] creativity is activated by events that are new (uncommon, uncertain), variable (unexpected, surprising) and confrontational (contradictive, divergent). Cognitive curiosity stimulates investigative attitude, influences the ability to recognize and formulate problems. It is coupled with intrinsic motivation that is triggered by non-typical information, exploration, challenge or tasks set for themselves. This is autonomous and self-strengthening motivation, with self-propelling "me" and engagement as well as with pleasure, pride and feeling the freedom of choice.

Accelerated development within the intellectual sphere causes consequences in the form of emotional and motivational problems. Hence, it is essential to create such environment (tasks, problems, working styles) that favours the ability development and supports the emotional maturity (ability to accept challenges and – as far as possible – stress conditioned with emotions).

At work with gifted children the most effective seems to be the strategy of activation of internal motivation – learning by self-direction based on interests and satisfaction. The important thing in development of gifted children is also providing them with positive enhancement – most of all noticing the efforts and failures, analysing their reasons, and such activities constituted the part of workshops for social abilities within UniMaN project. Strategy that is important in work with children is teaching them responsibility for the effects of their own actions, adequate self-promotion, constructive criticism (that was the element of workshops for scientific and research abilities as well as critical thinking). It is also worth noticing the partial successes of children, underlying the principle that not always the most important is the correctness of the final result – more important is the process of reaching the knowledge. During the work within UniMaN project, experts/teachers let pupils make choices, supported their independence, avoided the initial imposing the solutions, reacted in a flexible way for pupils expectations, provoked curiosity or induced optimal tension and controversies, revealed contradictions (dissonance or cognitive conflict), appealed to beliefs and judgements of children, indicated the unusual elements, different from every-day experiences, exceptions to the rule. Tasks set up by teachers during activities within UniMaN project constituted the challenge important for pupils, connected with their interests and values, and favour: guessing, thinking about, roaming (allowing for making mistakes), enthusiasm and unexpected ideas.

Additional activities that stimulate children motivation were festivals and contests organized with the frame of UniMaN project that induced self-reliance and curiosity at children and their research activity. Such events, in natural and maximum no-stress manner, may prepare children for taking research risk, individual experimentation and observation. In estimating children products a special care was then paid to the balance

of positive support (underlying the advantages of products) and constructive critics (noticing the shortcomings and defects of work) coupled with the common wondering how the product could be improved. The factor conditioning such estimation strategy was informing pupils about the evaluation criteria as well as admission them to participate in the process of formulating of these criteria.

Summing up, acquiring the knowledge, especially when it is coupled with overcoming difficulties, examination, searching for the solutions, drawing conclusions, looking for information being new for children, gives them joy and satisfaction. Hence, it is worth creating situations encouraging children to individual research activities and inspiring them for curiosity. Especially in reference to action conducted with group of younger children, supporting the abilities should take the form of "wise play" – play with the thoughts, space, movement, sound and word.

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DEVELOPING OF CREATIVITY AND CRITICAL THINKING IN SUBJECT OF CIVICS

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ABSTRACT

At present, education is being brought to the forefront of any society to shape the pupils' and students' personality in terms of both intellectual and moral improvement, to teach them to know themselves, other people, develop their independence, creativity and critical thinking. In Slovakia for the education an important matter is the subject of Civics, which, according to the State Education Program ISCED 2, is the subject to be sought for pupils to understand themselves and others, to help them navigate the world and to seek their socialization. A team of APVV researchers working on the project "Practice in the Center of Trade Union Didactics, Union Didactics in the Center for Practical Training", which is realized at Constantine the Philosopher University in Nitra, is based on current social needs and focuses on the issue of improving and expanding the practical training of teachers that is in recent years in the spotlight of OECD countries in the context of PISA international measurements. The aim of the project is to identify key teaching strategies to support the development of critical and creative pupils' thinking and the necessity of the theoretical preparation for future teachers in terms of its connection with everyday educational reality. The aim of the paper is to point out the topicality of the examined problem and to present the issue of problem-based learning (PBL) for increasing the teachers' professional competences in the field of implementation of teaching strategies developing critical thinking. Among the innovative forms of teaching in terms of problem-based learning, we pay attention to the dialogue that can be used in the educational process in discussions, conversations, mutual confrontation of a particular subject matter, team working, work in pairs, project presentations. Teaching journals and video recordings from the pedagogical practices of students in teachers' study in the 1st – 2nd year of the master's degree in terms of Civics at primary and secondary schools are used to map the current situation.

Keywords: creativity, critical thinking, dialogue, education, pupil, student, teacher.

INTRODUCTION

Nowadays, the implementation of problem-based learning is becoming an important part of the educational process and significantly contributes to the development of the pupils' critical and creative thinking. Problem-based learning leads pupils not only to creativity but also motivates them to solve tasks, to realize new activities and to acquire new knowledge. Based on the above, it means that the role of the teacher is not only to

give information to pupils but also to motivate them, to develop their thinking, to help them shape their attitudes, opinions and value system.

In regarding of mentioned it could be stated that the Civics teacher should have comprehensive knowledge of the field, have a good pedagogical preparation and have social and character properties. We identify the following basic competencies of a Civics teacher, which are required for an implementation of the educational process with the high quality:

1. professional competence: competences acquired on the basis of the pedagogical, psychological and didactic training,
2. work performance competence: working ability that is conditioned by physical and neuropsychical ability to handle the workload,
3. personality competence: social maturity, character and volitional properties,
4. social competence: the moral qualities of the teacher as the bearer of values, teacher's action should be a social model for others,
5. motivational competence: identifying with the role of the teacher, commitment to its fulfilment [2].

Civics teacher should realise pedagogical activity with the aim of the fulfilment of required education results. The result of education is a person who should be prepared for lifelong education and learning and be prepared to adapt to a variety of different changes in society (politics, science, culture, economy, technology) in the future. It is also the person who should effectively realise all his life roles and should shape the creative style of life by using inner motivation, emotional richness, advanced intellectual abilities, good socialization and value orientation [11]. Within the pedagogical process, the teacher should not only implement the educational activity [4] but also leads pupils to creativity and criticism, thinking in relationships, elimination of social and moral negative expressions and acquirement of moral values.

The necessity of action respecting ethical principles is an important requirement for teacher work. Teachers have to understand their moral role in the school environment, because their profession and practical moral behaviour influence pupils' behaviour. The teacher teaches pupils to know and accept moral principles as well as to make right decisions in different situations and to assess the relevance of the decision.

The teacher can implement the application of interdisciplinary relations and cross-curricular themes in the subject of Civics [10], so the teacher should be able to summarize the knowledge of pupils from different subjects [3]. In addition to this, Civics teachers should be open to their surroundings, teach their pupils this ability, work flexibly with new information, and use variable didactic methods in the educational process of Civics. The development of critical and creative pupil's thinking is supported by the following teaching strategies: strategies to develop self-regulation, strategies to develop systematic and interpretative skills, strategies of argumentation, strategies to draw conclusions and solve problems, strategies to develop assessment, strategies to develop reading skills. These teaching strategies should be realized by teachers in order to high-quality critical pupil's thinking.

In the context of the solving project “Practice in the Center of Trade Union Didactics, Union Didactics in the Center for Practical Training”, we consider to improve professional teacher competencies as necessary. The professional competencies of Civics teachers are based on the development of creativity and autonomy of the pupils,

the implementation of the teaching strategies by the teacher's abilities, as well as the methods of problem-based learning that enable the students to activate and to learn them to creativity, analytical-critical thinking, autonomy and self-assessment.

In terms of problem-based learning, innovative forms of learning include dialogue, discussion, project teaching, group and cooperative teaching, role play and simulation games, brainstorming, snowballing, interactive learning, case studies, Philips 66, hot chair. In connection with the current situation of using innovative forms of learning, especially dialogue, in problem-based learning, it is also necessary to focus on the objectives of the subject of Civics at primary and secondary schools in the Slovak Republic.

CHARACTERISTICS AND OBJECTIVES OF THE SUBJECT OF THE CIVICS

The subject of Civics contributes to the creation and development of social and civic consciousness of pupils. The subject of Civics provides pupils necessary knowledge, skills, abilities and competencies, which are acquired by using definitions and terms. Consequently, pupils are able to orient themselves in the social environment and in everyday life situations. The mentioned subject also enables pupils to understand themselves and help them in their socialization process, as well as it leads them to know their family, school, community, region, the Slovak Republic and the European Union. Moreover, Civics teachers teach pupils to think and act democratically, to know their rights and obligations, and to defend the rights of others. The subject of Civics provides basic knowledge about state and law, it enables to understand the economic life of society and leads to active civic engagement, which is considered as the precondition of critical thinking.

Objectives of the subject of Civics at primary schools in the Slovak Republic:

- pupils gain awareness of the uniqueness and unrepeatability of each person in society,
- pupils realistically recognize themselves and self-evaluate,
- pupils learn the rules and standards of social coexistence,
- pupils are aware of rights and duties and defend their rights,
- pupils take responsibility for their own opinions, attitudes and consequences of action,
- pupils recognize the fundamental principles of democracy,
- pupils build a tolerant approach to other opinions, attitudes, values and cultures,
- pupils learn to become an active citizen and engage personally,
- pupils gain basic knowledge about socio-economic and legal functioning of society [12].

Objectives of the subject of Civics at three-year and four-year study programs without school-leaving examination at secondary vocational schools in the Slovak Republic:

- pupils acquire knowledge about basic human values and their relation to social norms as well as about current problems of society,
- pupils are able to characterize types of communication in social relationships,

- pupils learn to understand their place in society, as well as the possibilities of developing and applying their own personality,
- pupils identify the consequences of the differences and disrespect of cultural differences of members from different social groups,
- pupils acquire basic knowledge about the mission of the state and law, and civil society,
- pupils know the fundamental rights and obligations of citizens,
- pupils acquire knowledge about the protection of social values in the Slovak Republic and in the world and its means,
- pupils learn about basic legal documents, enshrining human rights and freedoms,
- pupils know the possibilities of active participation of the citizen in the society.

Objectives of the subject of Civics at four-year and five-year study programs with school-leaving examination at secondary vocational schools in the Slovak Republic:

- pupils gain awareness of the uniqueness and unrepeatability of each person in society,
- pupils recognize their own identity and the identity of other people,
- pupils accept their own personality and personality of other people,
- pupils have knowledge about the social, political and legal facts that are part of everyday life,
- pupils are aware of the rights and obligations a citizen of the Slovak Republic,
- pupils learn to respect the fundamental principles of democracy and tolerance,
- pupils use appropriate means of communication to express their own ideas, feelings, opinions and attitudes, to defend their own attitudes and to defend their rights,
- pupils learn to respect the cultural, religious and other differences of people and communities,
- pupils acquire the basic terminology of philosophy,
- pupils know philosophy and its history as a result of human thinking as well as individual philosophers, their views and the development of their philosophical thinking,
- pupils respect and apply moral principles and rules of social coexistence and take responsibility for their own opinions, behaviour and its consequences.

DIALOGUE IN DEVELOPING CREATIVITY AND CRITICAL THINKING

Dialogue supports the activation of pupils in the educational process, enables to find the harmony in opinions and attitudes, leads pupils to appropriate problem-solving and initiates pupils to think. Dialogue helps to develop pupils' personality and leads them to understand each other. Dialogue in the educational process can be used in the following methods: discussions, interview, mutual confrontation of a particular subject matter, team working, work in pairs, project presentations.

Dialogue is a conversation between two or more communicating pupils and can be implemented in groups with different numbers of members. The fulfilment of the following conditions is a prerequisite for the realization of the dialogue in the educational process: the rotation of the replicas, the rotation of role of talking and role of listening, ability of pupil to react to the other pupils, the active listening, the paying attention to the content of the communication (pupils express their opinion on the topic)

and the way of communication (all pupils have the possibility to take part in communication).

Civics teacher can participate in the dialogue as a debating or a facilitator (a guide and a supporter). The advantage of implementing educational process by applying the method of dialogue is the fact that the acquired knowledge is more applicable to the new issues because pupils acquire not only knowledge but also they understand the concept aspect of the theme. The dialogue also includes questions that could be formulated by Civics teacher or by pupils. If the questions are formulated by pupils, teacher guides and leads pupils to creativity, self-reflection and active participation in the educational process. The mentioned attitude of creating of dialogue is considered as productive and pupils are able to think and eliminate misconceptions, prejudices and stereotypes. This can be considered as a major result of the implementation of this type of dialogue.

Dialogue is one of the most common forms of classroom communication and has the following features:
- to develop pupils' cognitive abilities (present the subject matter, explain),
- to develop affective aspect of pupils (pupils' development of interests, opinions, ideas, attitudes and beliefs, the teacher uses dialogue to motivate pupils),
- to develop the socialization aspect of pupils in the educational process (creation and development of class relations, coordination of activities, cooperation) [6].

The positives of implementing the method of dialogue in the subject of Civics:
- to lead pupils to understand knowledge, not just to remember it,
- to help to create the knowledge that the pupil applies in practice,
- to provide feedback,
- to adapt the pace of teaching to the possibilities and abilities of pupils,
- to engage pupils actively in the educational process,
- to exercise acquired knowledge and vocabulary,
- to allow pupils to unlearn incorrect ideas and assumptions,
- to develop higher intellectual abilities [13].

Questions that are part of the dialogue have to fulfil the following functions:
1. stimulation function (question stimulate interest in new knowledge),
2. function of task (the pupil solves or fulfils the given task),
3. motivational function.

Civics teachers develop the thinking of the pupil in the educational process by asking questions and finding out about the quality of the chosen issue as well as the level of their understanding. The Civics teacher asks questions and the pupil should be able to answer them. The methodology of asking questions requires their internal logical and thoughtful continuity. The questions are also used for pedagogical diagnostics and the teacher can use them to find out the current mood and feelings of the pupils [8].

The principles of using questions in the dialogue are an important aspect of the implementation of the dialogue in the teaching process in the subject of Civics. The basic principles of using questions in the dialogue include:
1. Questions and answers in dialogue have to be formulated clearly.
2. Civics teacher has to give pupils enough time to think and formulate a response.
3. Civics teacher has to also encourage pupils to respond by non-verbal communication.
4. Civics teacher has to praise the pupil's correct answer.

5. Civics teacher must not mock the pupil's answer.
6. If the pupil is not able to answer the question, Civics teacher makes the question easier.
7. Civics teacher has to formulate the questions clearly and briefly using the acquired terminology.
8. Civics teacher should not formulate questions only on facts.
9. Civics teacher should ask as many pupils as possible.
10. Civics teacher has to prepare enough questions [13].

The most important aspect of asking questions is to stimulate the mind activity of the pupils, so the questions are oriented on the cognitive aspect of the development of pupils' personality. However, questions to support the creativity and critical thinking of pupils are also relevant and can be formulated as follows: What do you think? How do you see it? What's your reason? Where can we find a similar example? What do you think will happen? In the context of the above mentioned we can recognize two types of questions, closed questions and open questions. Closed questions are problem-oriented and have only one correct answer and require lower cognitive processes. These questions are often reproductive and means that the pupil remembers the subject matter they have in mind. This type of question is focused on searching for information from text, images or other didactic materials. Open questions require higher cognitive processes, such as comparison, deduction, expression of opinion or evaluation. This type of question is problematic issues that usually do not have the only one correct answer.

During the dialogue, Civics teacher can direct the interaction between pupils as follows:
- after the pupil's answer, the teacher asks the other pupils to comment and then gives his own opinion and assessment,
- Civics teacher together with the pupils are looking for other alternative answers and the teacher motivates pupils to new possibilities to solve the problem,
- Civics teacher motivates pupils to ask questions each other,
- frequent using of the method "think - discuss with a classmate - say the whole class",
- Civics teacher provides pupils enough time to answer the given question or create their own questions, does not formulate answers instead of pupils and is patient [9].

The dialogue may include reproductive, application, productive, evaluation, analytical, creative and organizational questions. It could be concluded that this type of communication requires the reproduction of facts, data and lessons and is based on the relationship of theory and practice. Moreover, communication requires creativity, interpretation, imagination, analysis and judgment.

CONCLUSION

One of the most important parts of the theoretical and didactic preparation of the future Civics teacher in the Slovak Republic is the preparation, concentrated not only on professional knowledge but also on the development of pedagogical skills, oriented to the realization of effective teaching, involving leading pupils to creativity and critical thinking.

Based on the examination of the current situation in the Slovak educational system, it could be concluded that dialogue is a very significant method using in problem-based

learning. The purpose of the dialogue is to find the right answer and to solve specific situations that require creativity and searching for connections in selected issues. Answers to the correctly formulated questions in dialogues require pupils' thinking, analysis and deducing. In the answers, the pupil learns to distinguish facts from assumptions, arguments from conclusions, important information from less important. Pupils' answers require a creative approach and creative problem-solving, so the answer of each pupil is unique and original.

In conclusion, it can be stated that dialogue is a relatively difficult method of communication and is focused on the conscious effort of human to communicate with other people [7]. Dialogue has an irreplaceable place in the educational process in the subject of Civics. Civics teacher contributes to the shaping of the pupil's personality, the learning of communication and supporting creativity and critical thinking by using the method of dialogue in the subject of Civics.

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DEVELOPMENT OF SOFT SKILLS AND SUPPORT OF CRITICAL THINKING BY PROJECT TEACHING

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ABSTRACT

One of the most important challenges today is to support student´s critical thinking and soft skills development. Many researches point to a deficit of these skills among graduates. The article is focused on the presentation of the research of the impact of the selected teaching method, namely project teaching (project-based learning), on the student access, development of their soft skills and ability of critical thinking. The article compares the results of final testing. In the first part, the focus is on a brief presentation of the method, followed by a general definition of the tools of this form of teaching and also a presentation of a specific tool in the form of a selected computer program. Then there are commented results of a survey in the form of comparison of two groups of students taught by different teaching methods. Six factors are compared. The first factor is activity in the classroom, then attendance, interaction with teacher, interaction in the team, as well as teamwork and the development of soft skills and critical thinking. In conclusion, there is a proposal for possible use of the teaching method. The aim of the paper is to present the potential of the teaching method and its contribution to the future professional life of students based on the research of the effect of introducing the innovation of the subject in the form of project teaching (project-based learning).

Keywords: Soft skills, Multidisciplinary, Critical thinking, Project teaching, Frontal teaching

INTRODUCTION

Many top executives of major companies all over the world complain that young graduates do not have some knowledge, abilities and skills for doing business. Soft skills such as communication, especially the ability to listen, substantively argue, have compliance with verbal and non-verbal communication, the ability to apply management knowledge, the ability to agree and negotiate, leadership skills such as visionary, enterpreneurial spirit such as creative thinking and ability to see opportunity in threat, also readiness for teamwork. Project teaching can be one way to address these gaps. Project- based activities are usually long-term, interdisciplinary and student-concentrated. Students have to organize their own work and manage their own time in the project-based classroom. This way of teaching could lead to development of necessary skills for 21st century business.

PROJECT TEACHING

In general, project teaching (project-based learning) can be characterized as a teaching method in which a more complex problem is solved for a certain, usually longer period of time, whether in the form of a question asked and the search for an answer to it, or in the form of a call. It is important that the project reflects the learning objectives of the subject. Project architecture includes several areas:

- The emergence and development of key knowledge in relation to the studied subject
  Acquiring the necessary skills, especially the ability of critical thinking, healthy and substantive communication, including the ability to argue, the ability to work in a team and the ability of general cooperation to achieve synergic effect and last but not least the ability to manage and self-manage
- The accent on the meaningfulness of the project, resp. the applicability of the solution found
- An environment for finding resources and data mining, information and their subsequent relevance evaluation
- Maximize compliance with the real environment
- The position of the teacher in the role of coach, resp. mentor
- Transfer of a trigger initiative from a teacher to a team of students
- Incorporating system science elements into decision making and solutions, especially analogy and modeling
- Solution progress evaluation and strong feedback element

The main reason for applying the above form of teaching is a more effective impact through an activating approach to acquiring knowledge and skills. A properly prepared project is a tool for developing the individual's skills needed for his / her future career, but especially in his / her professional life. It is also indispensable to make the teaching of students more attractive, to raise interest and to refrain from a minority but existing view that teaching the subject is generally boring or lacks meaningfulness. Researches show that the project teaching in general is a deeper understanding of the issue, the ability to retain the acquired knowledge in memory, a prerequisite for the interaction of knowledge and the creation of new knowledge, ie easier to acquire the ability to apply knowledge and combine it with knowledge from other subjects (Bauer, 2017, Project Tutorial, 2017 [1]). The development of presentation skills, the ability to formulate ideas and art to argue in presenting the project's results, and / or discussing how to deal with partial progress steps, are also significant. Thus, project teaching brings the real world closer, specifies the subject, and can help overcome the excessive abstractness of the issue (Dömischová, 2011 [5], Coffey, 2017 [3], Slavík et al., 2012 [12], Buck Institute of Education, 2017 [2]).

A necessary prerequisite is technological equipment, which is filled with another of the functions of the educational process, namely working with information systems and technologies

COMPUTER PROGRAM AS A TOOL OF PROJECT TEACHING

In addition to the classical approach to project teaching in the form of a project directly developed by a teacher, another option is to use a computer program on a commercial

basis. At present, the offer of such instruments can be considered satisfactory. The advantage of the computer program is the wider scope within the solved problem, the possibility of significant approximation to the real environment by including not only the system itself, eg. the enterprise, but also the immediate and general environment of the system, while both the interactions between the system and the interaction occur elements of the system with elements of its surroundings. The bonus is to evaluate real-time impacts of individual student decisions in a relatively broad context (Deighan et al., 2016 [4]). From a certain point of view, the use of computer simulation in teaching can be considered an element of the teaching method of didactic play, but this method is more used in teaching at lower levels of the education system. The program presented below serves more as a tool for fulfilling a given task within a set time frame and is more closely related to the project as it is perceived in practice during project management.
Educational institutions may, after deciding to include this method in the portfolio of their teaching methods, choose a program that focuses on a particular discipline, resp. industry or trade, including automotive.

TOOL FOR THE SUBJECT STRATEGIC MARKETING MANAGEMENT

The main aim of the innovation of the subject Strategic Marketing Management was to enrich the teaching methods portfolio and to enrich the study, to verify whether the method can lead to more effective absorption of knowledge and ability to apply it, and last but not least, whether the method will help to achieve defined educational goals:

- Obtaining current theoretical knowledge in the area of strategic marketing management
- Perception of the importance of individual elements of the marketing mix and identification of the links between them and links to other areas of business management in the strategic, tactical and operational levels
- Implementation of theoretical knowledge into managerial decision making
- Evaluation of applied marketing strategy and environmental change reagent

For this purpose, the product StratSim Management of the American company Interpretive was chosen, which is directly recommended as a teaching aid for the subject Strategic Marketing Management. Key decision areas include strategic management, product development, processes and operations, comprehensive marketing, financial management, and accounting. Given that the simulation is designed for the advanced level of knowledge, it assumes the completion of basic courses in management, marketing, business economics, accounting, microeconomics and macroeconomics. It follows that the product is suitable for teaching in the master's degree. The computer program itself is designed to simulate a standard market environment with the choice of the industry in which the entire project takes place. Although some simplification is necessary, it can be said that the creators of the software have included essential components of the market so that they are as close as possible to the real state. There are also basic macroeconomic data, including the outlook for the next period, insight into the economic situation of a competing company, as it can be obtained in common practice through open sources.

In this way, students are faced with the task of analyzing data and information both from the immediate surroundings of their business and from the general community,

and thus to form the basis for further decision-making. The need for careful analysis and decision making is the first step in transforming theoretical knowledge into the usual management activity. At this stage there is an impulse, respectively the need to involve the knowledge and skills acquired in other subjects and the need to apply subjects that are more demanding for some students because of their abstractness or difficulty (macroeconomics, mathematics, etc.). There is room for valuation of previously acquired knowledge that has not yet been applied. The explicit goal is to increase (at least keep) the market share, the value of the stock, the rating, the value of the perception of the enterprise by the customers, the profitability indicators, to maintain an adequate structure of liabilities, respectively debt ratio, expand product portfolio, upgrade existing products.

The next step is to analyze the internal environment of the company, with the knowledge of other subject involved, especially marketing, business science and financial management, microeconomics, statistics, management. From the point of view of marketing, the simulation assumes basic knowledge in the field and is conceived to the level of creation of strategic plans, i.e. the longer term horizon (Deighan et al., 2016 [4], Jakubíková, 2013 [6], Kotler, Keller, 2013 [8]). By doing so, it teaches students not only to decide on the operational level and shows them the importance of perceiving the impacts of their decisions.

Then the individual teams of students elaborate the strategic outlook, respectively. the strategic plan of its virtual enterprise, with its products in a relatively highly competitive environment and at the same time respond to the owners, respectively investors. There is a virtual management of companies, which in the basic concept does not differ from reality. During the simulation, there are common phenomena such as change in customer preferences, economic stagnation, fluctuations in fuel prices, growth in labor costs, increased inflation, etc. These anomalies are then incorporated into mid-term and short-term plans and work with the product portfolio, modifying the pricing strategy. , expand or narrow down and change the structure of their distribution networks and, last but not least, regulate their marketing communications. Everything is done after a thorough analysis and everything is in context. In order to improve efficiency, it is appropriate to divide the professional competencies corresponding to the individual areas of business management among the individual team members. In this case, the project takes the form of a ten-year strategic business management with well-defined objectives and a framework scheme.

The main bonus for teaching subject Strategic Marketing Management is the need to work with all marketing mix components throughout the simulation. Students analyze the market, set the vision, mission and goals of their business, look for market gaps, create plans, analyze individual customer segments, target them, work intensively on concepts such as demand and supply, comprehensively manage product portfolio product life cycle (Jakubíková, 2013 [6], Kotler, Keller, 2013 [8], Krajcik, Blumenfeld, 2017 [9]). They set and modify the price strategy for individual car models according to specific situational analyzes. They manage their distribution channels, negotiate and conclude contracts with individual distributors. They decide on the structure of the communication mix. All of this is done in accordance with the company's financial and technological capabilities and with the results of situational analyzes.

The necessity to work with large amounts of data, their collection, sorting, analysis and evaluation in situational context clearly leads to the development of systemic thinking and also to the development of critical thinking of students.

The role of the teacher is different in the case of project teaching. Necessary preparation is needed before the project is started (Dömischová, 2011 [5], Coffey 2017 [3], Deighan et al., 2016 [4]). The following is a standard block of lectures by the method of frontal teaching enriched by discussion so that students get an adequate theoretical insight into the subject matter. Then the computer program is introduced. Students learn to control the various functionalities to work in the program and start their own work. At this point, the teacher turns into a coach, whose task is to lead students through a well-chosen question to answer questions on how to carry out a situational analysis of their company, how to evaluate the acquired data, how to integrate them into strategic plans and how to refine them into operations. At the same time, the teacher is also a moderator and mediator of possible contradictions within individual student teams. He is committed to developing the ability to work in a team, gaining communication skills, including the ability to reasonably argue and be able to defend his opinion. In addition, care should be taken to ensure that no team is given a "free-rider" in any team, ie all students are involved. It is clear from the above that project teaching places higher demands on the teacher (Kratochvílová, 2006 [10]), but the result is a deeper understanding of the subject being taught, especially from the application perspective, and an impulse for interaction of knowledge across subjects

The benefits for students can be seen from several levels. It can hardly be said which aspect is more important, whether it is the increased interest of students and their more active involvement in teaching on the one hand, or the creation of an environment for the synthesis of the acquired knowledge from various subjects, or the possibility, though only virtual, of to drive a large business for several weeks. The initial empirical evidence of the effectiveness of this teaching method can be considered the results of the evaluation of knowledge in the framework of testing, participation in teaching, or the active approach of students through comparison with the classical method of teaching.

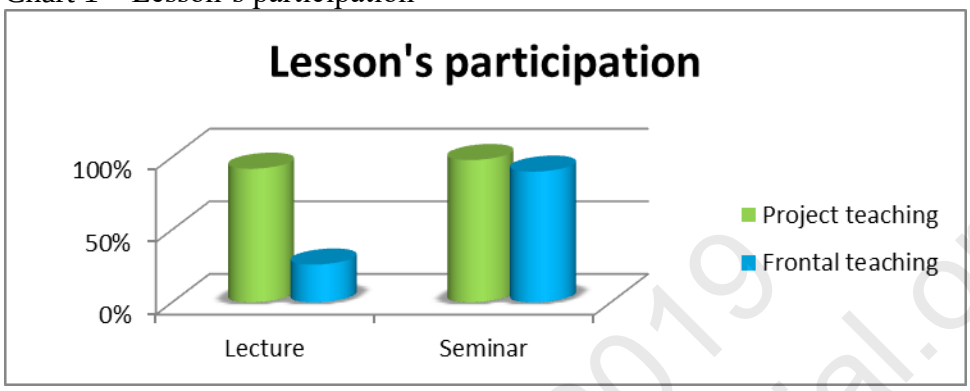
METHODOLOGY AND RESEARCH RESULTS

In connection with the results of the pilot research, it was necessary to verify whether the project teaching of the selected subject can be considered as a factor that actually leads to an increase in the effectiveness of teaching, respectively to meet the learning objectives and spontaneous student activity. The research was carried out using the method of comparative analysis, the questionnaire inquiry method and the observation method. Seven groups of students in a total of 156 were taught in the classical form, respectively the frontal teaching method and seven 171 student solving projects within one academic year. The monitored factors include, in particular, participation in teaching, active interaction, the necessity of involving other subjects' knowledge, teamwork, the development of so-called soft competencies and critical thinking, the results of final examination. The values of individual indicators are commented in the following text and graphically displayed.

The first monitored factor is a two-dimensional comparison of participation in teaching, where the first dimension is voluntary and the second is a teaching method. In the case

of lectures, the participation of students is not compulsory, however, if the project form of instruction has been applied, the average attendance at this voluntary activity is 92 %, as opposed to the frontal teaching method with an average of 26 %. Exercise is conceived as a mandatory activity, so the values differ negligibly, 98 % of students took part in the project form on average and 90 % in the classical form. These results are indicative of the project's form of teaching, as there has been an increase in interest in voluntary activity. Attendance was recorded at both the exercises and the lectures in attendance sheets. The results are shown in Chart 1.

Chart 1 – Lesson's participation



Source: own processing

Another factor is the development of communication skills. Students in project teaching declare in 91 % the development of communication skills, especially in the area of professional discussion, the ability to argue objectively, respect the communication partner, the art of listening. In the case of classical teaching, 37 % of students apply for the development of communication skills, while the development of presentation skills in connection with the presentation of the semester assignment dominates. The development of communication skills was identified through a questionnaire. The output is shown in Chart 2.

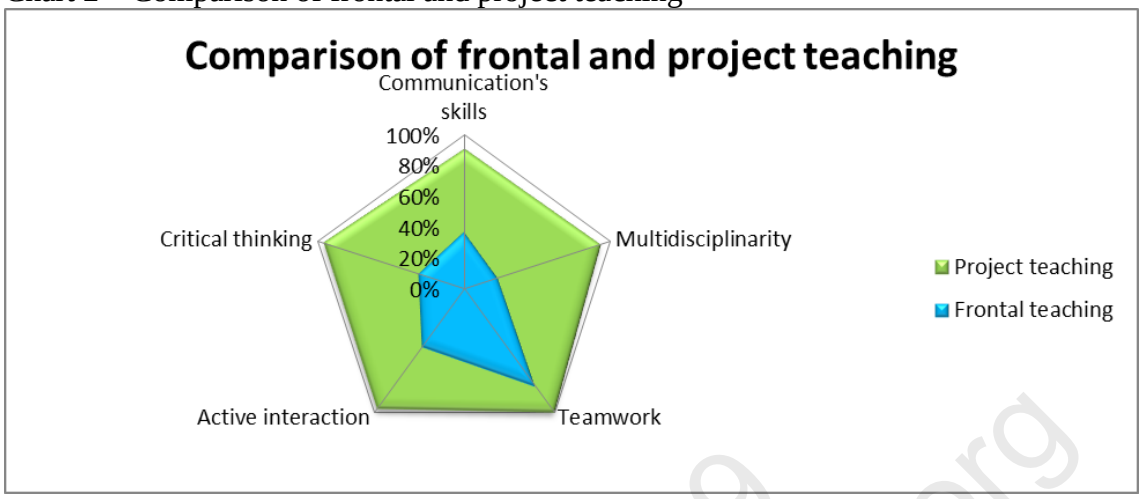
Attention was also paid to the need to integrate knowledge from other subjects (multidisciplinary). In the questionnaire, students in the project declare that they have been forced to use at least four subjects in 93 %, compared to only 23 % of students in classical teaching (see Chart 2).

The development of teamwork is confirmed during the interview, 99 % in the case of project teaching. Although in the classroom the seminar tasks were processed in similarly large groups of students, only 78 % of students declare the development of teamwork. Similar situation is in the field of development of critical thinking. In the case of project teaching 96 % students declare, that processing of data analysis leads to necessity of critical thinking. In the class with frontal teaching method there are only 31 % students targeted with necessity of critical thinking (see Chart 2).

Subsequently, the active interaction of students with the teacher was compared. This factor was determined by the observation method followed by immediate entry in the recording sheet. Here the difference is also quite significant. In connection with the project, it is possible to state 97 % activity of all students, consisting in asking questions to the teacher actively, actively consulting partial decision-making steps, etc. In the

classroom lessons, there was an initial activity in the form of questioning, discussion, etc. by students in less than half of the cases, namely in 46 %, as shown in Chart 2.

Chart 2 – Comparison of frontal and project teaching



Source: own processing

An important item in the comparison of the above mentioned forms of teaching is the exam success shown in the following Chart 3:

Chart 3 – Exam success

Pass the final exam	Project teaching	Frontal teaching
on the 1st attempt	97 %	76 %
on the 2nd attempt	100 %	78 %
on the 3rd attempt	-	100 %

Source: own processing

The data shows a difference in the success of the final exam attestation focused on the knowledge of selected subject. When testing students who completed all semester requirements and were admitted to the exam, the success rate of those who completed the project was 97 % and the second attempt was already 100 % mastered. On the other hand, students in the classical form were successfully evaluated in the first attempt in 76 %, in the second in 78 % and only in the third attempt was a 100 % positive result. It can therefore be concluded that intensive work with theoretical knowledge within the project realization can lead to a deeper understanding and experience of this knowledge, which the student can easily recall in the final evaluation.

CONCLUSION

The research following the pilot research showed that project teaching leads to better results of the course, deeper understanding of the issue in a broader context and the acquisition of some so-called soft competencies in case of project teaching application. Defined learning objectives can be considered achievable. The teaching method has the ambition to prepare students for their future work more comprehensively.

The paper focuses on the presentation of the primary impact assessment of the chosen teaching method, namely project based learning, students' attitudes, the development of their competencies and the results of the final evaluation. In the first part, attention is focused on the brief presentation of the project method, followed firstly by the general definition of the tools of this form of teaching and the presentation of a specific aid in the form of a selected computer program. Then, the results of the research are commented on in the form of comparison of two groups of students taught by different teaching methods. In conclusion, the outline of the follow-up research is summarized and the contribution of project teaching for the future professional life of students is outlined.

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DIGITALIZATION IN HIGHER EDUCATION: OPPORTUNITIES AND RISKS

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ABSTRACT

Digitalization is rapidly evolving worldwide and today information exchange and electronic products have become an important part of life. Transformations caused by digitalization are seen as an economic, technological and social development phenomenon. Since higher education plays a key role in preparing future generations, it is essential to enhance the opportunities of higher education institutions offered by digitalization both in internal communication and marketing, thus improving their day-to-day work and ability to offer such study environment that meets young generation's needs. The object of the current research is development of the digitization process in the context of higher education, but the subject of the research - use of digitalization possibilities in internal and communication and marketing of higher education institutions. In authors' opinion, digitalization causes new challenges for higher education institutions that need to be identified and managed in a timely manner. The study used monographic method, secondary data analysis, secondary information source analysis, document research and in-depth expert interviews to identify opportunities and risks caused by digitalization processes in higher education institutions' internal communication and marketing.

Keywords: digital environment, e-studies, digital marketing, content marketing.

INTRODUCTION

The study of literature on economic theory shows that since the 18th century three industrial revolutions have taken place in the world. Each of these revolutions has changed the structure of national economies and hence the society as a whole. Each of them developed technologies, political systems and social institutes. Moreover, today the world is at the beginning of the fourth industrial revolution, as new technologies are emerging in every sector, the adoption of them is becoming a major competitive factor, as well as significant improvements affect not only people's lives and businesses, but are also boosting the growth of global economics [1].

Since digitalisation is rapidly evolving worldwide, information exchange and electronic products have become an important part of our life as e-services provided by companies, and public authorities are constantly evolving. Therefore, all these processes are seen as an economic, technological and social development phenomenon.

Higher education plays a key role in preparing future generations for exploiting the opportunities of the digital economy. Accordingly, it is essential that higher education institutions actively use the opportunities offered by digitalisation, both in their internal communication and marketing, thus improving their day-to-day work and ability to offer such study process that complies with nowadays students' needs. Many pedagogical experts argue that HEIs should switch to "4 Cs" (critical thinking, communication, collaboration and creativity) by downplaying technical skills and enhance ability to deal with new things, learn new things and to preserve their mental balance in unfamiliar situations. In order to keep up with the world of 2050, today's students will need to have skills to adopt new ideas and products by reinventing themselves again and again [2]. Therefore, the objective of higher education is already today encouraging students pro-actively use digital challenges in their study process.

Accordingly, the aim of the research is to the assess digitalization of higher education institutions on the example Latvia University of Life Sciences and Technologies (hereinafter referred to as LLU). The research tasks for the achievement of the defined aim are: 1) to analyse internal and external digital communication at HEI based on the case study of LLU; 2) to identify HEIs' potential risks, challenges and further development priorities related with digitalization processes.

Due to the limitation of the paper's length and taking into account the problem of the availability of specific public universities' internal data, the research is focused on the in-depth assessment of digitization processes in one of largest Latvia public universities – Latvia University of Life Sciences and Technologies (LLU).

The research methods exploited in this study are secondary data analysis, which used analysis and synthesis methods to process information aggregated by the authors within literature studies and primary data analysis, which were obtained in scope of the in-depth expert interviews conducted by the author.

PROVIDING OF INTERNAL DIGITAL COMMUNICATION AND DIGITAL MARKETING AT HIGHER EDUCATION INSTITUTIONS

Digitization offers to higher education institutions (HEI) a wide range of opportunities that help them to improve their performance, organize information systems, improve the study environment and remotely communicate with students, faculty and staff as well as implement marketing activities through the websites and social media. The introduction of e-studies and other remote services significantly facilitates the administration processes and enables HEI to manage these processes in automatized mode. Moreover, library collections and databases are also being digitized, thus students are able to find information for almost any research specifics.

The intranet is an internal communication and work platform that allows data to be transmitted quickly and cheaply in digital form. It includes elements that ensure communication and information exchange [3]. Intranet is characterized by information, communication and transactions. At HEIs, intranet provides all kinds of announcements, work plans, data, communication between employees, exchange of view-points, and various transactions – exchange of study documentation, submission of applications, registrations.

External communication of HEIs rather relates to their marketing activities. In the digital environment, HEIs communicate with their audience by their activities in their official websites and social networking profiles. Marketing communication is a means of direct or indirect informing, persuading and reminding the target audience of products and services, brands, marketing activities to influence their behaviour [4]. The authors of the paper consider that in the 21st century, the public is tired of self-branding news, thus the brands need to humanize showing their care for customers, their passion for good things and adaption to their customers' behaviour.

At Latvia University of Life Sciences and Technologies (LLU), internal and external communication processes are provided by Communication and Marketing Centre (KMC), which aims to implement and develop communication and marketing policy in internal and external communication, to shape and promote the image of LLU according to its mission and objectives, to strengthen university's cooperation with mass media, entrepreneurs, municipalities and other target groups [5]. External communication focuses on potential students (pupils), representatives of educational institutions, graduates, entrepreneurs, representatives of municipalities and institutions, society and media.

In scope of the current research, the author conducted in-depth interviews with four experts - two of them were internal HEI experts (represented by two departments of LLU) and two were external technology experts (represented by other industries related with IT). A specialist survey is a special research method that is not anonymous and focuses on clarifying the problem in collaboration with the respondent. An important point is the selection of experts; their competence must be taken into account and the expert should be given the opportunity to express his/her opinion and objections freely. The topic of the survey and the tasks of the research are strictly formulated, and the importance of the personal views of the experts is emphasized by research organizers [6].

The first part of the interview questions dealt with the evaluation and future forecasts related with HEI digitalization perspectives. Hereby, all internal and external experts were absolutely convinced that the whole education system as such moves from in-class learning to distance learning. The experts suggested that after five or six years in Latvia 80% of all studies will be distance learning studies. It is an opportunity for mothers with children, international students and students with limited opportunities / disabilities to obtain education and work remotely afterwards. Today the professions are too radically changing, thus future employees need to regularly learn new skills. Accordingly, today it is taken for granted that everyone has two or three diplomas in different specialties.

External experts believe that teachers are obliged to use e-studies system and use digital materials in the study process. In their opinion, neither professor's age nor specific other teaching methods can be an excuse for not using digital environment. In their opinion, e-learning system has a great advantage – in the communication process between teacher and student it keeps all their correspondence, all works are stored in one place, so the problem that sending e-mail all of a sudden is lost or the addressee does not receive it cannot be an excuse in nowadays as technology helps fully to control this process. And, although there might be some psychological problem in such virtual communication, the experienced trainers can help teachers to adapt the latest technology and thus be able to work according to the digital environment rules. External experts

consider that HEIs have to elaborate uniform rules for both students and teachers to use digital study environment efficiently. The experts are convinced that if HEI's management is aware of the order of the system, then they can improve the productivity of the teachers and study process methodologists, as well as can improve communication with the students, which all in all affects the image and prestige of the HEI.

Internal experts are more flexible in their opinion emphasizing that there is already a positive trend showing that e-studies are used more actively at LLU. However, it is still important to respect a human factor that there are such teachers who share materials in digital environment and the ones who don't do it, as at university academic freedom should always be respected and the use of the system is voluntary - it is not obligatory that everyone should use it. One of internal experts points out that there is no need to impose the use of digital tools, because the preparation of the digital materials also takes extra time. Finally, the teaching methods of each teacher differ and perhaps someone has nothing to place in digital environment.

Nevertheless, all the experts believe that the ideal option for all HEI's communication and file sharing between students and teachers should be organized through the e-learning system instead of e-mails. In the EU HEIs, since the adoption of the General Data Protection Regulation (GDPR) [7], one list with all students' marks cannot be sent to all students' e-mails, while in e-studies, each student only sees his or her own mark. The experts also consider that in terms of safety and risks related with e-learning, currently every file inserted in the system is the responsibility of the teaching staff. However, it is ensured that unauthorized users cannot reach these files. Once the course is over, it is no longer possible for students or faculty to see it, so there is no need for teachers to worry about using any of their materials, history or achievements.

On the questions connected with evaluation of HEI's digital marketing activities, all the experts emphasized that HEIs should communicate with its target audience on social networks, as today the young generation actively uses them. There must be at least Facebook.com and Instagram.com; however, also Linkedin.com popularity is increasing because it is a link to alumni or graduates, and HEIs have three client groups: potential students, existing students and graduates. It is very important not to lose contact with former students. In all these social network profiles, practically the same information is published, with a different message for each target audience. The experts consider that it is also highly important to involve teachers in the creation of social networks and website content, as well as reflecting their participation in activities and conferences, because it helps the HEI to promote itself. This kind of reporting shows that HEI all the time is involved in activities, instead of reporting just static information on graduation, study programs etc. Nowadays, students are interested in what is happening in the institution, how teachers work and how they engage in communication or share the news.

Regarding future challenges of HEIs digital communication, the experts also pointed out that it would be necessary to work more with offers such as Google.com for digital tools that perform website optimization, analysis, search engine optimization (SEO) to reach a broader and more accurate target audience. Moreover, already today the capacity of human resources in creation of the website content as well as in improving the visual design of a website is approaching to its limit, which sooner or later might be a problem

in the era of booming digital marketing. In this respect, the authors of the paper agree with Ryan (2017) [8] that the "4Ps" of marketing (product, price, place, promotion) today due to digital marketing boom have been shifted to "10P" (see below) which already today refers to the marketing of higher education services.

1. Performance – how is HEI's activity measured against its objectives and other HEI?
2. Presence – is HEI available online, mobile, search engines, social media?
3. Pleasure – how students and teachers rate their user experience?
4. Proximity – is HEI digital environment on users' hand 24/7?
5. Pertinent – is HEI marketing and outreach relevant to users' needs?
6. Process – how is HEI's digital environment working technically (actual process of processing information, security etc.)?
7. Personal – does HEI use users' customization/personalization tools?
8. Preferences – do HEI's digital environment users benefit of university-student-teacher relationships?
9. Profit – does HEI use marketing metrics/return on investment?
10. People – does HEI's digital environment still respect human factor?

Accordingly, HEIs have to have a clear answer or at least vision how to deal with the "10Ps" of digital marketing.

The in-depth interviews with the experts helped the authors also to identify the current HEI risks that are related with the use of digital environment. In experts' opinion, particular attention should be paid to the protection of personal data, which imposes high demands on HEIs to organize their internal systems, which store not only personal data of students and employees, but also bank accounts. It is important to daily inspect all gaps existing in cyber security and provide information systems against intrusions. It is HEI's responsibility to explain their students the risks of transferring files and using untested media.

One of external experts draws special attention to the risks of physical or legal personal data leakage or intrusion and warns of a risk of data distortion. Therefore, each HEI's department should look for ways to provide backup servers and safe IP address. All experts consider that security and innovation are the future challenges of technology development, thus products need to be innovative and easy to use, because nowadays people do not want to spend long time reading instructions - they want to use technology right away.

EVALUATIN OF LATVIA PUBLIC UNIVERSITIES' DIGITAL PERFORMANCE INDICATORS

To evaluate the overall digital performance of Latvia public universities according to *Website Grader* (website.grader.com) methodology, the author inspected official websites of Latvia University of Life Sciences and Technologies (LLU), the University of Latvia (LU), the University of Daugavpils (DU), Liepaja University (LiepU), Riga Technical University (RTU) and Riga Stradins University (RSU).

Table 1. **Evaluation of official websites according to Website Grader**

Parameters	**DU**	**LLU**	**LU**	**LIEPU**	**RSU**	**RTU**
Performance (30)	12	22	19	25	14	12
Mobile version (30)	30	30	30	30	30	30
SEO (30)	15	15	15	10	25	25
Security (10)	10	10	10	10	10	10
Total score(100)	**67**	**77**	**74**	**75**	**79**	**77**

Source: Tihankova, 2019 [9]

The website indicators show that Latvia universities' websites generally comply with students' needs and offer maximum security as well as mobile version. All the six public universities, in addition to state language (Latvian) offer the content in English, which is important not only for attracting of international students, but also for helping them to fully integrate in the study process and communication with others. However, some digital opportunities are not fully utilized yet, e.g. website technical parameters need to be improved as well as universities' website loading speed and google-oriented use of headlines and keywords.

CONCLUSIONS

1. Modern technologies offer higher education institutions the opportunity to organize and improve their study process in the digital environment, which fosters internal and external communication processes, thus providing opportunities for increasing students' satisfaction and improvement of HEI's image.
2. There are two disruptive factors in HEIs' digitization process - on the one hand, students who demand that the whole study process and communication is available in the digital environment, and on the other hand, overloaded teachers with their own preferences of teaching methods, personal habits, digital skills, willingness to use technology and confidence that digital communication requires extra time and work.
3. At LLU, e-studies are actively used by academic staff and students. Most of teachers appreciate opportunities that enable them to transfer study materials and remotely involve their students in unusual, entertaining activities.
4. Despite limited capability of human resources with advanced digital skills, LLU has significant advantages and good opportunities for the implementation of digitization and cutting-edge technologies, as the university has its Information and Technology Faculty with students who are interested, skilled and in scope of their field practice can be involved to implement original ideas and opportunities offered by digitalisation, thus ensuring that these ideas are adopted faster and more successfully.
5. The risks that arise in the digital environment are related to data security, therefore it is necessary to take security measures against system hacking in order to retain student and employee personal data, bank accounts and other personal information.

6. In universities, a large number of processes can be fully digitialized, and automated systems can replace redundant office work. Services such as electronic application for studies are already available, which can be complemented by the introduction and use of automatic payment systems and electronic signatures.

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EFFECTS OF BODY-WEIGHT EXERCISES UPON THE PHYSICAL FITNESS AT UNIVERSITY VOLLEYBALL PLAYERS

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ABSTRACT

This paper aimed to determine the efficiency of Body-weight exercises in the physical training of the students who practice volleyball. The experiment was conducted during the academic year 2017-2018, for 28 weeks, one lesson per week. The working sample consisted of 40 students, divided into two groups. Both groups took similarly volleyball lessons, acquiring their specific skills according to the UMF Carol Davila Volleyball Program. The difference consisted in the strength training approach. The Control Group performed a program of exercises using fitness machines and free weights. The Experimental Group took a specially designed Body-weight Strength Training program, using Calistenics and TRX bands. Both groups were initially and finally tested on a number of 9 Physical Fitness parameters.

The findings showed statistically significant differences at the Final Test in favor of the Experiment Group at the following parameters: Arms and Upper Torso Strength (Push-ups), Balance (Flamingo), Coordination (Matorin), Power-Coordination Complex (Burpee). Statistically significant differences in favor of the Control Group was reported for Lumbar Muscle Strength (Trunk extension). For Abdominal Muscle Strength (Sit-ups), Flexibility (Sit and Reach), Leg Power (Standing Long Jump) and Functional Test (Ruffier), both groups improved at the Final Test, but no statistically significant differences appeared. Considering the findings, we came to the conclusion that the efficiency of Body-weight exercises in optimizing various aspects of the Motor Potential of the young volleyball players is considerable. Therefore we consider that a proper designed Body-weight Strength Training should definitely be a part of each volleyball class in Universities

Keywords: Body-weight Exercises, Physical Fitness, University Volleyball

1. INTRODUCTION

The issue of physical fitness is one of great actuality in our day's world. Contemporary man lives in a continuously changing society. The transformations broth by the increasingly accelerated economic and social life are meant to ease the work and to increase the quality of people`s life. Nevertheless, all the facilities of modernity result in diminishing the amount of physical challenge in both professional and every day's life. As a result, people tend to adopt an increasingly sedentary lifestyle, exposing themselves to a whole range of health risks. The importance of physical exercises in maintaining a proper health and in raising the quality of life has been underlined by many authors and health organizations. In 2010 World Health Organization (WHO) [1] placed physical inactivity in the fourth place as risk factor for global mortality (responsible for 6% of

deaths globally), after high blood pressure (with 13% of deaths), tobacco use (9%) and high blood glucose (6%). In this conditions, the need for physical exercise becomes no longer just a matter of personal choice, but more and more a public health issue. The European Commission [2] reminds that World Health Organization (WHO) recommends a minimum of 30 minutes of moderate physical activity per day for adults and 60 minutes for children. The European Commission states that "public authorities and private organizations in Member States should all contribute to reaching this objective" and "encourages Member States to examine how they promote active life through national education and training systems…"

In this context, the importance of the Physical Education lessons in universities also results increasingly higher, from our point of view even higher than in high school. The student finds himself in a stage of life which creates the base of most habits of the adulthood. His life is now far more challenging than in high-school, both in academic demands and regarding the complexity of social relations. This challenges, combined with the detachment from childhood and teenage, might led to a smaller propensity towards physical exercise. That`s why the Physical Education lessons in university are less formal and rigid and seeks to attract the student through classes based on practicing a sport of his choice.

Our experience showed that volleyball is one of the most popular sports among the medical students. Volleyball is a complex sport and places a large number of demands on the technical and physical skills of a player. In order to be played effectively volleyball requires a lot of physical qualities, like flexibility, coordination, balance, upper and lower body strength and speed [3]. Gonzales et al. (2011) [4] says that in modern volleyball players need to have high indices of speed, strength, coordination, agility, and balance. Scates, Al., Linn, M. (2013) [5] shows that at top level but not only, when the technical component stays in balance, the motor qualities of the players are the main factors that led to victory.

In volleyball classes in university Physical Education, the physical training is often neglected, due to the previously mentioned need to keep the attractiveness. Usually students are interested in simply playing the game, as much time as possible, so they tend to consider that physical training in volleyball classes simply wastes time. It`s a delicate task for the teacher to find the ways to teach the students about the necessity of strength training both for body`s benefit and for improving the efficiency of playing volleyball [6]. In volleyball Teams, at competing level, the strength training is usually addressed in Fitness Gyms, using machines, barbells and dumbbells. For the Physical Education classes, finding a way to resolve this matter right at the volleyball court, with minimum of equipment, will be ideal. That's why we considered appropriate to investigate the possibilities offered by bodyweight exercises in strength training for volleyball practitioners in Physical Education classes.

2. MATERIALS AND METHODS

2.1 **Purpose**: This paper aims to investigate the role that Bodyweight Exercises may play in the strength training of the students who practice volleyball.

2.2 **Premises**: We consider that Bodyweight Exercises have a huge potential that might be exploited in Physical Education Classes in Universities.

2.2 **Hypothesis**: We assumed that a well-designed Bodyweight Exercises Program may have a consistent effect upon the most important components of Physical Fitness for the students attending volleyball classes.

2.3 **Approach**: In order to evaluate the efficiency of Bodyweight exercises, we conceived a Bodyweight Fitness Program, based on Progressive Calisthenics and TRX Band exercises, that may be applied right on the Volleyball Gym.

2.4 **Participants**: The study was conducted in university year 2017-2018, between October 2017 - April 2018, on a sample of 40 female students from "Carol Davila" University of Medicine and Pharmacy.

2.5 **Method**: The subjects sample was randomly divided into two groups of 20 students. Both Groups attended a 30 minutes Strength Training routine, once a week, at the end of their Volleyball Class. The Control Group performed a Fitness Program using mainly fitness machines and free weights at the Fitness Gym. The Experiment Group used exclusively Bodyweight Exercises, combining Progressive Calisthenics, and TRX Band exercises. Initial and Final Testing were applied for a total of 9 parameters related to Physical Fitness.

2.5.1. **Tests**:

- ***Arms and Upper Body Strength*** (Push-ups), from incline position, hands resting on a 60 cm high support; we registered the number of correct repetitions in 30 seconds;
- ***Balance*** (Flamingo Test - modified), maintaining the balance for 60 seconds, standing on one foot, barefooted, with the other leg extended sideways. We recorded the number of imbalances resulting in touching the ground with free leg;
- ***Coordination*** (Matorin Test), consisting in a rotation jump, as large as possible, around the longitudinal axis of the body; the measurement was made in degrees, using a compass. Both sides (left/right) were registered and the average was made;
- ***Power-Coordination Complex*** (Burpee): from Squatting Support, feet together; T1 - Jumping in Facial Lying Support; T2 – Jumping back in Squatting Support; T3 – Vertical "X" Jump, spreading the legs and raising the arms up and to the side; T4 - Landing in Squatting Support. We recorded the maximum number of executions in 30 seconds;
- ***Lumbar Muscle Strength*** (Trunk extensions), from lying with the belly on a gym ball, with the feet against the wall, hands behind the head; we registered the number of correct repetitions in 30 seconds;
- ***Abdominal Muscle Strength*** (Sit-ups),from lying on the back with the knees bent, feet on the ground; we registered the number of correct repetitions in 30 seconds
- ***Flexibility*** (Sit-and-Reach Test), bending the trunk forward from sitting with strait legs, barefoot, at one end of the gymnastic bench, soles rested flat on the bench support; the measurement started from the end of the bench, 15 cm before the soles of the feet
- ***Leg`s Power*** (Standing Broad Jump).

- ***Functional Test*** (Ruffier) Ruffier Test, as a reflection of the functional efficiency of the cardio-vascular system. The test is consisting 30 squats in 45 seconds; the index value is calculated from formula (1):

$$RI = [(S1 + S2 + S3) - 200]/10 \quad (1),$$

where: S1 is the Heart Rate (HR) from the first sitting position, during the maximum relax; S2 - the HR after the squats; S3 - the HR during the second sitting part, after 1-minute calm down.

3. RESULTS AND DISCUSSIONS

The average data resulted after the experiment are described in Table 1.

Table 1. Average results at the Initial and Final Tests

Parameter	Test	Control Group	Experiment Group
Upper-Body Strength (Push-ups) (reps.)	Initial Test	14,65	15,1
	Final Test	16,25	17,5
Balance (Flamingo) (Imbalance nr.)	Initial Test	6,15	6,4
	Final Test	5,1	3,8
Power-Coordination (Burpee)(reps.)	Initial Test	10.05	10,2
	Final Test	11,25	12,05
Coordination (Matorin Test) (degrees)	Initial Test	316	324
	Final Test	326,5	341,25
Lumbar Strength (Trunk-Extens.)(reps.)	Initial Test	14,85	14,95
	Final Test	17,55	16,6
Abdominal Strength (Sit-ups) (reps.)	Initial Test	15,5	15
	Final Test	16,9	17,5
Flexibility (Sit-and-Reach Test) (cm.)	Initial Test	22.5	24,4
	Final Test	27,4	27,55
Leg`s Power (Standing Broad Jump) (cm)	Initial Test	158,95	161,3
	Final Test	161	164,45
Functional Test (Ruffier)	Initial Test	9,895	9,975
	Final Test	7,365	7,21

From the initial results it can be observed that the two experiment groups are relatively homogeneous regarding the investigated aspects of Physical Fitness. The difference between the average results of the two groups at Initial Test was lower than 1 unit for the majority of the tested parameters. Exceptions were found at Legs Power (Standing Long Jump) and Coordination (Matorin Test), but even for those tests, the difference was small.

At the final test, both Experimental and Control Groups showed improvement in their results for all the parameters. Table 2 presents the progress registered at the end of the experiment and also shows the difference of progress between groups at Final Test.

Table 2. Average progress and progress difference between groups registered at Final Test

* Absolute values (progress means less in those cases)

Looking at the results listed in Table 2 we can observe that the higher progress, in percent from the initial result, was registered for both groups at Balance and Functional Test (Ruffier). A group of three parameters follows, with rates of progress relatively close and situated between 10 and 20 %: Push-ups, Burpee and Trunk-Extension. Sit-ups and Sit-and-Reach show a bigger progress difference between the Experiment Group and the Control Group. The smaller progress was registered for Standing Long Jump and Matorin.

t-Test: Two-Sample Assuming Unequal Variances		
Final Test	*Balance*	*Balance*
	Control	Experiment
Mean	**5,1**	**3,8**
Variance	2,30	3,11
Observations	20	20
P(T<=t) two-tail	**0,017**	< 0,05
t Critical two-tail	2,026	

Considering at the difference between the progress percentages for Experimental and Control Group highlighted in Table 2, we can note that **Experimental Group** showed ***higher progress*** than Control Group, more or less consistent, at ***almost all the registered parameters*** (8 from 9). **Control Group** had ***bigger progress*** only for ***one parameter***: Lumbar Strength (Trunk Extension).

t-Test: Two-Sample Assuming Unequal Variances		
Final Test	*Matorin*	*Matorin*
	Control	Experiment
Mean	**326,5**	**341,25**
Variance	645	125
Observations	20	20
P(T<=t) two-tail	**0,025**	< 0,05
t Critical two-tail	2,055	

In order to be able to determine if the differences between the average results of the two groups at the Final Test are significant from a statistically point of view, we applied the **Student t Test.** The **Student t Test** revealed that he results registered at the Final Tests show **statistically significant differences** between the two groups **in favor of the Experiment Group** for the following parameters: ***Upper Body Strength*** *(Push-up Test*, Table 3) ***Power-Coordination Complex*** *(Burpee, Table 4),* ***Balance*** *(Flamingo Test*, Table 5*) and* ***Coordination*** *(Matorin Test, Table 6).*

Table 3. Student t Test for Push-ups Test

t-Test: Two-Sample Assuming Unequal Variances		
Final Test	*Push-ups*	*Push-ups*
	Control	Experiment
Mean	**16,25**	**17,5**
Variance	4,19	2,89
Observations	20	20
P(T<=t) two-tail	**0,042**	< 0,05
t Critical two-tail	2,026	

Table 4. Student t Test for Burpee Test

t-Test: Two-Sample Assuming Unequal Variances		
Final Test	*Burpee*	*Burpee*
	Control	Experiment
Mean	**11,25**	**12,05**
Variance	1,460	0,681
Observations	20	20
P(T<=t) two-tail	**0,019**	<0,05
t Critical two-tail	2,032	

Group	Para-meter	Push-ups	Balan-ce *	Burpee	Mato-rin	Trunk Ext.	Sit-ups	Sit-Reach	Stand. Jump	Ruffier *
Exper	Reps.	2,4	2,6	1,85	17,25	1,65	2,5	1,85	2,05	2,53
	%	**15,89**	**40,63**	**18,14**	**5,32**	**11,31**	**16,67**	**12,9**	**1,59**	**27,68**
Contr	Reps.	1,6	1,05	1,2	10,5	2,7	1,4	3,15	3,15	2,76
	%	**10,92**	**17,07**	**11,94**	**3,32**	**18,18**	**9,03**	**7,24**	**1,29**	**25,58**
Diff. (%) Exp-Control		**4,97**	**23,56**	**6,2**	**2**	**-6,87**	**7,64**	**5,66**	**0,3**	**2,1**

Table 5. Student t Test for Balance Test

Table 6. Student t Test for Matorin Test

Table 7. Student t Test for Trunk Extension

t-Test: Two-Sample Assuming Unequal Variances		
Final Test	*Trunk Ext.*	*Trunk Ext.*
	Control	Experiment
Mean	**5,1**	**3,8**
Variance	2,30	3,11
Observations	20	20
P(T<=t) two-tail	**0,017**	< 0,05
t Critical two-tail	2,026	

As we mentioned above, the only parameter where **Control Group** showed **higher progress** than Experiment Group was ***Trunk-Extension*** (Table 7), some-how expected, as long as the possibilities to address this area on the volleyball court are limited, compared to the Fitness Gym.

For the **other 4 parameters** (Abdominal Strength, Flexibility, Leg Power and Functional Test Ruffier) the progress difference at the Final Test was also in favour of the Experiment Group, but **not statistically significant**.

4. CONCLUSIONS

The results registered in the experiment and the statistical interpretation require the finding that, performing the designed Strength Exercise Programs, both Experiment and Control Group improved their physical capacities at all the studied parameters.

From the 9 Tests we considered relevant for the Physical Fitness of the students enrolled in the Volleyball Classes of the Physical Education Course, the Experiment Group registered better progress, in absolute terms, for 8 parameters and Control Group progressed more at 1 Parameter.

The t Test revealed that the Final results of the Experiment Group were statistically significant better than Control Group's for 4 parameters; Control Group showed better progress for 1 parameter, and for other 4 parameters there was no significant difference between the two groups.

Considering the findings, we can conclude that ***a well-designed Bodyweight Exercise Program may have a consistent effect upon the majority of the most important components of Physical Fitness.***
Therefore we strongly recommend the inclusion of Bodyweight exercises like Progressive Calisthenics and TRX Band Routines in the Physical Fitness Programs for University Volleyball Classes.

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ESTONIAN YOUTH WORKERS´ PROFESSIONAL GROWTH: WORK-LOAD AND TASKS´ FACTORS IN YOUTH WORK SPECIALISTS´OPINIONS

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ABSTRACT

The article dealt with aspects of the professional growth basic elements. The issue of the Estonian youth centers youth workers´ professionality has been relevant for many years, as employees often changed. Expectations for youth work (YW) as a promotion of non-formal education and supporting the development of young people are high. There is no research explained the issues related to the youth workers professional growth, including work-load and tasks´ factors. The theoretical framework of the research created Ruohotie, Tamm concepts of professional growth and Tims, Bakker job crafting model. The purpose of this research was brought to the light youth work specialists´ opinions about the work-load and tasks´ factors of the professional growth. For qualitative data collection individual semi-structured interviews were conducted with 33 Estonian youth work specialists in 2016-2017. The results showed that in six key-topics important opinions were received. Most attention should be given further to the choices of work tasks depending of youth workers education and worked time. Mostly were explained the high expectations to the youth workers´ self-initiative and creativity. Interviews revealed youth workers´ different commitment to everyday work, and it could have resulted from their quite different autonomy and lack of reflection skills. The study identified needs for professional mentoring, supervision and professional work-based learning. The needs for further clarification are: organizational elements as basics of youth workers´ professional growth and youth workers´ skills to cope with youth social problems.

Keywords: Estonia, work-load and tasks factors, professional growth, youth work, youth worker

INTRODUCTION

For a long time, there has been high employee turnover in Estonian youth centers. [11] [13] Youth worker is a person who performs different roles depending on the place, situation, target group and goal of youth work; who supports the personal development and learning of young people outside school, family and work, and creates the necessary conditions to achieve this. [8] Youth work based on non-formal (NFL) and informal learning, works outside formal education, is organized by young people, in cooperation with youth and youth workers. It is a learning process that is characterized by well-thought-out and well-informed actions, possibly formulated and identified learning outcomes. [5] [13] Dunne *et al*. noted, since the youth field has been highlighted at European Union level, and in its´ development, it is essential to recognize the importance of recognition for the quality of YW and its´ impact on research. [5] In the

youth field discourse there should be a widespread perception of YW as an educational sector and youth worker as a practitioner of NFL. [13]

YW is a long-term process of supporting young people or becoming young adults. The role of a youth worker is to be a mentor for young people. Possibilities for acquiring new knowledge and skills are provided by the workplace, free and hobby education and YW, as well as participation in the activities of civil society organizations or in the virtual space where you can study individually or with others. YW must to be reported to a wide range of stakeholders: young people, parents, teachers, local communities and the whole field of YW. [14]

The work of a youth worker remains hard as it is multi-functional, full of various activities, emotional and physical tension. The requirements to the youth worker´s professional level, activity and behaviour are high and very difficult to meet due to the pecularities of this profession. Digital information and communication technologies (ICT) have been the main channel for information, entertainment and communication for most people. Youth workers compete in their work to get attention and collaborate with information technology, social media, youth and their home technology tools. The purpose of this research was brought to the light youth work specialists´ opinions about the work-load and tasks factors of the professional growth. Youth workers´ work content and especially attitude to work, nature of work, self-initiative and creativity emerged in a qualitative study. The following three questions form the basis for the research: which characterizes the youth workers´ work-load and related issues? What is meaningful work contest in youth workers´ opinions? What is characteristic to work tasks and reflection(process)?

"Competence" is not only the people's knowledge, skills and abilities, but also the potential to solve the challenges encountered. It is important to address the challenges of adult human awareness of the self, what to learn, how to adapt and resist failures or deal with challenges. [7]

Professional practice is dynamic. Practitioners are constantly shaping their practice by thinking and interpreting, creating and re-engaging. [4] Therefore, it is important that learning activities that support professional development provide opportunities to learn new content and skills, but also opportunities to reflect on their relationship with practice and integrate new knowledge into existing professional practice and habits. [2] Professional learning is carried out predominantly at the workplace, as it requires direct contact with working process and problems. It is often viewed as something that is carried out outside regular work, as something added (extra). The majority professional learning is not carried out in formal learning, but it is embedded in normal work. In the reality it is every day work with thinking about it (reflection), cooperating with their collegues, sharing their ideas, and improving their own as well as their youth´ performance. [6] Ten non-formal educational methods identified: on the job learning; working alongside experienced collegues; working as a part of team; self-analyses and reflection; learning from clients etc.; networking with others doing a similar job; learning through learning the others; support from mentor of some kind; use a role model; pre-entry experience. [3] Open communication caused by the organizational learning strongly correlates with the workers' satisfaction and commitment. Workers perceive organizational commitment through treating them fairly and paying attention to their development needs by organized training. [1]

There were a lot of freedom in designing services and versaitile work in youth center in Estonia. There were very few routine tasks and new challenges every day. For youth centers´ staff, the most important thing was to apply their skills and knowledge appropriately and, if possible, link them to their own interests and consider the meaning of work created by various factors, including: importantly, work with young people is needed for the wider community. [11] [13] Poor information exchange and lack of feedback from managers must change and it is important to be aware of the understanding of the various stages of employee professional growth.

Professional growth is a natural part of human life, because it supports the coping with work tasks. This is an ongoing learning process for working life knowledge and skills necessary to obtain that come using the official competent to handle changing requirements. Professional growth basic elements are follows:

- personality factors: motivation, expectations, professional realistic approach (knowledge of strengths and weaknesses), the need for achievement, willingness to manage the situation, dedication to work, coherence with work, strong sense of professional identity.

- work-load and tasks´ factors: challenging nature of work and content that offers reflective work learning, requires creativity, self-initiative; allows autonomous action;

- organizational factors: working atmosphere; management modes and practices (which create the context for employee development); supportive and challenging situations. Work content and work opportunities (diversity, autonomous work) can encourage your growth potential to use in an organization-oriented development environment. [9]

Possibilities of becoming a youth worker are very different. Emphasis was placed on the possibility of getting a student, a hobby enthusiast in informal learning, to gain access to youth work. Also important was the role of non-formal learning: training, workshops, networking, self-improvement. Formal learning curricula, courses based on structured curricula as starting points for learning youth workers. [10] Given the above, author´s and other researchers position is, that individual adjustment of work and support for employee autonomy by managers are of key importance inside when outside.

If employees do not have enough opportunities to work to exploit their potential, challenges will be sought. Employees need more challenges in order to find a way out of the achievement that is primarily related to the achievement of the goals and thus the motivation to work. By offering appropriate opportunities, job dissatisfaction can be reduced, there are fewer active job seekers, and the number of workers leaving voluntarily decreases. Employees adjusting to individual work can reduce job dissatisfaction, have fewer active jobseekers, and reduce staff voluntarily. [12]

Job crafting has been used, but it is not always acknowledged as an opportunity for raising job satisfaction. [11] The youth workers´ occupation is a fascinating opportunity to deal with own interests, to realize themselves, being in different roles. The multifaceted nature of YW and the often-changing context of the practical work of youth workers causes increasing expectations and demands on their professionalism.

METHODOLOGY

This study applies a qualitative research strategy. In the research, a total of 18 youth workers and 15 youth work experts from 12 counties, who has worked for at least 2-3 years, were interviewed to get in-depth opinions about workloads; challenges; the nature and content of work; reflection; creativity; self-initiative and autonomy. Semi-structured thematic individual interviews were conducted with a total 4 men and 29 women. Pilot interview was conducted with a youth worker and youth center director, who had over four years work experience. After this the questions were developed and clarified. Interviews were conducted individually with each interviewee in 2016-2017, and lasted usually from 1 to 2h, were recorded on tape. The interviews were carried out in a quiet place at the university or at work place. The data-driven thematic analysis process was used. It included six phases. First, all recorded interviews were transcribed, read and initial ideas noted. Next, initial codes were generated regarding the phenomenon. In the third phase, the different codes were sorted into potential sub-themes and key-topics. Subsequently, the content of the created sub-themes and key-topics were checked. In the fifth phase, all sub-themes (34) and key topics (6), (Table 1) were refined and named. In the last phase, the final analysis was written. The results were based on analysis of a qualitative content analysis principles.

The anonymity of the sample was ensured. Protecting participants and respecting their right to make decisions regarding their participation were the core ethical principles guiding the treatment of the participants in the study. Participation was voluntary and participants were informed of their right to withdraw at any time without consequences. No sensitive questions were asked. participants in the study. No sensitive questions were asked.

RESULTS

This section explains how youth work specialists explained their work tasks and engagement. ***Nature and content of the work***. The research revealed that the content of youth work was more attractive to the employees in entertaining to the work field. It seemed as fun and clarity; that was rather challenging, more mental and physical work in youth center open space, as well as emotional work with young people and in the community and in different environments (camps, studios). /*I've always wanted events, activities. / / We are constantly organizing summer camps. /* /*By the end of the day you are completely empty of communication. /* Creativity, attractiveness and activity to support the development of young people's skills considered to be characteristic of the youth work environment. Counselling (mostly psychological, career, health) was a frequent task /*He trusts you and talk about his concerns. /* /*We have a major relationship, communication with adult is needful*/. Hobby activities were important parts of the work for development special skills. An unskilled worker is often as a guardian of young people. /*Tasks include rather distributed. Covering anything together, therefore we share the functions-who write, who sends etc.//They are waiting to go home by bus and have fun with their friends. Students have few free time. /*

Challenges. It turned out that professional implementation of non-formal learning, project management, smart youth work were main challenges for youth workers. */We need a person with the ability to write a project and good ICT skills. /* Youth workers

try to designed positive values, incl. health behaviour. */Young people have a lot of fatigue, anxiety, poor mental health, often low physical activity. /*

Table 1. Main key-topics and sub-themes that constitute the pattern of meanings the youth workers attributed to the work-load and tasks factors

Key-topics	Sub-themes
1.Nature and the content of the work	Physical work, outdoor activities, camps periodically Mental and contact work in open space tight Counselling (psychological, career, health) and motivation to participation in activities Hobby activities (dance, sports, music, art, photography, robotics, nature and the environment, language learning) Increased part of the project work Availability of information services Participation in community work Youth work is attractive, fun, emotional An unskilled worker is often a "guardian" of young people
2.Challenges	Project management Addressing young people's social problems (knowledge, skills) Increasing youth participation Smart youth work possibilities in practises Professional implementation of non-formal learning Designing positive values, including health behaviour Cooperation with schools/ development of general competences
3.Reflection	Understanding the need for self-analysis is scarce Lack of knowledge of reflex methods There is little motivation for professional development Lack of feedback in non-formal learning Professional supervision would support youth workers more
4.Learning from work	The importance of knowing the basics of youth work The importance of lifelong learning, including retraining Enthusiasm for learning at work or work-based learning The importance of psychological and pedagogical knowledge The need for a professional mentor support Prevention of burnout
5.Creavity and self-initiative	Diverse support options for interesting work Self-initiative and a comfort zone for exiting rather rare The application of creativity relies on personal hobby and special skills The development of creativity is supported by cooperation with young people and colleagues
6.Autonomy	Youth workers have much freedom to do their job The lack of professionalism often limits the use of autonomy More professional cooperation is desired

Increasing the participation of young people needs occupational skills. */You must reach to the youth with your strategy, hobby activities, etc. / /Motivating young people is difficult, they are used to consuming. /* Cooperation with schools for development general competencies was actual and need attention. Addressing young peoples´ social problems was important task, but it would be in solving more in cooperation other specialists. Focus should be on reflection and educational goals in experts´ opinions.

Reflection. Most youth workers explained that there was a little motivation for professional development and exam for occupational level seemed them quite difficult or doesn´t see the need for self-improvement. */Something will not change with this occupational level. I studied youth work. /* Understanding the needs for self-analysis is scares and lack of knowledge of reflection methods was revealed. Reflection is used less, inexperienced. */Young people give feedback on whether and what they liked. /* Professional supervision would support youth workers more. */Together we watched and wrote the portfolio. /* The experts were confident in this regard and often had a professional level, but at the same time were required because the staff is quite random. */To create a professional level, the portfolio is a good self-reflection tool/ /He comes to work, then we look, prepare a plan, maybe he can learn. /*

Learning from work. The study revealed that health, environmental and civic education were most valued. */I am as a role model for young people, I always do with them, also motivated to learn. / /..Organizing camps is also my strength.* / There was rather often a time for adapting to the work environment, including contact work in an open space that might not have become easy and could rather inhibit the desire to continue working in a youth center. Hobby activities often helped with contact creation, but they required special skills. It turned out the importance of knowing the basics of YW and lifelong learning aspects, incl. retraining. Sometimes it seemed as enthusiasm for learning at work, but this aspect will need to notice and support from professional mentor. */I learned a lot from colleagues. We did events together.* / Experts focused more on expectations than on mentoring. Lack of staff puts restrictions on training. */I work alone and find a replacement worker difficult.* / Experienced workers and experts talked about the risk of burnout, which should be probably given more attention. */In holiday time we make camp. / /Work overtime was not paid. / /My family helped me in larger events. / /Youth help with ITC-tools often. /*

Creavity and self-initiative. The application of creavity relies on personal hobby and special skills. The developmental of creavity is supported more by cooperation with young people and collegues for events. */Youth initiatives are welcome. /* Self- initiative and a comfort zone for exiting rather rare. Experts expectations were often to work out of the box. */We are looking for a worker, who would do something different, think outside the box/.* Diverse support options for interesting work. Many youth workers seemed to work in routine, what is quite unbelievable.

Autonomy. Youth workers have much freedom to do their work and it seemed more multifunctional. It turned out from experts´ opinions that the lack of youth workers´ professionalism often limits the use of autonomy and of course, affects the overall professionality. */Standardization is at a very good level, but professionalism not succeed. /* Youth workers wanted more real cooperation with other youth workers. */Sometimes I feel like I'm doing and doing, but alone. /* Everyone doesn´t want to follow

the youth field trends, such as working with NEET-youth. */It changes our reputation because then the other youngsters don't want to come here. /*

CONCLUSION

Youth work and non-formal learning are important in the education landscape. Youth workers deal a lot with youth behaviour and social problems and seems important influence and advisors there. Youth social problems are on an ever-increasing trend (poverty, unemployment, violence, smoking, alcohol, drugs). Addressing young peoples´ social problems was important task, but it would be in solving more in cooperation other specialists. Focus should be on educational goals.

It revealed that youth workers had different commitment to everyday work, and it could have resulted from their quite different autonomy and lack of reflection skills. The study identified needs for professional mentoring, supervision and professional work-based learning. Youth counselling was one of the main work tasks. There were many cases in psychological, career or vocational counselling. Youth workers must have basic knowledge and skills in youth work, their strategies (how to communicate, involve people, resolve situations) and methods, activities with educational goals, to better cope with work. Academic knowledge of the basics and methodology of youth work, educational sciences, psychology, nature movements and hobby activities etc., support both: the learning in activities; the understanding and guidance of young people, which are expected to cope for professional youth worker. Job learning must be more efficient and working alongside experienced collegues.

Most attention should be given further to the choices of work tasks depending of youth workers education and worked time. Mostly were explained the high expectations to the youth workers´ self-initiative and creativity. It is important for the organization that the employee notices that there is space for additional work so that the job is more suitable for the employee. Youth work offers a lot of potential for the use of its´ work, which should be better used, but the limiting factors included the research: the skills of youth workers (project writing, communication, special), comfort, routine perception, stress, tolerance, lack of co-workers, lack of self-initiative and creativity. Youth workers had the freedom to create and carry out their work, but they did not appreciate it sufficiently: there was little self-initiative, rather few significant contribution in the youth field (development youth key-competenses). Community work was quite often expected as restricted on resourses. Due to the lack of specific and reflection skills, lack of youth workers with professional education or a small number of employees, important activities were not initiated or started.

The needs for further clarification are: organizational elements as basics of youth workers´ professional growth and youth workers´ skills to cope with youth social problems.

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ETHICAL CODES AND EDUCATION

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ABSTRACT

The context of the research issue: Education exists within limits established by applicable laws and regulations; these clearly define rights and duties. Ethics has a large part to play here. Is it necessary to add an educational code of ethics to the existing laws?

Objective: The main objective of the study is to answer the question: "Do education workers require an educational code of ethics? And if so, to what extent?"

Methodology: A literature search to analyse and compare ethical codes, as well as foreign and local examples. The empirical section of the study describes the quantitative research. The data for the research was acquired using a questionnaire survey. The questionnaire contained open and closed questions. At the end, information about the respondents was gathered. The questionnaire was carried out using snowball sampling. The evaluation was carried out by determining frequencies, comparing and correlating them, including the appropriate statistical tests. The correlation calculations were made using the Gretl programme, and the relationships were interpreted according to de Vaus, 2002.

Results: Six correlations were statistically significant. The respondents demonstrated a knowledge of the legal measures in ethics, though naturally these were viewed as insufficient, which was why the creation of an educational code of ethics was considered desirable. The correlations point to a lack of definition of ethical themes, insufficient enforcement of ethics and the need to change the powers for individual participants in the education process.

Discussion: One limitation of the research is the method of collecting data as the group of respondents is not sufficiently stratified. The sample can be termed as accessible in terms of time, resources and availability.

Keywords: education worker, ethical code, curriculum, collection of laws, development support.

INTRODUCTION

External as well as internal influences transform the education environment, an environment where educational endeavours are put into practice. Education is an area where the rules of ethics and morality are applicable. The objective of the literature search and the subsequent research is to ascertain what view specialists in education have of a possible educational code of ethics. The central research question is whether educators want a rigidly determined ethical code.

The research was quantitative in design and a questionnaire was used to acquire the information. The data was collected using snowball sampling.

THE LITERATURE SEARCH

The education and pedagogical system in the Czech Republic was established by laws. These laws are based on the international standards of a community which the Czech Republic is a member of. These laws further set out more detailed requirements: school policies, prevention programmes for schools, the curriculum and the hidden curriculum. All of these clearly define rights and duties, ethics and morality.

Ethics and moral attitudes create a person's value system. An ethical code contains higher requirements than the legal order. It establishes standards for desired behaviour, it improves the internal and external environment, it promotes ethical behaviour, good practice, responsibility towards yourself and others, and establishes the manner of behaviour. It applies to professions providing assurance, support and assistance so that these services can be provided at the appropriate level, responsibly, with morality and ethics.

A code of ethics creates a set of rights and duties, it establishes balance and creates order.

The use of an ethical code in education is linked to the results and consequences of education. The results of education are: "*Changes on the part of learners, changes on an intellectual level, in convictions, in cultural models, in the focus on values."*[7] It points to cognitive traits: the intellectual level of motor and affective skills; convictions. The consequences of education are: "*The consequences caused by the results of education. What values they concentrate on in their educational life. The effects of education are long-term in character, sometimes even for life."* [7] It is necessary to influence ethics, teach it, pass it on and develop it. Jankovský states that: "*We expect entirely spontaneous prosocial behaviour from people. They will respect other people; a willingness to help, empathetic behaviour, the ability to share problems with others, promote positive social goals."* [5] Failure to respect values leads to a decline: "*Policies without principles. Wealth without work. Enjoyment without conscious control. Knowledge without character. Science without humanity. These manifestations have a common basis, to use the advantages and benefits of a situation with a complete absence of responsibility for such behaviour."* [5] The objective of education is to make people aware of these mistakes, examine them and show the right path. Part of the education process is the personality of the educator: "*If the person who is morally guiding others has a greater overview of values, then by necessity they will be able to open their eyes, offering understanding and perspectives in life."* [2]

How to understand school outputs, how to measure quality and why: "*At present the school and education are the object of intense research, ascertaining efficiency, effectiveness and productivity. Schools are described and measured precisely."* [7] One of the basic products of education is improving moral education. Ethics is applied to the pupil as well as the educational institution. "*The school is examined from the perspective of the sociology of education, which clarifies its place and function."* [7] The school is the subject and object of ethical attention: "*Anyone who discusses, advises or negotiates is directing a value perspective and ethical values. Ethics should teach the teacher who then teaches the youth. Ethics is, therefore, the teacher of everyone."* [2] According to Jankovský: "*Standards show people how to orientate themselves in the world."* [5] The school teaches how to recognise value and cost: "*Not only do material*

goods have a certain price for people, but also people's relationship towards each other." [9]

Schools and families working together is necessary to achieve educational goals: "*We consider cooperation between teachers and parents as the determinant for a successful school education."* [7] The cooperation of all the actors, the school reaching out to the surrounding area, harmonizing educational operation: "*A coordinated curriculum helps in the child's development. OECD studies have confirmed the necessity for families and schools to have joint responsibility in education."* [7] To fulfil these objectives, pupils are linked to activities focusing on assistance, strengthening moral judgment, self-control, prosocial behaviour, support and cooperation, expanding their knowledge of democratic values and utilizing emotional intelligence.

Thomas Lickona and M. Davidson worked on the project Character Education Partnership – CEP, which is a project on character education: "*1) Effectiveness 2) Complexity 3) Targeting and an active approach 4) Justice 5) Opportunities 6) Meaningfulness 7) Motivation 8) Activization 9) Longevity 10) Partnership 11) Evaluation."* [11]

In opposition to this is the view of society where education becomes a measure of success: "*Education as a means of maintaining social status. The family and the school maintain the continuity of social order."* [4] The school creates the objectives of education, it evaluates and shapes the pupil.

The Education Act is the main provision for the operation of the school and school management, it defines rights and duties: "*It provides for an equal approach to everyone, without any form of discrimination, it focuses on the educational needs of the individual. It is based on the principles of mutual regard and respect and toleration of opinions."* It establishes the objectives of education: "*The development of a person's character through cognitive and social skills. Applying the principle of equality."* It defines rights and duties. On this basis the school subsequently presents school rules, internal regulations and scholarship rules. The Education Act contains enforceability, the obligation to archive, and supervisory mechanisms dealt with by the Council and the Czech School Inspectorate.

Ethical codes are used in practice outside of legal regulations.

Service regulation no. 3/2016 Ref.: MŠMT-4362/2016-1.

This establishes ethical rules for employees of the Ministry of Education from the perspective of the proper performance of state services/work. It is targeted at suppliers, not at the activities of education workers and their relationship with the pupils: "*It modifies and supports the maintenance of the required standards of employee behaviour in relation to the public. It helps guarantee the quality of performance of the state service/work."* [13] It supports work being carried out professionally, objectively, honourably and without emotion. Discrimination and violence are not acceptable.

The ethical code of the Operational Programme 'Research and Development for Innovations'.

It establishes and describes principles of behaviour. "*It establishes the principles of legality, quality, effectiveness, and the ethics of work, maintaining an impartial and*

equal approach." [14] Jankovský states: "*It is impossible to be a teacher without respecting ethical principles. Another assumption is willingness to serve others. Such a profession requires knowledge, experience and skill, integrity of character, moral probity and awareness of responsibility. The requirements from workers are formulated in the code of ethics."* [5]

Ombudsman – public protector of rights – principles of good administration.

The principles which underpin good administration and correct communication. A general code of ethics for correct behaviour in all areas of human interaction. "*Good administration represents an approach which is in accordance with the law, but which cannot be criticized for having undesirable features."* [15] It is defined in ten points.

The Code of Ethics for Social Workers in the Czech Republic.

Directly related to the work performance of professional services: "*The social worker treats each person as a holistic being. He/She supports the client's empowerment. He/She acts with sympathy, empathy and care."* [12]

Code of Ethics – Úvaly Primary School. Ethical guidelines, brief, clear, understandable. Contains the basic standards of behaviour and is summarized in five areas entitled: We have all 5 together.

The Education Act in §132 establishes the activity of the Council.

It oversees pedagogical activity: "*The Council includes the pupils' legal representatives, school employees and administrators. The Council is an organ of the school which allows parents, teachers and community citizens to share in the administration of the school."* [1]

Pedagogical activity and the school environment have a direct influence on the objectives of education. "*The start of school is an important social milestone. The role of the school pupil brings higher prestige to the child, as well as the necessity to become independent and accept responsibilities. It affects the child's psychology and self-identity,"* [10] "*A child requires care and support so that trust in humanity can develop within them."* [3] "*We consider the key relationship in the model for caring about a child's quality of life in school education to be the teacher-pupil relationship."* [6] "*To act with love and respect towards those pupils who do not respect us and express different opinions is always a test for the teacher's professionality."* [6]

Every participant in education must be a support for the other participants. In this system, no-one is subordinate and no-one is superior, everyone is equal in their actions, everyone has a shared goal. "*We speak of humanity when people are able to make the general interest their own conviction in their conscience."* [5] Through combined strength, mutual respect and regard, it is possible to make the system better, a system where everyone will feel natural and at ease. All of us have to work for any possible future success.

Desiderata – a set of moral standards.

It shows how to be happier in life. It is positively orientated: "*The development of positive values in a person has a significant influence on their physical and mental*

wellbeing." [1] "*People need wise and simple messages in life to help them come to terms with the world."* [1]

Code of Ethics.

"*Ensures that the behaviour of members corresponds with established tenets. It is a set of rules based on values, attitudes and principles. It defines the standards for the desired professional behaviour."* [8] It creates a more meaningful system of rights and duties: "*If you want to have a specific character trait, then act as though you already have it. Sow the act and reap the habit, sow the habit and reap the character, sow the character and reap the fate."* [5]

Methods of creating a code of ethics.

Most ethical codes are imperative in nature. One good way is to write them using natural indicative speech, which is based on the experiences of educators and education counsellors from family and school education. The educational code of ethics from the state of New York. A council of twenty-eight people was engaged in the proposal. The proposal took more than a year, it included studies of other ethical codes and was provisionally tested and publicly reviewed. Only afterwards was there a vote on its form.

"*Ethical axioms are moral values, rules which individuals accept as their own without ever doubting them."* [1] "*Every teacher should act the way he would like his pupils to act."* [1] John Comenius's statement formulates the requirements for morality.

METHODOLOGY

Data collected by a questionnaire survey in printed and electronic form. It establishes an overview of legislative definitions of ethical questions in teaching related to the Education Act, school policies, the prevention programme for schools, the health-promoting school scheme, the curriculum and the hidden curriculum. It establishes respondents' knowledge and grasp of the basic applicable legislative framework. Subsequently, it invites reflection on whether they see a need for an educational code of ethics, whom it should invest with greater powers and what scope such a code of ethics should have. Furthermore, it establishes information about the respondent.

The research is quantitative in nature. The evaluation is made by determining frequency and comparing individual groups. Correlations and relevant statistical tests are established. The results of the empirical part are then compared with the theoretical basis.

Research sample: education workers as defined by the Education Act. The selection is a random one, supplemented by respondents approached using snowball sampling.

The research is conducted descriptively. It includes data collection; absolute and relative frequencies are determined; the results are presented through a description of frequency; and the arithmetic mean is used. This is a quantitative method. At the same time, a qualitative view arises in open questions where respondents state their opinion.

Interpretation of the results. The assessment criterion is the question: Do you, as an educator, want an educational code of ethics? The knowledge of legal measures is

assessed and compared with the need for a code of ethics, the balance of powers in the code and the scope of the code.

The majority of the respondents were women (82%, men 18%), in the age category 40–49 years old (42%), in the post of educator (74%), teaching at elementary school (62%). The total number of respondents was 139.

RESULTS

According to 100% of respondents, applying morality and ethics to teaching is important. 47% of all respondents demonstrated a knowledge of applicable laws. In the group calling for a code, 44% demonstrated knowledge. 28% of all respondents answered that ethical issues are lacking in the Education Act. Calculation in the programme Gretl: correlation; corr(Ot4, Ot14) = 0.55846324; t(137) = 7.87994, with a two-sided p-value of 0.0000; the result is statistically significant. Interpretation of the correlation coefficient values according to de Vaus, 2002: substantial to very strong relationship. Interpretation of calculation: Those who want a code of ethics believe that the Education Act does not address ethical issues which should be covered in it. What ethical issues are missing from the laws? Examples of responses: "*1/ Relationship between educators and parents. 2/ Duties of children, relationships among employees and between employees and parents. 3/ The ethical approach of pupils' parents to the school, to teachers and to bringing up their children. 4/ What a teacher must never do. 5/ Ways of punishing disorderly pupils."*

Are ethics and morality covered and enforced adequately by the Education Act, school policies, the prevention programme for schools, the curriculum and the hidden curriculum? 71% of all respondents state that ethics and morality are not integrated, covered and enforced adequately. 78% of those calling for a code of ethics answered that ethics are not enforced adequately. Calculation in the programme Gretl: corr(Ot11, Ot14) = -0.25189028; t(137), with a two-sided p-value of 0.0028; Error 0.72% – statistically significant. According to de Vaus: relationship: moderate. Those who want a code of ethics think that the incorporation of ethics into teaching is not covered and enforced adequately.

Overall, 45% of respondents are of the opinion that a code of ethics should be created. In the group calling for a code of ethics (according to the classifying question: Are you, as an educator, calling for an educational code of ethics?) 59% of respondents from this group answered that a code of ethics should be separately defined. Gretl calculation: corr(Ot12, Ot14) = 0.46118706 interpretation: substantial relationship. t(137) with a two-sided p-value of 0.0000 zero error – significant. Those who want a code of ethics think that it should be defined separately. Why should an educational code of ethics be separate from the statutory provisions? "*1/. There is a risk of an abuse of power. 2/ It helps to define good practice. 3/ Characteristics of moral and ethical behaviour should be written down somewhere. 4/ Clarity, transparency and greater accessibility. 5/ A manual for those involved, clear demarcation of competencies."*

82% of all respondents think that the powers of the educator should be strengthened. Gretl calculation: corr(Ot14, Ot15) = 0.30115108 moderate relationship; t(137), with a two-sided p-value of 0.0003. With a moderate relationship, those who want a code of ethics also want greater powers for educators.

53% of all respondents feel that an educational code of ethics should strengthen the pupils' powers. Gretl calculation: corr(Ot14, Ot16) = 0.52506621 i.e. a substantial relationship. Two-sided p-value of 0.0000; zero error. With a substantial relationship, respondents want greater powers for pupils in a code of ethics.

71% of all respondents advocate equality between all participants in the educational process. Gretl calculation: corr(Ot14, Ot18) = 0.25189028; moderate relationship. Two-sided p-value 0.0028 – significant. With a moderate relationship, those who want a code of ethics also call for equality between all participants in the teaching process.

The result for the appropriate scope of an educational code of ethics broken down according to the classifying question was as follows: A – not required, 1 page 13%, B – required, 2–3 pages 41%, Total: 2 to 3 pages 51%.

CONCLUSION

73% of respondents are in favour of introducing an educational code of ethics. 71% of respondents are in favour of an educational code of ethics establishing universal equality between all participants in the educational process. 51% of respondents are in favour of a scope of two to three pages for the educational code of ethics.

Respondents are in favour of introducing a code of ethics.

Statistically significant correlations for the questions point to the lack of a definition of ethical issues; furthermore, ethical issues are not adequately enforced; there is a demand for the creation of a code of ethics that will regulate the powers of individual participants, aiming towards equality for all participants.

The demand for the creation of a code may be the first step towards initiating its inception. A code of ethics may be an appropriate complement to existing measures, may become a guide for safeguarding everyday activities and may lead to an improvement in the quality of the educational process.

The creation of a code of ethics should be undertaken by an association of educators, school workers, university representatives, members of public administration, students, school communities, professional organizations, parents and the wider public. Only a carefully and purposefully developed code of ethics can have a chance of success.

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EVALUATION OF VOCATIONAL TEACHERS' CONTINUING PROFESSIONAL DEVELOPMENT MODELS

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ABSTRACT

The effective continuing professional development (CPD) of vocational teachers is an important factor for reforming the vocational education and training system. While Lithuanian vocational teachers are inclined to professional development, the process provides no appreciable results. However, analysis and evaluation of CPD practice and impact is complex. In seeking to understand some of the complexities, a framework of eight CPD models was applied and surveyed with a stratified sample of 346 vocational teachers. The teachers were usually involved in activities of the training model, but the activities of the coaching/mentoring model had the greatest impact on their practice. There were differences between men and women, as well as among different categories of teachers in the assessment of CPD activities. These implications were discussed in relation to three purposes of CPD – transmission, transitional and transformative. The article concludes with some thoughts on the purpose to which the CPD models best correspond.

Keywords: vocational teachers, continuing professional development, CPD models, individual endeavour, transformative practice.

INTRODUCTION

High-quality professional development is a central component in nearly every modern strategy for improving education. Policy-makers increasingly recognize that successful change requires developing and maintaining teachers' capacity for renewal in order both to improve the quality of educational services and to meet new demands [5]. In Lithuania, over the last decades, the government – together with vocational schools' restructuring, national curriculum reform, and launching new standards for students' learning and achievements – supported vocational teachers' knowledge and skills upgrading. While providing support and facilities, the government established new practices for all teachers working in any type of school. This included the recognition of continuing professional development (CPD) as a professional responsibility, with 5 days per year pursuing various professional development activities.

Much of the research that focused on exploration and evaluation of CPD activities has yielded disappointing results: the teacher professional development activities often were characterized as ineffective, and the methods and forms of teacher training remained unchanged for many years [2], [4], [7]. While many researchers rely on traditional and innovative ways of teacher learning, this paper investigates a framework of CPD models that considers the contexts through which knowledge, skills and attitudes might be

acquired. The identification of the different contexts is useful in analytical terms [8]. Therefore, this paper attempts to test empirically the theoretical models of CPD and their practical application. Then, it goes on to reflect upon and conceptualize this complex process according to the CPD purposes as well as providing insights on relevance of the CPD models are the CPD purposes.

BACKGROUND

Several authors equate professional development to activities that are designed to develop teachers' skills, knowledge, expertise and any other characteristics that enhance their work performance [3], [6], [13]. Middlewood et al. argue that professional development meets corporate, institutional and individual needs [10]. In other words, the phenomenon 'teacher professional development' is twofold: in a more general meaning, the term is understood as a means for improvement of teaching practice and professional standards (for school improvement); in a narrow, specific sense, it means individual professional learning [5]. It is argued that there remains a tension between these two aspects of professional development: teachers' learning priorities might differ from those of the school [4], [5].

The wider process results in changes that may take place over a longer period of time resulting in qualitative shifts in aspects of teachers' professionalism or transformative practice, while teachers' learning results in specific changes in professional knowledge, skills, attitudes, beliefs or individual endeavour [12].

Teachers' CPD can be structured and organized in a number of different ways. Kennedy [8] identified a framework of nine models and presented their characteristics. This paper considers and empirically tests eight models. The standards-based model did not match our methodological assumptions and was eliminated from the analysis. Hence, each of these models will be considered in short, identifying key characteristics and drawing on specific examples from the Lithuanian context.

The Training model is the dominant form of CPD (workshops and seminars) when an 'expert' delivers lectures to the teachers, placing them in a passive role. It is recognized that this model has no great value in improving teachers' practical skills due to the high number of participants, the repetitive content of training, and the 'moral wear out' of training forms [5]. These circumstances indirectly create a sense of 'saturation' and the illusion of 'knowing everything' that reduces the willingness of teachers to learn [2], [4]. Despite its drawbacks, the training model is acknowledged as an effective means of introducing new knowledge. According to Kennedy, why the training model fails to have impact in any significant way is the manner in which this new knowledge is used in practice [8, p. 237].

The Deficit model is designed to address a perceived deficit in teacher performance [8]. Although the perceived deficit is associated with an individual teacher's weaknesses in performance, Kennedy suggests that this is related to organizational and management practices [8, p. 239]. That is, the system itself is considered as a possible reason for the perceived failure. In Lithuania, it is recognized that development of subject related vocational teacher competence remains the main problem in promoting VET [2], [4]. Therefore, the deficit model could be perceived as both an individual and a collective responsibility.

The Award-bearing model usually means recognition of formal education with all its 'awards': diplomas and qualifications. In Lithuania, teachers are passive in qualification improvement programmes that provide a higher degree: less than half of all teachers are involved in such activities [7]. One of the reasons could be that such programmes are focused on overly academic rather than practical issues.

The Cascade model involves gathering and disseminating professional information to colleagues. Usually this information focuses on skills and knowledge and it is a means of sharing own learning [8]. Teachers can gain information by visiting educational exhibitions and fairs. Methodological activities of groups of teachers are a good means both for sharing own knowledge and skills and for learning from others.

The main characteristic of *the Coaching/Mentoring model* is a one-to-one relationship, designed to support CPD activities. Rhodes and Beneicke distinguish between these terms in this way: coaching is more skills based and mentoring involves an element of 'counselling and professional friendship' [12, p. 301]. Dialogues or discussions with a colleague on professional themes, peer counselling as well as observing peer lessons can support skills based or coaching activities. In Lithuania, the mentoring process in VET institutions is more or less formalized: every new teacher is provided with support from a more qualified colleague-mentor. The process facilitates professional adaptation at school.

The Community of Practice model is similar to the model discussed above. The essential difference between the two is that a community of practice generally involves more than two people [8, p.11]. The community of practice is something like a congregation of practitioners who seek to deepen knowledge and expertise, and to develop themselves professionally. To associate practice and community, Wenger emphasizes the importance of a shared repertoire of practices that emerges from mutual engagement in reflective dialogues [15]. As Boreham suggested, learning within such a community could be either a positive and proactive or a passive experience, where the collective wisdom of dominant members of the group shapes other individuals' understanding of the community and its roles [1]. 'Members' of a community of practice are usually part of networks or other larger organizations. In schools, this implies that the teachers may be part of small networks (e.g. dedicated to improvements in assessment) or a large cluster of schools (e.g. groups of schools in a district) [15]. We treat such activities as pedagogical camps, school networks, and internships, which correspond to the essence of community practice very well.

The Action Research model refers to research-based professional development. It means that teachers work as researchers with a view to improving the quality of action they perform [5, p. 34]. General assumptions regarding action research are that teachers work best on problems they have identified for themselves, they become more effective when encouraged to examine and assess their own work and then consider ways of working differently [11]. Action research has greater impact on practice when teachers help each other by working collaboratively, and indeed, as Winer noted, many teachers' communities are engaged in action research [15]. Kennedy argues that collaborative action research provides an alternative to the passive role imposed on teachers in traditional models of professional development [8, p. 246]. In this paper, the Action Research model comprises conducting research and being engaged in studies of professional literature.

The '*Transformative model'* of CPD involves the range of models described above, since it has some similarities and differences with them. The transformative model differs from the training approach that it embraces context-specific learning based on partnerships between teachers, organizations, etc. The model is similar to the community of practice and action research approaches since the new knowledge obtained requires real and sustainable educational change. Education communities take 'enquiry' as opposed to merely 'practice' as their uniting characteristic, thereby asserting a much more proactive and conscious approach than is necessarily the case in communities of practice [8, p. 246]. The transformative model features are little discussed in academic literature, and there is not sufficient knowledge of what kind of activities meet this term in practice. The main characteristic of this model is intention for educational change [8].

How can these models of CPD be useful for supporting reforms in education? Kennedy classified the models into three broad categories – transmission, transitional and transformative. For example, CPD which is conceived of as fulfilling the function of preparing teachers to implement reforms aligns itself with the training, award-bearing, deficit and cascade models supporting a 'transmission' view of CPD. On the other hand, CPD which is conceived of as supporting teachers in contributing to and shaping education policy and practice, would align itself more naturally with the action research and transformative models. The other two models – the coaching/mentoring model and the community of practice model – can be considered 'transitional' in the sense that they have the capacity to equip teachers with the requisite skills to implement education reforms as decided by others (usually government) or to contribute to their autonomy [8, p. 247-248]. Teacher capacity for autonomy increases as one moves from transmission, through transitional to transformative categories.

METHODOLOGY

Qualitative survey research was undertaken to test the theoretical models of CPD. The participants in the study comprised 346 vocational school teachers (or 15% of the population) working in 27 (or 37% of all VET institutions) vocational training centres and schools in Lithuania. Stratified random sampling using VET institutions from big cities, county towns and rural areas as a stratum was used. The questionnaires were sent with self-addressed stamped envelopes to school administrations with requests that they be distributed to teachers in that school. A return rate of 69.2% was obtained. The final sample was 27.6% (96) men and 72.4% (250) women. The majority (47.4%) of the respondents were senior teachers, 28% were teachers-methodologists; 20.8% had a 'teacher' qualification and 2.6% had a qualification of 'teacher-expert'. Only 1.2% were without a qualification. These gender and teacher qualification ratios are consistent with the current gender and qualification levels in Lithuanian VET. Almost two-thirds of the respondents (74.7%) were vocational teachers and trainers, one-fifth (19.9%) were general subject teachers, and some 5.7% taught both vocational and general subjects. More than half (57.1%) of the respondents worked in big cities, and about one third (29.1%) in rural areas; the rest (13.8%) were from county towns.

To measure the CPD models, a closed-ended questionnaire was developed to explore the different types of professional development activities. First, respondents were asked to identify the activities in which they have participated during the past 2 years. After that, they had to evaluate the impact of these activities on their professional practices using a 4-point scale (from *1 = any impact at all,* to *4 = strong impact*).

Measurement. The *Training model* was assessed asking about participation in workshops and seminars on pedagogical competence. *The Deficit model* included workshops and seminars on technological competence. The item 'master's degree studies' matched the *Award-bearing model*. To measure the *Cascade model* three items were used: participation in methodological groups, in fairs of pedagogical ideas, and in educational excursions. The *Coaching/mentoring model* was assessed with such items as peer counselling, observing peer lessons, and working as a mentor (mentoring). The *Community of practice model* covered the following items: participation in school networks, pedagogical camps and internships. The *Action research model* comprised conducting research and being engaged in studies of professional literature. The *Transformative model* involved a combination of a number of processes such as participation in projects, trade unions, non-governmental (NGO) activities and social campaigns.

The research data were processed using SPSS 22.0. Descriptive statistics (frequency of participation, percentage, mean ranks, standard deviations) were applied to present the most commonly used forms of CPD activities. Then, 17 items were counted into eight groups – the CPD models. The Friedman test was first carried out for testing the difference between identified related groups. The Friedman test is often used for a randomized complete block design when the normality assumption is not satisfied or the data are ordinal [14]. The Kendall's coefficient of concordance (W) was applied to identify groups of significantly associated species in field survey data and to test the contribution of each species to the overall statistic [9]. Then, the non-parametric tests of Mann-Whitney U and Kruskal-Wallis were applied to find differences between groups in relation to gender, teacher qualification, teaching subject, and school location.

RESULTS AND DISCUSSION

The descriptive statistics of participation in CPD activities are presented in Table 1.

Table 1. Descriptive statistics on participation in CPD activities

Models of CPD	CPD activities (model components)	Descriptive statistics		
		n	%	SD
Training	Workshops on pedagogical competence	312	90.2	0.2
Deficit	Workshops on technological competence	289	83.5	0.28
Award-bearing	Master's degree studies	37	10.7	0.35
Cascade	Activities in methodological groups	271	78.3	0.31
	Participation in fairs of pedagogical ideas	60	17.3	0.42
	Educational excursions	262	75.7	0.35
Coaching/ Mentoring	Peer counselling	289	86.1	0.22
	Observing peer lessons	247	71.4	0.39
	Mentoring	72	20.8	0.45
Community of Practice	Internship	112	32.4	0.49
	Participation in pedagogical camps	16	4.6	0.24
	Participation in school networks	94	27.2	0.48
Action Research	Conducting research	169	48.8	0.49
	Reading professional literature	252	72.8	0.37
Transformative	Participation in projects	201	58.1	0.46
	Participation in trade union activities	37	10.7	0.35
	Activities in NGOs, social campaigns	104	30.1	0.49

While analyzing participation in CPD, it is obvious that the workshops and seminars on pedagogical and subject specific topics as well as peer counselling predominate. The smallest part of vocational teachers took part in pedagogical camps, trade unions or conducted master's degree studies.

A different picture emerges when vocational teachers assessed the impact of CPD activities on their performance. The Friedman test showed significant differences (χ^2 = 1086.618, d f= 7; p < 0.001) when ranking the identified CPD models. Then, Kendall's W was used to assess the trend of agreement among the respondents: the value '1' refers to complete agreement among the vocational teachers, and value '0' refers to complete disagreement. In this case, the W value was 0.449, which shows the moderate agreement of respondents upon impact of CPD activities. In Table 2, the mean ranks show the average position of each computed CPD model among others. The statistical differences were found between a few groups.

Table 2. Mean ranks of CPD models, non-parametric statistics and purposes of models

Models of CPD	Mean rank	Gender	Qualification	Teach. subj.	Location	Purpose of model
	Kendall's Waley	*Mann-Whitney U*	*Kruskal-Wallis*	*Kruskal-Wallis*	*Kruskal-Wallis*	
Coaching/mentoring	5.12	9670*	6.994	2.863	4.102	transitional
Cascade	5.06	9681*	9.924*	0.448	1.137	transmission
Action research	4.96	9745*	5.829	0.809	3.365	transformative
Transformative	4.64	9078***	8.383*	1.903	3.333	
Commun of practice	4.4	9856*	6.994	0.893	1.076	transitional
Deficit	4.33	11036	5.405	9.552**	1.739	transmission
Training	3.92	10305*	2.323	2.397	1.274	
Award-bearing	3.56	11096	10.076**	1.57	0.545	

Note: *p < .05 **p < .01 ***p < .001

Statistical differences were found between women and men ratings of CPD activities. Compared with men, women assessed as more favourable participation in transformative (84.2% to 15.8%), coaching (84% to 16%), training (83.6% to 16.4%), action research (81.2% to 18.8%), cascade (78.8% to 21.2%), deficit (74.4% to 25.6%) and community (66.7% to 33.3%) activities. These differences could be explained by the fact that more women work in the education system in general, as well as in the VET institutions. In this survey there were twice as many women as men. It is obvious that women are much more active conducting various CPD activities in Lithuanian vocational schools.

The statistical differences related to the teacher qualification were found in the three groups of CPD models. Senior teachers were more keen to take part in cascade actions (41.2%), while, naturally, those having the lowest qualification 'teacher' (47.6%) were more inclined to the award-bearing model. The higher the VET teacher qualification category, the more they tend to share their own learning with colleagues, generally focusing on skills and knowledge. It is argued that the cascade model supports a technicist view of teaching [8]. Two groups of vocational teachers – senior teachers (42.3%) and methodologists (40.2%) – favourably assessed the impact of transformative actions on their practice. This means that more experienced vocational teachers, based on various partnerships locally and internationally, implement education changes more proactively and consciously.

83.7% of the educators who teach vocational subjects (or VET instructors), highly rated the impact of the deficit model. The changing technological environment forces vocational teachers towards technological competence improvement. However, the technological subject specific training for them is not guaranteed, since it is too expensive for the market. A few national projects on subject specific training have been launched since 2014, but their weakness was the lack of continuity [4]. This form of CPD is important for vocational teachers, although there is a deficit of a systemic coherent approach towards technological competences of VET teachers and the implementing measures at the national (government) level.

In this study, there is no linear spectrum from transmission to transformative categories. This is more like a zigzag: the first three top rated models support three different purposes of CPD: transitional, transmission and transformative; it then goes back from transformative to transitional model (see the last column in the Table 2). Therefore, the autonomy of vocational teachers, which according to the literature is most expressed in the transformative category, could be described as 'scattered'. Three out of four CPD models that support the transmission approach have little impact on teachers' practice. In other words, the purposes of CPD for preparing teachers to implement reforms through training, deficit and award-bearing models fall short. More consideration needs to be given to the insights on the combination of the CPD models and links to reforms. Unfortunately, due to the limits of this paper, these insights cannot be explicated. In future research, it would be good to debate issues on how to develop tools for making better sense of CPD policy and practice.

CONCLUSIONS

1. The theoretical framework of CPD models is suitable for practical testing. This study provides examples of how the generally used CPD activities were classified into eight models and examined. Then, the CPD models were organized into the spectrum of three categories according to their CPD purposes. All these make a useful analytical tool for investigation of CPD policy.

2. The practical application of this analytical tool revealed some differences when evaluating the CPD models. Although the vocational teachers are more involved in activities of the Training and Deficit models, they value moderately the impact of these models on their practice. The Coaching/Mentoring model predominates in respect to its impact on professional practice. The teacher ratings differ according to their qualification category and the subjects taught: vocational teachers in the higher qualification category more appreciate the Cascade and Transformative models, while those having the category 'teacher' prefer the Award-bearing model. The VET instructors see meaning in the Deficit model. There are no differences according to the geographical location of VET institutions.

3. It is difficult to decide whether vocational teachers' CPD is perceived and promoted as an individual endeavour, or as a collaborative endeavour that supports transformative practice. The rating of CPD models is more like a zigzag between the spectrum of these two distinct purposes of professional development. Perhaps it should be concluded that the vocational teachers' CPD policy matches the transitional category.

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EVOLUTIONARY ASPECTS ON MULTIPLICATION OF STUDENTS AND CORPORAL – ATTITUDE MOULDING AS AN OUTCOME OF INTERNATIONAL COLLABORATIONS THROUGH SUSTAINABILITY PROGRAMS

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ABSTRACT

Contemporary society creates the premises of individual training through different educational processes. Nowadays, the possibilities of accessing these oportunities enable each individual/student to broaden his own horizons and, therefore, to capitalize on the educational and professional training period. In addition to the activities they can perform at national level, the opportunities offered by international activities are also multiple, and students can come in contact with them through various types of informing actions or through effective students feedback, involved in such educational and training programs.

A success example in terms of these opportunities – approachable by students - is given by the mobility programs for study or traineeship offered by the institutions to which they are enrolled, programs that provide an additional training necessary for the student learning outcomes and – moreover – a student training from corporal – attitude moulding point of view, by creating valuable skills and behaviors for each individual's development, essential in today's world.

Promoting the international mobility impact at individual level generates a multiplication of the number of applicants due to their desire to keep up with the evolution of society, to acquire new competencies and behavioral skills, to explore different fields of interest and to become part of an international culture, creating this way the premises of international collaborations that offer sustainability.

Keywords: competencies and behavioral skills, personal development.

INTRODUCTION

The access to a form of medium or long term trening, within an institution that offers the opportunity of improvement in the specialization chosen by each individual, creats the premisis to accumulate an informational, behavioral and attitudinal specific baggage with the applicability in capitalizing the potential needed for carrying aut an activity in the

specialized field, at the end of the training period. Highlighting these abilities will be required in the collaboration that will be initiated later with an employer or by carrying aut some activities on their own.

The institutions witch provides such forms of individual/student trainig also provide other facilities during their studies period, thus allowing them to success,without additional costs, international programs for consolidating and improving the knowledge of the chosen specialization. These programs aim to achive, besides a specific trening, a body-attitude modeling of the student through the specificity and the defining aspects of the countries in witch they move, over medium or long periods.

Forming an individual/student within an institutionalized way through a well-guided educational process offers him multiple possibilities to select certain notions and to improve his/her abilities in order to become better prepared to carry out different intellectual or practical activities in some public or private areas of activity

The Involvement in this process of training and modeling is strictly related to the student's willingness to gain information and to improve for an unlimited period of time, thus capitalizing on his/her own potential through the edification received after completing the training course, so that ”aplied to both the physical and intellectual training, the fact is significant not only for revealing a uniform vision of the human being, but also for the equal importance given to body and spirit”. [1]

”In today's society education and not just information is a defining milestone for the future. By formulating several definitions of education, it can be said that education is an accumulation, storage, and then a rendering, sometimes filtered, sometimes not, of the perceived perceptions that we perceive for the individual. By transferring the ones mentioned in the area of motorism of the individual, his education and education (implicitly self-education) is allowed and conditioned by several factors including: the desire to evolve (in terms of body expressiveness and not only), individual will, personal perception etc.” [2]

Under a constant, physical or mental effort, in the course of student mobility, a very important aspect is that of highlighting through a form of communication that he considers best suited to acquiring the necessary notions for successful duplication, ”…after the first few lectures of the course, the professor asks the students to complete feedback forms, and about 55% of the students complained that the course was too academic, something in teaching is wrong. … The professor had to put things right in order to complete the course successfully. …Our brain may be working very hard, but its direct contribution to the science of engineering would be negligible.” [3]

Regardless of how we look and analyze the places where students undertake study or placement mobility ”interpersonal communication is an important part of our society. If we study our society we observe that all its individuals are connected by a network of interpersonal relations, The relations between the individuals of a society are very complex one and at each hour of our lives barriers of communications are raised or lowered.” [4]

Student accessed programs by which they enrich their knowledge, model their behavior, attitude and redefine as individuals by acquiring specialized information, generate the sophistication of international collaborations, personal evolution aspects facilitating the phenomenon of duplication and edification among students. The educational valences of

these mobilities fully model the student and by increasing the level of understanding of the notions specific to an international language, the enrichment of luggage and verbal expression proving to be a necessity, ”the ease of global communication, travel, and even easy access to English have changed the conditions under which foreign languages are taught, learned and used. People migration, communication technology, the increased connectivity and mobile technology require fostering a new understanding of language education. A focus on intercultural communication, content and language integrated learning, should be given equal importance than only teaching language form and function. Student centered teaching allows a more inclusive learning environment that can work best for students of any ethnicity, gender identity and ability.” [5]

Ensuring the conditions for realization of the studies as well as the recognition of disciplines and related internships, carried out during the student mobility within the bachelor's and master's degree programs, outlines more and more the visibility and the access through the international collaborations generating a sustainability of these accomplished mobilities, ”free access to any form and level of education is a right which has become, especially in today's information society, inalienable for anyone. It is a right exercised without limitation, but positively so; it is based on the quintessentially public nature of educational interest, national states playing an active role in the capitalization thereof. Active as it may be, this role has been interpreted differently by different countries.” [6]

Thus, by equipping students with new knowledge from the chosen field, but also with interdisciplinary information that has the role of the whole and defining the training as an individual, as well as creating the premises of a diversification in the accumulation of theoretical and practical knowledge assumed by the country in which the student carries out mobility, the possibility is created, through various circumstances, of the body-attitude modeling of the student, becoming ready to interact with the specific requirements of the country in which he/she studies through the chosen mobility, applying for carrying out activities in the field of specialization.

The choice of preponderance, as a result of the students' editions, of the countries in which the mobility takes place, is the effect of the desire of these generations of students to access areas that offer their education and body-attitude modeling through exceptional specializations with interdisciplinary goals and objectives outlined and generated within and intra group, ”smart specialisation principles and goals provide strategies and roles for any region. The concept is built around the fact that there is not only one game in town in terms of R&D and innovation i.e. there are many other kinds of productive and potentially beneficial activities apart from the invention of fundamental knowledge needed for the development of general purpose technologies and tools such as information and communication technology or biotechnology.” [7]

METHODOLOGY. DATA PROCESSING

Number of student mobility Erasmus/Erasmus +. The number of student mobility in the Erasmus/Erasmus + program, as well as the dynamics of these, are presented in table 1 and fig.1

Table 1 Total student mobility OUTGOING, realized in 2009-2018.

	SMS	SMP	
Univeristary Year	Mobility for study	Mobility for traineeships	TOTAL
2009/2010	16	0	16
2010/2011	11	0	11
2011-2012	19	0	19
2012-2013	18	5	23
2013-2014	23	5	28
2014-2015	28	6	34
2015-2016	31	19	50
2016-2017	29	33	62
2017-2018	26	80	106
Total 2009-2018	201	148	349

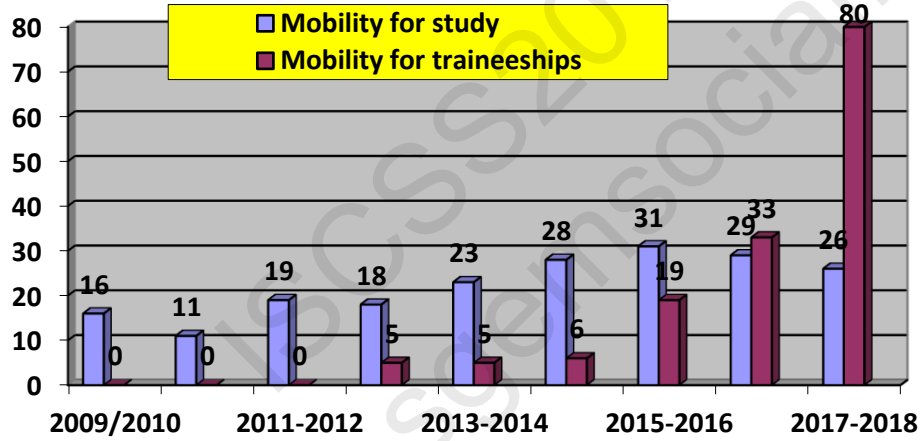

Fig.1 Dynamics of studies and traineeships mobility - OUTGOING - during 2009-2018.

The number of student mobility Erasmus / Erasmus + has increased from 63 student mobility in 2016-2017 to 106 student mobility in 2017-2018 and we are talking about 349 Erasmus/Erasmus+ student mobility. There is a significant year-on-year increase in mobility, especially in the case of practical mobility, which shows that students are beginning to orient their preferences for this type of Erasmus + mobility due to the shorter timeframe and the higher Erasmus grant 200 euro/month more), the more varied possibilities to carry out this kind of mobility (practice can be done in partner universities, but also in companies) and, above all, the accumulated professional experience.

The situation of Erasmus/Erasmus + mobility mobilized within the UC.B. Targu-Jiu (Incoming component, incoming students) is presented in table 2 and fig. 2.

Table 2 The situation of Erasmus/Erasmus + mobility of UC.B. Târgu-Jiu (Incoming students

Universitary Year	SMS- Students Mobility for Study			
	Mobility statistics	Country	Period (months)	Faculty
2009-2010 Total: 3	1	Portugal (University of Porto)	4,50	FI
	1	Poland (Univeristy of Economics Sciences Wroclaw)	5	FSEGA
	1	France (University of Le Mans)	4,75	FSEGA
2010-2011	0	-	-	-
2011-2012 Total: 4	1	Turkey (University of Sirnak)	4,5	FSEGA
	1	Turkey (University of Sirnak)	4,25	FSEGA
	1	Turkey (Eskisehir Osmangazi University)	4,75	FI
	1	Poand (Opole University)	3,75	FAPSPC
2012-2013 Total: 6	2	Turkey (University of Sirnak)	4,25 x2	FSEGA
	1	Turkey (University of Nidge)	4,25	FSEGA
	1	Portugal (Porto University)	4,5	FI
	2	Turkey (Eskisehir Osmangazi University)	4,25x 2	FI
2013-2014 Total: 9	1	Turkey(Eskisehir Osmangazi University)	4x1	FSMC
	1	Turkey (Eskisehir Osmangazi University)	8x1	FSMC
	1	Turkey (Eskisehir Osmangazi University)	4x1	FSEGA
	1	Turkey (Eskisehir Osmangazi University)	4x1	FI
	2	Turkey (University of Nidge)	4 x2	FI
	1	Turkey (Eskisehir Osmangazi University)	4x1	FI
	2	Turkey (Eskisehir Osmangazi University)	4x2	FSEGA
2014-2015	3	Turkey (Eskisehir Osmangazi University)	4x3	FI
	2	Turkey (Eskisehir Osmangazi University)	4x3	FRIDSA

Total: 12	1	Turkey (Eskisehir Osmangazi University)	4x1	FSMC
	2	Czech Republic (Mendel University)	4x2	FRIDSA
	1	Turkey (Eskisehir Osmangazi University)	4x1	FSEGA
	3	Turkey (Eskisehir Osmangazi University)	4x3	FI
2015-2016 Total: 21	2	Grece (University of Piraeus)	4x2	FSE
	1	Portugal (Porto University)	4x1	FIDD
	4	Turkey (Eskisehir Osmangazi University)	4x4	FIDD
	3	Turkey (Eskisehir Osmangazi University)	4x3	FSEMP
	2	Turkey (Dumlupinar University)	4x2	FSMC
	5	Turkey (Dumlupinar University)	4x5	FSEMP
	2	Turkey (Abant Izzet Baysal University)	4x2	FSEMP
	2	Turkey (Pamukkale University)	4x2	FSEMP
2016-2017 Total: 22	4	Grece (University of Piraeus)	4x3	FSE
	3	Portugal (Porto University)	4x2; 9x1	FIDD
	4	Turkey (Dumlupinar University)	4x1 9x2	FSEMP
	1	Turkey (Dumlupinar University)	4x1	FSMC
	2	Turkey (Pamukkale University)	4x2	FSEMP
	1	Turkey (Pamukkale University)	9x1	FSE
	2	Turkey (Eskisehir Osmangazi University)	4x2	FSMC
	2	Turkey (Eskisehir Osmangazi University)	4x2	FIDD
	2	Turkey (Eskisehir Osmangazi University)	4x2	FSEMP
	1	Turkey (Abant Izzet Baysal University)	43x1	FIDD

2017-2018 Total: 20	5	Turkey (Dumlupinar University)	4x5	FSEDAP
	4	Turkey (Eskisehir Osmangazi University)	4x4	FSEDAP
	1	Turkey (Pamukale University)	4x1	FSEDAP
	1	Turkey (Pamukale University)	8x1	FSEDAP
	1	Turkey (Pamukale University)	8X1	FSE
	1	Grece (Piraeus University)	4x1	FSE
	5	Turkey (Eskisehir Osmangazi University)	4x7;5x5	FSTMC (FI)
	1	Turkey (Eskisehir Osmangazi University)	8x1;7x5	FSTMC (FI)
	1	Portugal (Porto University)	4x1	FSTMC (FI)
Total:	97			

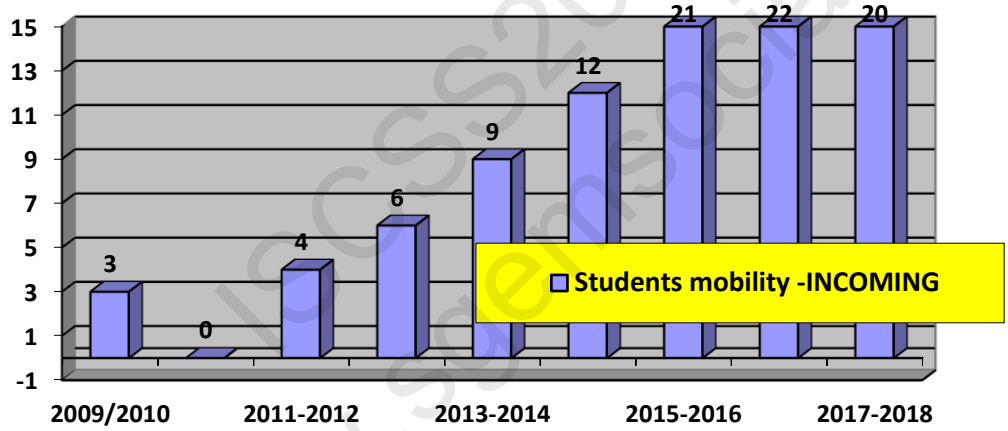

Fig.2 Dynamics of students mobility - INCOMING - during 2009-2018.

The number of Erasmus/Erasmus + mobilities, carried out within the UC.B. Targu-Jiu (incoming component, students arrived) was 20 study mobilities in the academic year 2017-2018, the total number of foreign students received under the Erasmus + program at UC.B. Targu-Jiu being 97.

CONCLUSIONS

Promoting the educational values gained in international collaborations by building students who have benefited from training and practice mobility creates the premises for increasing the number of applicants and participants in these educational training programs recognized within the EU, helping to define the value of the students involved in this process and generating varied possibilities of applicability, at national and international level, of acquired knowledge.

Defining as an individual, prepared for accessing in different ways applications on different platforms, is part of the theoretical and practical information preparation and accumulation process during the study and practice mobility, which confirms the importance of building and duplicating the accumulated information accumulations in the period of travel through programs that offer sustainability, carried out internationally.

Expanding international collaborations to generate a wide range of partnerships and recognizing student achievements, regardless of the type of mobility accessed, offers visibility and sustainability to the programs developed, the importance of their attendance by students contributing to the multilateral development of the personality of the individual, to body-attitude modeling, meant to support the argumentation of the students' personal evolutionary aspects.

Learning and improving specific and not only abilities, completing language skills, and harnessing the potential of in-house relationships are highlighted by the significant increase in the number of students accessing such internationally recognized programs across the EU and giving visibility by facilitating international cooperation between institutions.

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EXPERIENCE OF PROJECT-BASED EDUCATION IN CARTOGRAPHY DOMAIN

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ABSTRACT

Modern education of students in the domain of the Earth Sciences has changed for recent years. Working with coordinate space is the basis for teaching students in the cartography domain. But modern work with space is the technology of working with remote sensing data, and the natural sciences, and the methods of classical cartography, and the modern design techniques. Compilation the maps of nature - this is a complex process that covers different areas of knowledge and skills. Compilation of nature maps, in particular vegetation maps, often contains problems in choosing the most optimal algorithm for obtaining results. One of the main fundamental problems is the choice of software. The second and most difficult is the classification of vegetation.

There are three basic vegetation classification algorithms processing in ENVI (Environment for Visualizing Images) remote sensing data software: "unsupervised classification", "supervised classification" and Normalized Difference Vegetation Index (NDVI) based. We offered to students to choose any of the algorithms to compile vegetation maps for one of the administrative regions of the Russian Federation. As a result, the most of students decided to use a non-standard algorithm. We called this algorithm "multi-level supervised classification". Basing on our experience we may conclude that free choice strategy of project-based education is effective way to study students to select optimal way of work.

Keywords: Vegetation Maps, Remote Sensing Data, Cartography, Geoinformatics, Map Compilation Algorithms.

INTRODUCTION

The final result during the compilation of vegetation maps using remote sensing data can be obtained in several ways. These ways are not the same in the meaning of the time cost and applied algorithms. It is known that complex algorithms are not most rational, as well as time consuming is not always justified.

Modern education in many cases of cartography students at our university is very voluminous and capacious. Teachers are trying to combine the technical skills and abilities of space modeling and the art approach where visual images are important. When teaching such a complex mix of modern technologies and classics of map making, we are based on the following position: a) a large number of software products that students study; b) learning to use these software at the beginning Bachelor level; c) application of different databases; d) using of only the actual materials from real

companies; e) creative freedom in compilation thematic maps: students are allowed to use different combinations of programs, but not one software product only; f) the requirement for simplicity, consistency and convenience of final map, since it must be readable not only by experts in the field of Geoinformatics and Cartography, but also by managers of administrative structures or specialists from different economic spheres [1]. The result of the education of students-cartographers is the skill of creating of a complex image of space at a certain time in order to obtain new knowledge for further use, depending on the practical or scientific orientation of users.

Compiling of nature maps is more complicated process in comparison to creating socio-economic maps. The maps of society are created primarily using statistical data. The maps of nature are the result of a great set of steps that includes working with remote sensing data.

We conducted an experiment: we offered to students to choose of the algorithms to compile vegetation maps using remote sensing data for one of the administrative regions of the Russian Federation. The choice of algorithm was not specified exactly. As a result, we received several groups of students, each of which has chosen their own way.

METHODS

Modern education in recent years has undergone significant changes. Now most of the time is taken up by the hours of independent work of students (often without the presence of teachers, in the form of homework). But modern students also became more mobile. They want not only to get more knowledge per unit of time, but they are also ready to spend more time on for study process. At higher courses the vast majority of students begin to work partly in the companies. This fact helps a lot, because contact with real life teaches to choose the most rational way to solve any, in particular, technical problem.

During the process of training students become experienced in a large number of software that allows nature maps compilation. We suggest using open source data as a geographical basis. First of all, these are the Naturalearth and OpenStreetMap data. They can use MapInfo Professional software (Pitney Bowes MapInfo Company), that is most popular among administrative and the public sector and business); the ArcGIS (ESRI, Inc.), what is popular for large Russian companies working on state orders; also such demanded in Russian companies software is used as Photomod, GIS GeoGraph / GeoDraw, GIS "Panorama", etc. Students are able to work in these programs; these skills are demanded in their future professional life, but probably most powerful is the ability to work with open source GIS software. The most popular is QGIS [2].

Currently, this software is a success in the economic and administrative companies. The reason is simple: a user-friendly interface, quick learning of specialists, the ability to link a database with free statistical data, a comprehensive assessment of the situation with respect to the relationship of spatial objects. As a result: the desire to reduce the financial expenses of companies and accelerate decision-making. Considering the fact that many students are potential specialists for managerial and economic organizations, it makes sense to give them knowledge that will be needed in the future.

The first important step is to get the data. We suggest using Landsat-8 or Sentinel-2 satellite images. There are several sources of open data where it is possible to find the

images; among them sources are the following web-sites: United States Geological Survey [3, 4] or Shuttle Radar Topography Mission [5].

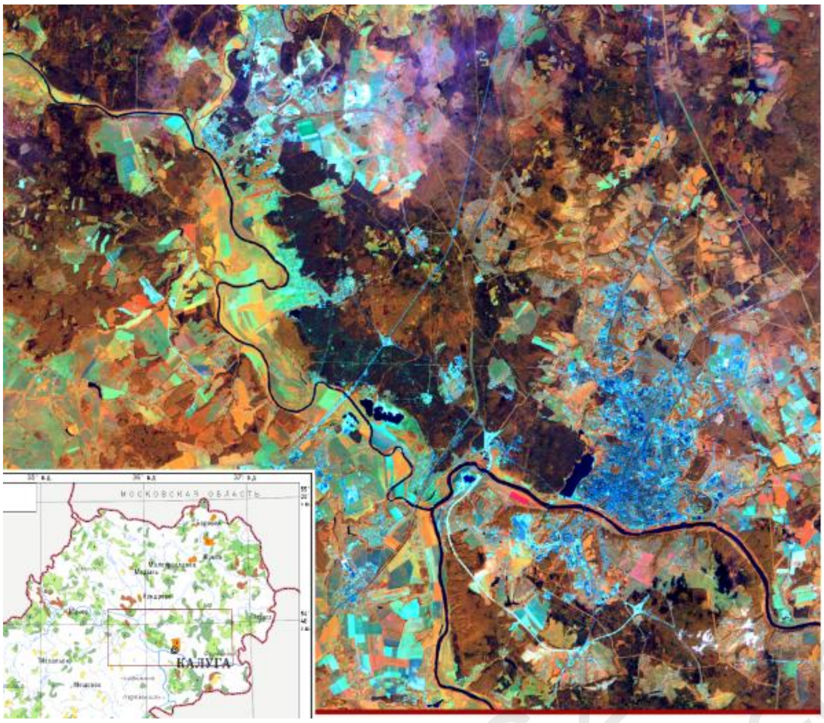

Figure 1. Landsat satellite image of the Kaluga region Russian Federation). True color synthesis.

It is necessary select an image for the summer period, or late spring, when plants are not maximally vegetated but sufficient contrast if dominated by deciduous trees. In case of prevalence of coniferous forests, we can choose the winter months. Then it is needed to choose the images as close as possible to each other in the meaning of time, further processing can be simplified in this case. (Figure 1, 2)

The second stage is the preprocessing of images. If the area is large and covered by several images and dates are differ by more than two weeks, the radiometric calibration with further atmospheric correction is necessary [6], [7]. If there is no atmospheric haze or it is fairly low, this is not important.

The next stage in the processing of satellite images is the creation of mosaics and composites. For this purpose the best suited channels: B1, B2, B3, B4, B5, B6. (Figure 3) Composites can be combined from B5, B4, B3, or B5, B6, B4 channels. Both combinations represent a pseudo color images [8].

One of the most difficult steps is the classification of vegetation. At this stage, there is no one solution; therefore we suggest students to design the most optimal algorithm in their opinion. There are three basic algorithms: supervised learning, unsupervised learning and NDVI based [9], [10], [11].

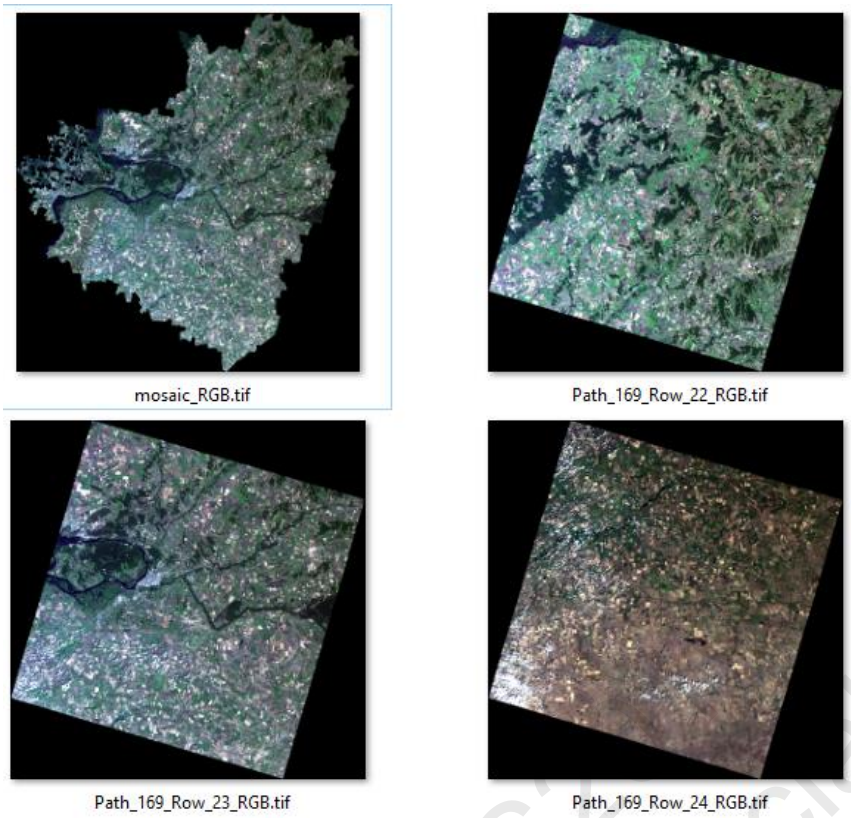

Figure 2. Landsat satellite images of the Samara region for compilation a map of vegetation. True color synthesis. Mosaic and initial images.

The quality classification, first of all, depends on the characteristics of the territory. Therefore, the model must be chosen on this basis. If a classification is carried out as supervised learning, it is necessary to make a training set for each class (forest, water, field, etc.), guided by the following:

- the sample size for each class should be approximately the same; unbalanced data degrade the quality of the model;

- it is best to try not to mix pixels of different classes: it also has a direct impact on the final result;

- it is necessary to cover as many variations of sign changes for each class. [9]

If preference is given to supervised learning, the number of classes must be allocated intuitively. In this case, if the same object (open ground, field, arable land) has a very wide range of values (from "white" to "black"), then it is better to divide this class into subclasses and add their number to the total number of other classes. After classification, they can be combined if necessary. This is because a simple classification is based on the type of work with statistical indicators, which are calculated in the process for each class separately. If, for example, the soil has a value from 15 to 200, and the forest - from 100 to 115, then the average values of both classes will coincide, and such an indication is already useless.

The most convenient way is to use ENVI software.

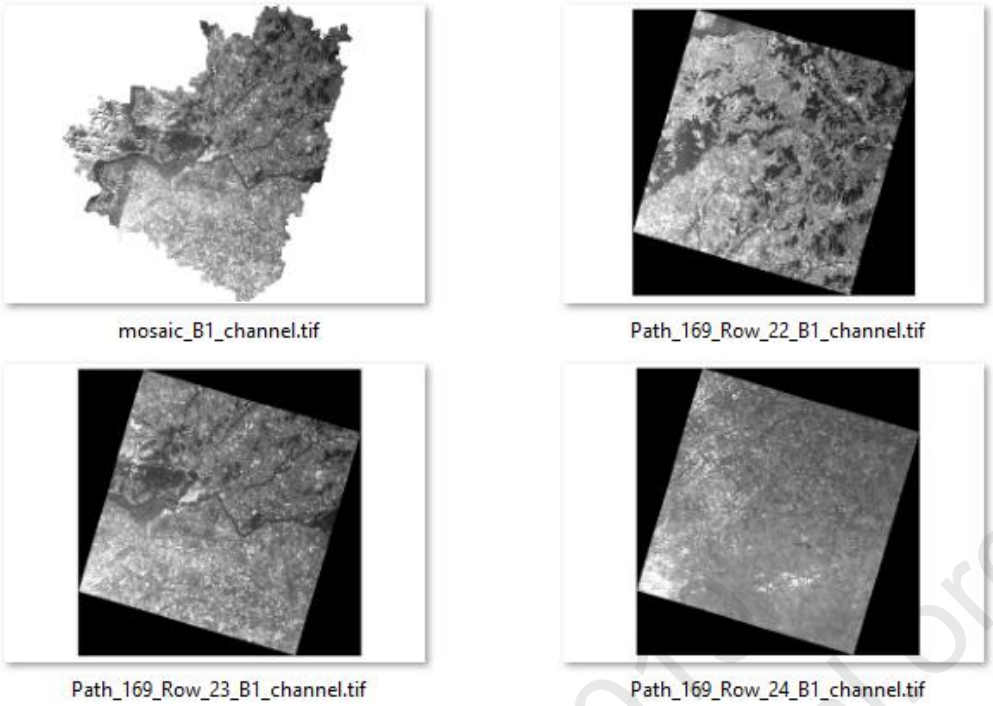

Figure 3. B1 channel used for compilation of vegetation map. Samara region (Russian Federation). Mosaic and initial images.

Some of the students chose these three paths, however a separate group chose the non-standard algorithm, that we entitled multi-level supervised learning:

1. Using of unsupervised classification: to set the number of classes (10-12) and highlight hydrography. Next, we need to analyze which groups belong to the same class, and combine them.

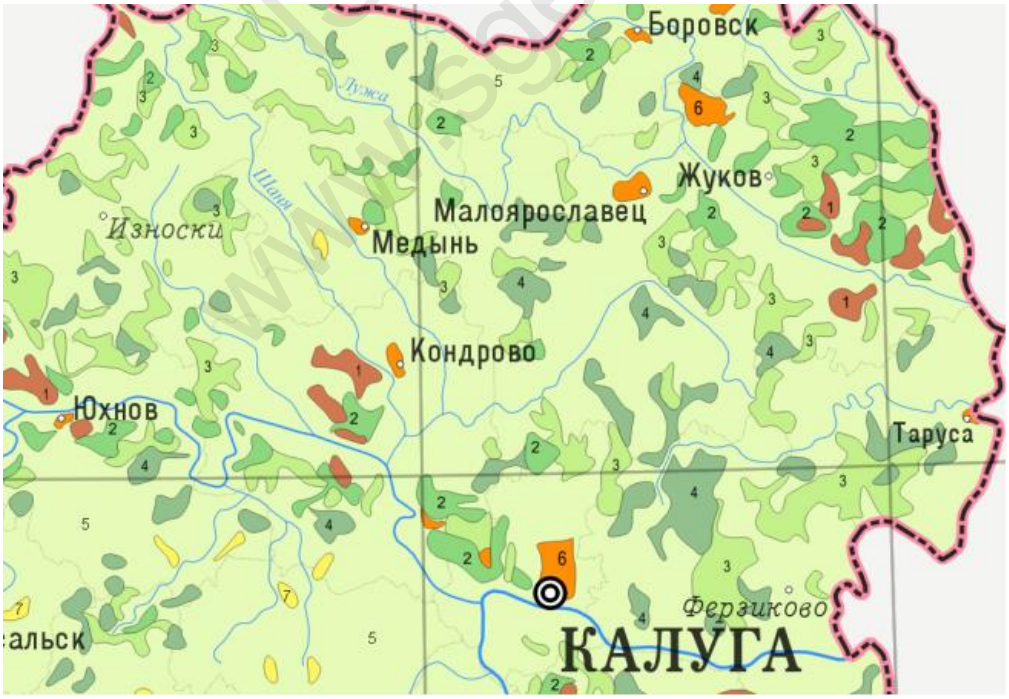

Figure 4. Fragment of a vegetation map compiled using the supervised classification algorithm. Kaluga region (Russia).

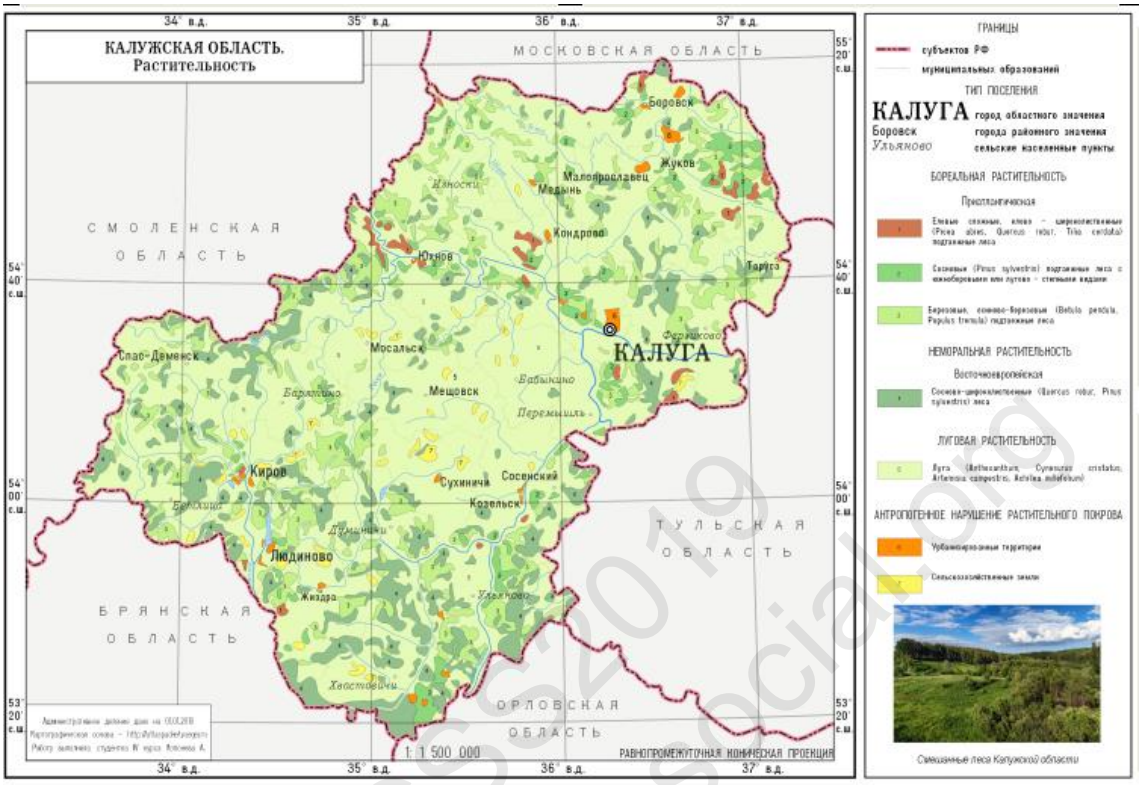

Figure 5. The final map of vegetation, compiled basing on remote sensing data. Algorithm supervised classification was used. Kaluga region (Russia).

2. Using the unsupervised classification the images obtained in the previous step, and to process separate forests and no-forests (enough to take 5-6 classes and combine them).

3. Re-using unsupervised classification with 3 classes to separate mixed coniferous and deciduous forests.

4. Using B1 channel to isolate urban areas use.

As a result, a vector map was obtained, which was necessary to process for geographical generalization (Figure 4, 5, 6).

CONCLUSIONS

1. Compilation of the maps of nature is a complex process that necessarily involves working with remote sensing data.

2. In the study process students acquire the skills in various ways and the skills are not equal at the time of receiving the task to compile the maps.

3. There are several algorithms that can be considered basic when compiling vegetation maps.

4. In the practice of teaching, we serve the position of "free choice." Thereby we are increasing the creative component of the decision-making process of the students.

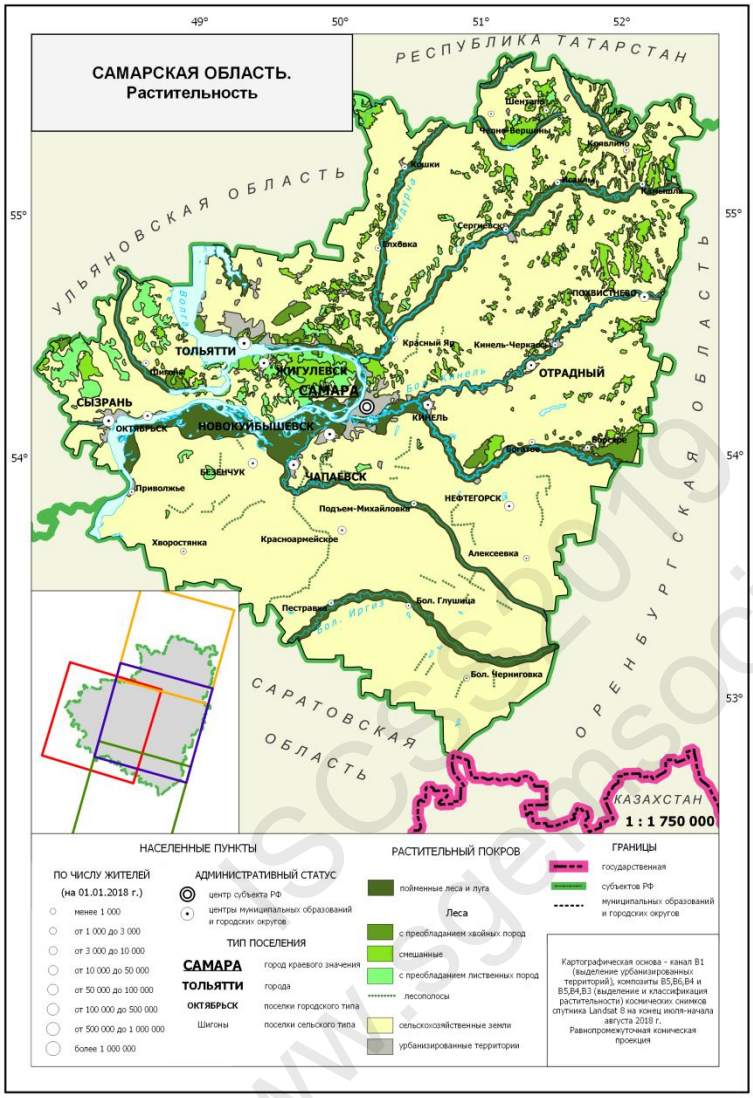

Figure 6. The final map of vegetation, compiled basing on remote sensing data. Algorithm multi-level supervised classification. Samara region (Russia).

5. The experimental task incorporates the compilation of vegetation maps for a specific administrative territory with the officially-defined boundaries. Satellite images were chosen from Landsat data.

6. It was offered to choose any of the algorithms for map basing compilation on remote sensing data. The most difficult step is the classification of vegetation. The students could go the standard way could offer their own. As a result, several groups of students were formed, each of them chose their own way working with satellite data.

7. The reasons for choosing one algorithm or another were based on the different degrees of students knowledge full or incomplete educational competencies, the complexity of the territory (area / relief), on the skills of interpretation of satellite images on the knowledge of the cartographic design. Moreover, a group of students developed their own mapping algorithm for working with the territory. We called it multi-level supervised classification. The algorithm designed by this group was implemented into teaching of the discipline.

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FOREIGN LANGUAGE COURSE IN ENGINEERING STUDENTS'SOFT SKILLS DEVELOPMENT

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ABSTRACT

Changes in the society cause changes in the demands on the process and the result of training an engineer. In the beginning of the 20th century a design engineer was needed; the second half of the 20th century called for engineers capable of carrying out a scientific research and applying its results; labor market in the beginning of the 21st century makes a demand on engineers who are both competent in dealing with theoretical and practical tasks that arise from their professional activities and able to work as members of international groups, to present the results of their work to the world professional community, and possessing a whole range of personal qualities and professional skills that enable them to fulfill their potential in the world production field. The article is devoted to the problems of training specialists ready to conduct effective professional activity in the modern world. The authors focus on the components of soft skills which include a certain set of personal qualities, emotional intelligence and communicative competence. Considerable attention is paid to technologies and developing tasks that help to formulate and improve the generic competencies of students while teaching them foreign languages. While creating English textbooks for engineering students the authors should bear in mind developing students' soft skills as one of the main goals of educational process. The findings show that students studying English using such textbooks are identified among others having positive learning outcomes, such as: increased self-reliance during teamwork; the ability to effectively overcome learning failures; increased cognitive activity; formed ability to convince and defend their own point of view. Hence, we can conclude that their soft skills are better developed in comparison with the soft skills of the students taught with the help of traditional textbooks.

Keywords: professional community, engineering education, soft skills, foreign language, developing tasks.

INTRODUCTION

The beginning of the 21st century was marked by the emergence of a new type of technical reality in the world. It is characterized by a close relationship between engineering activities and various socio-cultural processes and systems. The main goal of engineering education today is not a technocrat, but a person with a humanistic worldview, and with a rich and developed system of values, capable of goal-setting and self-development.

However, most graduates of higher technical educational institutions in Russia are not ready for professional activity in the current economic situation. They feel insecure in the global professional space; they often do not know how to show the results of their work to their best advantage, and do not keep up on the developments of their foreign colleagues. The reason of that is not only an insufficient level of professionally oriented foreign language communicative competence, but also the inability to integrate into the international professional community.

This paper proposes that the role of foreign language course in the training of future engineers is underestimated at the moment. We strongly believe that this course is not only an effective means of vocational training of students and their socialization, but also the means of the development of a comprehensively developed personality. Thus, there are sharp contradictions between:

- the complexity of the professional tasks facing university graduates on the one hand and the content of university curricula on the other;
- the stereotyped learning process in engineering institutions and the obvious need to change the university curricula and the asynchronous organization of the educational process;
- requirements which modern world imposes on the personality of a professional in the era of globalization on the one hand and the inability of the higher education system to train specialists who possesses not only professional competencies but also soft skills necessary to them on the other;
- the need for constant self-education of students and specialists and the lack of competencies necessary for self-organization, self-motivation and self-control;
- the potential role of the Humanities and Foreign Language course in particular and an underestimate of this academic discipline in the process of training of engineers.

THE NOTION OF SOFT SKILLS AND THE METHODS OF THEIR DEVELOPMENT

The process of globalization, which has exacerbated competition both between individual enterprises and between countries, has intensified scientific research and discussions in this area. In modern science, all possible factors that can determine the successful socialization of young professionals, employment and career growth are investigated. A. Brown [1] and J. Rojter [8] emphasize that engineering practice today embraces not only technological change, but also the social, economic, environmental and sustainability aspects of engineering endeavors. It is agreed that professional engineers lack some qualities that they need to succeed in their job. K. Craig suggests that a modern engineer should be immediate, innovative, integrative, conceptual and multidisciplinary [3]. Soft skills are extensively advocated now as being important elements of all aspects of workplace success [4, 7, 11].

This article is a logical continuation of long-term work of the authors in the field of studying the theory and practice of teaching a foreign language in a technical college. [5, 9, 10].

The development of soft skills of future engineers plays a fundamental role in the process of educating a competent specialist. In this paper the term “soft skills” means a

combination of certain *personal qualities, emotional intelligence, communicative competence*, allowing the specialist to achieve professional success.

Among the personal qualities we emphasize self-organization, creative thinking, ability to educate yourself, adaptability, flexibility, stress resistance, optimism, leadership skills, the ability to achieve goals, the ability to recover from failures.

As basic components of emotional intelligence we consider the following: empathy; the ability to properly evaluate and correctly express emotions; self-examination; self-esteem; the ability to manage emotions; the ability to correctly interpret emotions of the interlocutor; the ability to understand and use the ideas and current trends in the development of science and society; self-motivation.

The most important elements of communicative competence are: the teamwork skills; the ability to represent your ideas and results of your work; verbal and non-verbal communication; communication skills when using a foreign language; persuasiveness; the ability to defend your point of view; awareness and acceptance of social and ethical norms of communication.

Modern educational technologies implemented in the course of language studying allow developing a whole range of components of soft skills necessary for successful professional activities. It should be noted that foreign language teaching in higher educational institutions is carried out from the standpoint of communicative and competence approaches.

Given the fact that the communicative approach is the leading approach to teaching foreign languages, and a significant part of the components of soft skills is directly related to communication, the foreign language teacher has a wealth of resources for the development of both the cognitive and the emotional intelligence of students, which will undoubtedly have a positive impact on future activities of graduates.

Specialists of the Department of Foreign Languages of Southern Federal University are working continuously to make the process of preparing students for future professional activity more effective. One of the stages of this work was the development of a textbook for Masters ”Universal English” [6] aimed at improving both the soft skills and the foreign language communicative competence of the students of a master's degree. The textbook offers various types of developing tasks that prepare students for different aspects of scientific work in the international professional community.

The content and structure of the textbook are aimed at developing soft and hard skills of future engineers. It seems to us important to note that at the stage of study in the master’s program, a foreign language should be considered by students not so much as an academic discipline, but as a means of comprehension the world, obtaining valuable information for intellectual development and professional growth. That is why all the texts and videos selected by the authors for the Universal English textbook have practical value for students. It contains a large number of tasks designed to develop the ability to perform logical thinking operations (analysis, synthesis, classification, typology, generalization, etc.). When purposefully shaping the techniques of mental activity leading to independence and increasing the activity of students' thinking, such qualities of thinking as depth and breadth, speed, thoroughness, consistency, criticality and self-criticism, flexibility develop. The above qualities allow students to analyze and adequately assess various life situations, to think outside the box, to find non-standard

solutions to problems. Such tasks help to improve the students' attention, memory and imagination.

N. E. Bulankina identifies three types of developmental tasks – instruction tasks, reconstruction tasks, search tasks. [2]

Instruction tasks aimed at perception, comprehension, memorization and reproduction of educational material are presented in tasks intended to check the reading comprehension or listening (answers to questions about the content, retelling, determination of statements corresponding and not corresponding to the content). In the author's tutorial you can find the following examples of tasks, instructions: *Skim the text and point out the main sources of modern science development. Answer the following questions. Mark the following statements true / false.* Tasks of this type contribute to the accumulation and fixation in the memory of the data necessary for subsequent productive activity.

Reconstruction tasks focused on the active mastering techniques of rational mental activity. The content of the task-reconstruction may include the following types: the preparation of a complex question plan read or listened to; the selection of the main provisions with the subsequent detailing and argumentation; selection of material for the topic; a story on a given topic and others. In Universal English the tasks of this type are as follows: *Render the following text into English.* We believe that assignments of this type are more effective than assignments for translation, as students must use their abilities to analyze, classify and summarize the information received, and using only their own arsenal of language tools, reproduce the main ideas of the text in their native or studied language. We consider this type of assignments to be an important step in advancing students to the level of creative activity, since their performance reduces the proportion of literal reproduction of educational material and increases the importance of methods of transformation and rethinking, commenting, transformation of linguistic and extralinguistic material.

Search tasks are aimed at using the entire system of competences formed at the students, the ability to plan their own learning activities from drawing up an action plan, its implementation to the subsequent analysis of the work done.

The tasks contained in the textbook are designed to teach students to use previously acquired methods of mental activity to obtain new information and present it for discussion. Regular appeal to students' personal experience, tasks that encourage students to establish interdisciplinary communication, search and analyze information obtained from various sources, allow the teacher to maintain the cognitive motivation of students at the proper level, which helps students realize themselves as active, full participants in the learning process. The following tasks and questions for discussion can serve as examples of the use of tasks such as "search" and the implementation of projects based on them [6]:

1) *What alternative ways of science development could you think of?*
2) *Find out the concepts of the origin of science developed by different scientists, summarize them and point out the one you support.*
3) *What would be the state of modern science if the humanity had followed another trajectory of science development (in terms of the time, place and model of science origin)?*

4) *What are these scientists famous for? Use an encyclopedia while doing the task.*

5) Make a short speech about one of the most perspective branches of modern science.

In the course of the study, the authors came to the conclusion that the use of methodically expedient combinations of all types of developmental tasks with a predominance of tasks such as "task-search" contributes to soft skills development of graduate students. Purposeful creation of textbooks in a foreign language, focused on soft skills development of students, is one of the steps towards the fullest realization of the potential of the Foreign Language discipline in the course of training a modern engineer. According to the conducted survey students studying English using the Universal English textbook identified among others the following positive learning outcomes: increased self-reliance during teamwork; the ability to effectively overcome learning failures; increased cognitive activity; formed ability to convince and defend their own point of view.

It seems obvious that the above-mentioned components of soft skills formed allow the specialist to more fully create a picture of the professional world, determine their own place in the professional community, choose means and methods of self-education and professional self-improvement, predict career prospects and plan their professional growth. That is why we consider the conscious and purposeful work on the soft skills development to be an extremely important and promising area of pedagogical activity at engineering university.

CONCLUSION

Considering the issue of soft skills development in the course of teaching a foreign language in an engineering university we can draw the following conclusions:

- A new generation of professionals should not only have a set of certain professional knowledge and skills, but also be mature, responsible, creative people.
- One of the most important components of professional competence in terms of improving competitiveness, we believe soft skills, which include certain personal qualities, emotional intelligence and communication skills of the graduate of the university.
- The current situation makes it necessary to reconsider the role of foreign language course in the educational process and make maximum use of its unrealized potential for soft skills development of the future engineer. In our opinion, the optimal for achieving this goal is the use of complementary didactic resources, along with the creation of interdisciplinary projects integrated into university curricula, which requires separate consideration by psychologists, teachers, methodologists and managers of the educational process.

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HANDWRITTEN DICTATION OF CAPITAL LETTERS AND COMPREHENSION TO SENTENCES IN FIRST GRADE PUPILS AT A SPEECH-THERAPY-TYPE PRIMARY SCHOOL AND AT A PRIMARY SCHOOL

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ABSTRACT

The objective of the research was to test the dictation of capital letters and comprehension to sentences in a sample of first grade pupils at a speech-therapy-type primary school (STPS) and a primary school (PS). The author investigated 46 pupils, of whom 13 from the speech-therapy-type primary school, 12 from primary schools for pupils with specific learning disorders and 21 pupils with typical development from a primary school. **Results:** Pupils from STPS (N=25) achieved an average score of 20.52 out of 34 points in dictation of capital letters and in comprehension to sentences 5.52 out of 9 points. Pupils from PS (N=21) achieved an average score of 27.29 out of 34 points in dictation of capital letters; in comprehension to sentences 6.52 out of 9 points. **Conclusion:** PS pupils achieved a significantly better result in the dictation of capital letters than STPS pupils (***p*=0.0007**). PS pupils achieved a statistically significantly better result in the comprehension to sentences than STPS pupils (***p*=0.04)**. There is a significant correlation between the score of comprehension to sentences and the score of dictation of capital letters in the pupils of the selected sample (N=46, correlation rate ***r*=0.30**).

Keywords: writing, handwritten dictation of graphemes, comprehension.

INTRODUCTION

The research highlights some language areas that we consider to be important for a successful start of pupils at elementary classes. We focused on a handwritten dictation of capital letters and comprehension to sentences. The research was conducted between 07 June and 28 June 2017 with the consent of headmasters at two speech-therapy-type primary schools, one regular primary school in the Czech Republic, and the legal representatives of the pupils involved in the research. We consider the dictation of all letters to be one of the fundamental diagnostic elements in initial-stage writing. It serves as basis for intervention and prevention of writing difficulties. Our article also intends to point out the fact that some pupils face difficulties in comprehension (reception of) to sentences. These pupils do not exactly understand verbal communication and suffer from limited access to verbal information and more difficult conditions of education.

We believe there is a need to discover these specifics early and correct them through active involvement of the pupils.

THEORETICAL BACKGROUND

Written language is one of the three language system forms, linking three components: written expression, ability to spell and apply orthography, and handwriting. **Writing** is the most complex function of the language system. During writing, we connect our previous learning and experience gained through listening, speaking and reading. To command written language requires adequate command of the spoken language. The writer must be able to grasp the thought while forming his/her idea or statement into words and sentences and must also be able to plan the correct shapes of letters and words while handling the writing tool [1]. Writing is a learnt complex ability requiring transfer of symbols of spoken language to the symbols of written language [2]. While taking a handwritten dictation of letters, the writer must identify the heard sound - phoneme and then note down the phoneme as grapheme - a letter. Writers-beginners may be challenged while writing dictated grapheme resulting from difficulties with graphomotor skills. Difficulties with graphomotor skills include difficulties with creating the graphic elements of writing, such as a circle, oval, loop, cover return line, arches, checks, curves, serpentines and connecting lines. Some pupils with graphomotor problems write letters that are too big and disproportionally wide because of these pupils cannot write the individual elements of letters and cannot connect them into the necessary letter shape. Excessive pressure on a pad, fitfulness – disfluency – graphic line tremor is also considered as graphomotor skill problems.

The term **comprehension/understanding** [3], [4] may be understood as an expression of relationship, linkage, meaning, essence of the problem; as a learning method, comprehension is similar as intuition, you come to it directly. In terms of comprehension, [3] also references *language disorders.*

Language disorders [3] represent problems with coding and decoding the language, inclusive of problems with verbal communication, comprehension, reading, writing, and problem solving. Based on the method of processing language symbols they are classified as receptive and expressive. Receptive language disorders (RLD) disrupt **comprehension to words or sentences;** the subject demonstrates problems in understanding the meaning of words and sentences he/she is exposed to, e.g. he/she is asked to point at the denominated object or picture; following an instruction is more complex and the difficulty level increases with the sentence length, variety of tasks, using negative form, etc. Expressive language disorders (ELD) are manifested with difficulties with verbal expression, e.g. problems with forming words to express thoughts, problems with naming objects, lack of appropriate terminology, problems with semantics, phonology, morphology and problems with syntax.

Problems with understanding sentences and writing are found in many pupils who attend speech-therapy-type primary schools (speech-therapy primary schools and primary schools for pupils with specific learning disorders). In Czech Republic these schools are designed to teach pupils with severe forms of disturbed communication ability, such as **pupils with the developmental dysphasia syndrome**. [3, p. 53] defines developmental dysphasia as follows: "Specifically disrupted language (speech) development manifested with limited ability or inability to learn how to verbally

communicate, despite the conditions for language (speech) development being adequate." Developmental dysphasia is a neurobiological developmental disorder of spoken language; compared to his/her peers, a child shows disrupted ability to understand spoken language and/or express himself/herself with speaking [5]. Developmental dysphasia falls into the category of *developmental language disorders* and English-written scientific literature also uses the term *specific language impairment*. Comorbidity of developmental dysphasia with other developmental disorders is high. Most frequently, the following disorders appear simultaneously: specific learning disorders in written speech and mathematics, attention disorder with hyperactivity or without hyperactivity, developmental motor disorder (developmental dyspraxia), minor hearing disorder, cerebral palsy. DSM-5 (2015) identifies the developmental dysphasia as Speech and language disorder (315.32), it is classified as Communication Disorder and falls under Neurodevelopmental Disorders [6].

It may be expected that a child with developmental dysphasia starting school attendance with deficits in comprehension and speech and language production will have problems with learning since the basis of literacy requires command of the written form of speech – reading, writing and grammar, which are also necessary to gain command of mathematics and all other schooling knowledge [7]. Rescorly, 2009 in [8] says that even if the development seemingly seems at the same level as of the peers, these pupils continue to have minor difficulties with language functions. Pupils with dysphasia have problems with tasks that require high-quality processing of language information, symbol processing (such as shapes, colours, numbers, mathematical symbols) as well as with tasks for intermodal coding (connecting visual, auditory and motor stimuli) [7].

In the end, handwritten dictation of graphemes requires intermodal coding (connecting visual, auditory and motor stimuli), processing symbols (letter shape knowledge), processing of language (phonology) information (connecting phonemes – graphemes), visual motor performance when executing the grapheme shape, and high-quality cognitive functions (especially perception, memory, attention). Writing dictated graphemes is an activity of both language and non-language nature and it is not an easy task for writers-beginners with developmental dysphasia.

Research has revised the traditional concept of school readiness (perception motor developmental indicators): visual differentiation and visual motor integration are weaker dyslexia predictors, while language indicators predict dyslexia more reliably: the knowledge of letters, notion of reading, fast naming of images, repeating sentences, story reproduction, general index of language development, phonematic awareness and comprehension to speech [5], [9].

RESEARCH OBJECTIVES AND HYPOTHESIS

The following objectives were set for the selected research sample of pupils:

- Investigate the dictation of capital letters and comprehension to sentences
- Determine whether there is significant difference between the pupils' results based on the school type.
- Determine whether there is a correlation between the score of dictation of capital letters and comprehension to sentences.

The following statistical hypotheses were defined:

Hypothesis H1: Pupils at the common type primary school achieve statistically significant better result of average score in dictation of capital letters than pupils at the speech-therapy-type primary school.

Hypothesis H2: Pupils at the common type primary school achieve statistically significant better result of average score in comprehension to sentences than pupils at the speech-therapy-type primary school.

Hypothesis H3: There is a statistically significant correlation between the achieved average score in dictation of capital letters and comprehension to sentences.

RESEARCH SAMPLE DESCRIPTION

The research sample included 46 pupils. The sample comprised 25 first grade pupils of two speech-therapy-type primary schools (speech-therapy primary school N=13, primary school for pupils with specific learning disorders N=12) and 21 first grade pupils from a common type primary school. The selection was intentional – selection of "average units". At speech-therapy-type primary schools (STPS) we worked with 15 boys and 10 girls and at the common type primary school (PS) we worked with 10 boys and 11 girls. The sample of STPS included pupils with problems specified in Table 1.

Table 1: STPS sample specification according to speech therapy problems

Speech therapy problems		N	Respondent
Developmental dysphasia		16	1, 2, 3, 6, 7, 8, 9, 10, 11, 12, 13, 18, 19, 21, 22, 24
Bilingual language environment (Slovak or Ukrainian nationality)	Slovak	2	6, 23
	Ukrainian	1	24
Articulation disorder – sound dyslalia		4	4, 15, 23, 25
Stammer		3	4, 10, 23
Articulation disorder and phonological disorder		1	16
Bilateral perception hearing impairment compensated with a hearing aid		1	20
Palatolalia, hypernasal speech, velopharyngeal insufficiency after soft palate reconstruction		2	3, 17
Dyslexia		1	24
Dysorthography		1	14
Combined speech and language disorder		6	3, 4, 10, 14, 23, 24

The above shows that pupils R3, R4, R10, R14, R23, R24 (N=6) were found to have combined speech and language disorders.

METHODOLOGY

We used two non-standardized tools of our own design: handwritten dictation of capital letters and comprehension to sentences. To be able to take advantage of repeated observation of written performance and reactions of the children we used a registration method – our investigation was recorded with a video camera.

Our own designed **handwritten dictation of all capital writing letters** was used as a tool to measure the knowledge and ability to produce graphemes. The capital letters

were dictated in the following order: "*S, A, L, M, B, D, R, C, Ď, G, Č, E, Z, Ř, F, H, K, N, CH, O, Ž, I, J, Ň, P, Š, Ť, Q, T, U, V, W, X, Y*". Correctly written shape of grapheme received 1 point and the writer could get maximum 34 points with this task. Each child was investigated individually. We used white sheet of copy paper, A 4 size and all children used a pencil, hardness 2 [10].

To investigate **comprehension to sentences** the author used a tool of her own design. The tool comprised nine sentences taken from the Heidelberg speech evolution test, H-S-E-T Test workbook [11] and modified, e.g.: *"A sheep, watched by a bear, is running."* Seven sentences were proposed by the author herself. For information purposes below are examples of sentences designed by us: *"Touch the paper with a book. Open your book on page 19. Draw two red lines, five blue circles and three yellow stars."* The correct solution was awarded with one point. Aids used for the investigation included keys, paper, book, animal models (horse, sheep, bear, dog, giraffe), crayons [12].

RESULTS

We identified the pupils as R1 – R46; STPS pupils were R1 – R25, out of who R1 – R13 were pupils from the speech-therapy primary school and R14 – R25 pupils from the primary school for pupils with specific learning disorders. Pupils from the primary school were identified as R26 – R46.

Speech-therapy-type primary school pupils achieved an average score in **the dictation of capital letters** of 20.52 points, while primary school pupils achieved higher average score (27.29 points). The worst result of 5 points out of 34 capital letters came from a pupil with articulation disorder and stammer (R4). The pupil with developmental dysphasia (R8) wrote 9 out of 34 capital letters correctly. The pupil with developmental dysphasia (R24) managed to write 11 capital letters correctly. The lowest number of correctly written capital letters by a pupil from a common type primary school (R38) was 18. Pupils from the common type primary school managed to correctly write between 18 and 34 out of 34 capital letters, while pupils from the speech-therapy-type of school showed results between 5 and 31 out of 34 capital letters.

STPS pupils (N=25) achieved an average score in **Comprehension to sentences** of 5.52 out of a total of 9 points; PS pupils (N=21) achieved an average score of 6.52 out of 9 points. The worst result, 1 point, was established with R11 pupil who suffers from developmental dysphasia. The most successful STPS pupils with eight correct reactions to the said sentences included pupils R4, R12, R18 (one pupil with articulation disorder and two pupils with developmental dysphasia). PS pupils did not get the result of 1 point and they manifested better comprehension to sentences.

The pupils found the most difficult task to be comprehension and reaction to the ninth sentence: "*Draw two red lines, five blue circles and three yellow stars.",* which was successfully completed by only 6 pupils. The seventh sentence also caused problems: "*A sheep, watched by a bear, is running."* and the first sentence: "*Touch the paper with a book."*; these sentences were acted out correctly by 14 (30%) pupils and 22 (48%) pupils. A list of respondents successfully acting out the seventh sentence shows that 8 (32%) STPS pupils and 6 (29%) PS pupils responded correctly, which was a surprise as we expected the PS pupils to be significantly more successful. The first sentence was acted out correctly by 9 (36%) STPS pupils and 13 (62%) PS pupils. The fourth

sentence was the easiest: *"Open the book on page 19*", which was completed by 45 (98%) pupils.

VERIFYING THE HYPOTHESES VALIDITY

To statistically verify the validity of hypotheses we used Student's T-test and Pearson's correlation coefficient. The calculation was done in the STATISTICA 10 CZ program. At first, the zero (H_0) and alternative (H_A) hypotheses were defined to verify our hypotheses. Subsequently, based on the test criterion calculation and calculated significance, the decision was made that the hypotheses are valid. Considering the evaluation of defined hypotheses validity was done using the STATISTICA program, calculating the significance level *p*, the definition of zero and alternative hypotheses is not provided here.

VERIFICATION OF H1 AND H2:

According to the results listed in Table 2, based on the calculated significance p=0.0007 (at a selected significance level 0.05) **we accept the H1 hypothesis.**

Based on the calculated significance p=0.044 (at a selected significance level 0.05) **we accept the H2 hypothesis.**

Table 2: Comparison of average scores in Dictation of capital letters and Comprehension to sentences

Variable	t-tests; grouped: Type of school First group: Speech-therapy-type primary school (STPS) Second group: Common type primary school (PS)								
	STPS average	PS average	t	sv	p	N STPS	N PS	Standard deviation STPS	Standard deviation PS
Dictation of capital letters (max. 34 points)	20.52	27.29	-3.62	44	**0.0007**	25	21	7.49	4.49
Comprehension to sentences (max. 9 points)	5.52	6.52	-2.08	44	**0.044**	25	21	1.81	1.40

VERIFICATION OF H3:

As shown in Table 3, there is a statistically significant correlation between the average score in Dictation of capital letters and Comprehension to sentences (N=46, correlation rate r=0.30). Based on the received results **we accept the H3 hypothesis.**

Table 3: Correlation between the Dictation of capital letters and Comprehension to sentences

Variable	Correlation
	The respective correlations are significant at the level of < 0.05
	N=46

	Averages	Standard deviation	Score in Dictation of capital letters / 34	Score in Comprehension to sentences / 9
Score in Dictation of capital letters / 34	23.61	7.11	1.00	**0.30**
Score in Comprehension to sentences / 9	5.98	1.69	**0.30**	1.00

DISCUSSION – POTENTIAL LIMITS AND BENEFITS OF THE RESEARCH

In Dictation of capital letters, STPS pupils were successful in 60%, while the PS pupils were more successful – 80%. A discussion about the causes of the different results focuses on the following: children with certain profiles of language disruption may show different sensitivity to the command of capital letter writing skill, i.e. they may need more repeating and time to command the skill. Other variable that could have affected the more negative results of STPS pupils may be the level and structure of intellect, level of phonological abilities, level of intermodal coding and graphomotor skills. Pupils with typical language development could have been more proficient in intermodal coding, which is necessary for taking a handwritten dictation, i.e. especially in the ability to link visual, auditory and motor stimuli, process and recollect symbols (letter shape), process language (phonological) information (recollect the link between phoneme and grapheme), manage the visually motor output (to write the grapheme shape). The performance could have been affected or compensated by a different level and cooperation of cognitive functions (especially perception, memory and attention). The speech pace applied to present the dictated graphemes was kept stable. We believe that it did not affect the result.

The PS pupils were more successful than the STPS pupils in Comprehension to sentences (72% success rate: 61% success rate), but the difference between the results was smaller than in Dictation of capital letters. The task Comprehension to sentences required good quality language processing and good quality working verbally acoustic memory, which are weakened areas in the pupils with difficulties of language nature. In terms of Comprehension to sentences, the ninth sentence was the most difficult for both groups since it required intermodal coding – linking auditory and motor stimuli, symbol processing (knowledge of line, circle, star shapes, knowledge of colour and number), processing of language information, visually motor performance when drawing the shape, colour and number of symbols, good quality cognitive functions (especially memory, attention and perception). The task was an activity of both language and non-language nature and for first graders it was not an easy task.

CONCLUSION

Our research is limited by the low number of pupils in the sample. Nevertheless, based on the research result we would like to recommend that the teachers in first grades not only at the speech-therapy-type primary schools write a dictation, transcription or copying of 3-5 minutes in duration with their pupils every day in order to make the command and writing of graphemes automatic and thus contribute to prevention of problems with writing. We also suggest the drawing dictation with children, draw basic shapes in certain number and colour. Based on our own experience, we think it is

meaningful to teach the pupils to focus on the first instruction without the need to repeat it. It usually makes them better utilize their learning potential and lose less time.

Based on the results of our research, the H1 hypothesis validity was verified: Pupils at the common type primary school achieve statistically significantly better result of average score in dictation of capital letters than pupils at the speech-therapy-type primary school. The H2 hypothesis validity was verified: Pupils at the common type primary school achieve statistically significantly better result of average score in comprehension to sentences than pupils at the speech-therapy-type primary school. The H3 hypothesis validity was verified: There is a statistically significant correlation between the achieved average score in Dictation of capital letters and Comprehension to sentences.

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HEALTH AND SAFETY: PRINCIPLES AND PRACTICES

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ABSTRACT

The safety is a key value consisting of personal safety programs, injury prevention, health support and keeping environmental and safety laws and regulations**.** According to previous experience it is possible to state that students, pre-service chemistry teachers, who are well-prepared due to safety practice and compliance with safety regulations and responsibilities, after starting work, are able to work creatively. With regard to preparing pre-service chemistry teachers, it is inevitable to understand the importance of education in Occupational Health and Safety as well as how it can be applied in practice. Due to improve the educational process of future graduates of teaching profession new developmental trends have been included. A line of responsibility for good health and safety practice begins at the workplace, laboratory or classroom and proceeds upward through the levels of management. In this paper, we would like to demonstrate the importance of the education and university education of pre-service chemistry teachers in the principles of correct manipulation with chemical substances, chemical mixtures, and chemical waste nascent during or after chemical reactions, analysis and synthesis.

Keywords: pre-service teacher, education, chemistry, chemical substance and mixture, laboratory

INTRODUCTION

In everyday life people are affected by the influence of various chemical substances. Chemical substances are important and inseparable part of our lives and we come into contact with them every day (cleaning and disinfecting substances, fertilizers). They might have a negative impact on human health. Some of them might cause poisoning and damage our environment. To evaluate the danger and the risk taken with chemical substances of various kind it is necessary to know in what situations they are actually dangerous [1], [2]. In order to make work and study conditions safer, structural and organizational measures are needed. In-service teachers and pre-service teachers are involved in these changes and measures oriented on security as well. In addition, safety work and work conditions require interdisciplinary and intersectoral work in the prevention of Occupational Health and Safety (OHS) and health promotion in care. In order to provide safer working conditions not only education institutions need to organize and structure the following processes: protocols for the use of personal protective equipment [3], standard OHS precaution protocols and extended precautions (contact precaution and protection); waste management plan; use of safety devices according to current legislation and flowchart for attendance of the employees (students, teachers) injured in work accidents. There is a need to develop new knowledge

continually and information of students-pre-service teachers in chemistry education focused on the potential risks posed by working with chemical substances and chemical mixtures. Our aim is to prevent hazards (fire, explosion, injury) arising from working with chemical substances and chemical mixtures at the workplace (e.g. chemical laboratory) and to propose such procedures - to ensure adequate ways to prevent those risks.

In this paper, we would like to demonstrate the importance of the training and university education of pre-service chemistry teachers in the principles of correct manipulation with chemical substances, chemical mixtures, and chemical waste nascent during or after chemical reactions, analysis and synthesis.

PRINCIPLES AND PRCTICES IN EDUCATION OF STUDENTS-PRE-SERVICE TEACHERS

University education is very important for a personality and and professional growth of young people [4]. The top priority should be to provide the young person in question with quality education with the possibility of applying the knowledge acquired in practice [5]. That increasing the quality and efficiency of education is currently a priority aim at universities [6]. An integral part of the preparation is to take care of Occupational Health and Safety (OHS) in theoretical education and practical training. The education in OHS of pre-service chemistry teachers is one of the main strategies for the adoption of safe practices in educational a healthy process. It is a tool that helps students become aware of the consequences of their practices and adherence to chemical safety precautions and measures, including the prevention of occupational accidents.

Testing of acquired knowledge in practice during university education of pre-service chemistry teachers takes place in chemical laboratories. The chemical laboratories´ work environment is considered risky by grouping chemical substances and chemical mixtures and providing procedures that bring risks of accidents and diseases. In order to make work conditions safer, structural and organizational measures are needed. One of the aims of university education is to widen and add new knowledge that pre-service teachers will learn and use in their pedagogical practice [7]. For the students it is important to understand why and how chemical substances might be dangerous, what is the risk of different types of chemical substances, chemical mixtures and their toxicity, and how to deal with them safely. Activities mentioned lead students to health care and a healthy lifestyle. Current information about compliance with the principles of OHS in schools shows that this activity is not satisfactory in schools. It is, therefore, necessary to focus long-term attention not only on increasing theoretical knowledge in the field of OHS, but also and primarily on their applicability and usability in practice, and this is also true for the education of pre-service teachers of chemistry.

METHODOLOGY

The task of educating pre-service chemistry teachers is to improve the educational process and, at the same time, to integrate new development trends into the preparation of future graduates of the teaching trade unions. For the duration of the 3-year KEGA project (No. 044UKF-4/2017) we organised lectures and seminars with practical demonstrations. These activities were aimed at the correct manipulation with chemical

substances, chemical mixtures and chemical waste were prepared for the students, pre-service chemistry teachers.
The survey objective: Correct manipulation with chemical substances, chemical mixtures as well as chemical wastes.
The survey subject: The study content focused on laboratory exercises and experimental parts of final theses (bachelor, diploma and dissertation).

In preparing these activities we used experimental research methods.
Research methods as *knowledge test, questionnaire, interview* were used. These methods were to determine students' knowledge of the correct manipulation with chemicals during laboratory work.

This survey consisted of the following tasks:
- a questionnaire survey of the knowledge of respondents 1st – 3rd graders of bachelor study programmes and 1st – 2nd graders of master study programmes at the Department of Chemistry, Constantine the Philosopher University in Nitra during the academic years 2017/2018 and 2018/2019;
- the views of respondents (orally) after the completion of individual activities prepared within the project and related to the topic correct manipulation of chemical substances and chemical mixtures;
- the views and experience of respondents obtained in the preparation and implementation of individual activities.

The survey has been planned for a period of three academic years. Within the time of two academic years (during 2017-2018 and 2018-2019) the survey sample consisted of 168 respondents. The final phase of the survey, which will take place during the academic year 2019/2020, will process the data and interpret the results achieved.

Based on the research problem, the *main hypothesis (H)* was formed, followed by *two sub-hypotheses (H1-H2)*:
H: Education oriented on the correct manipulation with chemical substances and chemical mixtures affects changes in student attitudes to the subject of chemistry.
H1: The extension of knowledge to the properties of chemical substances and chemical mixtures contributes to the dissemination of knowledge in the subject of chemistry.
H2: Information on the proper disposal of chemical waste contributes to environmental care and thus to health protection.

Knowledge acquired during university studies is the basis for pre-service chemistry teachers' professional practice. In a survey we have learned that pre-service teachers lack information on the properties of chemical substances and chemical mixtures. These are inorganic and organic substances which may endanger human health. For this reason, the first lectures received by respondents (1st – 3rd graders of bachelor study programmes and 1st – 2nd graders of master study programmes) were focused on inorganic substances (elements, compounds) based on their position in the periodic table of elements (Figure 1).

Figure 1: The lecture with entitled "*Safe´mainipulation with chemical substances and mixtures* in chemical laboratories" at the Department of Chemistry, Constantine the Philosopher University in Nitra (Slovakia)

RESULTS AND DISCUSSION

For an illustration of the lectures' syllabi and content, the following paragraphs include information about inorganic substances (1A and 2A group elements and their compounds) and their properties that students come into contact with during university laboratory exercises and experimental parts of final theses (bachelor, diploma and dissertation). Students were acquainted not only with physical and chemical properties, but also with the impact of selected chemicals on the human organism.

The alkali metals are typical metals in terms of their physical and chemical properties. They are silver-shiny, soft, can be cut with a knife. Lithium, sodium and potassium float on water. Their melting temperature is extremely low, except for lithium. They are stored in kerosene. They are the most reactive of all metals. All alkali metals except for lithium are highly reactive with water, while reactions can be described as turbulent and explosive. Alkali metal hydroxides are white hygroscopic crystalline substances, soluble in water with strong causticity. Sodium and potassium are important biogenic elements.

Lithium and its compounds

Physical and chemical properties:

Lithium is the lightest alkali metal. Its reaction with water is not as turbulent as in case of other alkali metals. Lithium compounds are to some extent similar to magnesium compounds. Its compounds, such as: LiOH, Li_2CO_3 are less soluble than carbonates and sodium and potassium hydroxides. It oxidises with water while LiOH, with strong alkaline properties, is produced [8].

Effects on the organism:

Lithium affects the electrolyte balance of liquids and tissues. It reduces the sensitivity to insulin. Lithium may displace sodium from cells [9]. Lithium compounds cause an increase in leukocyte count; lithium may enter cells from where it is excreted 8-times more slowly than sodium. Lithium affects not only sodium concentrations, but also calcium and magnesium concentrations in cells. Among the toxic effects of lithium are its effects on the organism's iodine management, slowing the thyroxin circulation. Toxic symptoms occur at serum concentrations as low as 1.5 $mmol.dm^{-3}$. In particular, fatigue, feeling thirsty, dry mouth, memory difficulties, muscle and joint pain occur. During intoxication, sodium or potassium salts are administered in order to increase the excretion of lithium from the body. Intoxication causes loss of consciousness, even

death. Gastric lavage is desirable in case of oral overdose. Medicinal charcoal is not used in lithium poisoning because lithium and charcoal do not bind each other [10].
The total effect of lithium is dampening the central nerves. Acute poisoning causes muscle twitching, stress, musculoskeletal disorders, fatigue and numbness. In more severe cases, deep unconsciousness and convulsions like epilepsy occur. It exhibits a nephrotoxic effect that is dependent on the amount of sodium added to the body. In the absence of sufficient sodium intake, lithium toxicity is higher [11]. According to Pelclová et al., acute poisoning occurs after ingestion of 6-7 g [12].

Lithium carbonate (*Li_2CO_3*) is colourless, slightly soluble, having similar effects to sodium carbonate on the human body.

Sodium and its compounds

Physical and chemical properties:
Sodium is silver-shiny, soft metal, stored in kerosene. It is highly reactive, directly compounding with water, halogens, sulphur, phosphorus, arsenic [13].
Effects on the organism:
Sodium and potassium in the form of ions are the main cations involved in the electrolyte management of the organism. These elements are involved in electrolyte management, neural transmission, transport processes, maintaining osmotic pressure and acid-base balance. Sodium protects the body from excessive water loss because 99% of sodium is absorbed back into the blood with water. The level of sodium in the blood is an indicator of total body hydration [9].
Caution should be exercised when treating sodium. When in contact with wet skin or clothing, it ignites and causes burns. We treat first aid as burns.

Sodium hydroxide (*NaOH*) is a white, water-soluble, hygroscopic substance. It is highly alkaline, a corrosive that has a caustic effect on skin and mucous membranes (the more concentrated NaOH solution, the more severe the tissue damage). If skin is exposed to NaOH, first aid is by quickly rinsing with water. If an eye is hit, rinse it as soon as possible, making sure that the other eye does not get hit. In case of ingestion, 0.5 dm^3 of water should be drunk to dilute the stomach content [2].

Trisodium phosphate (Na_3PO_4*)* water solutions are highly alkaline, they can damage the skin. If the skin or eyes are hit or if ingested, the first aid is the same as in case of exposure to NaOH.

The effects of *sodium carbonate (*Na_2CO_3*)* are more moderate, but similar to NaOH. Respiratory tract irritation and conjunctivitis may be caused by inhalation of "dust". A solution up to a concentration of 2% is not considered harmful in contact with the skin.

The effects of *sodium bicarbonate (*$NaHCO_3$*)* on the skin are milder than Na_2CO_3.

Sodium chloride (NaCl) single adult toxicity dose is 200 – 280 g. Chronic high NaCl intake (greater than 15 g/day) is a risk factor for both stroke and stomach cancer.

Potassium and its compounds

Physical and chemical properties:
Potassium has similar properties to sodium, but its reactions with water are more turbulent. Most potassium salts are highly soluble in water. Potassium compounds are characterised by less solubility than sodium compounds [13].
Effects on the organism:

Potassium is a typical intracellular cation. It is an important biogenic element. Its effects on the skin are similar to the effects of sodium. Potassium cations are about six times more toxic than sodium cations. Acute potassium poisoning is manifested by nervous symptoms and muscle damage, particularly the heart muscle. The caustic effects of some of its compounds are even stronger than those of the corresponding sodium compounds [11].

Potassium hydroxide (KOH) is a white water-soluble substance and has the same properties and effects as NaOH. In case of an eye exposure, rinse it with water and make sure the other eye does not get exposed. In case of skin exposure, wash the affected area with water. If ingested, make the affected individual drink 0.5 l of water at small doses of in order to dilute the gastric contents.

Potassium chloride (KCl) is a white substance. After ingestion it causes convulsions and irregular heartbeat.

Potassium carbonate dihydrate ($K_2CO_3.2H_2O$) is a white, water-soluble crystalline substance. It has stronger effects than sodium carbonate.

Rubidium and caesium

Rubidium has no biological significance, although it may occur as a trace element in the body. Rubidium salts are toxic to living organisms. Caesium and rubidium hydroxide are more potent hydroxides than sodium or potassium hydroxide, causing burns.

The alkaline earth metals in their elemental state are metals whose colour ranges from silver-white to grey. The chemical reactivity of the elements increases from beryllium to radium. Beryllium and magnesium are stable in the air at laboratory temperature because they are protected by a continuous layer of BeO and MgO. Beryllium only compounds with oxygen at high temperatures, the ignited magnesium burns in the air with a brilliant flame and changes to MgO. The alkaline earth elements are oxidised at laboratory temperature. All elements in the group react energetically with halogens and most of them, under appropriate conditions (temperature), also with hydrogen, sulphur, carbon or nitrogen [8].
Compounds of 2A group elements are less soluble in water than those of 1A group elements. The hydroxides and oxides of these metals have a strong caustic effect.

Calcium and its compounds

Physical and chemical properties:
Calcium is a silver-shiny, very reactive metal. Calcium is an important biogenic element [2]. Calcium compounds are generally non-toxic [13].
Effects on the organism:
Calcium is found in the human body in free form and bound to proteins. It occurs in bones in the form of complex salts of calcium and phosphorus, which form the structural basis of bones. The skin is irritated by calcium. Severe swelling or ulcers may occur. Respiratory mucosa is irritated by the inhalation of calcium dust. Eye burning is very dangerous.
Calcium hydroxide ($Ca(OH)_2$) is a strong caustic, white in colour. In case of an eye exposure, rinse it as soon as possible and make sure that the other eye does not get exposed. In case of skin exposure, wash it with water, neutralize. In case of ingestion, make the affected individual drink 0.5 litre of water to dilute the stomach content [11].

Concentrated *calcium chloride ($CaCl_2$)* solutions can cause ulcers on the skin, and, if ingested, they are more toxic than $Ca(OH)_2$.

From the dust of *calcium sulphate* (*$CaSO_4.1/2H_2O$,* also referred to as *gypsum plaster* or *plaster of Paris*) conjunctivitis may occur.

Calcium carbide (CaC_2) has caustic effects.

Magnesium and its compounds

Physical and chemical properties:

Magnesium is light, silver-shiny metal, insoluble in water. Unlike beryllium, magnesium reacts more readily with most non-metals [13]. It is well-soluble in the dilute acids with which it produces salts. It oxidizes in the humid air. It reacts slowly with water because the emergent magnesium hydroxide is insoluble in water. It does not react with alkaline hydroxide solutions. Magnesium is an important biogenic element [11].

Magnesium hydroxide ($Mg(OH)_2$) is a weak alkaline, it used as an antacid in an aqueous suspension. It is insoluble in water.

Magnesium oxide (MgO) is colourless, insoluble in water, having irritate effect to eyes and mucous membranes of the respiratory tract.

Magnesium sulphate ($MgSO_4$) is a white hygroscopic substance, in water-soluble. After ingestion it causes diarrhoea. Long-term skin contact creates rashes.

CONCLUSION

An integral part of university education is expanding the knowledge and skills of future graduates. Nowadays some situations influence health and life quality in everyday life as well as in free-time activities. We can attribute potential impacts on human health and the environment to chemical substances and mixtures based on their composition. These situations require new attitudes of pre-service teachers and in-service teachers' preparation as well as preparation of pupils and students in all types of schools. The danger with chemical substances and chemical mixtures is a characteristic of working in a laboratory. Incorrect manipulation with chemical substances and chemical mixtures may endanger the health of teachers and students and cause damage not only to laboratory equipment but also in the environment. Understanding why and at what concentration chemical substances and chemical mixtures are dangerous is not only limited by the usefulness of chemistry as a science but is also of great importance in terms of education. The educational process must be adequate to students-pre-service chemistry teachers needs and situations. Education oriented on correct manipulation with chemical substances, chemical mixtures, and chemical waste is as one option to ensure good health quality and increase environmental interest.

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IMPORTANCE OF PROFESSIONAL ETHICS IN HIGHER EDUCATION

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ABSTRACT

The aim of the paper is to point out the social need to elevate the ethical culture through knowledge, development of ethical skills and professional ethics, which exists over higher education.

The evolution of an ideal professor guided in all the fields of culture constitutes a challenge for university teaching, with a peculiar emphasis on professional ethics. This research offers a conceptual theoretical approach concerning the development of applied ethics. It includes the explanation of two forms of these type of ethics: "business ethics and the involvement in teaching regarding professional ethics." Other include the methodological explanation of the research process and the investigation of the results. Ethical culture, as an object of study in qualified careers, is gaining strength in the faculties of the most prestigious universities worldwide. Ethics' research in different Universities of the world has had its limitations, both in Europe and Latin America. Moreover, authors such as Ildefonso Camacho and Francois Vallaeys, seriously debate and argue, at the same time, on the importance and effects of this subject in academic environment.

Keywords: ethics, education, research

INTRODUCTION

The area of higher and university education has various functions the most important and expansive of them being scientific and practical education of students in various fields. Professors and members of university scientific community whom a major portion of this function is placed in their hands, due to their pedagogical profession have ethical duties and responsibilities which are referred to as professional ethics of teaching. Professional ethics in teaching has subcategories which are primarily focused on two sections namely professor's ethical duties during his or her pedagogy and the ethical duties of the professor in line with his or her developmental role.[3] The topic of professional ethics has long been focus of attention in various countries, occupational and professional groups and endeavor has been made for formulation of ethical codes and standards. Universities also since they are forerunners of cultural, social and political movements in societies and opinions and beliefs dominating over them sooner or later gets transferred to society and opens new arenas for the public are not free of need for professional ethics. Higher education is associated with suitable conditions for occurrence of ethical issues and ethics has application in all contexts and activities of higher education. It goes beyond legal duties and professional responsibilities of organizations and attends challenging issues. Professional ethics in higher education identifies limits and boundaries of appropriate and inappropriate behavior and guides members of the scientific community in performing their professional responsibilities. since professors

have fundamental effect on the ethical atmosphere of the entire university environment and their behavior is effective on ethical and practical improvement of students, university professors irrespective of their specialty field need to be skillful in principles and values of professional ethics. since they have the duty of educating and teaching, they should also be skillful in the instructing profession and be familiar with professional principles. The reason is that teaching is considered the first function and mission of a university.[4] Teaching provided by an educational system may lead tooccurrence of special behaviors in society which are ethically subject to criticism and evaluation. With regards to professional ethics of university professors and teachers of schools little research has been performed. For example, Moray and colleagues (1996) in a research titled "Ethical principles of university teaching" mention nine ethical principles in the university which include: efficiency of curricular content, efficiency of teaching, attending sensitive topics, helping the student grow, lack of improper relationships with students, confidentiality, respect for colleagues, accurate evaluation of students and respect for the teaching institution. Rafael and Canizal (2001) in a study titled "Evaluation of ethical improvement and professional ethics of professors at the University of Texas" found out the mean score of ethical reasoning of professors in correlation with age, gender, occupational position, scientific and sectional standing differed but this difference was not statistically significant. In a second round of analysis, age created more diversity in responses in relation with questions of ethical opinions. Cam and colleagues (2012) show that while physical education teachers have noted that they respect professional ethics in the dimensions of professionalism, responsibility taking, truthfulness, and respect at a high level, yet, principals have reported that they pursue professional ethics at a lower level. considering the limited external studies and studies by internal researchers regarding professional ethics, there is no complete and comprehensive research in the context of professional ethics of professors inside the country specially studies that evaluates the effect of this ethical quality of professors and teachers on educational aspects of students such as academic performance.

ETHICS AND MORAL BEHAVIOR

The inevitable part of the current globalized world where there are many cultures and societies must be ethics. Ethics as a practical philosophy deals with moral aspects of human relationship, it cannot be separated from our everyday life. We ask what is right and what we should do. Ethics is the set of values and rules and it determines the given society or group, it is the moral behaviour inside the given society. Ethics presents the relationship of the human to itself, it is a question about the sense of life and what is right and what is not.

The most important was the work of Immanuel Kant and his four questions: What can I know? What should I do? What can I hope in? What is human?

Because the ideal concept of multiculturalism is based on a cooperation of various races, religions and ethnic groups, it is clear that because of many conflicts this concept is obsolete.[7] Multiculturalism bring the problems not only economic, political, social and cultural but also has its ethical dimension [2]. There are many differences in behaviour and attitudes of people, value systems, traditions and habits, in families, in education, at work, in public and in communication. A very sensitive topic of the recent time is religion. The problem will not solve itself and it is clear that the upcoming years and

months will be a challenge for politicians, governments and for us who are influenced by the immigrants [5]. The philosopher Comenius claimed that we are all on the stage of one world and what happens influences us all. Not only international organizations but also the EU represents some hope for people in need and suppressed.

THE IMPORTANCE OF ETHICS IN EDUCATION

A university exists to provide multi-disciplinary and multidimensional services to the community. As an autonomous institution at the heart of societies differently organized, the Magna charta Universitatum states that a university "produces, examines, appraises and hands down culture through research and teaching'. To hand down culture is to transmit traditions and adaptable ways of life. culture in itself is not static but constantly dynamic, containing values, wisdom and knowledge tested over generation. one major component from the above definition is to state that a university is Knowledge and value Provider [5]. It stands or fails in its ability or inability to deliver on these criteria. Properly stated, education conveys learning and character. If it provides only one aspect, it lacks in wholeness, leading to the failures which many institutions operate and humanity suffers. University teachers produce the global leaders of tomorrow. Fact is that the teachers are leaders of future leaders because they train the young. Teachers therefore bear a grave responsibility in their institutions, alongside parents, the government and the Media with the traditional institutions amongst others, to encourage value-driven leadership through the content, curriculum and methods of training professionals.

Worldwide, information is multiplying at a phenomenal rate. Globalization has increased the social space, leading to borderless boundaries on the financial, economic, social, ecological, political and cultural dimensions of traditional societies. The world is changing with unprecedented speed and this is observed in virtually all sectors including within the university walls. Following the financial crisis of 2008 and the collapse of institutions and even governments, a phenomenon that started in the United states of America in year 2008, people lost jobs, investments and retirement funds. An example of the crisis was the collapse of a world class company ENRON, alongside others and many wondered how this could be possible. The deeper meaning in the fall of this company is the fact that any system or governing structure is only as good as the people who administer it. In the case of ENRON, the need for morally informed corporate governance, founded on solid ethical principles, has been quite obvious.[8] Abdicating such leadership in attempting to cover up poor management decisions is something that cannot stand if our society is to be free and virtuous. Writing in the New York Times in his January 18 Editorial, Paul Krugman made the point that the "ENRON debacle was not just the story of a company that failed. It is the story of a system that failed. And the system did not fail through carelessness. It was corrupted". Yet, teachers in Business schools and educational institutions who had over the years turned out first class students and highly successful professionals and excellent specialists wondered at how this could happen with their bright students acting in freedom as 'moral crooks' but lacking in responsibility and virtue! Educational institutions produced them. These institutions are challenged to revisit their educational content, the school curricula and their overall systems which produce bright managers lacking in integrity and engage in teaching, training and research that links the heart and the mind of the human person in wholeness.

The key factors that may lead to success in this endeavour to establish quality education and proper management of Ethics in institutions of higher learning and even in secondary schools include some of the following factors:

- Forming and strengthening at the international level, an advocacy think-tank such as the ICDE, and others that among other education reform thinking shall lobby at all levels of government and educational regulatory institutions for an education model that establishes a curriculum framework that is different from the current smorgasbord approach.
- Build a structured collaboration with teacher education systems for hiring new teachers and re-training existing teachers in line with the vision for a result-oriented student centered school system in ethics matters.
- Create a mentor teacher support structure for supporting new teachers in the first three years of joining the profession. This structure will also serve as a peer review and support team for experienced teachers not meeting performance expectation based on their student achievement.
- Empowering the heads of ethics departments with resources necessary to deal with the obstacles that hinder the change process
- Build an assessment structure that will measure student overall achievement outside traditional frameworks and review indicators for measuring teacher overall efficacy – using student performance and professional development hours as some indicators. This assessment structure will not be used solely for measuring student or teacher rankings but for making decisions that improve whole school systems.
- Continually review curriculum in subjects of Ethics to give room for topics that relate to freedom and responsibility.
- Ensure that the students of universities already in early years in the university are made to attend the lectures on an obligatory level as General studies
- Ensure methods of reward and punishment by awarding prizes and aiding endowments and scholarships on Ethics studies

Higher education in general can and has to play a key role in this process of balancing global and contextual perspectives in building identities through research, teaching and training. Even if open and distance education seems to be delocalised and disconnected from a specific context, it can and has to promote contextual identities by reflecting and researching on it. In a more specific way, e*thics* in higher education is a central part of this objective. [6]

Many professionals with a higher education are excellent specialists but moral crooks. After the financial crisis of 2008, business schools worldwide were called upon to revise their educational system to avoid producing managers who have been seen as contributors to the crisis.[9]

How can an ethical culture of integrity be systematically strengthened? How can the respective curricula be developed? How can values-driven behaviour be integrated into the process of staff recruitment? How can technological innovation be balanced with social and organizational innovation? How can distance education be combined with

character development? How can values-driven students be supported in their first years of professional life when confronted with corrupt employers and societies?

University leaders, as global leaders, can and do play a key role in strengthening ethical values and virtues. University leaders are leaders of future leaders. The integrity and ethical values of leaders, institutions and of the curricula of higher education are crucial in building trust and credible professionals [1]. The currently high reputation of academic institutions as being nonpartial, fair, objective and at the service of the whole community and of the common good of humanity is being threatened in ways that are deeply worrying. The cheating culture is on the increase, academic fraud and plagiarism is becoming more frequent than in the past, albeit partly thanks to the emergence and use of online publications and plagiarism software, corruption in educational institutions has become so widespread that more and more employers no longer trust the validity of academic grades and certificates.

What are the reasons for and the effects of this development? Let me just mention four of them:

1) Pressure: For many parents and societies, higher education seems to be the only valuable goal. The pressure is so high that young persons and their parents use all means at their disposal to get a bachelor or master degree. The effect of this pressure and of onesided public educational strategies is that we have millions of jobless academics and not enough young people with vocational training. But studies show that innovation of a country does not only depend on a strong academic sector, but on balanced educational instruments. switzerland and Germany are examples: switzerland is regularly rated among the most innovative countries in the world but when compared with other countries it has a relatively low percentage of young people with a university degree and a high percentage of those who have vocational training.

2) Finance: in many countries, academic staff is not well paid compared toother sectors such as the private sector. With the minimum income, teachers are tempted to increase income by receiving bribes in the form of money and sexual services. The effect is that students learn by example. It is a lesson that they are taught indirectly: in order to be successful in a profession, one needs to accept immoral behaviour. This then continues the vicious circle of corruption, low performance and lack of competitiveness that can also include losing lives: accountants, medical doctors, construction engineers, etc. put people at risk and even take lives if they have a diploma but not the knowledge to practice professionally. (Example: A professor of medicine in

Romania told me he would never allow his son, who is a medical doctor, to treat him. I was surprised and asked why. His answer: “Because I know how he got his degree” [he meant bribes, without the need to explicitly say it]. A late confession.) In some countries and especially in public educational institutions, the salaries of teachers, including university professors, are not paid for months, which then leads to dramatic financial hardship and unethical consequences

3) Privatisation: the boom of new, mainly private institutions of higher education in many countries is a positive sign that there is a need, a market and entrepreneurs and investors who are willing to make the most of the opportunity and to take the risk. But strong competition leads also to the temptation of fast success, cheap solutions, lack of

qualified teaching staff with integrity and a lack of a sustainable ethical foundation of these institutions. There is a need therefore not only for a strong academic, but also for an ethical rating of institutions of higher education.

4) Technology: Information and communication Technologies (ITcs) represent a huge potential for higher education and are obviously the back bone of open and distance learning education. The advantages and future potential are still huge. But each technology is ambiguous when looked at from an ethical perspective. It can be used for good and for bad, to save lives and take lives, to democratise knowledge and to control or centralize knowledge. Excellent distance learning possibilities are improved with IcTs but at the same time cybercrime is increasing and cyber security decreasing. The ethical and legal development is always behind technological development. That is why ethics in higher education needs to look at the ethics of technologies,especially ICTs.

STRENGHTENING THE ETHICAL CULTURE OF HIGHER EDUCATION: MEASURES

- Individual and Interpersonal Level

Promote character education (for students and teachers) as a task of individual and interpersonal self-responsibility in order to become or remain globally responsible leaders.

- Intra-Institutional Level

Develop within each educational institution ethics-related policies and respective institutional ethics units as key instruments.

- Inter-institutional Level

Include ethics in higher education in the accreditation and monitoring policies and training programmes of accreditation institutions and councils such the International council for open and distance Education ICDE.

- Political Level

Include ethical goals in the Framework for Action Education 2030 related to sdGs. Implement existing national and international legislation, anticorruption conventions, and policies on ethics in public administration to public and private institutions of higher education. Resist political pressure on admissions.

- Rating Level

Enlarge current rating systems of academic excellence by adding ethical criteria. develop a global ethics rating of institutions of higher education.

- Communication Level

strengthen the communication strategy of the institutions for higher education so that integrity, credibility, responsibility and honesty are included.

- spiritual Level

Enable spiritual praxis of different faith communities on the campus of institutions of higher education as a foundation for ethical integrity.

- Action Level

strengthen values-driven behaviour not only by words, but also through individual and collaborative action such as community service.[10]

CONCLUSION

In conclusion, it is important to state that the normative value of ethics in life explores what is our origin as human beings. It takes into consideration the fact 'the unexamined life is not worth living;' to quote the ancient sage, socrates. Without the fundamental factors of selfcritique, of the ethical questioning and practical engagement, of the fundamental factors of tradition – something lived out in the present that proposes and gives its reasons – the youth would remain fragile, doubtful and sceptical. Exposure to life's experiences which is achieved beyond the classroom is risky. But it helps the student to become authentic, standing on one's own feet and daring the current. This is not the domain of Ethics in Higher education but the normative value of ethics and life. It is confrontation with man's real identity and the questions of contradictions of life, yet tackled beyond doubt. In this quest for the establishment of the value of life for education, higher learning institutions integrate ethics and ecology in their programs. The context of a new vision for education which calls for mindset shift from reading and writing to skills acquisition with relevance for daily life and society becomes imperative. Ethics education is opportunity for a new value orientation. such education ensures the training of both the teacher and the student, develops new technologies and conclusively allows a new vision, a new policy, a new market, new resources and a new system. The normative value of this kind of education is the emergence of a new humanity of responsible leaders driven by values and virtues and knowledgeable enough to transform their environment and serve entire humanity in a new society yearning for ethical and fair minded leaders.

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INSIGHTS INTO THE CHALLENGES OF ROMANIA HIGHER EDUCATION SECTOR IN THE CONTEXT OF EUROPEAN AREA

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ABSTRACT

Today's, Europe is facing considerable challenges induced by technological and digital advancements which require a highly-qualified and flexible workforce able to support upward economic and social convergence between and within Member States.

These challenges point out the necessity of investigating and structuring significant initiatives at European Union (EU) level with particular regard to overcoming Romania Higher Education (HE) bottlenecks and drawing up desirable improvements solutions.

The paper is based on analyzing key challenges facing the Romania HE sector with particular regard to EU strategic policy documents, and key reference frameworks for national and regional levels. It aims to investigate, analyze and summarize main strengths and challenges with respect to investment in education and training, and modernizing higher education.

It has been performed a qualitative analysis of relevant European Commission (EC) sources which support development of policies in the area of Education &Training by structuring the logical reasoning behind Europe 2020 targets, objectives in education and training field, goals and subsequent key priorities in HE area.

The findings facilitate the understanding of Romanian HE challenges in the context of European Area which aims to build means to experience European identity in all its diversity through the aid of new job creation, sustainable economic growth and social fairness.

Keywords: higher education competitiveness, sustainable growth, quality education, continuous improvement.

INTRODUCTION

Today's, Europe is facing considerable challenges induced by technological and digital advancements, structural changes of working conditions, ageing workforce, and new patterns of communication. In these circumstances, education plays a crucial role for supporting a highly-qualified and flexible workforce, increasing employability and economic growth, improving welfare and supporting upward economic and social convergence between and within Member States [1].

Romania, as a full Member State, is struggling with the weak performance of education and training system which hampers its progress toward the EU targets due to

undesirable vulnerabilities e.g. the lowest level of education investment in the EU, the lack of HE alignment with the labour market, quality of education, etc. [2].

These challenges point out the necessity to investigate and structure significant initiatives at EU level with particular regard to overcoming Romania HE bottlenecks, drawing up desirable improvements solutions. The methodological flow consisted of exploratory research of strategic documents for higher education to investigate main initiatives undertaken by EC in the attempt to strengthen educational outcomes as a way to overcome the structural weaknesses in Europe′s economy.

It aimed to investigate, analyse and summarize main strengths and challenges with respect to investment in education and training, and modernizing higher education. It has been performed a qualitative analysis of relevant European Commission (EC) sources which support development of policies in the area of E&T by structuring the logical reasoning behind Europe 2020 targets, objectives in education and training field, goals and subsequent key priorities in HE area.

Secondarily, in the attempt to analyse the state of play for Romanian higher education sector, the authors carried out univariate analysis of data (e.g. Eurostat data), considering the Europe 2020 and Education and Training 2020 benchmarks in the area of higher education and the country′s achievements related to national targets [3].

The boundaries of this study are limited to the conceptual analysis of strategic frameworks from EC in the area of tertiary education, considering only a few performance indicators for the country′s progress e.g. % of GDP (Gross Domestic Product) invested in education, learning mobility, tertiary educational attainment, and employment rate of recent graduates, and do not take into consideration other performance indicators as inputs in the education system e.g. % of early leavers from education and training, participation rate or emigration rate of young people.

RESEARCH BACKGROUND

In the attempt to address the structural weaknesses in the European economic model, the Europe 2020 strategy aimed to overcome long-term challenges as globalisation, pressure on resources and ageing population by putting forward three mutually reinforcing priorities: a) smart growth: developing an economy based on knowledge and innovation; b) sustainable growth: promoting a more resource efficient, greener and more competitive economy; and c) inclusive growth: fostering a high-employment economy delivering social and territorial cohesion [4].

To guide the effort of member states toward achieving the priorities, a limited number of relevant targets have been put in place to steer the progress. Table 1 points out key parameters by 2020 with respect to employment rate, research and development, environmental concern through climate change and energy, education, and social exclusion.

Education system takes a pivotal role within the Europe 2020 strategy since it underpins the progress in increasing the employment rate and helps to reduce poverty. Recently, the investment in education has been redefined as driver for economic growth, improved welfare and supports upward economic and social convergence both between and within Member State [1].

Table 1. Structural initiatives at EU level, [1, 4, 5, 6]

Document	**Europe 2020 Strategy**	**Education & Training 2020 Framework**	**European Union Agenda for Higher Education**
Aim	To overcome the structural weaknesses in Europe's economy, competitiveness and productivity.	To enable Member States to cooperate in building best practices in Education & Training.	To strengthen education and learning mobility, promote common values and facilitate the mutual recognition of diplomas.
Framework	Europe 2020 targets: • **Employment**: 75% of people aged 20–64 to be in work • **Research and development** (R&D): 3% of the EU's GDP invested in R&D: • **Environment:** greenhouse gas emissions 20% lower than 1990; 20% of energy from renewables; 20% increase in energy efficiency • **Education:** rates of early school leavers below 10%; min. 40% of people aged 30–34 having completed HE • **Poverty:** min. 20 million fewer people in poverty exclusion	EU common objectives: 1. Lifelong learning and mobility 2. Quality and efficiency of E&T 3. Equity, social cohesion, and active citizenship 4. Creativity and innovation, entrepreneurship at all levels of E&T.	Key goals for European cooperation in HE: 1. Tackling future skills mismatches and promoting excellence in skills development 2. Building inclusive and connected HE systems 3. Ensuring HEIs contribute to innovation 4. Supporting effective and efficient HE systems.
Implemented by	Each member state	Each member state	Each member state
Monitored by	• Progress report for the targets • The EU statistics office, Eurostat Scoreboard on Europe 2020 targets	• European Semester • E& T Monitor	• European Semester • E& T Monitor

In this view, the concern for highly skilled workforce has been addressed by the strategic framework of Education & Training which acknowledges European cooperation in education and training for the period up to 2020. It was designed to cover all learning levels and contexts, spanning education and training systems as a whole in a lifelong learning perspective. To ensure the personal, social and professional fulfilment of all citizens, and sustainable economic prosperity and employability, whilst

promoting democratic values, social cohesion, active citizenship, and intercultural dialogue, the E&T 2020 contains four common objectives being presented in table 1: 1) lifelong learning and mobility; 2) quality and efficiency of education; 3) equity, social cohesion, and active citizenship; and 4) develop entrepreneurship, at all levels of education and training [5].

Also, the E&T 2020 framework is directly supporting the achievement of Europe 2020 headline targets thanks to its established benchmarks at European level by 2020, as follows: a) min. 95% of children should participate in early childhood education; b) fewer than 15% of 15-year-olds should be under-skilled in reading, mathematics and science; c) the rate of early leavers from education and training aged 18-24 should be below 10%; d) min. 40% of people aged 30-34 should have completed some form of higher education; e) min. 15% of adults should participate in learning; f) at least 20% of higher education graduates and 6% of 18-34 year-olds with an initial vocational qualification should have spent some time studying or training abroad; g) the share of employed graduates should be at least 82% [5].

The quest for logical reasoning behind Europe 2020 targets has further induced the set of initiatives that reflect the EC ambition to enable all young people to receive the best education and training, and to find jobs across the continent, within the European Education Area. To steer progress toward achieving Europe 2020 target i.e. 40% of people aged 30-34 having completed HE, the Modernisation Agenda for HE has provided strategic direction for Member States activities and identified four key goals for European cooperation in HE, as presented in table 1: 1) excellence in skills development; 2) inclusive and connected HE systems; 3) HE institutions contribution to innovation; 4) effective and efficient HE systems [6].

Worthy to mention, all the objectives and subsequent targets are interrelated and have been translated into national ones and trajectories to reflect the current situation of each Member State. Also, the progress is measured through suitable instruments such as Eurostat scoreboard on Europe 2020 targets, and the E&T Monitor which feeds into the evaluation of broader socio-economic progress through European Semester.

These challenges point out the necessity of investigating the state of play related to Romania HE progress, considering the Europe 2020 and E&T benchmarks in the area of higher education and the country′s achievements related to national targets.

RESEARCH RESULTS

The European Commission (EC) supports the internationalization of higher education through a comprehensive strategy which tackles global challenges more effectively by integrating key priorities e.g. students and staff mobility, improvement of curricula and digital learning, strategic cooperation, partnerships and capacity building [7].

Higher education system takes a pivotal role in overcoming Europe′s bottlenecks since one of the Europe 2020 headline target is related to the attainment rate of people aged 30–34 years old (i.e. min 40 %) [4]. This target acknowledges the key function of higher education for individual and societal advancement which impacts innovation and research, providing the highly skilled human capital needed for growth and prosperity in the current knowledge-based economies.

Spending in education is one of the most important decisions needed to improve the education system′s performance. It supports the achievement of E&T benchmarks and shapes the government′ commitment to the sector, making resources available to teachers and students, and strengthen the link between the quality of teachers and students achievements.

As suggested in table 2 and 3, Romania seems to be on the path to reduce the gap with EU average e.g. as proportion of total public expenditure, the spending on education increased to 10.8%, above the EU average of 10.2%. Also, it reached 3.7% of GDP in 2016 compared with 3.1% of GDP in 2015, although this is still one of the lowest level in the EU with average value of 4.7%. Notably, Denmark, Sweden and Finland maintain their spending level in education as % of GDP, above the EU average [8].

Table 2. Public expenditure on education: % of total public expenditure, [8]

Country	2013	2014	2015	2016	Ranking on average values
EU-28 average	**10.1%**	**10.2%**	**10.2%**	**10.2%**	**10.2%**
Lithuania (LT)	15.8%	15.5%	15.5%	15.1%	15.5%
Estonia (EE)	15.6%	14.8%	15.1%	14.6%	15.0%
Cyprus (CY)	16.2%	12.4%	14.8%	15.6%	14.8%
Romania (RO)	7.9%	8.6%	8.6%	10.8%	9.0%

Table 3. Public expenditure on education: % of Gross Domestic Product (GDP), [8]

Country	2013	2014	2015	2016	Ranking on average values
EU-28 average	**4.9%**	**4.9%**	**4.8%**	**4.7%**	**4.8%**
Denmark (DK)	6.9%	7.1%	7.0%	6.9%	7.0%
Sweden (SE)	6.6%	6.6%	6.5%	6.6%	6.6%
Finland (FI)	6.4%	6.4%	6.2%	6.1%	6.3%
Romania (RO)	2.8%	3.0%	3.1%	3.7%	3.2%

The quality and attractiveness of education systems are also measured through learning mobility of students which contribute to the European goal of opening up and modernising education systems. In this view, table 4 presents the share of graduates who benefited from a temporary study period abroad, considering the bachelor level (ISCED 6), master level (ISCED 7) and doctorate level (ISCED 8).

There are considerable countries differences, with top performers as Nederland (21.7%), Finland (17.0%) and Luxembourg (23.1%) having a share of credit outward mobility above the EU average. Romania is lagging behind, with a small share of 1,9% of graduates who have had a temporary study period abroad due to, inter alia, the lack of exchange programmes at the institutional and national level [3].

However, considering the E&T 2020 benchmark to have at least 20 % of higher education graduates (ISCED 5-8) taking part in a period of higher education-related study or training abroad by 2020, the graduate outward mobility for the EU-28 as a whole seems to be still far from the target (e.g. in 2016, only 10.7 % of HE graduates from EU were mobile: 3.1 % were degree mobile and graduated in a different country from that in which they got their diploma, whilst 7.6 % had a credit mobility stay and had a temporary study period or/and work placement abroad) [9].

Table 4.Credit outward mobility of graduates, [9]

Country	ISCED 6	ISCED 7	ISCED 8
EU-28 average	**7.1%**	**10.4%**	**1.4%**
Nederland (NL)	21.7%	21.3%	n/a
Finland (FI)	17.0%	14.8%	2.0%
Luxembourg (LU)	23.1%	0%	n/a
Romania (RO)	1.9%	1.9%	1.5%

Another key intake in the pursuit of Europe E&T benchmarks is referring to tertiary educational attainment which becomes extremely important in the context of rapidly changing economy. As figures shows, the EU has effectively reached the 40% target (e.g. currently, 39.9% of people aged 30-34 hold a tertiary degree), but ten countries still have the rate below the EU target.

Romania displays one of the lowest rate, although tertiary educational attainment increased to 26.3 % in 2017 (up 0.7 percentage points compared to 2016), almost reaching the national Europe 2020 target of 26.7 %, as presented in table 5. Despite the progress made, the rate remains one of the lowest in the EU (26.3% versus 39.9 %), and the medium term estimation suggests that tertiary attainment is likely to decrease after 2020, reflecting continued high early school leaving in the school system and low enrolment rates for 19-23 year-olds, which is the age group most likely to be in university (35.8 % in 2016, down from 57 % in 2009) [9,10].

Table 5. Tertiary educational attainment, Eurostat online data code t2020_41 [10]

Country	2014	2015	2016	2017	Target
EU-28 average	**38.0%**	**38.7%**	**39.2%**	**39.9%**	**40.0%**
Romania (RO)	25.0%	25.6%	25.6%	26.3%	26.7%

The last performance indicator considered for analysis is referring to the employment rate of recent graduates, as per table 6. For Romania, the employment rate of recent tertiary graduates continued to increase in 2017, supported by strong economic growth. At 87.4 %, the rate is one of the highest in the EU-28 (84.9 %), but the skills set do not keep pace with the demands of employers with particular regard to socio-emotional skills (e.g. motivation, empathy, self-management, problem-solving, team work, communication, learning to learn, accountability, planning, etc.). Notably, only 40 % of

students in Romania reported to be satisfied with the organisation of studies and the timetable, study facilities and the quality of teaching [12].

Table 6. Employment rate of recent graduates ISCED 5-8, Eurostat online data code tepsr_wcl20 [11]

Country	**2014**	**2015**	**2016**	**2017**
EU-28 average	**82.0%**	**82.7%**	**83.4%**	**84.0%**
Romania (RO)	82.5%	85.3%	86.2%	87.9

Summing up, the Romania education system poses significant challenges on medium term which need to be overcome through the government′s commitment to the sector. It is required to improve the investment in education through a coherent link to teachers quality, strengthen the modernisation of administrative capacities, a better alignment of HE offer with the labour market, and last but not least, supporting teachers' ability to apply a learner-centred approach in the educational interactions [13, 14].

CONCLUSION

The European Union agenda for higher education relies on the commitment of each Member State to implement, monitor and track a coherent set of measures to reinforce their strengths, to address common challenges such as ageing societies, skills deficits in the workforce, technological developments and global competition, by taking into account identified national and intercultural skills shortages.

Considering the EU headline targets, the Romania country′s specific performance data, and current challenges brought by demographic decline and the increased competition to attract students, the authors shared their views on the necessity of modernizing HE system to provide highly skilled workforce as key drivers for growth and jobs.

Also, the results identified main gaps between Romania and EU performance values, highlighting several national counteracting measures adopted to keep pace with the education targets related to quality of education, labour market relevance of education, and internationalization of higher education.

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INTER-PERSONAL FUNCTIONING OF POLISH AND AMERICAN STUDENTS EXPERIENCING THE BURNOUT SYNDROME / SCHOOL BURNOUT

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ABSTRACT

The basis of this research related to student burnout is the psychosocial approach of Ch. Maslach - American psychologist of Polish origin. According to the author of this concept, one of the indicators of personal and professional successes is the interpersonal functioning of a human being. A lot of research has been done about the burnout. Most often, they concerned professional burnout among employees representing social professions [1], [9], [3], [4]. Unfortunately, little is known about pupils' school burnout, its causes, manifestations and effects. Exhausted students may fall into anger and aggression, which will largely cause inappropriate social relations in the school environment. It is not known what school situations are perceived by students as stressors and in which students they cause burnout. The aim of the presented research was to compare the social relations of students experiencing the burnout syndrome in the Polish and American school environment. The research is an extension of the author's earlier research. The studies used the SSBS Scale by A. Aypay [4] in the adaptation of K. Tomaszek, A. Muchacka - Cymerman [8]. The scale consists of 34 questions, to which the respondents answer 4 - graded Likert scale. The tool allows to assess the global level of school burnout (SSBS) and its 4 dimensions: LIS - Loss of Interest in School, BDS - Burnout Due to Studying, BDF - Burnout Due to Parents, BDH - Burnout Due to Doing Homework, BTT - Being Bored and Tired of Teacher Attitudes, NRF - Need to Rest and Have Fun, ISS - Incompetence in School. The higher the score, the lower the level of school burnout. In addition, the research used a Personal Questionnaire to collect basic information about the students being examined, ie gender, age, subjective assessment of fulfilling the role of the student, the quality of relationships with peers and the quality of family relationships. The research was carried out in the first half of 2018. A total of 120 students - 16-17-year-old - participated in the study, including 60 from Polish high schools and 60 from American high school; 62 girls and 58 boys. The research allowed to determine the differences in the level of burnout of students depending on the sex and the quality of peer and family relationships. Especially important were interpersonal factors, such as: students' perception of the individual characteristics of their colleagues, perception of themselves in the context of their own situation and their own problems at school, improper relations, lack of skills or inappropriate communication among students, competition for academic performance, relationship between student and teacher as well as between the student and his parents.

Keywords: school burnout, interpersonal relations, teacher, student.

INTRODUCTION

School burnout syndrome in an educational context. (school requirements vs. resources)

The phenomenon of burnout, in the public consciousness, was present much earlier than the studies on this subject were published. The term was introduced by referencing it to professional activity typical for social professions [1] and in psychiatry [2]. It accurately reflects the essence of the psychological state experienced by a human being. In terms of individual perspective, burnout is an experience with a high destructive load. It often involves young, vulnerable people who enter their professional lives with great emotional commitment and strong motivation to perform their assigned roles and tasks. Burnout is a phenomenon that generally occurs at the beginning of professional life and significantly limits, and often even thwarts further career development [3]. School burnout among growing youth is becoming more and more common [4]. A young person experiencing stress has the feeling of an extensive and growing decline in their emotional and physical resources, lack of enthusiasm for action, lack of joy in life. He or she is more irritable and impulsive, and cannot see the possibility of regenerating the lost energy. The burnout is expressed in a negative attitude towards others, the tendency to isolate oneself. A burned-out student develops emotional indifference to others, protects oneself from contacts and also from growing difficulties. The attitude of indifference may become permanent and consequently lead to dehumanization, the sense of depletion and the inability to regenerate energy. The drop in energy causes learning difficulties. On the psychological level, emotional exhaustion loosens emotional bonds with peers, which often manifests itself as a loss of attachment and closeness. The student avoids mental contact, demonstrating lack of interest and compassion. Relations with others lose their prior subjective nature. Student experiencing burnout demonstrates lowered self-esteem and a sense of incompetence. This is accompanied, among other things, by reluctance to learn, loss of commitment, a tendency to negatively evaluate oneself, one's own work and its effects. Student experiences a sense of powerlessness, helplessness in numerous matters, has a sense of deterioration in relations with others. He or she is disappointed with the school, and avoids speaking with everyone. The studies conducted by K. Tomaszek and A. Muchacka-Cymerman [5] confirmed that a subjective negative assessment of the fulfillment of the student's role, i.e. the recognition of oneself as a weak student, has key importance for school burnout. Analysis and interpretation of the studies allowed to conclude that recognizing oneself as a weak student, rush and hostility, low level of ability to actively cope with stress, and a longer duration of the same stress factors (age) would explain the exhaustion level in 42% of subjects. The only factor protecting children and teenagers from experiencing exhaustion was their capability of active stress-coping style. Primary school students felt more exhausted due to parental pressure, mismatching the school requirements and a lack of interest in school. Junior high school students were more exhausted by their school activities. Study data show that one of the predictive factors of burnout in junior high school student group is the age of the respondents, the lower the age, the higher the school burnout rates. Finnish researchers Salmela - Aro, Kiuru, Pietikäinen and Jokela [6] pointed out the following factors that are related to school burnout. One of them is the time pressure and the associated anxiety and haste. The second is the feeling of injustice, lack of motivation on teacher's part, low social support. Another important factor is the lack of access to pedagogical and psychological care, and the negative school atmosphere.

Knowledge about the school burnout of students and its causes is very important for a teacher, as it can help mitigate the effects of their improper interpersonal functioning in the

school environment, among other things. Poor interpersonal relationships, exclusion from peer group, as well as differences in values created by the school and the values conveyed by the family may constitute further sources of students' school burnout [7]. In the literature on the subject we deal with a multiple categorization of burnout risk factors. In general, they can be divided into factors concerning the personal circumstances of the individual, factors lying outside the individual, and thus concerning the school environment and the environment outside the school, as well as their organization. It should be noted, however, that these factors interact with each other and contribute to the development of the school burnout syndrome.

Disturbances in social functioning as a risk factor and consequence of school burnout

Many researchers are looking for factors responsible for the symptoms of social maladjustment among young people. The basis for these studies are e.g. psychological, pedagogical, sociological and biological, as well as legal theoretical approaches. Through quantitative and qualitative studies, researchers look for risk factors for social function disorders, as well as protective factors that reduce the likelihood of such behaviors. These factors include the child's immediate environment, i.e. family, school and communities such as neighbors or peers. Moreover, cultural factors and customs in terms of social functioning are important. When analyzing how students function at school, it should be noted that most of them present the school as a cause of stress. Gillespie [3] distinguishes two types of burnout: passive and active. The former is associated with social isolation and inactivity, while the latter increases motor anxiety, aggressiveness and hostility. School burnout is closely related to stress. Situations which result in stress cause reactions such as: shock, despair and sometimes unjustified joy, self-doubt. Attempts to cope with stress can take the form of aggression, antisocial behavior, social isolation and other types of adaptation problems concerning the demands of parents and the school environment. Stress can also result in depression, which manifests itself as irritability, loss of interest, loss of appetite, anxiety, difficulty sleeping, lack of interest in contacts with others, feeling worthless. An experience of excessive stress, together with a sense of failure, can lead to a perceived image of lower value in a child. The wrong image of oneself may influence the change of personality, loss of contacts with other people, passivity towards failures and new challenges.

METHODOLOGY

The basis of this research related to student burnout is the psychosocial approach of Ch. Maslach. According to the author, one of the indicators of personal and professional success is interpersonal functioning of a human. The aim of the presented study was to compare social relations between students experiencing burnout syndrome in Polish and American school environment. The study is an extension of the author's previous studies on the school burnout in students. Theoretical interpretation of burnout and subjective assessment of the perception of the school environment by students, theoretical relationships between these constructs, as well as the results of research conducted so far allow for the adoption of hypotheses:

H1 The sense of social functioning of American students is higher than that of Polish students, because American students are more confident in their knowledge, capabilities, abilities and skills than Polish students.

H2 Students with a low level of social functioning are prone to school exhaustion.

The SSBS Scale by A. Aypaya [4] in the adaptation of K. Tomaszek and A. Muchacka - Cymerman [8] was used in the study. The scale is composed of 34 questions, to which the respondents answer in 4-level Likert scale. This tool allows to evaluate the global level of school burnout (Secondary School Burnout Scale - SSBS) and its 7 dimensions: LIS - Loss of Interest in School, BDS - Burnout Due to Studying, BDF - Burnout Due to Parents, BDH - Burnout Due to Doing Homework, BTT - Being Bored and Tired of Teacher Attitudes, NRF - Need to Rest and Have Fun, ISS - Incompetence in School. The higher the score according to the scale, the lower the school burnout level. In addition, the study used Personal Questionnaire to collect basic information about the studied students, i.e. sex, age, subjective assessment of the student role fulfillment, the quality of relationships with peers and the quality of family relationships. The study was conducted in the first half of 2018. It involved a total of 120 16-17-year-old students, including 60 from Polish high schools (Kraków) and 60 from American high schools (Chicago). The study involved 62 girls (32 from Poland, and 30 from the USA) and 58 boys (28 from Poland, and 30 from the USA). After approval by the parents of the subjects and the school administration, the students were informed about the purpose of the study and the use of the results. Next, the respondents filled in sheets consisting of two scales, i.e. SSBS and a personnel sheet. On average, the time of filling the sheets was 20 minutes. Participation in the study was voluntary and unpaid. The surveys allowed to determine the differences in the level of students' burnout depending on the cultural environment.

RESULTS

Differences in the level of school burnout among Polish and American students

The analysis showed that Polish students experience a higher level of burnout syndrome than a group of American students. Poles also achieved much higher results in all cases of school burnout subscale ($p < 0.05$). The size effects for school burnout and its sub-dimensions were small for BDS, BDF, BDH, NRF and BTT ($d = 0.37 - 0.41$), and medium for LIS and SSBS ($d = 0.61 - 0.67$).

Table 1. Burnout level in SSBS subscale in Polish and American students

Variables (N=120)	Polish students (N=60)		American students (N=60)		t	p	*d*
	M	SD	M	SD			
LIS	13.67	3.52	16.21	3.56	-3.671	.0001	.61
BDS	15.18	3.01	16.89	3.19	-2.421	.006	.38
BDF	13.48	3.41	14.87	3.65	-2.665	.007	.38
BDH	11.51	2.53	12.81	2.78	-2.781	.006	.37

BTT	10.03	1.98	11.08	3.98	-2.793	.005	.39
NRF	8.59	2.58	9.94	2.87	-3.137	.002	.41
ISS	8.73	2.41	9.87	2.51	-2.610	.006	.38
SSBS	80.23	14.16	91.11	13.22	-4.429	.0001	.63

LIS - Loss of Interest in School, BDS - Burnout Due to Studying, BDF - Burnout Due to Parents, BDH - Burnout Due to Doing Homework, BTT - Being Bored and Tired of Teacher Attitudes, NRF - Need to Rest and Have Fun, ISS - Incompetence in School, SSBS – School Students Burnout Scale total score.

Differences in the level of social functioning of Polish and American students

It has been assumed that the indicator of the sense of social functioning is the sense of intensity degree concerning positive and negative features, manifested in the student's everyday behavior at school classroom. The aspect of students' sense of social functioning discussed herein is understood as subjective impression/perception of their knowledge, abilities, capabilities and skills, weaknesses and limitations in terms of : 1) ability to interact with peers and adults; 2) acceptance of and compliance with social requirements; 3) ability to perceive oneself and others. The following factors turned out to be particularly important for Polish students 1) abilities to interact with peers and adults (willingness to be with others, ability to cooperate, to communicate adequately, to interact and to cooperate in an appropriate way; 3) abilities to perceive oneself and others (in the free expression of thoughts and feelings, student perception of the individual qualities of their peers, perception of oneself in the context of one's own situation and problems at school, responsibility for one's own choices and decisions). In contrast, for American students 1) abilities to interact with peers and adults (ability to cooperate, readiness to adopt an open attitude towards peers, in adequate communication, agreeable interaction and cooperation, mutual trust, 2) acceptance of social requirements and behavior in accordance with them, lack of skills or improper communication between students, competition for academic results, relationship between the student and the teacher, between the student and his or her parents.

Comparison of the level of school functioning with the level of school burnout in Polish and American students

There were three groups of students who assessed their social functioning in particular fields as high, average or low. The analysis verified whether the students declaring different levels of school function differ in the level of burnout. The level of the school burnout syndrome of Polish and American students is correlated with their beliefs about their weaknesses and limitations related to interacting with peers and adults. The differences between the Polish and American school burnout syndromes were visible in two different areas. Moreover, the school burnout of Polish students is associated with beliefs of a low level of self-perception and others.

CONCLUSION

Learning about the phenomenon of school burnout allowed to learn about the differences in the context of interpersonal functioning of youth from two culturally different environments. Studies have shown that students' beliefs about their low social functioning correlate with the level of school burnout. Hypothesis concerning the sense of social functioning of Polish and American students has been confirmed. The hypothesis that students with a high sense of their positive functioning at school represent low level of exhaustion and display more positive attitude towards themselves in the role of a student was also confirmed. The level of school burnout syndrome among American students is correlated with their beliefs related to the acceptance of social requirements. The foregoing analysis results place high demands on teachers and parents. They should be thoroughly familiar with the phenomenon of school burnout, because it can be a negative model for the developing personality of a young person and his or her interpersonal relations. Having considered the foregoing the search for all the conditions and consequences of school burnout is a socially important task, and at the same time a contribution to learning.

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INTERCULTURAL CITIZENSHIP OF UNIVERSITY STUDENTS: SELF-ASSESSMENT AND PEER ASSESSMENT

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ABSTRACT

The theory of intercultural citizenship in language education developed by M. Byram plays a very important role as a basis for developing competences for democratic culture. The first goal of this intercultural investigation was to compare Russian university students' self-assessment and peer assessment of the competences of intercultural citizenship. The second goal was to find out whether the results of self-assessment and peer assessment were different among male and female students. The theoretical and empirical methods of the research allowed providing a thorough analysis of the concept of intercultural citizenship and gave the foundation to the following investigation. In order to discover university students' values, attitudes skills and knowledge regarding the issue under discussion, original data were collected from 189 students. Future specialists in international relations (N=54), future teachers (N=36), future doctors (N = 30), future engineers (N = 32), future officers (N=37) – all first-year university students completed a self-assessment and peer assessment questionnaire. We found that future specialists in international relations demonstrated highest scores in competences for democratic culture among other university students.The results of the questionnaire also revealed differences in self-assessment and peer assessment on its own and in female and male groups of the students and put the question for further research.

Keywords: intercultural citizenship, self-assessment, peer assessment, female students, male students

INTRODUCTION

Intercultural citizenship according to M. Byram, involves the following aspects: learning to consider personal involvement in political action as desirable; recognition of democratic forms of action as values; acquiring interest in public affairs, political resolutions of social problems [1]. Intercultural citizenship is thus closely connected with social cohesion, identity and engagement with civil society. As distinguished from intercultural competence, citizenship include "service to community" [2].

As for the implementation of the concept, it is appropriate to discuss it in liaison with education, namely, foreign language teaching. M. Porto, S. Houghton, & M. Byram write: "Citizenship education is one realization of this educational dimension across the whole curriculum, but we suggest that foreign language education can make a specific

contribution to citizenship education through the concept of 'intercultural citizenship education' (ICE) because ICE provides a perspective which breaks through the nationalism of most citizenship education" [3].

In addition, M. Byram, & M. Wagner consider that it is language teaching that has "a responsibility to prepare learners for interaction with people of other cultural backgrounds, teaching them skills and attitudes as well as knowledge" [4]. For this reason it is crucial to include the elements listed below: learning more about one's own country by comparison; learning about linguistic, ethnic and other minorities in one's own country; being involved into an activity outside classroom; making class-to-class links to compare and act on a topic in two or more countries [1].

Developing Russian citizenship by means of higher education means building intercultural dialogue and communication; designing adaptation education programs; integrating youth into multicultural society; creating necessary conditions for the preservation of native language and intellectual and emotional interactions with ethno culture; the conformity of education and teaching with the multicultural background; special training for teachers. Special attention should be given to the concept of patriotism, which forms the basis of Russian citizenship. In this, universities both participate and initiate patriotic events such as activities to mark the victory in the Great Patriotic War or events on different aspect of regional history. These initiatives are widely accepted by students and thus can be used for developing most up-to-date models of fostering patriotism and citizenship.

However, the combination of language and citizenship education is not that simple as it brings certain complexities, such as matters of criticality, native-speakerism, the intercultural speaker, nation-state loyalty, internationalism and action in the community. In intercultural citizenship critical thought is realized in self-reflection and the refashioning of national views and traditions. "Citizenship education and interculturally-oriented language education both share an interest in developing learners' competences in analysis, cooperation and knowledge-development about societies and the socio-political environment, which includes becoming active agents in the world" [3]. Nonetheless, the effective integration of language education and citizenship education according to M. Byram, I. Golubeva, H. Han & M. Wagner, is possible and can be realized by "combining the relational (focus on 'others'), transnational and critical perspectives of foreign language education" [2].

The Council of Europe is especially interested in adapting the principles of intercultural citizenship in higher educational institutions as well as national curricula and teaching programs. For this a conceptual model of competences for democratic culture was developed. The term "culture of democracy" is used to emphasize that, "while democracy cannot exist without democratic institutions and laws, such institutions and laws cannot work in practice unless they are grounded in a culture of democracy, that is, in democratic values, attitudes and practices" [5, p. 15].

The aim of this analysis is to highlight some assessment methods that can serve as an indicator of students' success and measure competences of intercultural citizenship. The results of self-assessment and peer assessment will be compared. Dwelling upon self-assessment it is necessary to speak about its validity and reliability regarding learners' attitudes, skills and behaviors.

Research question 1: Is there any difference in university students' self-assessment and peer assessment of their competences of intercultural citizenship?

Research question 2: Are the results of self-assessment and peer assessment different among male and female students?

METHODS AND MATERIALS

The methods used in the research are theoretical and empirical. The theoretical methods are: a comparative analysis of literature pertaining to citizenship and patriotism (N.M. Romanenko, & D.V. Pekushkina [6]), intercultural citizenship (M. Barrett [13], M. Byram [1], I. Golubeva, H. Han, & M. Wagner [2]; M. Porto, & S. Houghton [3]),the axiological and anthropological challenges facing the modern education system in the light of globalization (P.I. Kasatkin, & M.V. Silantieva [7]), axiology of education in the discourse of contemporary policy (E. V. Voevoda, & A. Yu. Belogurov [8]), empathy as one of the competences for democratic culture (O.S. Fedotova, E. N. Makhmutova, L. P. Kostikova & E.Z. Gugutsidze [9]). We also investigated some issues of developing communication, social, and cognitive skills as soft non-professional generic skills (E. Tikhonova, L. Raitskaya, & E. Solovova [10]), developing students' communicative competence by verbal and nonverbal means (A. A. Chuganskaya [11]), competence assessment (C. Borghetti [14], D. K. Deardorff [15]), gender issues (E. E Shishlova [12]).

The authors advocate the ideas about the necessity of competencies for the citizens to be able to participate effectively in the culture of democracy, and that an education system equips people with such competencies. In this particular study, we investigate four categories of competences: values, attitudes, skills, knowledge and critical understanding [5, p. 57].

The empirical methods include observation, observation and analysis of the students' work during English classes; systematization of the authors' personal practical experience of foreign language teaching at University; questionnaire; comparative data analysis. We developed a special questionnaire taking into consideration 20 competences of intercultural citizenship assessment to interview the students.

We collected quantitative data through the analysis of scores of opinions received from questionnaires of 189 participants:

1) future specialists in international relations - 54 students (23 males and 31 females) from Moscow State Institute of International Relations;

2) future teachers - 36 students (8 male, 28 female) from Ryazan State University named for S. Yesenin;

3) future doctors - 30 students (6 male and 24 female) from I. P. Pavlov Ryazan State Medical University;

4) future engineers – 32 students (4 females, 28 males) from Ryazan State Radio Engineering University;

5) future officers – 37 students (30 male, 7 female) from Ryazan Guard Higher Airborne Command School named after General of the Army V. F. Margelov

The data provide the material for comparative analysis of the university students' self and peer assessment of intercultural citizenship in four higher education institutions.

Competences for democratic culture presented by Council of Europe were taken as a basis for the questionnaire and 20 competences were offered for self and peer assessment being divided into four blocks: values (3 competences), attitudes (6 competences), skills (8 competences) and knowledge and critical understanding (3 competences). The respondents had to express their agreement or disagreement and put a tick in the necessary column, grading their answers from 1 to 10. It is important to mention that we led the assessment procedure among male and female groups of students separately.

RESULTS AND DISCUSSION

A Short Literature Review on Assessment of Intercultural Citizenship. Special attention needs to be focused on the assessment aspects of competences, which enable an individual to participate effectively against the multicultural background. The first step is to refer to a particular definition of intercultural competence, which constitutes the basis of intercultural citizenship, to highlight its components and relate them to the specific goals of a course or a programme. Then a distinction must be drawn between assessment and evaluation. According to M. Barret, "evaluation is the observation and measurement of the effectiveness of a lesson, course or programme of study whose aim includes the development of learner's intercultural competence" while assessment is defined as "the measurement of systematic description of a learner's degree of proficiency in intercultural competence" [13, p.34].

It is notable that intercultural competence cannot be viewed as a finite goal due to its complicated character and room for improvement. Therefore, it is students' ability for successful, respectful and appropriate intercultural communication, which is to be assessed. For this reason, the system is not yet sufficiently well established to assess one's degree of intercultural competence.

D. K. Deardorff moves deeper into the assessment issues pointing out the main guidelines. First, as developing a set of necessary competences is a continuous process, learners should have a chance to reflect on their own progress. Second, there is a need for critical-thinking assessment: critical thinking skills help evaluate knowledge. Third, addressing attitudinal assessment since attitudes are an important aspect of intercultural competence. Fourth, assessing global perspectives and the ability to understand other worldviews also play an important role. As for the tools, methods and approaches, it is most usefully to have a combination of direct and indirect evidence collected. Direct evidence involves learning contracts that is negotiating with the students, letting them set their own objectives; e-portfolios with documentation of learning; critical reflection; performance through communication and behavior. Indirect evidence is collected with the help of surveys or inventories from the learner-perspective [15].

Self-report measures are also a versatile tool though they present certain challenges. Among them is cognitive bias: students might respond basing on their idealistic self. Faking, both intentional and unintentional, is a source of problems because of social desirability that is associated with a positive outlook. Thus, measures should be taken to identify faking behaviour. However, there is a moral dimension in the assessment process: "testers' ethical conduct is framed within a broader idea of social, professional and personal responsibility, due to the impact that their assessment choices can have on test-takers' lives and thus to an unequal distribution of power between tester and test-taker" [14].

We made the analysis of the students' answers with special focus on the comparison of their self and peer assessment of possessing competences for democratic culture as well as on difference in congruence between male and female students groups. The data obtained allow conducting the comparative analysis that we provide below.

Specialists in international relations:

Female respondents showed more divergence of views than male, the difference still being little (about 3 points in 9 cases). The most significant disparity – 5 points – is revealed while assessing skills, in this self-assessment being lower than peer assessment. Again, ***male*** students acted in solidarity with only 2 cases of divergence, in both of them self-assessment being lower: attitudes (5 points) and skills (3 points).

The detailed analysis of the research findings revealed certain peculiarities in male and female self-assessment. While assessing values female respondents showed a higher average (8,559) than male did (7,464). It can be assumed that the axiological fundamentals of democratic culture are on female respondents' priority list, which is expressed in their unconditional respect for human dignity, rights, cultural diversity, and principles of equity. Another special feature is that while assessing attitudes male respondents have a higher average in the following positions: responsibility, self-efficacy, tolerance of ambiguity (8,565/8,258; 7,609/7,548; 7,521/7,0 respectively). This is the only case of slight exceedance in our research. Such qualities as responsibility, resilience in the situation of uncertainty, confidence guarantee male respondents' proactive attitude. Thus, sensitivity of female respondents to values and active rationalism should be taken into consideration when introducing the educational model of democratic culture.

Future teachers:

Female respondents showed lack of cohesion in self-assessment and peer assessment in all aspects ranging from 3 to 5, most often while considering skills, in this self-assessment being higher than peer assessment (8 cases) and lower (7 cases). More solidarity was demonstrated while considering knowledge with only 5 cases of divergence, in this self-assessment being higher than peer assessment (2 cases) and lower (3 cases). Though ***male*** respondents revealed less divergence, it was concentrated on assessing skills (analytical and critical thinking skills, cooperation skills, etc.) as well (ranging from 3 to 5), in this self-assessment being higher than peer assessment (4 cases) and lower (3 cases).

Future doctors:

Female respondents were very critical to self-assessment of their skills and knowledge components of intercultural citizenship especially that of flexibility and adaptability, linguistic, communicative and plurilingual skills, knowledge and critical understanding of language and communication, in this self-assessment being lower than peer assessment (20 cases). More congruence was observed while self-assessment and peer-assessment of values and attitudes, still in assessing values with only 7 cases of divergence, in this self-assessment being higher than peer assessment (5 cases) and lower (2 cases) and in assessing attitudes with 8 cases of divergence, in this self-assessment being higher than peer assessment (6 cases) and lower (2 cases). ***Male*** respondents' self and peer assessment was obviously more consistent and showed less divergence. Notably, male students gave highest scores to such features as respect, tolerance of ambiguity, responsibility and self-efficacy, in this self-assessment being higher than peer assessment (3 cases) and lower (1 case).

Future engineers:

Both ***male*** and ***female*** respondents showed a great difference in terms of their perceptions of themselves and others based on gender. Out of 20 statements 15 were scored equally or almost equally (the difference being 1-2 points) as regards female respondents' self-assessment and the way male respondents perceived their competencies. A substantial difference of 4 points was revealed in assessing skills (empathy), knowledge and critical understanding: in the first case the 'female respondents' scores were higher and in the latter case their self-assessment was lower. Absolutely another picture emerged in the opposite situation: only 6 statements were scored very similar while 5 of them showed discrepancy of up to 7 points. The "debatable" statements concerned valuing democracy, justice, fairness, equality and the rule of law, respect, civic-mindedness, linguistic, communicative and plurilingual skills – with the male respondents' self-assessment being much lower in every case. ***Male*** respondents showed more consensus: out of 20 statements up to 15 were scored equally or almost equally (the difference being 1-2 points). A single incident revealed a large discrepancy in self-assessment and peer assessment: the student's scores were much higher (4-7 points) than his group mate's scores of his skills and knowledge and critical understanding. It was interesting that this student demonstrated low performance and productivity.

Future officers:

The ***male*** respondents demonstrated rather high rates of self-assessment, whereas peer assessment gave lower scores in most cases, so we could observe much divergence in the participants' self-assessment and peer assessment. The cadets gave highest scores to such competences as tolerance of ambiguity, analytical and critical thinking skills and self-efficacy, with self-assessment being higher than peer assessment (16 cases) and lower (2 cases). The ***female*** respondents gave higher scores to values and attitudes, especially respect, empathy and responsibility, still in assessing values with 5 cases of divergence, with this self-assessment being higher than peer assessment (3 cases) and lower (2 cases). In assessing attitudes with 7 cases of divergence, with self-assessment being higher than peer assessment (5 cases) and lower (2 cases).

The students' self and peer assessment average scores (to make it more convenient for comparison we equate average numbers with 10 scores) show that trainees are very optimistic and confident valuing their competence possessing (see Table 1).

Table 1. Students' Self and Peer Assessment Average Score

No		Max	Future specialists in IR	Future teachers	Future doctors	Future engineers	Future officers
1.	Values	10	9,173	9,071	8,631	6,563	9,214
2.	Attitudes	10	7,426	7,964	9,254	6,365	7,632
3.	Skills	10	8,075	7,275	7,012	6,555	8,136
4.	Knowledge	10	8,073	7,832	6,633	6,396	7,348

Most of the students do not feel the lack of knowledge especially future teachers and specialists in international relations. Future doctors are not sure in the sufficiency of knowledge they have got but are more positive about attitudes. While future engineers present the most modest scores but still are very consistent in assessing every block of competences. The following graphic chart clearly demonstrates the correlation between the blocks of competences that the students are likely to possess (Figure 1).

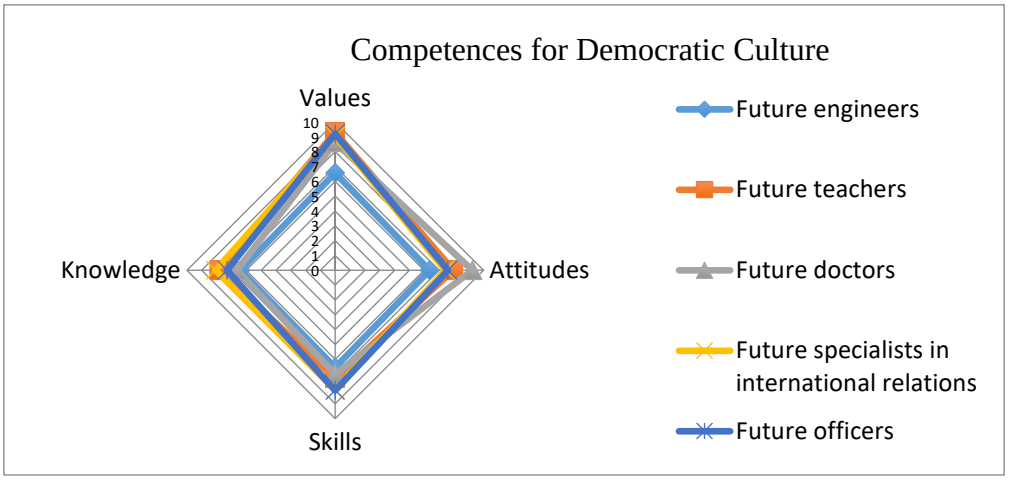

Figure 1. The Students' Self-Assessment and Peer Assessment of Competences for Democratic Culture

The questionnaire showed that future specialists in international relations, future teachers and future officers had highest scores in competences of value, future doctors - in attitudes, future specialists in international relations and future officers - in skills, and future specialists in international relations and future teachers in knowledge. As we see future specialists in international relations demonstrated highest scores in competences for democratic culture.

CONCLUSION

Intercultural citizenship being highly demanded part of a modern human being can be manifested in different situations not only in face-to-face communication. It is realized in such dimensions as media, online social networks and even e-mails. Being a piece of professional competence it is of much interest to students of all spheres of activity. Future specialists in international relations, teachers, doctors, engineers and officers demonstrate a desire to respond effectively to the challenges and opportunities born by intercultural situations. Moreover, they are very optimistic in the assessment of their own competences and believe that they are capable to develop such qualities in future. Still there is a difference between self-assessment and peer assessment of the students. What is more, assessing their groupmates female and male students show marked difference in terms of their perceptions of themselves and others. Surprisingly, male students' self and peer assessment is obviously more consistent and show less divergence with a tendency to peer assessment be higher. Vice versa among female students' peer assessment is lower than self-assessment especially in case of attitudes. Obviously, that is an issue of psychological research and proves that the process of intercultural citizenship development in male and female students would differ.

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INTERPERSONAL RELATIONSHIPS AS PART OF THE CONTINUOUS FORMATIVE-EDUCATIONAL PROCESS GAINED THROUGH THE INTERNATIONALIZATION PROCESS

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ABSTRACT

The formative-educational process contributes to moulding and defining the individual through the accumulation of theoretical and practical information and the inter-human communication as a result of the relationship with the peers. Due to the evolution of society, interpersonal relationships are generated by several forms of communication that are continuously realized both in the national language space and beyond the boundaries of the mother tongue.

The contribution of technology to interpersonal communication imposes a certain rhythm in the development of interpersonal relationships, enabling conversations and transmitting written information in real time, which facilitates establishing and maintaining international interpersonal relationships that can play an important part in the formation and education of the individual nowadays.

Within this evolutionary process, an irrefutable aspect refers to the international activities the individual has developed or intends to pursue with the aim of acquiring new attitudinal and practical skills.

"International activity has various forms from the international exchanges of books, to inter-university bilateral cooperation in the didactic and scientific research fields, but especilly to the participation within European and international programmes". [1]

The process of internationalization – through the means by which it operates and regardless of the forms in which it is performed – contributes to the capacity building at many levels (individual, institutional, system and societal level) in education and training field, as well as to the consolidation of the international interpersonal relationships.

Keywords: practical skills, bilateral cooperation, capacity building.

INTRODUCTION

The formation and the education of the individual, in general, is a lifelong process, and in particular, it means the understanding of certain notions from a particular field or specialization. The result, in both cases, are new skills in communication and behavioral, up-dated ancomplete informational background. For example, s specialization in which new skills are necessary, is the behavioral-corporal shaping ”in fact, we understand through gestures the kind of non-verbal communication and body language. Gestures in their hypostasis as metalanguage, coming to support (or refute) an idea”. [2]

The formative-educational process having different forms and results is influenced by the individuals capacity of assimilation so ”the transmission of information must be done in such a way as to create optimal interpersonal relationships to allow the “receiver” to store the specific movements and the more correctly the instructive-educational process is achieved, its quality and its purpose is due to the relationship initiated and controlled by the ”emitter”. [3]

The continuous changes, caused by the social evaluations at national and international level generate and condition the gathering of new inforrmation so ”the educational ideal is designed based on the aims of education which act as vectors to achive the degree of individual and social development of a person by developing imperative skills and abilities in terms of educational ideal. It is necessary to redefine the educational ideal today in the context changes which characterize the contemporary society” [4]

The importance of having international partnerships and exchanges between the institutions involved in this process, as well as the informational exchages resulted from the internationalization of the formative-educational process are related to ”the big challenge of universities is nowadays the attempt to become a reference point both in Romania and abroad. For supportind this desiderate, the international cooperation represents the most important component towards the increase of the national and international visibilty” [1]

The interpersonal relations have different forms, evolving in different directions, but setting certain standards because ”the university moral standards are based both on generally valid values and on values specific to the academic life and they include both special normal rules and general moral principles” [5]

According to the contemporary evolutions, to the requirements and expectations of the educational process and formation of the individual for international cooperation in different fiels, an idea takes shape ”the contemporary reality demonstrates that education has an important role and complexity. It is very clear that today we need a dynamic education which is based on true values.” [6]

An important aspect of the international collaborations that favors the process of internationalization and the formative-educational process of the individual is ”a central unit provides support for a Web based catalogue of online programs in member institutions, and additionally facilitates the training of faculty and the collaborative development of online courses. The central infrastructure to support the network … was developed with the support of specialists in member institutions.” [7]

During the individual s formative-educational process, the linguistic aspect is the one which creates challenges ”each polysemic unit is assigned a semantic space and the

meaning of an unit in a particular sentence is the result of a dynamical interaction with all other units..."[8]. The information gathered during the process of internationalization have major benefits for the persons who apply for teaching and formation mobilities in different EU countries. The growing number of different mobilities within the institution which made the 9th year study confirms the importance of establishing partnerships. The goal of these partnerships is to acquire useful information for the staff from different fields.

Considering all the aspects mentioned before, the formation and the education of the individual can be behavioral, theoretic, practical, etc and is based on verbal and written communication mainly on words. These words, no matter to which language they belong to, demonstrate the value of communication. "The word means to give or to receive a part of something, or to enjoy or assume something in common. Some people use the term send rather than share when they discuss the communication process".[9]

METHODOLOGY. DATA PROCESSING

The person selection was made during registration at the contest organized by the university.

The teachers and the administrative staff who travelled for the first time within this program had priority. Two commissions were constitued for the interview of selection. It was divided into two tests: *the first test* – assessed the candidates ability to speak a foreign language while *the second test* – assessed the candidates motivation, professional interest but also the basic knowledge necessary for the success of the mobility. The candidates who obtained a minimum score of 7,00 out of 10,00 were admitted. The admission criteria also included the candidates who were considered reserves due to their marks and the teachers who travelled for the first time within this program. The final results of the selection interview were gettin the OK by the Board of Directors and the Senate of Constantin Brancusi University.

The Erasmus+ grant for teaching and formation mobility

With the new Erasmus+ program, the Erasmus+ grants are settled by the Erasmus+ Guide and the recommandations of ANPCDEFP, with a value of 100 – 140 euro/day.

The number of Erasmus/Erasmus+ teaching and formation mobilities

The situation of the Erasmus/Erasmus+ mobilities in Constantin Brancusi University (the Outgoing component) is presented in table 1, and their dinamics for 2009 - 2018 – in fig.1.

Table 1 The total number of OUTGOING staff mobility for 2009-2018:

	STA	STT
Academic year	Teaching mobility for teachers	Formation mobility for teachers and administrative staff
2009/2010	4	0

2010/2011	3	2
2011-2012	7	8
2012-2013	12	11
2013-2014	19	20
2014-2015	22	21
2015-2016	21	26
2016-2017	27	27
2017-2018	28	35
Total	143	150
TOTAL	293	

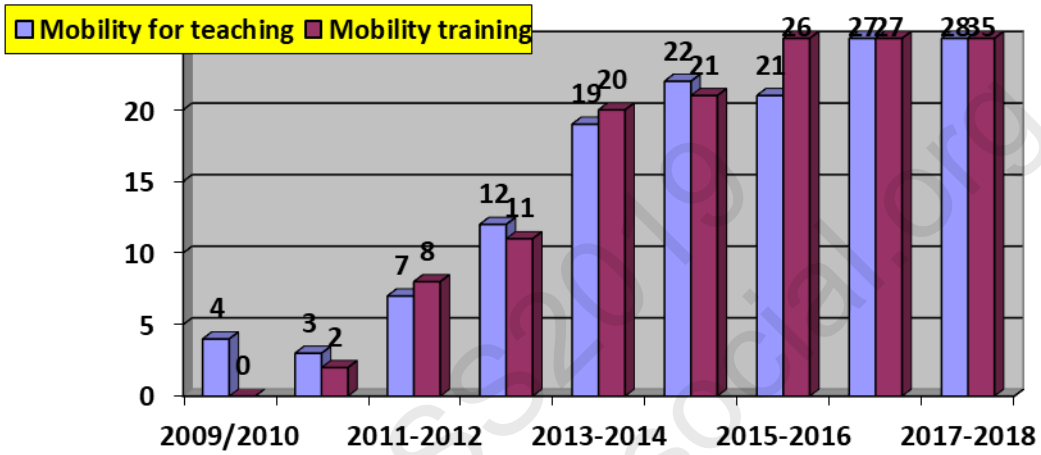

Fig.1 The dinamics of OUTGOING staff mobility for 2009-2018.

The number of Erasmus/Erasmus+ mobility for teaching is of 28 mobilities during the academic year 2017 – 2018 more exactly a number of 143 teachers.

The number of Erasmus/Erasmus+ mobility for formation increased from 27 mobilities during the academic year 2016 – 2017 to 35 mobilities during the academic tear 2017 – 2018. Today there is a total number of 150 staff mobility in Constantin Brancusi University (teachers and administrative staff) within the Erasmus/Erasmus+ program.

Aso during the academic year 2017 – 2018 the target group from *The Invited Staff from Enterprises* was achived. This Group will also be declared as an Erasmus+ Outgoing teaching mobility. There were two types of The Invited Staff from Enterprises at the firm EMI Electric, Varna, Bulgaria. The mobility lasted 3 days and the location was FSTMC – engineering field.

The situation of Erasmus/Erasmus+ mobilities in Constantin Brancusi University (the INCOMING component) is present in table 2 and their dinamics in fig. 2

Table 2: Total number of INCOMING mobilities for TEACHING – teachers 2010-2018

Academic year	STA – TEACHING MOBILITIES FOR TEACHER			
	Number mobilities	The Country of Origine	Time (days)	Faculty

2010-2011	1	Slovenia (University of Maribor)	5 zile x 1	FSEGA
	Total: 1			
2011-2012	1	Turkey (University Sirnak)	8 zile x 1	FSEGA
	1	Turkey (University of Nigde)	5 zile x 1	FI
	1	Turkey (University Abant Izzet Baysal)	5 zile x 1	FSMC
	2	The Chech Republic (University Mendel)	8 zile x2	FSEGA
	Total: 5			
2012-2013	2	Turkey (University of Nigde)	6 zile x 2	FEFLK
	4	Slovakia (University of Zilina)	5 zile x 4	FEFLK
	1	Turkey (University Abant Izzet Baysal)	5 zile x 1	FRIDSA
	2	Turkey (University Sirnak)	5 zile x 2	FSEGA
	1	Spain (University of A Coruna)	5 zile x 1	FSEGA
	1	Turkey (University Abant Izzet Baysal)	5 zile x 1	FI
	1	Turkey (University Fatih)	5 zile x 1	FSEGA
	1	The Chech Republic (University Mendel)	7 zile x 1	FSEGA
	1	Turkey (University Abant Izzet Baysal)	5 zile x 1	FEFLK
	Total: 14			
2013-2014	1	Turkey (University Eskisehir Osmangazi)	5 zile x 1	FSMC
	2	Turkey (University Eskisehir Osmangazi)	8 X 2	FSMC
	1	Spain (University of A Coruna)	5 zile x 1	FSEGA
	1	Turkey (University Fatih)	5 zile x 1	FSEGA
	3	Turkey (University Eskisehir Osmangazi)	8 zile x 3	FEFLK
	1	Turkey (University Eskisehir Osmangazi)	8 zile x 1	FSEGA
	1	Turkey (University Eskisehir Osmangazi)	8 zile x 1	FSMC
	2	Turkey (University Eskisehir Osmangazi)	8 zile x 2	FSMC
	2	The Chech Republic (University Mendel)	10 zile x 2	FSEGA

	Total: 14			
2014-2015	1	Turcia (Universitatea Dumlupinar)	3 zile x1	FSE
	2	Bulgaria (Universitatea Gabrovo)	3 zile x 2	FIDD
	2	Spania (Universitatea A Coruna)	5 zile x 2	FSE
	1	Republica Cehă (Universitatea Mendel)	10 zile x 1	FSE
	Total: 6			
2015-2016	1	Spain (University A Coruna)	5 zile x 1	FSE
	1	Turkey (University Izmir Katip Celebi)	5 zile x1	FIDD
	Total: 2			
2016-2017	3	Spain (University A Coruna)	5 zile x 3	FSE
	1	Bulgaria (The Economic University of Varna)	5 zile x 1	FSE
	1	Bulgaria (The Technical University of Gabrovo)	5 zile x 1	FIDD
	2	Turkey (University Dumlupinar)	5 zile x 2	FIDD
	Total: 7			
2017-2018	1	Bulgaria (The Technical University of Gabrovo)	2 zile x 1	FSTMC (FI)
	2	Bulgaria (The Technical University of Varna)	5 zile x 2	FSTMC (FI)
	1	Germania (University Jade)	2 zile x 1	FSTMC (FI)
	2	Slovacia (University Zilina)	5 zile x 2	FSEDAP
	1	Turcia (University Abant Izzet Baysal)	3 zile x 1	FSTMC (FI)
	Total: 7			
Total: 56				

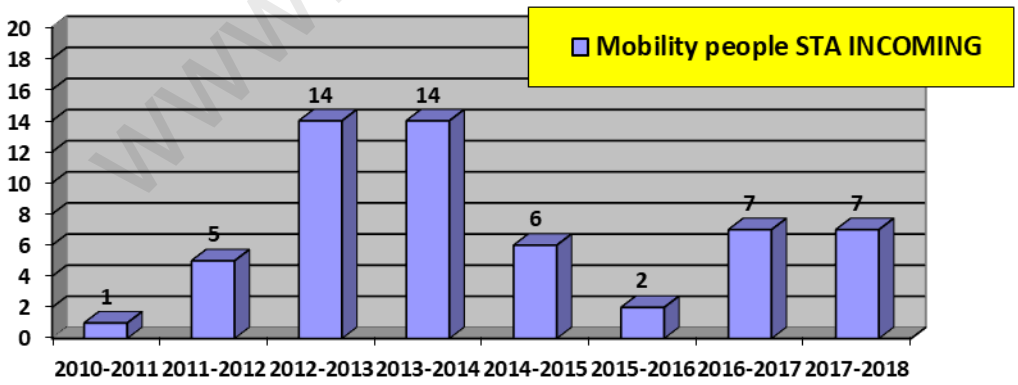

Fig.2 *The dinamics of teaching staff mobility – INCOMING - 2010-2018*

Tabel 3 Total number of INCOMING mobilities for TRAINING – teachers and administrative staff 2010-2018

Academic year	STT–mobilities of training, teachers and administrative staff			
	Number of mobilities	Country of origin	Time (days)	Faculty/ Departament
2012-2013	1	The Chech Republic (University Mendel)	7 zile x1	Public Information and Media Relations Office
2013-2014	1	Greece (TEI Piraeus)	5 zile x 1	BRIPC
2014-2015	1	Turkey (University Dumlupinar)	3 zile x 1	FSEGA
	5	Turkey (University Nigde)	5 zile x 5	FSMC
	Total:6			
2015-2016	2	Bulgaria (The Technical University of Varna)	5 zile x 2	FIDD
2016-2017	5	Bulgaria (The Technical University of Varna)	5 zile x 5	FIDD
	1	Spain (University A Coruna)	5 zile x 1	FSE
	Total: 6			
2017-2018	7	Bulgaria (The Technical University of Varna)	5 zile x 6	FSTMC
	Total: 7			
Total: 21				

Within the Incoming component, (income teachers, teaching) the academic year 2017 – 2018, there were 7 teaching mobilities. The total number of foreign teachers who came to Constantin Brancusi University, untill today, for teaching mobility is 56.

Another total number of 21 staff members from partners universities came to Constantin Brancusi University as part of Erasmus/Erasmus+ formation mobilities. During the academic year 2017 – 2018 there were 7 formation mobilities.

CONCLUSIONS

❖ The formation of the individual and better abilities acquired in the process of internationalization increased significantly, from year to year, the number of persons applying for those types of mobilities, an important role being played by the phenomenon of duplication that appeared as a result of the accumulation of information.

❖ The benefits of interpersonal relations are valuable and can be seen in the corporeal attitude and physics of the individual but also in the institution he belongs to by presenting new ideas and concepts.

❖ The formative – educational process is a continuous one and insures the processing and storage of informations in the personal archive, generating a new interpretation and exposire similar with the ones fro the internationalization process.

❖ The individual valencies resulted from the amplification of the interpersonal relations as part of formative – educational process as a lifelong one, and no matter what their background and social context might be, set the basis for personal evolutions and new concepts useful to the new generation.

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KEY FACTORS IN TRAINING ENGLISH PRONUNCIATION: VALUATION AND ASSESMENT

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ABSTRACT

The goal of the work is to map out important external and internal factors that are involved in testing and evaluating the proper pronunciation of English language teaching at Slovak schools. Particularly in language education, it is clear the external legislative influence of the European Union, which determines the reference framework and the levels of language learning which are binding on all Member States, as well as basic Slovak laws on education and training, methodological guidelines on the evaluation and classification of Slovak pupils, curriculum, other rules that influence pronunciation as part of the pupils' communication competences and language skills. Categories of internal factors include pupils´ assessment and testing. The role of English teacher is the key role, the ability to work with errors, their diagnosis and appropriately selected approaches, as well as the need to establish the same pronunciation criteria of the testing and pupil testing process were also evaluated. Significant elements are the validity of methods of general impression and analytical evaluation, especially in terms of pronunciation and necessary basic scientific verifiers such as objectivity, validity and reliability in the evaluation process. Testing pupils we use testing pupils as the assessment tool and therefore we need to have a properly set specification, that consists of suitably developed test types, and, from the point of view of the accuracy or accuracy of the language, review the methodical approach to the knowledge, and respect for the pupil's individual abilities and their age to test and evaluate the pronunciation of English language teaching at elementary schools in order to determine the level of pupil knowledge and education.

In the process of Slovak pupils learning and of evaluating the pronunciation and typical specific errors of Slovak pupils at primary schools, the interference of the mother tongue is pronounced in terms of pronunciation, which we mainly address in the area of sound language interference, affecting the quality of English pronunciation, clarity of speech and listening comprehension.

Keywords: assessment of pronunciation, summarizing valuation, formative assessment, criteria for evaluation

INTRODUCTION

The work is focused on the dominant role of pronunciation in the educational and learning process, especially at primary levels, which lay the foundations of vocabulary and influence the relationship with the English language. The pupils' assessment includes the teacher's output to the pupil from the oral, after the written evaluation, divided into summary - progressive, balance, expressed mark and format - intermediate,

diagnostic, verbal and in their application the main effort and task of the teacher is to objectivize the evaluation through precise and predetermined evaluation criteria that work on error analysis as well as the correlation of errors as the degree of processing and the acquisition of the foreign language structure in terms of pronunciation have a relevant link with the pronunciation evaluation that deals with different types of test and test specifications, different types of test tasks, the basic information needed to compile input and evaluate valid and relevant tests setting the correct English pronunciation diagnosis. The conclusion is the outcome of the evaluation, test of pupils' pronunciation, as the evaluation is a significant motivator, but it can also be a demotivator for the pupil.

FACTORS OF LEARNERS' P PRONUNCIATION EVALUATION

In all types of Slovak schools, the Common European Framework of Reference for Languages (CEFR) is a binding document for language learning which describes the capabilities acquired by individuals who are studying the foreign language of the EU countries. The CEFR levels [1] *"define the six levels that the learner will achieve in the language learning process A1 to C2, which can be regrouped into three broad levels: Basic User, Independent User and Proficient User, and that can be further subdivided according to the needs of the local context"*.

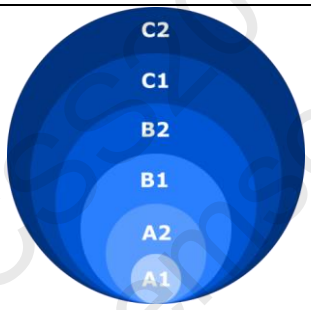

Fig.1 *Six levels of foreign language proficiency (CEFR)*

The levels are defined through 'can-do' descriptors. CEFR defines the communicative competence which includes pronunciation in the linguistic, sociolinguistic and pragmatic categories of sub-competencies.

The methodological guideline for Slovak schools is provided by the Ministry of Education of Slovak republic, some laws on state administration in education and school self-government, which is carried out in the process of education and training on the amendment and supplementation so the subject of the assessment is the level of knowledge and skills achieved in accordance with valid curricula and educational standards. These states provided documents offer only a general theoretical framework, but they do not provide enough information in specific situations for a thorough evaluation of pronunciation performance.

It is a task of English language teacher assigned the task to the learner and assessed the level of his performance with a mark of 1 to 5 that involved pronunciation performance. The mark in this case represents the placement of the learner's performance on a rank scale where the first stage represents the best performance and the fifth degree of performance is incomplete, set minimum. Testing pronunciation usually involves mostly verbal evaluation or performance appraisal when evaluating the English

language in pronunciation and oral presentation, fluency of speech, clarity and overall culture of performance in communication. At the same time are considered factors as manifested personal and social competences such as responsibility, effort, initiative, willingness and ability to cooperate. The degree of benefit is not determined based on the average of the grades obtained in the given classification period, the importance and weight of each stamp shall be considered. On this basis some methodological guidelines for the evaluation of learners are developed for primary secondary schools, practical teaching centres that include, for example, assessment and basic principles based on obtaining evaluation, rating grades, evaluation rating. Pronunciation in a foreign language teaching is a part of the oral expression as receptive language reading skills and productive language skills of speaking but in practice it is up to the teacher to use an analytical rating scale or a global one to set the pronunciation criteria for their pupils according the level of their knowledge and analyse each criterion separately. The result of the evaluation will be the degree-value profile for each criterion when assessing pronunciation in oral speech.

VALUATION OF PRONUNCIATION IN TEACHING ENGLISH

As Tennant [2] explains *"Pronunciation in a foreign language is not just about making the right sounds or stressing the right accent of syllables, but also about how to help students understand what they hear"*. The understanding and development of pupils' communicative competence emphasizes at the present time all approaches to teaching foreign languages.

According to Brown [3] the development of communicative competence is one of the basic principles of teaching foreign languages. More important than trying to reach the level of a native speaker is to acquire adequate communication-pragmatic competence, where pronunciation plays in the primary social acceptance of a non-verbal speaking native speaking dominant role.

Kosova [4] considers that *"every verbal or otherwise expressed evaluation court, opinion or attitude of the subject assessment body of the evaluation of his / her actions or properties (right, very good, working very well, not quite satisfied with you, annoyance, smile, gesture). A narrow-minded assessment is the comparison of a rating object with a real or ideal pattern, with the presence, absence or degree of real or ideal value perceived by the assessor"*.

Gondova [5] notes that *"valuation is the most important and most frequented category of pedagogical diagnostics. It is a process that evaluates certain activity, phenomenon, situation, behaviour, and behaviour of the pupil using verbal and non-verbal means.* In practice it is a wide range of short and long-term activities of teacher, such as checking, testing, checking, assessing, giving marks to pupils. Terms of valuation, testing, assessment are often identified in practice, but it should be borne in mind that these terms are not equivalent, is a wider concept, and includes the giving marks after exam results are input from the evaluation process.

The evaluation of English pronunciation is most often based on the verbal evaluation and according Fulkova [6] *"verbal evaluation can be used as a suitable accompanying form of assessment. The current trend and new innovative pedagogical streams are even*

directed to its preference, especially in lower grades of primary schools". One of the main reasons is psychological. It seeks to relieve pupils of excessive pressures on performance, unnecessary stress and fear. It is also expected that verbal evaluation will enable pupils to use their individuality and creativity more autonomously and, ultimately, to self-assess their own participation in the learning process. Concentration on verbal evaluation asks teachers to make a significant change in the style of working with pupils used in classification methods.

THE ROLE OF THE TEACHER

Harmer [7] states that the most important before valuating is having know-how how to deal with pronunciation problems *"Teachers ' responses to pupils' explicit errors should be perceived by pupils as aid on the way to the goal and not as a remorse or warning that they have made a mistake"*.

There are several ways according Harmer how the teacher can provide cognitive feedback by proper and highly effective correction, which affects the pronunciation fixation and the positive pronunciation of their learners.

1.Echo - the teacher repeats the sentence after the pupil, but with intonation of the question, emphasizing the wrong word;

2.Repeating the part of the student's sentence - the teacher repeats the first part of the sentence to the point where the pupil made a mistake and is waiting for the pupil to be repaired;

3.Asking other pupils for correction - if a pupil cannot fix himself / herself, the teacher asks the others to help him / her;

4.Indication of the error - the teacher tells the pupil how he committed the mistake;

5.Gestures - The teacher uses various gestures to indicate to the pupil that he has made a mistake and is waiting for the pupil to correct the error, he will show him three fingers to indicate that he has made a mistake in a third person of a single number;

6. Mimic - a teacher can use a mimic (a glance) to indicate that the pupil has made a mistake; the mimic must be used judiciously so that the pupils do not understand it as a mockery.

Harmer defines several ways how to deal with mispronouncing: *"If a pupil simply goes wrong and can fix himself / herself after teacher feedback, it is a slip that often occurs because the language structure is insufficiently trained. After alert, the pupil becomes aware of the error based on his explicit knowledge and is self-correction. If this is an error, the pupil cannot be corrected even though the language structure has already been retrieved. In this case, the teacher asks for help from other pupils (peer-correction). Attempts occur when learners need a language structure that they have not yet taken, but they still try to express it. In this case, the teacher can repeat the sentence correctly or simply ignores the mistake*".

We can improve mispronouncing by using contrastive information, tact in correction, frequency preciseness and intensity of correction, exact imitation, compromise in correction, simplicity of explanation, sound/letter correspondence, pronunciation in a communicative context, learner-centered approach are the foundation of improvements

in teaching pronunciation. Pronunciation teaching needs constant attention for it to have a lasting effect on students and integrating it into daily classroom procedures. Addressing pronunciation issues regularly during the language feedback or group correction stage of a lesson helps to focus learners' attention on its importance.

SUMMARIZING EVALUATION

According Rötling [8] "*summarizing valuation is understood as the evaluation and assessment of the results after the completion of the subject units, the thematic units as well as the total outputs*". Summarized assessment in practice at our primary schools is otherwise considered also referred to as a final or balance assessment where the performance of the examiner is compared to a social norm, population standard, or criterion, and is expressed by a quantitative mark expressed in a number (1-5) and a word (excellent, praiseworthy). This rating then classifies the performance, classifies it into the performance groups. In the process of education of summative assessments, decisions are made on the process to higher stages of education (grades at the end of the school year, results of admission tests). Summative assessment is very important in the learning process and pupils usually perceive it very sensitively. Therefore, it is very important that you know what the evaluations will be, and when. In addition, they should know the evaluation criteria and themselves should be able to evaluate not only the performance of their classmates but also their own. Oral assessment of pupils' performance is of great importance because it helps them understand what they need to handle where their pronounced strengths and weaknesses are. Thanks to him, they are gradually learning to evaluate their performances and their classmates. It is not enough to give the learners a mark in the summaries of the pronunciation activity, it is necessary to explain whether and how they succeeded in achieving the goal and what he still has to work on, especially when it comes to the mid-term evaluation during the school year.

FORMATIVE VALUATION

In his work Slavik [9] defines formative assessment (from lat. *formo* = edit, form, adjust,) as a *"feedback assessment and a form of dialogue"* that carries a strong motivational charge and influences the pupil's cognitive sphere, for the pupil's own interest, it is not to conceal shortcomings, because it aims to eliminate them, because it influences self- in terms of pupil personality development is extremely important. *"The formal evaluation is continuous, the purpose of which is to obtain information on the progress of the process, the phenomenon, the current state, the current performance, to diagnose possible errors, deviations, typical errors so that feedback can be provided to all participants in due time, make necessary changes and eliminate any shortcomings ".*

It is known for teachers that the learners can learn from the formative valuation the about the criteria for pronunciation assessment, about remedies, about what to look for in the future and how to improve it. It is that the teacher verbally assesses the pupil's performance, advances in learning at a certain time, and does not compare only to the norm but also to the pupil's own possibilities in terms of his / her potential or previous performance.

Through the formal assessment of the teacher, they learn to learn their own style of learning, understand their strengths and weaknesses, and gradually learn to assume responsibility for self-learning, learn to evaluate their own performance, and thus gradually become autonomous learner.

Formative valuation allows you to experience the feeling of success and self-worth, as well as for pupils who may never be included in the top performers in the summative evaluation. The experience of success stimulates the pupil's activity, affects his / her relationship to the subject as well as the relation to himself / herself. While the summative evaluation classifies performance and allows for comparison, the formative evaluation emphasizes the learning process and leads to its subsequent optimization.

CRITERIA OF EVALUATION

According Weir [10] *"the pronunciation criteria are based on operationalization, objectivity and standardization of procedures"*.

The aim of standardization procedures is to ensure that the examiners use evaluation criteria in the same way and that the learners' assessment is least affected by the evaluator who evaluates them.

It is necessary to create a scale to evaluate the most important pronunciation criteria as

1. *Linguistic clarity - achieving the goal of communication*

Pronunciation and intonation - evaluates whether pupil pronunciation is in accordance with the target language standards, uses correct accent and intonation, and; it is not expected that the pupil's pronunciation reaches the level of the native speaker, but should be understandable and not disturb communication.

2. *Complexity, accuracy, fluency*

According Ellis [11] complexity is characterized as *"the extent to which the language produced in performing a task is elaborate and varied"*.

Complexity, accuracy and fluency are the main descriptors for the oral valuation of pronunciation of language learners as well as indicators of learners' proficiency underlying their performance; they have also been used for measuring progress in language learning and developing listener-friendly pronunciation. We can consider accuracy or correctness in pronunciation teaching as the ability to produce error-free speech is referring to the degree of deviancy from accuracy as the conformity of second language knowledge to target language norms. Fluency in general is assesses whether a pupil can express himself fluently and spontaneously without too long, unnatural hesitations. In the global rating scale is a need to assign performance to one level on a scale. The global scale can have several qualitative grades, each of which has all the qualities described. Priority in the evaluation is the progress in the pupil's development, his self-development and attitudes.

3. *Objectivity, validity and reliability*

Objectivity, validity and reliability are essential part of the pronunciation assessment. The objectivity of testing and evaluation, as well as all scientific measurements, is based on the ability of the most accurate evaluation criteria to be used to allow for equal evaluation of the same performance by different evaluators.

Gavora [12] states that *"content validity can be judged by competent people by comparing the content of the test - the test tasks with the competencies the test is intended to measure. The test should include representative samples of tasks that are a manifestation of measured knowledge, ability, or property. Most often, the competences included in the curriculum, long-term plans and target standards."*

4. Foreign language anxiety - fear of negative evaluation

Horowitz [13] described in a language classroom situation anxiety as a psychological construct reflecting *"apprehension about others' evaluations, distress over negative evaluations by others, and the expectation that others would evaluate one negatively"* because language learning is a *"profoundly unsettling psychological proposition*" as it jeopardizes an individual's self-understanding and perspective development.

Teaching pronunciation should be focused on positive approach dealing well with learners' indisposition (stress, fatigue, fear of conversation) and leading to listener friendly and intelligible communication in foreign language acquisition.

5. Sound interference and transfer of mother tongue

According Odlin [14] *"sound interference and transfer is an influence based on th similarities and differences between the foreign language and the mother tongue and any other language that the individual has in the past (though imperfectly) adopted".*

When determining pronunciation criteria, it is important that the criteria are realistic and the highest rating is the performance expected from the best learner (not a performance that resembles the performance of the native speaker), i.e., language competencies are achieved at a certain language level. Learners are aware of what they want to evaluate during the learning process prior to the assessment period.

CONCLUSION

The aim of the work is to find out which factors affect the valuation of pronunciation in a foreign language acquisition. Due to the well-defined assessment by defined criteria in English pronunciation learners often could experience success, which motivates them to learn further under the influence of the positive aspects of their performances.

This also applies to the opposite, negative biased assessment that leads to frustration, resistance to learning foreign language, fear of speaking, fear of misconception.

Overall rating of a learner's pronunciation is therefore not only a diagnosis, oral assessment or classification - a mark or test result expressed in percentages, the number of points achieved, but implicit evaluation of the pupil's activity and co-operation in lessons as well as an explicit assessment, interviews, finding the needs in the process of learning to evaluate their progress. The advantage of the verbal and the written mark of the expressed assessment is that although the learners in the summative assessment are not excellent, they understand what they must do to improve their performance.

Due to the difficulty of English language assessment it is a task that is demanding on the teacher's knowledge and skills, methodically and didactically, but essentially a practice, a systematic verification and other education gained by teaching the key quality.

The question of methods and forms of valuation in the field of foreign language pronunciation, which is the most difficult task of a foreign language teacher, is currently one of the most discussed subjects, whether in pedagogical theory with an impact on the theory of pedagogical diagnostics, phonetics and phonology, but also psychology , the pupil's personality have a great influence on the level of pronunciation.

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LEARNER-CENTERED ASSESSMENT IN THE ESL MASTER-LEVEL COURSE

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ABSTRACT

The purpose of the research was to develop and implement master level students assessment procedures considering learning outcomes. Today learning outcomes are at the forefront of educational change. They represent a change in emphasis from 'teaching' to 'learning'. Thus, because learners are at the center of the educational process, this approach is often referred to as learner-centered. A great deal of the assessment research in recent years has focused on innovative forms of assessment. The research is intended to prove the relevance of learner-centered assessment to ESL master-level course.

The article provides a brief description of the development of appropriate student-learning outcomes while designing an ESL course for master's degree students. The main issues associated with assessment based on learning outcomes are described. Alternative forms of learner-centered assessment are discussed. Task-based assessment is chosen as the main approach to assessing learning outcomes. The relevance of this choice is explained. Consideration is given to principles and features of task-based assessment. A procedure for developing assessment tasks as well as criteria for assessing student's performance are discussed.

Exemplar assessment tasks for master's degree students are given.

Keywords: learner-centered assessment, task-based assessment, learning outcomes, ESL master-level course

INTRODUCTION

Higher education systems in many European countries have been reformed in recent years along the lines of the Bologna Process. It entailed Curricula Reforms. An important component of these reforms is the shift from input-focused curricula design to the output-focused and student-centered approaches. Output-focused approaches emphasize the achievement of given learning outcomes, the development of complex competencies rather than knowledge transmission and acquisition of basic skills.

Russian Higher education system has adopted outcome and competency based approaches to teaching, learning, study programs and curricula design as part of the reform process. These approaches are reflected in Federal state educational standards of higher education which state core ideas to be incorporated into curriculum.

A new version of the Federal state educational standards of higher education, (FSES HE 3++) updated taking into consideration professional standards, come into force in the Russian Federation on September 1, 2019 [1]. According to FSES HE 3++ study

program outcomes are universal, general professional and professional competencies of graduates.

The task of the Higher Education Institutions (HEIs) is to formulate competencies indicators which are understood as generalized characteristics of competencies, specifying and revealing their formulations in the form of specific actions that must be performed by a graduate who has completed a study program or a part of it.

Competencies indicators should be measurable by means available in the educational process. HEIs independently plan courses (modules) learning outcomes that should be aligned with the competencies indicators established in the study program. The totality of the planned courses (modules) learning outcomes should ensure the graduate to acquire all the universal and general professional competencies established by the study program.

In this situation, the importance of learning outcomes cannot be overestimated; study program outcomes depend on the correct understanding and formulation of courses (modules) learning outcomes by teachers. Learning outcomes affect the selection of appropriate teaching and learning strategies and the development of suitable assessment techniques.

Student assessment approaches must be well aligned to learning outcomes based curricula. Courses (modules) learning outcomes must be the focus for assessment.

The aim of the research is to develop and implement relevant forms of student assessment to measure learning outcomes in the ESL master-level course. We are working with students doing their master's degree in Software Engineering.

MATERIALS AND METHODS

At first some explanation is needed. As mentioned above, FSES HE 3++ come into force on September 1, 2019. But a new version of Standard for "Master of Software Engineering" was approved by the Oder of the Ministry of education and science of the Russian Federation of September 19, 2017 № 932. So we were guided in our work by this new version already in 2018.

As stated above, according to FSES HE 3++ study program outcomes are universal, general professional and professional competencies of graduates. There are six universal competencies (UC) master's students are expected to acquire. They are the same for all master programs: UC-1 "systems and critical thinking", UC-2 "project development and implementation", UC-3 "teamwork and leadership", UC-4 "communication", UC-5 "Intercultural Interaction", UC-6 "self-organization and self-development".

ESL master-level course is intended to develop the elements of UC-4 "communication" which is formulated as follows: Capacity to apply modern communication techniques, including those in a foreign language (languages), for academic and professional interaction. Competency indicators for UC-4 established by Southern Federal University (SFedU) are the follows: UC-4.1 Graduates apply information and communication technology for academic and professional interaction, UC-4.2. Graduates carry out business communication in Russian and a foreign language. So the task of the instructors of the Department of foreign languages of SFedU was to develop

a set of ESL master-level course learning outcomes aligned with UC-4.2. The following ESL master-level course learning outcomes were developed:

LO-1. Students will be able to develop and give well-organized presentations in English, both in groups and individually, on professional subjects, with and without visual aids after considering the relevant audience, situation, and purpose of the communication.

LO-2. Students will be able to understand and interpret professional information in English presented in verbal, numerical or graphical form, compare and contrast ideas, draw conclusions, summarize and paraphrase information in order to solve professional problems.

LO-3. Students will be able to communicate in English effectively in writing using grammatically correct, situationally and culturally appropriate language in a variety of professional situations. Students will be able to write a job application letter, a CV, business letters and emails.

LO-4. Students will be able to use technology to communicate in English effectively in various settings and contexts.

Next, my task was to develop relevant forms of assessment to measure stated learning outcomes of my students.

The theoretical basis of the assessment development process is considered below.

1. *Outcome-based education*. Outcome-based education is an approach to education in which decisions about the curriculum are driven by the outcomes the students should display by the end of the course. In the outcome-based approach the three elements – outcomes, teaching and learning, and assessment need to be aligned to achieve consistency and coherence in the design process, resulting in instruction and assessment that are designed to address the intended learning outcomes [2].

2. *Outcome-based assessment*. Outcome-based assessment means that the assessment process must be aligned with the learning outcomes. This means that it should support the learners in their progress (formative assessment) and validate the achievement of the intended learning outcomes at the end of the process (summative assessment). It also means that the assessment process should be adapted depending on the kind of outcomes that it is aimed to appraise [3].

3. *Performance based assessment*. Performance-based learning and assessment represent a set of strategies for the acquisition and application of knowledge, skills, and work habits through the performance of tasks that are meaningful and engaging to students [4]. Performance assessment assesses integrated knowledge and skills by asking students to perform a task rather than to provide a correct answer. So, this kind of assessment is more effective at capturing more complex achievements than closed-ended formats.

4. *Performance task*. Assessment tasks present students with a complex, real-world challenge in which the scenario, role, process, and product are all authentic; they must then demonstrate that they have the skills and knowledge to complete the task [5].

Marc Chun described the features of a quality performance task:

- Real-world scenario: students assume roles in a scenario that is based in the "real world" and contains the types of problems they might need to solve in the future. The scenario might directly relate to their likely careers.
- Authentic, complex process: the scenario reflects the complexity and ambiguity of real-world challenges. To complete the task, students go through a process that approximates what they would do if they were actually facing that situation.
- Higher-order thinking: the task requires students to engage in critical thinking, analytic reasoning, and problem solving.
- Authentic performance: the "product" the students create reflects what someone assuming that role would produce: a memo, presentation, or other write-up.
- Transparent evaluation criteria: the learning outcomes drive the creation of the task. They and the evaluation criteria and rubrics are made clear to students, in part so they can evaluate their own work and in part so they can get diagnostic feedback on their strengths and weaknesses [5].

I created performance tasks using GRASPS model, proposed by Jay McTighe and Grant Wiggins [5]. The acronym GRASPS stands for:

- **G**oal – state a real-world problem to be resolved.
- **R**ole – establish meaningful roles for students in the scenario.
- **A**udience – establish clients, the target audience (authentic or simulated) students need to convince.
- **S**ituation – provide the context students find themselves in.
- **P**roduct/ **P**erformance, and **P**urpose – explains the product or performance that students have to create and its larger purpose.
- **S**tandards and Criteria for Success – dictates the standards that must be met and by which successful performance is judged.

Analytic rubrics were chosen as an evaluation tool. An analytic rubric divides a product or performance into distinct elements or traits and judges each independently. Analytic rubrics are well suited to judging complex performances involving several significant dimensions. As evaluation tools, they provide more specific feedback to students, parents and teachers about the strengths of a performance and the areas needing improvement [6].

RESULTS

Master studies in SFedU last two years or four semesters (120 ECTS). ESL master-level course lasts three semesters (4 ECTS). In the first and second semesters students are evaluated on a "pass/no pass" (P/NP) basis. The third semester ends with final examination. I'm working with students doing their master's degree in Software Engineering. They started in September 2018.

This paper reflects the author's experience with one section of ESL master-level course, offered in the second (spring) semester of 2018-2019 academic year. Eighteen male students were enrolled in the class. Three students were at the A2 level in English, 10 students were at the B1 level in English, and 6 students were at the B2 level in English. 15 students said that they work as freelance programmers or software developers for IT companies.

I used performance-based assessment for both formative and summative purposes. Students worked on the performance task during the whole semester. A part of every lesson was devoted to brainstorming and discussing ideas, analyzing, synthesizing, and summarizing professional information from multiple sources. I provided support in terms of useful grammar and vocabulary. This work can be seen as formative assessment.

The students' final presentations and written documents, judged based on a rubric and graded can be seen as summative assessment.

As mentioned above performance tasks were created using GRASPS model. The tasks were designed bearing in mind ESL master-level course learning outcomes. Students were given the following performance task:

THE BEST EDUCATION STARTUP IDEA CONTEST	
Goal	Your goal is to develop an idea for an education startup.
Role	You are a software developer in a big software development company.
Audience	You need to convince the Chief Executive Officer and the panel of judges that your idea has merit.
Situation	The Chief Executive Officer of the software development company where you work is looking for new products and ideas in the educational sector to invest in. The best education startup idea contest was initiated. You have decided to take part in this contest.
Product/ Performance, and Purpose	You have to complete the contest application form. You will develop and give a 5-7 minutes presentation to explain your idea.
Standards and Criteria for Success	Your products should provide meaningful professional information, reflect the latest achievements in both IT and educational sectors. You are expected to show deep understanding of the discussed problem based on analysis and synthesis of professional information from multiple authentic sources.

Exemplar contest application form:

Please provide your information below to apply for the contest.

Contact Information

Please provide the information below for the individual who will be the primary point of contact for all further correspondence regarding the selection process.

First name _____

Last name _____

Job _____

Email _____

Please note that this email address is where all future email correspondence regarding notification of participation status will be sent to.

Address

City _____

Country _____

State _____

Zip/Postal Code _____

Work Phone _____

Cell Phone _____

Website URL _____

Product/Service Information

Product/Service name _____

Description (elevator pitch) _____ 500 characters

Market

Describe the market you're addressing _____ 200 characters

What problems are you trying to solve? _____ 200 characters

Describe the solution to the problem described above _____ 200 characters

What is your unique advantage? _____ 200 characters

How does your product improve or enhance educational outcomes? _____ 200 characters

To evaluate student performance on tasks analytic rubrics were created. A rubric is a criterion-based evaluation tool. A set of criteria aligned with targeted learning outcomes were established. Analytic rubrics feature a grid of "criteria" and "levels" of achievement. The instructor assigns points to particular criteria, and then evaluates student performance in each area. The following criteria aligned with learning outcomes to evaluate the were established (see Table 1).

Table 1. Criteria for oral presentation evaluation aligned with learning outcomes

Criteria	**Targeted learning outcomes**
Response to the performance task: oral presentation is expected to completely meet the task requirements, and be appropriate for the intended audience.	LO-1.
Content: the material selected for presentation is expected to be appropriate to the topic. The speaker provides a variety of types of content appropriate for the task, such as generalizations, details, examples and various forms of evidence. Enough essential information should be given to allow the	LO-1. LO-2.

audience to effectively evaluate the topic. The presenter is expected to have a clear understanding of the material presented.	
Organization: oral presentation is expected to be well-organized in overall structure. It should be divided into three sections: introduction, main body, and conclusion. The presenter is expected to use organizational aids such as announcing the topic, previewing the organization, using transitions, and summarizing. The presentation should be consistent with the time limit.	LO-1. LO-2. LO-4.
Delivery: body language & eye contact, contact with the public, poise, speaking volume and pace are evaluated. Presenters are expected to dress appropriately for the audience and act in a manner expected in a professional setting.	LO-1.
Language skills: appropriate vocabulary and grammar, understandable pronunciation (rhythm, intonation, and accent) are expected from the presenter.	LO-1. LO-2.
Visual aids: graphs/figures should be clear and understandable. Audio/Visual components should support the main points of the talk.	LO-1. LO-2. LO-4.
Overall impression	LO-1. LO-2.

Levels of achievement and grades were also established.

Analytic rubrics were also developed to evaluate the written product of the given performance task.

Students were provided with rubrics in the beginning of the semester to know the criteria and standards by which they are going to be assessed. They used these criteria for self-assessment and for peer assessment during the oral presentations. Rubrics have self and peer assessment columns.

DISCUSSION

Performance-based assessment allows to assess a range of integrated knowledge and skills by asking students to perform a task. One assessment task may assess more than one learning outcome.

The suggested performance task allows to measure students' productive language skills through performances which allow them to demonstrate the language skills that may be required in a real world context.

Students are engaged in working on the tasks during the whole semester. So, performance-based assessment doesn't only allow instructor to evaluate students' achievements, it also drives learning.

Provided rubrics allow to engage students in their assessment process through peer and self- assessment. Students do the final inspection of their products and complete the self-assessment column. During this self-assessment stage, students find ways to improve their work. Experiences with peer assessment often improve students' self-assessing skills. Peer and self-assessment encourage students to take more responsibility

for their learning; they learn from their mistakes, understand their strengths and weaknesses and learn to target their learning accordingly.

CONCLUSION

Alignment between assessment methods, assessment tasks, learning and teaching opportunities and learning outcomes is extremely important to the success of an outcome-based study programme. Performance-based assessment and performance tasks enable this alignment. Close links between the assessment tasks, criteria, and feedback enable students to achieve the learning outcomes on a systematic basis.

Performance-based assessment is a relevant form of student assessment to measure learning outcomes in the ESL master-level course. It enables outcome-based and learner-centered education approaches to be implemented in practice.

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LOOKING BEYOND THE COMPETENCE: FOREIGN LANGUAGE FOR SCIENCE STUDENTS EMPOWERMENT

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ABSTRACT

Including humanitarian subjects into a core curriculum within STEM fields (science, technology, engineering and math) is viewed as a favorable condition for students to take full advantage of a well-rounded education. Meanwhile, STEM students, often driven by narrowly specialized outcomes, feel like they are being forced to engage in non-science fields. As a result, the courses they consider to be irrelevant, commonly fade in their memory. Considering such limitations, the study examines the relevance and process of applying humanistic approach to teaching General English course for students pursuing science with crucial perspective to educating better scientists and self-reliant people. To that effect, the authors envisage a foreign language as a driving force taking into account a person's feelings and motives and involving learners into beneficial educational experiences of gaining broader strengths that companies often prefer to narrow expertise. The research design included an experiment investigating the efficiency of humanist pedagogy practices in the General English course for producing positive benefits on students' emotional, and academic outcomes. Mix research consisted of two parts: a reflective essay to provide the evidence of changes related to students' emotional experiences, and the two tests: pre-test and post-test. Findings in this phase of study illuminate how the pedagogical potential capacity of humanistic approach invigorated changes in foreign language performance. For the follow-up period, the research identified a priority of collecting data on the longer-term attitudinal effects. Providing a focal point on the humanistic principle of creating optimal conditions for students' well-being in the educational environment the paper may contribute to facilitating a solution to the problem of impersonality in the educational process in the higher school. Also, the article presents practical relevance for more intentional building of high productivity abilities within General Study disciplines.

Keywords: humanitarization, General English, humanistic approach, student well-being

INTRODUCTION

The impact of new global reality demands a transfer from the knowledge transmission approach to education aimed at enhancing qualitative personal traits. Much attention has been focused on constructive response to overcoming present-day de-intellectualization and unification of personality consciousness. Preparing students for the Nation's workforce means more than training for a job but building broader strengths that companies often prefer to narrow expertise [1].

Within STEM-related fields (science, technology, engineering and maths) a well-rounded education is achieved through applied courses, which are offered to all students and are thought as settings targeted at making technical education more academically rigorous and less narrowly focused on preparing students for specific jobs. The relevance of applied courses to later working life for many graduates will lie in the realm of enhancing career readiness rather than specific competencies. Including the humanities disciplines into the scope of technical education is welcomed as a favourable condition for students to bolster high-demand transferable and fundamental academic skills but it may also be questioned – about how it may appear in practice.

The propose of this paper is an investigative study of an important aspect of teaching a General Study discipline (General English) as part of a core curriculum referred to STEM fields of post-secondary education. Based on the experiment, the study aims at finding a way to increase teaching effect by tapping students' potentials and facilitating student well-being in educational environment.

PROBLEM

Examining our teaching efforts in the General English (GE) classroom we commonly assign *End of the Course Reflections*, a form of students' response on the process and outcomes of the course. Specific feedback-driven metacognition practice encourages self-expression and can be used to note certain trends. According to the answers, obtained in recent two years, the students were not lacking any intention to make use of what they are studying in the future. Meanwhile, in real practice we increasingly encounter a lack of *intent participation* [2], the case, when students are passive learners, lacking in enthusiasm, attention and cooperation, "playing the game of school" [3] and adopting surface approaches.

The results of the after-course reviews delivered to investigate STEM students' opinions about the usefulness of a general educational course (GE) showed that overwhelmingly the students often feel like they are being forced to engage in the non-science field. In this way, the pattern of responses induced the authors to design and carry out an experiment based on a whole-person approach. The first step toward improving instructional practices with reference to new pedagogic actuality was to elicit the reasons for tepid effect demonstrated by STEM students in the context of GE.

In the competitive, world the idea of progressive growth gave way to people peak operating. Pandemic commitment to maximum outcome often results in existential anxiety [4]. The situation when an individual confronts certain basic issues of existence may lead into personality disorder which makes it harder to respond to the changes and demands of life, and still further, anxiety or anger that are directed at the matters a person is not able to control [5]. Packing so many activities and projects into life turns this life into constant obligation, which fosters a climate of self-preservation and defensive learning. In hard reality, it may be difficult for students to understand why they are studying other than achieve a job specific skills. More to the point, the courses considered to be irrelevant, fade in the memory.

In the light of the foregoing, we can single out the outcome perception disparity. While the humanities disciplines conceive the idea of building broader non-science strengths, STEM students, being so much intended at the careers in technical intelligence and

experiencing frustration with the existential limitations of space and time, are trying to moderate hectic atmosphere by getting more pragmatic and focused only on professionally oriented classes. This is presenting major challenges for General Study teachers. However, by ignoring the importance of learners' thoughts, feelings, frustrations teachers run the danger of overlooking alternative strategies in making important changes and improving teaching effectiveness in their classrooms. "Education becomes a meaningless endeavour unless the education acquired has some impact on the human condition" [6: 273]. We would specify: *positive* impact here.

METHOD

While a sampling in one location may not be representative of a situation as a whole, the observations of students' perceptions about foreign language discipline as part of STEM education spectrum have provided a good starting point for further study and analysis.

The purpose of the study is to determine an effective approach avenue towards improving STEM students' foreign language learning with crucial perspective to help them grow emotionally and intellectually. To examine the relevance of applying this approach to teaching GE in non-science fields the following research questions will be put forward and discussed:

1. What is the way of modifying and updating the GE course with crucial perspective to educating self-reliant people, capable to succeed in the workplace?
2. What is the effect of applying this avenue of approach to teaching GE subject in non-science fields in terms of academic performance?
3. What is the effect of applying this avenue of approach to teaching GE subject in non-science fields in terms of attitudes about self and school?

Academic performance includes basic foreign language proficiency achievement. Good working knowledge of English as a global means of communication can be identified through standardized test scores, school grades, and academic competence from teacher ratings. *Attitudes* include self-perceptions (e.g. self-esteem, self-concept, self-efficacy), school bonding, helping others.

The study's participants were 82 first-year students majoring in Mathematics and Computer Technologies in Natural Science at the Far Eastern Federal University. The students were divided into two classes randomly, the Control Class (CC) and the Experimental Class (EC). There were 41 students in each class.

In the first phase of the experiment, the researchers elicited participants' feelings about GE course in non-science fields. They selected a method of a student survey in the form of a reflective letter to the teacher. This phenomenology method gives the teachers opportunity to put themselves in another person's shoes and understand the subjective experiences of students [7].

At the end of the second semester (2018), the topic of the course usefulness was assigned in the prompt to understand the meaning that students ascribe to taking a

General Study course. The collected evidence was based on their subjective interpretation and suggested the following empirical reality.

- Only 5 out of 82 students were driven for utmost performance in spite of race against time owing to self-control and self-discipline.
- 11% view GE as an opportunity to expand the range of employability skills.
- 17% were not so much enthusiastic about practicing foreign language. While recognizing potential application, the respondents view its usefulness like vague and abstract, and for the time being, "waste of precious time".
- Several students responded that taking general educational courses creates "unnecessary actions".
- The majority of the responses (64%) justified their disinclination to the subject by such factors as cluttered curriculum, information overload, overstudy, tiredness.

The responses gave more holistic information and offered insight into subjective dimension of STEM students perceptions and motivations about a General Study course. As a compass to guide the study became our awareness that young people are increasingly in great necessity of positive life-studies balance. A person works optimally if optimal conditions for progressive growth have been created. Education is a process of enculturation and self-actualization, and it must not be too challenging or suppressing but optimally organized. A student is meant to be a fully functioning person and work to the utmost but never be flat out.

Affective component is justified by scientific studies as a powerful determiner of learning [8, 9]. Seeking direction in the classroom practices to empower individuals we assumed as the basics being sensitive to what students bring with them emotionally into the class. We need to take into consideration an emotional factor in the sense that all learners bring to the classroom an agenda based on their learning beliefs [10]. Proceeding from this condition, instead of trying to improve the student, the teachers should change the environments in the direction that enhances students' existence. Specifically, based on, the study was focused on finding a way to increase teaching effect in the STEM educational settings by bringing humanistic approach into the classroom as a way to students wellness in the educational community. In keeping with the experiment, humanistic instruction practices have been integrated into the whole semester (Spring 2019) and will be extended at a later stage (Fall 2019 and Spring 2020).

Including humanistic elements in educational practice will enable instructors to be more effective in helping students develop skills in relation to positive change: individual's self-concept, confidence, an increased level of self-belief in ability to be successful. Humanistic values illuminate the inner world of the person; they hold him/her immune resistant against the disadvantages of social realms, and help prevent "personality corrosion". Equally important is the contention that in a more humanistic setting students generally show more positive attitudes toward learning and spend more time on task [11].

Paying attention to language learners' emotional needs, classroom teaching relies not only on the instructor's use of appropriate tools and techniques but also takes into

account the whole person who has free will, personal ideals, individual's self-concept, motivation to self-fulfilment. When injecting humanistic ideas into the instructional environment we looked at students' work in terms of personal growth rather than just academic content and skills. We applied the attitudes, necessary to manage emotions, to set and achieve positive goals, feel and show empathy for others.

The features of learner psychological security are evident in the following hallmarks of the humanistic instruction.

Abandoning linguistic imperialism. When addressing the issues of students' well-being in the classrooms, it is essential for foreign language teachers to investigate their own basic assumptions and step back from linguistic imperialism taking off the authoritarian "dispenser of correct language" hat [9].

Realistic expectations. In addition to self-examination, we were endeavoured to support the individual learning agenda and helped to improve each student's performance.

Meaningful contexts. To engage learners, we designed or chose classroom activities and materials that utilize meaningful, captivating (generating positive emotions) contexts, explore personal realities, perceptions and experiences, which are viewed as relevant and valid in the language learning contexts.

Giving students a real voice in their own learning. Phenomenological methods are preferred when students are engaged in perceiving and interpreting the natural world, or in the complex process of becoming "persons". Learners feel a sense of agency regarding their thoughts and feelings and actions. The activities, like genuine communication, journaling, creative writing, developing peer-support networks, were aimed to describe, understand and interpret the meanings of experiences of human life and let students choose their mode of response to a text or topic.

Painless means of involving learners in the learning and assessment process. In particular, three powerful strategies that help students feel empowered stand out.

- Student-driven practices benefit the learners in terms of increasing their confidence, their feeling of belonging within the group, and their level of self-believe that they are able to be successful [12: 8]. For this purpose, the lessons included one block of time in which students decided individually what to do.
- Setting up self-controlled and self-directed learning environment and classroom culture where students are more likely to take responsibility for the learning situation. Paying attention to promoting the self-actualization, we departed from "product-oriented" impositions and loosened up the assessment situation. Being judged, students tend to feel powerless which leads to disinterest [13]. So, in addition to 'normal' testing, we made a point of removing the stress of the testing situation and let the students work together in practice testing activities and assessment process. Practice testing technique is rated as a high utility assessment [14]. It engages retrieval practice and helps to solidify and expand information. In self-assessment, students self-monitored their learning progress and reflected upon their process by using charts or keeping journals.
- Students are involved in guided practice in which they seem to learn effortlessly: tricked into deep understanding, where templates actually help learners think for

themselves. Evoking the feelings of effortless learning that simplifies the experience found its way in intergroup or self-reflection dialoguing across circumstances and narrow reading. In narrow reading lighter vocabulary load makes texts more accessible to learners, encourages enthusiasm and provides a fruitful learning environment for language development [15].

These changes in class may seem like subtle shifts. We, however, believe, they really make a large difference and help improve student learning, particularly as regards the learning *process*.

In the third phase of the study we addressed the *Academic* performance domain. To address our second question, we calculated the students' scores from the two tests. The study was accompanied with pre-test and post-test. Each test is a composite of three sections (listening, reading and language use). They were administered at the beginning of the freshman year (Fall 2019) and again at the end of the year (Spring 2019) to the students in the 2 classes.

RESULTS

The students' scores from the two tests were processed by the T-test. For each test, we calculated mean deviation, standard deviation and mean of standard deviation.

Pre-test $\bar{d}$*=0.610* ($\bar{d}$ refers to Mean Deviation), *Sd=2.344* (*Sd* is the short form of Standard Deviation), $S\bar{d}$ *=0.366* ($S\bar{d}$ is the Mean of Standard Deviation), *t=1.667 n = 40* (*n* refers to the Number of students). By consulting T-table, *P(2)*$t_{0.05(40)} = 2.021$ (*P* is Probability in Statistics).

We have got the result that t-values is *1.667, P>0.05*. According to the definition in statistics, if $|t|<t_{(n')0.05}, P > 0.05$, it means there is no significant difference between the two groups. Through calculating of t-values, we can get the conclusion that there is no significant difference between the two classes on subjects' linguistic performance before the study.

Post-test $\bar{d} = 6.536$, Sd *=5.348*, $S\bar{d} = 0.835$, $t = 7.828$, *n=40*. By consulting the T-table, *P(2)*$t_{0.02\ (40)}$*=2.423*.

We have got the result that t-value is *7.828, P <0.02*. According to definition and statistics, if $|t| \geq t_{(n')0.05}$, *P≤0.05*, it means that there is significance in the experiment.

Through calculating of t-value, it is proved that that the application of humanistic approaches in the EFL teaching is feasible.

CONCLUSION

The study sheds light on the problem of cultivating advanced features that expand a graduate's capacity to succeed in the workplace. Qualitative study showed low levels of student interest and engagement in General English course. The reason for most notably negative feelings toward the usefulness of GE discipline as part of a well-rounded education within STEM-related fields was revealed via qualitative method, and

identified as students' existential anxiety experienced in the challenging race of engagements in the academic run.

Research Question 1 can be answered that a change in the GE practice can be defined in terms of humanistic pedagogy to facilitate students' well-being in the educational environment,

The observations made in the course of the first year of study offer strong support that well-implemented humanistic practices are beneficial for STEM students on a range of behavioral, emotional, and academic outcomes. In particular, quantitative analysis with test as a fixed effect demonstrated that humanistic strategies led to reliable increases in students' grades and engagement in the GE classroom.

So, Research Question 2 can be answered that humanistic pedagogy implementation saw good gains in academic performance relative to students who did not participate in the experiment.

We focused on the short-term effects of the humanistic approach collected shortly after students concluded a first-year of GE course. The fourth phase of study will address the domain of *Attitudes*. To understand the consequences of study analysis of STEM students' evaluation of the usefulness of GE course, we need reliable data that can be obtained by the end of the two-year course (Spring 2020). Exploring the benefits for participating students on attitudinal and emotional outcomes covers topics including self-perceptions (self-concept, self-efficacy), so it will be important for our future research to extend analysis and collect compelling data on key variables of employing the humanistic framework.

Concluding what has been said above, we want to stress as follows. Given the tendency of GE classroom perceived as not so much necessary in the scope of STEM education, the promotion of humanistic pedagogy practices that take into account a person's feelings and motives, can be assumed as an important priority in organizing optimal conditions for students' involvement into the process of intellectual and emotional growth.

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MANAGING CULTURAL DIVERSITY IN LATVIAN HIGHER EDUCATION INSTITUTIONS

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ABSTRACT

Numerous studies reveal the apparent benefits of cultural diversity in the classroom within all the education cycles.

A variety of linguistic and cultural scenarios for the internationalisation of higher education across Europe and beyond make the basis for the exploration and statement of the place of Latvian higher education sector within these scenarios with the aim to develop a comprehensive integration framework for international students of diverse linguistic and cultural backgrounds in Latvian HEIs.

Therefore, the research question underlying the project “Multilingual and Multicultural University: Preparation Platform for Prospective International Students" (No. 1.1.1.2/VIAA/1/16/019) is formulated as follows - what support should be introduced to foster integration of international students of different linguistic and cultural backgrounds in Latvian higher education space in view of the internationalisation of higher education.

The article reports the selected results of the study on the challenges rooted in the new direction of Latvian HE towards the international learning space as they unfold in Latvia, which aims to identify the needs in terms of support provision for international students within the dimension of internationalisation focusing specifically on the strategies appropriate for the Latvian type of setting (internationalisation scenario) to provide quality support in the relatively new and complex multilingual and multicultural space of Latvia.

The theoretical and empirical project framework was developed in the pragmatic paradigm applying mixed-method research (MMR) strategy utilizing both quantitative and qualitative research.

The research is conducted in the framework of the project "Multilingual and Multicultural University: Preparation Platform for Prospective International Students" (No. 1.1.1.2/VIAA/1/16/019) co-funded by ERDF

Keywords: higher education internationalization, support provision, cultural diversity, multilingual and multicultural learning space

INTRODUCTION

The article reports the selected results of the research conducted in the framework of the project "Multilingual and Multicultural University: Preparation Platform for Prospective

International Students" (No. 1.1.1.2/VIAA/1/16/019) co-funded by ERDF. The overall **objective** of the project is to contribute to successful integration of prospective international students through the development of the integration framework addressing the language and cultural needs for the studies in Latvian Higher Education Institutions (HEIs). The **research problem** is determined by the indispensable and urgent necessity to explore the potential and the actual state of internationalisation process implementation in the sector of higher education in Latvia placing integration of international students of diverse linguistic and cultural backgrounds in the Latvian education space as the main research focus.

The research question underlying the project is formulated as follows - **what support should be introduced to higher education system to foster integration of international students of different linguistic and cultural backgrounds in Latvian higher education space in view of the internationalisation of higher education.**

Within the project framework, the following key **objectives** were set**:**

- To map the challenges rooted in the new direction of Latvian HE towards the international learning space as they unfold in Latvia and identify the needs in terms of support provision for international students within the dimension of internationalisation; to identify the strategies appropriate for the Latvian type of setting (internationalisation scenario) for providing quality support in the relatively new and complex multilingual and multicultural space of Latvia paying specific attention to distant cultural groups (e.g. the case of Chinese students enrolled in Latvian HE programmes or planning to enroll in Latvian HE programmes ;
- To design a comprehensive framework for the integration of international students of diverse linguistic and cultural backgrounds to facilitate the implementation of the higher education internationalisation process in Latvia;
- To work out recommendations for Latvian HEIs to cope with challenges rooted in the new direction towards the global academic environment in the context of internationalisation of higher education focusing on specific target groups (e.g. students from Asia).

  The article reports the selected results of the study, namely, the results of the narrative analysis applied as the research strategy to explore the international students' opinions on the peculiarities of the integration of international students in Latvian HEIs.

THEORETICAL BAACKGROUND

Higher education internationalisation has come to the fore and become the key strategic priority within the higher education field worldwide. The revised definition of internationalisation states that it is "the intentional process of integrating an international, intercultural or global dimension into the purpose, functions and delivery of post-secondary education, in order to enhance the quality of education and research for all students and staff, and to make a meaningful contribution to society" (de Wit, Hunter, Howard & Egron-Polak, 2015:29). Despite the clear vision put forward by the Europe 2020 Growth Strategy highlighting the importance of smart, sustainable and inclusive European HE as a policy driver, national policies tend to regard internationalisation "as a means for growth and income generation in the HE sector"

(Robson & Wihlborg, 2019:128). However, in addition to various definitions of internationalisation, Yemini (2015:21) proposes that the concept (internationalisation) should be viewed as "the process of encouraging integration of multicultural, multilingual, and global dimensions within the education system, with the aim of instilling in learners a sense of global citizenship".

The project ""Multilingual and Multicultural University: Preparation Platform for Prospective International Students" (No. 1.1.1.2/VIAA/1/16/019) forefronts the students and the staff, namely, the individuals or the "global citizens in the making" as the key priority placing immediate and specific focus on the international higher education as the possibility to develop primarily the values as well as knowledge, attitudes and skills which would enable them to co-exist, and this way the project aims to contribute to the sustainable development of the society at large. This leads to the question of the curriculum development which would incorporate the international dimension and lead to the formation of the "global citizen" as one of the fundamental objectives of HE internationalisation initiatives.

Referring to the cornerstones of the formal curriculum, namely, content (knowledge and concepts), skills and attitudes, when adding the international perspective, students should acquire knowledge about: social justice and equity; interdependence; sustainable development (a balance between economic growth, protection of the environment and a fair distribution of material wealth and the earth's resources); cultural diversity; peace and conflict; population concerns (migration, ethnicity, refugee issues); languages (Hill, 2002: 26).

Hill (2002:27) argues that this is the content students should be equipped with to successfully function in the internationalized environment. He claims that there is nothing ideological about this content – it is "useful to know, almost factual". It is apparent that skills are necessary to deal with this content. Firstly, a learner should be able to critically analyze the material introduced, therefore, specific pedagogical and methodological approach should be applied focusing on the development of critical thinking skills, cooperation and individual work (including research), interdisciplinarity, learning to learn and methods aimed at the development of the holistic personality (Ibid.).

Attitudes are fundamental to the formation of the holistic personality. Attitudes referring to the ideology in international education are as follows: "commitment to social justice and equity on a global scale; empathy for the feelings, needs and lives of others in different countries; respect for cultural diversity within and without one's geographical location; a belief that people can make a difference; concern for the environment on a global scale; commitment to sustainable development on a global scale" (Hill, 2002: 27).

The aspects of knowledge, skills and attitudes comprising the idea of "me and others" or "me vs. others" clearly imply the fundamentalism of the concept of "world citizenship" to international education. Being subdivided into three levels, the first one utilizes knowledge about the content, the second one – pedagogical level – is the level of understanding and applying the contents into practice or, in other words, events through critical analysis. The third level deals with attitude formation in students leading to "positive action for a better world" (Hill, 2002: 28), which, in its turn addresses the key issue within all the numerous objectives within education in all the education cycles.

Having considered the above-stated, the role of university education in "advancing forms of citizenship" becomes apparent (Rhoads & Szelényi, 2011: 20). One of its crucial tasks is contribution "to one's ability to negotiate the political, economic, and social dimensions of human experience" (Ibid.). Therefore, the conclusion can be drawn that alongside certain professional competences necessary in further life, the sense of citizenship, legal and political rights and responsibilities contributing to a broader understanding of the world and the experience related to these issues should be ensured within the curriculum at HEIs (Rhoads & Szelényi, 2011: 20). High expectations are also placed on students' political and civic participation, moreover, these days, such engagement in the life of the society is considered in a broader sense – their active participation not only in the life of the society around them, but across the societies in the globalizing world (Ibid.). It should also be highlighted that not only do the faculty staff and students have a significant role in knowledge production, management and application, but also their roles are crucial in "shaping how societies envision citizenship, primarily through their roles as academic citizens" (Ibid.). Having a closer look at the above-stated ideas, it is apparent that these are the educators and programme developers who are primarily responsible for shaping both their own and students' ability to construct the notions around global citizenship, as, performing their different roles (e.g. teacher, leader, researcher, activist, etc.), educators "enact and/or reinforce various models of citizenship grounded in their lived experiences at universities" (Rhoads & Szelényi, 2011: 21).

RESEARCH METHODOLOGY

The theoretical and empirical project framework was developed in the pragmatic paradigm applying mixed-method research (MMR) strategy utilizing both quantitative and qualitative research methodology in accordance with the core idea of the philosophical approach defined as " the meaning of a concept consists of its practical implications" (Robson, 2011: 28). The multi-strategy (mixed- method) (Robson, 2011) approach to research project design is chosen, as, for the research purpose, a substantial element of qualitative data collection as well as a substantial element of quantitative data collection are necessary. The chosen approach is appropriate for it allows to both combine research methods and use more than one research strategy. The methodology was agreed upon by the four international partners involved in the project implementation (the University of Latvia, Riga, Latvia; Karadeniz Technical University, Trabzon, Turkey; Vytautus magnus University, Kaunas, Lithuania; Beijing International Studies University, Beijing, China) given that mixed method research (established for more than 50 years) has found an increased interest and is commonly used in the field of education research. Within the pragmatic paradigm which underlies the chosen methodology, the utilization of MMR serves as a framework which uses both qualitative and quantitative methods to address distinct specific questions (e.g. work packages on the conceptualization of the phenomenon of internationalisation vs curriculum and syllabus development) to contribute to the same overall goal of the project. Within the MMR study designed, the combination of qualitative and quantitative data from different samples of respondents (e.g. Chinese students, lecturers and education experts collected at Beijing International Studies University, Beijing, China, in March, 2018, international students of diverse linguistic and cultural backgrounds, lecturers, education experts at Latvian, Turkish and Lithuanian HEIs) to address a single goal,

combining qualitative and quantitative evidence is being applied considering all data sets in an integrated approach. MMR allows the project Consortium to study the phenomenon of internationalisation from different perspectives combining the rich insights on the complex phenomena from qualitative study, with the standardized, generalizable data generated through quantitative research allowing to resolve the provisional challenges rooted in the weaknesses of each approach.

The present paper introduces the selected results of the narrative analysis applied as the research strategy with the aim **to attain a condensed and broad description of the peculiarities of the integration of international students of different cultural backgrounds in the multilingual and multicultural Latvian higher education space.**

Generally, the characterizing feature distinguishing narrative from other discourse types is sequence and consequence. First-person narratives are commonly used to provide research material. Many distinguished authors (e.g. Holloway & Wheeler, 2002) defend and substantiate the legitimacy of using narratives for research purposes. The same as within other approaches to qualitative data analysis, the main objective of the narrative analysis is the production of a textual narrative transcript proceeded by the data reduction (Robson, 2011: 375). Fifty two individuals from Asian countries and post-soviet space countries which are categorized under the countries of Central Asia participated in the present research stage. In the sample selection, the purposive sampling principle was applied. The narrators ranged in age from 16 to 29. The broad themes were put forward with the aim to elicit the narratives the experience of the respondents and the peculiarities of their integration in Latvian higher education environment. The questions formulated aimed to direct the narrators towards the relevant themes. The narrators were requested to talk on the topics around the themes posed, but not necessarily to attempt to answer the questions directly. The responses were submitted in the English and Mandarin Chinese languages.

RESEARCH RESULTS

The following codes were induced in the process of the analysis of the narratives:

- Familiarity with the concept of higher education internationalisation, diversity, and what it implies for the student experience; (F1)
- Reflections on the previous experience in participation in international activities; (R11)
- Reflections on positive international experience; (R12)
- Reflections on negative international experience; (R13)
- Personal solutions to challenges related to or rooted in the international experiences; (S1)
- Reflections on the experience of others: e.g. family members, friends, etc.; (R14)
- Reflections on the phenomenon of English as a global language; (R21)
- Reflections on languages other than English (e.g. mother tongue, other foreign or local languages); (R22)
- Reflections on personal strengths related to the peculiarities of the integration in Latvian higher education environment; (R23)
- Reflections on difficulties and challenges related to the integration in Latvian higher education environment; (R24)

- Solutions and actions to be taken to resolve the challenges and difficulties related to the integration in Latvian higher education environment. (S2)

The analysis of narratives resulted in the following code frequency distribution:

- **Table 1. Code Frequency Distribution in Narratives**

Codes	Responses
• Familiarity with the concept of higher education internationalisation, diversity, and what it implies for the student experience; (F1)	45
• Reflections on the previous experience in participation in international activities; (R11)	52
• Reflections on positive international experience; (R12)	49
• Reflections on negative international experience; (R13)	50
• Personal solutions to challenges related to or rooted in the international experiences; (S1)	41
• Reflections on the experience of others: e.g. family members, friends, etc.; (R14)	23
• Reflections on the phenomenon of English as a global language; (R21)	51
• Reflections on languages other than English (e.g. mother tongue, other foreign or local languages); (R22)	50
• Reflections on personal strengths related to the peculiarities of the integration in Latvian higher education environment; (R23)	51
• Reflections on difficulties and challenges related to the integration in Latvian higher education environment; (R24)	52
• Solutions and actions to be taken to resolve the challenges and difficulties related to the integration in Latvian higher education environment. (S2)	38

CONCLUSION

The study aimed to enlarge the knowledge base for the development of the support framework for international students of different linguistic and cultural backgrounds. The research results revealed the culture specific challenges which may not be generalizable to all international students. This once again substantiates the necessity to explore each target group separately, in order to frame all the possible scenarios and all the possible schemes to meet the needs and to ease integration of different groups of students.

Within the **socio-cultural and academic rationales** driving internationalisation national cultural identity; intercultural understanding; social and community development are placed in the centre of attention Based on the interim project results, within the support provision perspective, the following objectives have emerged: **Objectives aimed at language support provision; General support aimed at home and international educators; General support measures aimed at home and international students.** Within the objectives aimed at language support provision, specific focus is placed on the development of effective strategies and methodological framework to ensure that educators and students (both local and international) are given the opportunity to gain experience of a wide range of contexts where the English language alongside with other foreign languages are used highlighting the benefits of multilingual communication practices. This way the opportunity to extend the breadth and depth of students' and educators' skills in using languages appropriate to the sociocultural or academic circumstances would be ensured. Another crucial point within the objectives is raising awareness of the need for better acculturation of students and educators to the style and conventions of academic work and the **global academic environment.**

Within the general support measures aimed at home and international students, the specific focus is placed on the necessity to ensure the learning environment providing opportunities and encouragement to participate in the study process in ways that boost students' confidence and contribute to the formation of the positive international experience; to equip students with the necessary background (also prior to students' arrival in the host country) and skills to participate in the study process within the multilingual and multicultural learning space in view of the internationalisation of higher education; to **provide the support programmes to ease** students' adaptation to academic, sociocultural and linguistic environments.

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MEDICAL COLLEGE STUDENT PROFESSIONAL COMPETENCY SELF-ASSESSMENT

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ABSTRACT

Competency-based learning is currently the basis of the European qualifications system; however, in Latvian professional medical education its implementation requires changes in the design of education programmes, in the use of innovative learning methods and forms in order to create a set of competencies that meets the requirements of modern healthcare, individuals and society. The importance of the research is determined by several problems in the medical field and in professional medical education: lack of mid-level practitioners and their outflow abroad, insufficient preparation of students for the new requirements and challenges in healthcare, nonconformity to the requirements of the mobile job market and the standards of the common European education area, etc.

The article contains an analysis of the set of competencies of future medical professionals in the context of the new education paradigm in Latvia in comparison with foreign experience, a proposed definition of professional competence of a medical professional, and the analysis of student competency self-assessment.

The article has been prepared in the framework of the doctoral thesis "Formation of Medical College Student Professional Competence for Successful Integration in the Job Market" with the support of the Latvian Council for Science.

Keywords: competency-based learning, professional competence of a medical professional, abilities, competency self-assessment

INTRODUCTION

The introduction of competency-based learning is an important component of the change in the education paradigm. In medical education it is related to identifying the set of 21st century competencies and introducing them into the education programmes, which would meet the modern requirements for the development of the medical field. The healthcare quality assessment in Latvia is one of the lowest in the European Union, which is why it is important to conduct a research on which components of the professional education of medical specialists need to be improved or changed in order to improve the competence level of future medical professionals. This article focuses on the primary competencies included in the Bologna Process guidelines as the objective of modern education, which is the basis of the European higher education reform. With the lack of medical professionals on the Latvian and EU market, it has become crucial to develop the primary competencies and interdisciplinary skills which would allow working in a significantly

broader scope of healthcare, which is currently strictly limited and inflexible in Latvia. The European common job market also proposes a rationalisation strategy to create a comparable Nursing qualification, which is largely based on the framework of the competencies acquired.

The studies of the Ministry of Healthcare of the Republic of Latvia reveal that almost 30% of medical students later leave the profession. This could be related to the fact that the amount and complexity of duties in healthcare keeps growing. The analysis of the theoretical research shows that high professional, personal and primary skill or ability requirements are set for the competence of the modern medical professional.[9]

Competence is defined by Frank et.al., Voorhees, and Garleja [4], [11], [5] as a set of characteristics needed to demonstrate one's readiness to perform duties and work independently in professional practice; the ability that ensures successful work. Iobst W. writes that "Competencies are observable abilities of a healthcare specialist, integrating several components, such as knowledge, skills, values, and attitude" [6]. Whereas the term *competent* means that the employee has the required abilities in all areas in a particular context at a specific stage of medical education or practice.

An inappropriate and insufficient set of competencies is a serious challenge for a new employee who is not prepared in accordance with the new professional standards and who has no foundation of personal qualities that allow successfully adapting to the new working conditions or getting included into the unfamiliar social environment. This calls for the task to update or create new education programmes based on the new requirements of the medical field where the set of the required competencies is defined taking into account the needs of the profession, society and the individual, ensuring integrated education.

The notion of integrated education emphasises the development of the individual's potential through primary competencies. This concerns several personality levels: thoughts, actions, feelings, and values. Primary competencies affect cognitive development and are an important prerequisite for effective learning.[2] Furthermore, these are necessary for solving everyday life as well as professional problems in the changing social and job market circumstances. "In order to compensate for this loss of external stability, the individuals must develop a reliable internal stability by integrating the experienced discontinuity through their identity and capacity to act"[2]. In work or career, such primary skills as understanding the context of entrepreneurship, analytical thinking, entrepreneurial initiative, work and private life balance, social competency and readiness for lifelong learning are considered crucial in the medical practice too.

The research aim is to analyse the set of competencies necessary for the modern medical professional on the basis of theoretical conclusions and definitions regarding professional competence by studying foreign experience and analysing the self-assessment of the acquisition of competencies by medical college students.

The research was conducted using theoretical literature analysis, the comparative method, and an empirical study.

IDENTIFYING THE SET OF COMPETENCES FOR MODERN MEDICAL SPECIALISTS

The review of theoretical conclusions shows that the notion of *competence* in medical education includes a set of various competencies: knowledge, technical and clinical skills,

as well as thinking, attitudinal, communication, lifelong learning and professional and social responsibility skills.

The competence of demonstrating and using knowledge is put first in the latest definitions of the medical professional competence [4], [6], [10]. "Competence involves more than knowledge, skills, and attitudes; it requires their use in the clinical setting in order to achieve optimum results" [10]. …extensive knowledge in a particular field, matter or area of work and readiness to act [5], [8].

Competence in the medical field is understood by authors as an observable ability of the medical specialist that integrates many components [6], the ability to apply specific knowledge in practical work [1], clinical skills, the ability to mobilise psychosocial resources, the skills required for serving society and the profession, for integration and application, as well as technology and digital skills. The competence fields of medical specialists are comprised of two general topics: patient care and organisation and development of nursing care [7].

An important component of the modern professional competence is attitude, which is included in primary competencies and used in the context of social competencies. Attitude or social competence includes communication skills, motivation, responsibility, self-control, lifelong learning, social and cultural understanding. The competency-based model emphasises the social development of medical professionals. A qualified specialist demonstrates knowledge, clinical competence, as well as lifelong learning and evidence-based practice and interdisciplinary teamwork.

The qualification of a Nurse, which corresponds to the 5th level of the Latvian Qualifications Framework *(LKI)*, is characterised by the descriptions of the corresponding knowledge, skills, and competencies. The criteria for the knowledge of a medical specialist that meets the requirements of the Latvian Qualifications Framework level provide that the employee is able to demonstrate comprehensive and specialised knowledge and understanding of the facts, theories, causal relationships, and technologies corresponding to the medical field. Competence is defined in this qualification framework as the ability to analyse, synthesise, and evaluate, which allows formulating, describing, and analysing practical problems in the profession, selecting the information required and using it for solving clearly defined problems, participating in the development of the corresponding professional field, showing an understanding of the place of the profession in the broader social context.[3]

Based on the analysis of the theories on the essence of competence and the explanation of the definition of professional competence, as well as the understanding of competence in *LKI*, the following definition of the professional competence of a medical specialist was formulated in the framework of the doctoral thesis: *"Professional competence of a medical specialist is a set of fundamental and specific knowledge, a set of clinical skills and attitudes, which is developed in an* ***integrated*** *pedagogical process and is revealed in the framework of the skills set forward for the profession, showing a responsible attitude to their own professional activity, personal development, and social and cultural environment".*

On the basis of the definition of the professional competence of a medical specialist proposed and the European Qualifications Framework of primary competences, we can identify the set of competencies corresponding to the Nursing specialty, which includes

the competency to use fundamental and medical knowledge effectively; clinical, technology, and digital skills; and lifelong learning, personal, and social attitudes.

The objective of medical education is to provide Nursing students with the opportunity to develop their cognitive abilities, mental (intellectual, emotional activity, self-awareness) and social domain characterised by communication, interaction, and cooperation processes. As a result of the theoretical research, 3 domains or factors that affect the development of professional competence in medical professional education have been identified: 1) Integrative fundamental and specific knowledge; 2) Professional and general skill expertise, analysis, and synthesis; 3) Attitude integration (see Table 1).

Table 1. Professional competence development domains

Integrative fundamental and specific knowledge	Professional and general skill synthesis	Attitude integration
Merging education courses	Therapeutic communication	Motivation
Creating modular education programmes	Use of technologies in the nursing practice	Responsibility
Creating integrative education topics	Interdisciplinary medical understanding and activity	Lifelong learning
Education based on practice and working environment	Use of two or more foreign languages	Cultural understanding
Simulation learning forms	Activity in a multidisciplinary environment	Ethics
	Cooperation	Tolerance
	Social communication	Emotional intelligence

The first domain of professional competence development emphasises the importance of integration in the acquisition of knowledge competency in the education process, as well as gaining practical experience in the unified context of education and practice. The second domain proposes as the central factor the development of primary competencies in combination with professional skills. The third domain of development focuses on the dimension of attitudes, which is an important viewpoint in modern healthcare on the person-centred, partnership and interdisciplinary approach.

Thus the studies of medical employee professional competence models reveal that the professional competence development of medical specialists (Nurse, Doctor's assistant) is formed by mutually integrated components: cognitive activity (fundamental and clinical knowledge, its application, psychomotor or clinical practice skills, attitudes (social behaviour, communicative activity, cooperation).

COMPARISON OF LATVIAN MEDICAL PROFESSIONAL COMPETENCIES WITH EUROPEAN AND WORLD MODELS

In the framework of the doctoral research, Latvian and foreign (Finnish, UK, USA) Nursing standards and qualification requirements were studied and analysed in order to compare the understanding of professional competence, the set and types of competencies

included, their descriptions, as well as to adopt good practices. Nursing standards in Latvia, Finland, England, Scotland, Wales, and Northern Ireland, as well as USA, show that the professional activity of nurses involves integration of a variety of professional skills: evidence-based knowledge, professional, experience-based ethical practice, safe and personal care, integrative, holistic, patient-centred, responsible, multidisciplinary, equal, non-discriminative and non-excluding care, cooperative and partnership activity, professional growth, autonomous and critical approach (see Table 2).

Table 2. The different features of primary competencies in Nursing education standards in Finland, UK, USA, and Latvia

Competencies /skills	**Finland standard**	**England, Wales, Scotland, and Northern Ireland standard**	**USA National Health Council standard**	**Latvia standard**
Communication competencies	Interactive, language, media, technology skills	Excellent, safe, effective, compassionate, respectful communication	Interpersonal skills	Therapeutic communication, person-centred and age-oriented communication, multi-disciplinary and interdisciplinary communication for teamwork, effective communication in a multicultural environment, ability to manage resources
Communication and cooperation competencies	Acts appropriately in interactive situations. Works cooperatively, in teams. Follows norms of behaviour. Takes feedback into account	Partnership, effective, persuasive, non-discriminatory, responsible communication, conflict-solving skills		Demonstrates interpersonal competencies
Attitudinal competencies	Professional ethics	Responsible	Convincing demonstration of knowledge and skills	
Personal competencies		Personal development, learning from experience, thinking, self-evaluation, feedback		Personal improvement
Multicultural competencies	Work in a multicultural team and environment			Care procedure in a multicultural environment
Lifelong learning competencies	Develops oneself and their professional activity			Professional improvement

The comparison of standards shows that the Finnish standard, unlike the other standards reviewed, additionally includes a skills (primary competency) module, the criteria of which include a broad range of skills, which includes learning and problem-solving skills, communication and cooperation, professional ethics, health, safety, and ability to act, initiative and entrepreneurial competency, sustainable development and multicultural competencies, ethical competency, communicative and media skills, mathematics and natural science skills, technology and information technology competencies, as well as active citizenship. The Nursing standards of England, Scotland, Wales, and Northern Ireland include approaches that do not appear in the other standards, such as: integration in the framework of the medical system, holism, non-judgemental care, patient-centred approach, responsible and multidisciplinary, cooperative partnership approach, autonomous and critical approach, reflection, professional growth.

The standards of Latvia include professional skills, which include evidence-based knowledge and research skills, critical thinking, ability to provide clinical procedures, mathematics and natural science competency, knowledge use, technology use, and communication competency. The standard includes personal skills – decision-making, continuous personal and professional improvement, knowledge and practice quality and development, readiness for change.

The comparison table shows that the Latvian Nursing standard defines a broad set of communicative competencies; however, attitudinal competencies are not mentioned at all. In the Latvian medical field, the attitudinal factor may be one of the most important ones for improving healthcare quality. Thus, it is important to design a description of the set of attitudinal competencies in the education standard and include it in the education programme and qualification criteria accordingly.

The analysis of standards reveals that the Latvian Nursing standards need to be completed with a modern set of competencies, which are included in other European states, to use them as a foundation for creating new competency- and modular-education-based education programmes.

MEDICAL COLLEGE STUDENT COMPETENCY DEVELOPMENT SELF-ASSESSMENT

During the theoretical and comparative study, a set of competencies of medical specialists was identified, as well as its similarities and differences in the medical education standards of several countries. The aim is to adopt the good practices of these countries and identify the types of competencies to include in the new higher professional education programmes. To make changes in the Nursing profession standards, education programmes and their content, it is important to determine the acquisition level of the competencies specified in the existing Nursing standard for the preparation of Latvian medical specialists.

For this purpose, a college student survey was conducted covering the stretch of three years where they could evaluate their competency acquisition levels. For the analysis, the competencies specified in the standard were divided into groups in accordance with the medical specialist professional competence definition framework: professional skills, communication skills, attitude, lifelong learning, and social skills (see Figure 1).

The results of the student competency self-assessment (see Figure 1) reveal that the coefficients for all the skills mentioned are the highest in the third year of study; thus, the

students had the opportunity to progress during their studies. Attitude and social skills have grown the most, which is also typical of more mature people; however, the responsibility and social inclusion results are also higher. The professional competence development trend raises questions because in the third year it is lower than the results for the other competencies. Overall, the competency self-assessment results reveal insufficiently high evaluation, which testifies to the necessity for change in education approaches and modernisation of the education process.

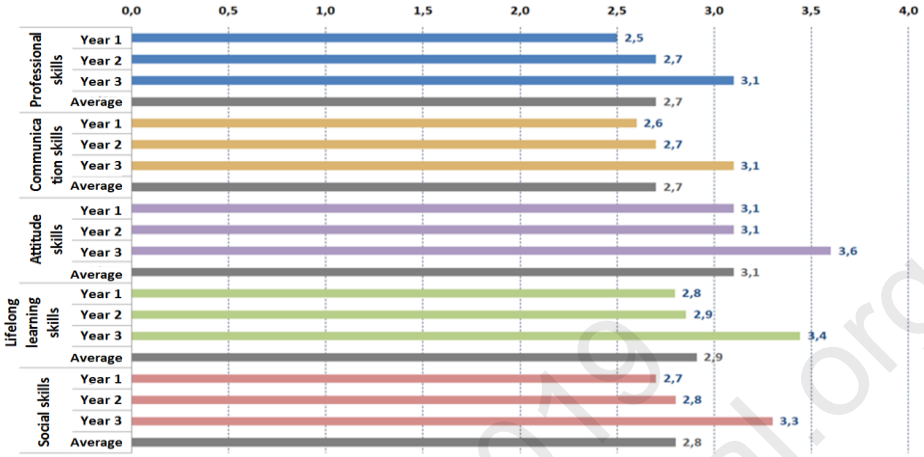

Figure 1. Nursing: Mean competency group acquisition level in year 1, 2, and 3 and overall mean for all three years of study, responses of year 2 and year 3 students.

The data analysis shows that overall the self-assessment results for the acquisition of all competencies covering all the years reveal insufficiently high evaluation, which is evident in Figure 1. The weak trend of skill development testifies to the necessity for change in education approaches and modernisation of the education process.

This is also proven by the strong correlation formed between the competencies (r=0.84) in the first and second year of study; whereas the analysis of competency development in the first and third year of study shows a moderately strong correlation (r=0.65). This allows concluding that professional competencies of students are developed best during the third year of study. This means that education courses that develop professional competence in the first years of the education programmes need to be approved.

CONCLUSION

Results of the study reveal that the medical professional competence is comprised of a variety of integrative competencies which require the development of new and more complex dimensions. Integration of key competencies, especially attitudes, digital, communicative, and social skills, as well as lifelong learning is emphasised for the promotion of professional competence.

Analysis of the sets of medical professional competencies in different countries shows that, in comparison with the Latvian standard for Nursing education, foreign counterparts pay much more attention to key competencies, digital, social, and cooperation skills. This calls for reviewing the Latvian professional standard, adding new competencies and giving medical students the opportunities to develop modern skills.

Medical college self-evaluation of the competencies acquired can form the basis for designing a new type of curriculum grounded in competency-based learning, including key competence dimensions (modules), attitudes and values, which are crucial in modern job market.

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METHODOLOGICAL FOUNDATIONS OF THE RESEARCH ON STUDENTS' DEVELOPMENT OF THINKING

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ABSTRACT

Philosophy examines thinking by means of theory of cognition, formal logic, studying forms and laws of the correct thinking, and by means of dialectics giving the general method of research of the logical thinking as a developing process.

Psychology studies the logical thinking as active activity of subject; exposes incentive reasons, aims, having the personal meaningfulness, individual features of the logical thinking; investigates cogitative operations from the point of view of realization by the subject of lying in their basis logical principles. Therefore, the psychological aspect of development of the logical thinking supposes purposeful activity in afore-named directions.

Keywords: mindset, ways of thinking, kinds of thinking, logical thinking, development of logical thinking, formation of mathematical thinking, methodological approaches for research of thinking, systematic approach to development of students' logical thinking, main components of logical thinking.

INTRODUCTION

One of the main things in the student's personality evolvement is development of their thinking.

To address this issue, on every level of the study (from social and pedagogical to methodical), it is necessary to have a conceptual framework, clearly marked initial positions.

Thereby, we first of all turn to philosophical analysis, since philosophy as a tool for analysis of pedagogy contribute to achieve success in both researching and practical work. This fact is widely corroborated by V.V.Krajewski [1], he considers the balance between philosophical analysis and pedagogical research. After the completion of the

analysis, his results become a heritage of pedagogical theory, its main part and a launching pad for the next theoretical work no longer in philosophy, but in pedagogics.

In terms of philosophy, thinking is "the highest form of reflection of objective reality, which is in purposive and generalized subject's understanding of significant links and relation between objects and phenomenon in artistic creation of new ideas and forecasting events and actions" [2].

Thinking is considered as product of historical development social practice and as a special form of human activity. In philosophy, psychology and pedagogy a distinction is made between the following forms of thinking: eye-mindedness, eye-active and verbal-logical thinking. Nevertheless, in philosophy forms of thinking are interpreted as "methods and types of formal organization of thought process, which are abstracted from its substantive component" [3]. If the substantive component is considered, then there are such types of thinking as theoretical and practical, theoretical and empirical, logical (analytical) and intuitive, realistic and autistic, productive and reproductive, involuntary and arbitrary. Logical thinking, also called discursive, implies logical progression from from one understanding to another, significantly different from intuitive, which discovers the world through contemplationand discretion without any evidence. In the framework of our study, we single out the logical thinking, but not reducing the significance of other listed types of thinking, which are important and interrelated in the actual process of thinking.

In the concise dictionary of system of psychological definitions, logical thinking is defined as a type of thinking, the gist of which lies in operation of notions, perceptions and inferences with the use of logical dictates [4].

This definition, in our opinion, does not take into account the ability to build your actions in accordance with logical dictates, that is why we think that N.A.Podgoretsky's definition is more constructive: "Ability to think logically includes several components: ability to focus on significant signs of objects and phenomenon, ability to obey the laws of logic, align operations in accordance with them, ability to produce logical operations, ability to speculate and withdraw consequences from these premises and etc."[5, *p.*25] .We will be guided by this definition

Let's take a short walk through the history: Until the end of 19th century, thinking, including the logical thinking, was seen primarily within logic and its characteristic features were interpreted in terms of this science, that is, logical and psychological aspects of thinking were not differed clearly. It was not until the end of 19th century, as a result of development of experimental psychology, the psychological and logical approaches to study thinking got separated.

Nowadays, logical thinking is studied by many sciences: philosophy, psychology, cybernetics, pedagogy, while also each of them study it in certain aspect, which is typical for each science.

Let's analyze philosophical, psychological, cybernetical and pedagogical aspects of studying the development of logical thinking.

Philosophy considers thinking using the learning theory, formal logic, which examines forms and laws of proper thinking, and by using dialectics, which gives general method of a research on logical thinking as a developing process [6].

Psychology studies logical thinking as vigorous activity of the unsub; reveals motives, goals, significant, individual features of logical thinking; explores thinking operations in terms of awareness of logical principles. That's why psychological aspect of development of logical thinking implies a determined effort in the above-mentioned areas.

Cybernetics is interested in logical thinking in connection with the tasks of technical modeling of mental operations in the form of "artificial intelligence", as well as those aspects of thinking that are associated with fast and efficient processing of information using computers. Thus, the cybernetic aspect of logical thinking development is conditioned, first of all, by the processes of mental operations modeling.

Pedagogy, as rightly noted by Getmanova [7], studies the logical thinking of the implementation of the process of knowledge in the course of training and education of the younger generation. Therefore, the pedagogical aspect of development of logical thinking of pupils consists in development and experimental check of necessary pedagogical conditions of the organization of process of training.

The varieties of logical thinking often include the so-called subject types of thinking: mathematical, physical, historical and others. This is due to the fact that only such mathematical, physical and other theoretical thinking can truly reflect their subject, which acts as logical thinking, because only in logical forms of thought can move in the content of things themselves, in their essential respects [8, *p.*339].

Subject types of thinking are investigated by methodologists of the corresponding subjects. N. P.Erastov, A. V. Efimov, Yu. M. Kolyagin, V. T. Kudryavtsev, A. Z. Redko, I. S. Yakimanskaya emphasize the importance of the development of logical thinking, suggest typical mistakes made by students, consider classes that are undergoing the development of students ' thinking, recommend to use special techniques. However, the very concept of "development of logical thinking" is usually not defined or sometimes defined too broad or, conversely, too narrow. Here are definitions of some of the authors discussed in the work of N. N. Pospelova, I. N. Pospelova [9, *p.*11–12].

"The development of logical thinking in the teaching of history is a transition from visual - logical thinking to verbal-logical thinking" (A.V. Efimov, A. Z. Red'ko). We agree with N. N. Pospelovand I. N. Pospelov that this definition cannot be used as a source for the development of thinking. The question arises: what exactly needs to be changed in order to move from one type of thinking to another?

"The development of technical thinking is the development of basic mental operations and techniques: consideration of objects from different points of view, rethinking, comparing" (T. V. Kudryavtsev, I. S. Yakimanskaya). The definition clearly fixes the specifics of technical thinking, but narrows the concept under consideration.

"The development of logical thinking in teaching geometry is the development of the ability to compare relationships, define concepts, generalize by induction, to reason deductively" (V. N. Rudenko). This definition gives a complete list of necessary skills,

but it reduces the development of logical thinking only to the listed skills, underestimates the laws of logic.

"The formation of mathematical thinking is a purposeful and systematic development of all the qualities inherent in scientific thinking, the mental skills that underlie scientific knowledge, in unity with the forms of manifestation of thinking, due to the specifics of the mathematics itself, with an emphasis on the gradual development of scientific and theoretical thinking" (M. Kolyagin). This definition emphasizes the inextricable link between natural science and mathematical thinking, however, the use of this definition in practice is difficult.

N.N.Erastov under the development of linguistic thinking means "the development of a system of mental actions to understand the different language meanings and the establishment of relations between them, and through them – the objective relationship of cognizable phenomena of reality" [10, p.11]. As you can see, this definition indicates the relationship of thinking with the object of knowledge (language values and structure), the features of mental operations, depending on the object of knowledge, but the definition is vague: it is not specified what kind of relationship is established.

By analyzing the above definitions, we agree with the definition given by H. N.Pospelov and I. N. Pospelov :" the development of logical thinking of students is arming their knowledge of the requirements of logic and development of skills to use these requirements in educational and practical activities" [9, p.14-15]

Different authors approach the analysis of the essence and content of thinking in General and logical thinking in particular from different points of view.

The study of philosophical literature on the problems of thinking leads to the conclusion that the differences in the views of the authors are generated by different methodological approaches to the study of thinking.

In modern science, it is becoming the norm that complex theoretical constructions are preceded by a thorough description of the methods used. The role of the method in scientific research is extremely large, the fate of the study often depends on the correct choice of the method.

According to the philosopher M. K. Mamardashvili, the concept of" method of consideration " (i.e. method of thinking) does not grow directly from the methods of thinking developed by the research practice of private Sciences, but is a special subject, the task of philosophical research [11, p. 5-6].

The Central place in materialistic dialectics is occupied by the method of ascent from the abstract to the concrete, as it "represents the most developed, integral logical structure, contributing to the comprehensive theoretical analysis of the studied objects" [12,p.8].

The movement of knowledge from the sensually concrete through the abstract to the concrete in thought is the general law of the development of theoretical knowledge.

However, this method only sets the General direction of theoretical research. The method fully realizes its possibilities only in unity with other methods of cognition.

So, from the point of view of the methodology of the activity approach, the philosophers of A.A.Batalov, G.S.Batishchev, L.P.Bueva, E.V.Ilyenkov and others explore the thinking.

The introduction of the category of activity in psychology radically changed the approach to the study of the psyche, in particular, made it possible to reveal the true causes of the development of thinking, to explore the mechanisms of its formation. Implementation of this principle, provided by the work of L. Vygotsky, S. N. Leontief, S. L. Rubinstein, etc., made it possible to understand the sources of different types of thinking, their functions in the knowledge and transformation of reality.

Being a generalized and indirect reflection of reality, thinking is aimed at analyzing qualitatively different aspects of this reality. The content of thinking is determined by the orientation, selectivity of cognitive activity of a person, his needs and motives in the implementation of activities dictated by social conditions.

The existing division of labouringly society leaves its mark on the character of thinking. People work in different fields, deal with different objects that they study, transform, and create. It is the sphere of human activity that determines the content of individual thinking, specializing it, directing it to the analysis of certain aspects of reality, the most essential for the productive implementation of this activity.

Features of the application of activity approach in solving actual educational problems found its further development in works of A. K. Abulkhanova-Slavski, P. Ya. Galperin, B. F. Lomov, A. V. Petrovsky, N. F.Talyzina, G. I. Schukina, D. B. Elkonin and many other scientists. Reliance on the methodological principle of activity allows to enrich the real pedagogical process.

The theory of activity allows you to: a) predict the structure of activities that are possible for each stage of future development, each time assuming that some of the existing laws and mechanisms of development will remain unchanged; b) to compare the states thus set with those that people need (in terms of achieving certain ideals); c) to identify the nature of the impact on the structure of activities that need to be made, based on this state of activity, to achieve ideals.

Pedagogical researches show that reserves of increase of efficiency of pedagogical process should be looked for in inclusion in it of various kinds of activity of school students and realization of interrelations between them. This increases the content of their activities, identifies and implements the potential of students.

With regard to the development of logical thinking of adolescent students of particular interest is the psychological and pedagogical analysis of the teacher and students at different stages of training.

The analysis of the structure of activity, its completeness helps to adopt the best practices of the teacher, and also helps to see what is the cause of failures: in the motivation for the activity or in its methods, in the lack of knowledge or in the psychological barrier that arises between the teacher and students. It is impossible to reveal the true nature and value of the teacher's experience outside the activity.

The implementation of the methodological principle of activity allows to change the nature of activity of schoolchildren from the lowest, reproductive level to the highest – creative.

Activity approach, which involves the identification of the structure of activity, led to the development of theoretical and experimental modeling method [13] which is used to build a model of activity of interest, which is then tested experimentally.

CONCLUSION

The system approach is based on the proposition that the specifics of a complex system object is not exhausted by the peculiarities of its constituent elements, but is associated primarily with the nature of the interactions between the elements. Therefore, the task of understanding the nature and mechanism of these relations and relations is coming to the fore. In the process of system analysis, it turns out not only the causes of phenomena, but also the reverse effect of the result on the causes that gave rise to it.

At the same time, as noted in recent philosophical studies, "the development of integrity is carried out:

- the formation of the ability of each element to perform a function in the interests of the development of the system as a whole;
- the emergence of new qualities that individual elements do not possess;
- in the process of the emergence of informative new elements for the fuller fulfillment of functions by other elements and the system as a whole "[14].

In our opinion, the systems approach is productive when considering the development of the logical thinking of adolescent students, since logical thinking belongs to the so-called non-linear systems.

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MOBILE APPLICATIONS AND COMPUTER PROGRAMS IN EARLY CHILDHOOD EDUCATION

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ABSTRACT

The popularity of smart mobile devices is growing fast. These digital devices represent a new generation of technological tools that offer remarkable access to content as well as opportunities for creative use even by young children. Most of the best-selling apps in the education category are targeted towards younger children. At the same time, the educational value of those applications is difficult to determine. Parents and educators in Poland, who are turning to those devices for the potential educational benefits they expect for their children and/or their students, are limited by the language the app is in, as well as the ease of use and, as is the norm for free apps, advertisements that can appear throughout the use of the app. With regard to the literature review, I present the latest findings related to the real educational value of these 'self-proclaimed' educational apps. My analysis concludes that while there are thousands of apps available today, choosing the most appropriate educational ones for children is difficult and problematic for both teachers and educators, however, there are some apps that were created recently that can be valuable to the educational process.

Keywords: mobile apps, computer programs, early childhood education, educational process, the positive and negative aspects of computer programs and mobile apps

INTRODUCTION

The popularity of smart mobile devices is growing rapidly. These digital devices represent a new generation of technological tools that offer extraordinary access to content and creative possibilities even for young children. It is therefore no surprise that most of the best-selling applications in the education category are targeted at younger children. At the same time, it should be emphasized that the educational value of these applications is difficult to determine. Parents and educators in Poland who turn to these devices because of the potential educational benefits they expect for their children and/or students are limited both in terms of the language in which the application is installed and the ease of use and, as in the case of free applications, the advertisements that may appear during the use of the application. In this article, I present, based on the results of my own[1] and other authors' research, the latest findings regarding the actual educational value of these sometimes "self-proclaimed" educational applications.

[1] In my own research I used, among others, the method of analysing selected applications and focus group interviews with parents. I decided to conduct a qualitative study, because its aim was the value of mobile applications for children and their use of the applications - an area which is still barely recognized

A CHILD AS A MOBILE DEVICE USER, OR ABOUT A "NEW" LEARNING SPACE

The extraordinary popularity of new technologies, with mobile devices in the first place, means that their users are no longer only adults and adolescents, or early school age children, but also pre-school children and children up to 3 years of age. The most popular devices among the youngest users are tablets and smartphones with access to the Internet, Personal Digital Assistants (PDAs) or portable consoles [7]. Research shows that the scale of using them, both in Poland and worldwide, by children under the age of seven is constantly growing. In 2015, 43% of 1-2-year-olds and 62% of 3-4-year-olds in Poland used mobile devices. In the group of children aged 5-6 this percentage was as high as 84% [1]. For comparison, in 2013 in the United States 38% of children under 2 years of age, 80% of children aged 2-4 years and 83% of children aged 5-8 years used mobile devices [4]. Research conducted in the UK in 2014 indicated that 39% of children aged 3-4 and 54% of children aged 5-7 used a tablet [10]. Comparing the data, it can be noted that Polish children using tablets constitute a group comparable to children from other countries. In the Polish research, it is also interesting to note that 26% of children under 6 years of age had their own mobile device [1].

The research results indicate that this trend cannot be stopped, but at the same time they encourage reflection on how much the learning space of a contemporary child is changing.

(…) I like to use various applications for children with my son, who is 4 years old (...) it is more interesting for him than many other activities, although sometimes when I leave him be for a moment I see that he is not doing so well on his own. You have to teach him that, because the world is changing (…)[father, 32 years old]

However, in order for new technologies to really contribute to the development of the youngest children (children under 3 years of age should not use them because of other developmental needs), as the cited father would have it, they should be used in an appropriate way, i.e. under the supervision and support of adults [6], for a limited period of time and with appropriately selected applications [9]. Therefore, it seems necessary not only to understand that "a child learns by playing", that it must be encouraged and supported in its development by adults, that the use of devices cannot be an inhibitor of its relations with others (including its peers), but also to seek answers to questions: "What promotes cognitive curiosity of a child in a given period of life?", "How are his interests formed and changed?", "To what extent do the applications used by the child develop his or her creative potential?"

In the child's learning process, not only in terms of instrumental but also directional instruction, the educational aspect of the application installed on the device seems to be significant.

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and described in the pedagogical research. The choice of the method allowed me to obtain more complete data thanks to the fact that during the interview the parents were more open and willing to share their experiences and opinions. The group interview was also very successful in determining the expectations concerning applications, including their safety. In the article I also refer to some implications resulting from my quasi-experimental research.

OPPORTUNITIES AND LIMITATIONS OF MOBILE GAMES FOR CHILDREN

Applications that „teach by play" should meet specific criteria - be adjusted to the developmental level of children, their complexity should correspond to the needs and capabilities of children, as well as engage them cognitively and emotionally, develop the child's creativity in an optimal way for a given age, among others [3] [11] [13].

Theoretically, all mobile games for children defined as electronic games played on a mobile phone, smartphone, PDA, handheld computer or other "(...) handheld or wireless device (...)" [5] should meet all the indicated expectations. However, as the research indicates, only some of them can be treated as a real "tool" supporting child learning, because *(...) many of these games only occupy children and allow adults to rest a little bit. My child likes games very much, but I think he uses them only when he is bored. I didn't notice any improvement in his schoolwork (...)*[mother, 30 years old]

Meanwhile, educational mobile games, also known as Mobile Serious Games (MSGs), integrate mobile games and educational content. They combine education with children's everyday experiences and learning styles, and its main objective should be the comprehensive development of children's potential [5] [18]. My quasi-experimental research on the use of mobile games in educational activities conducted in a group of 28 pre-school-aged children (5-6 years old) indicates, however, that without scaffolding from an adult it is not always a real task/possibility.

The conclusions, although entitled to this small sample, allow us to refer to the significance of the specific role of adults as facilitators and to appreciate the importance of peer tutoring.

My further research on the possibilities of mobile applications is in line with the statements of researchers such as Montola, Stenros and Waern [8], Broll, Ohlengurg, Lindt, Herbst and Braun [2] who pointed out the advantages of mobile games over traditional video games and conventional computer games, that mobile games can make a significant contribution to a child's learning process in a kindergarten or school environment as they enable just-in-time and just-in-place learning [18] and allow children to interact more freely with the game and other players (children are not restricted by location, time or space).

The results obtained also indicate that the use of games installed on mobile devices with access to the Internet may be considered by adults to:

1. **increase the child's memory capacity** → children must remember certain aspects, to solve the game, remember critical sequences, or follow the elements of the narrative.
2. **develop the so-called computer fluency** → because we live in a world dominated by technology, playing games allows the child to get used to the way a mobile device works (e.g. a tablet or smartphone). There are websites such as Cartoon Network that provide children with fun and exciting games that also teach them to use their mice and keyboards properly, not to mention browsing, creating usernames and passwords, and general web navigation.
3. **assist in the development of strategic thinking and rapid problem solving** → most games require children to think quickly and logically, which is necessary to solve problems and complete individual game levels

4. **develop hand-eye coordination** → this aspect is particularly relevant for games that require a gamepad (which can also be connected to a smartphone via Bluetooth), a mouse or a keyboard - children have to analyse the action on the screen while using their hands to control what happens on the screen at the same time
5. **support the development of children with attention-related problems (or disorders in the strict sense)** → studies confirm that online games can really help children who experience attention deficit [12]
6. **develop spatial orientation** → many adventure/fantasy games contain maps that children will need to understand, this supports their ability to "read" maps, including spatial orientation.

It is also worth mentioning that there are games that introduce children to financial and general project management.

This short overview already shows that there are many reasons why games (including those on mobile devices) can be beneficial for children. Education and games are certainly not enemies [17], and the effects of using educational games, including mobile games and applications such as Squla, Chromeville Science, Google expeditions, Duolingo, Stories can be significant in the process of learning - teaching and upbringing of a child.

Researchers are also analyzing the use of BYOD (Bring Your Own Device) programs in children's education and point out that schools should consider integrating mobile devices into the education process.

GAMES, THAT TEACH BY PLAY

The concepts of edutainment and play-based-learning have a special meaning in the context of the presented reflections. The former is a compilation of the words "education" and "entertainment", sometimes the term "entertainment-education" is also used [16]. In the Polish language, the term "entertainment education" is more common. The second concept draws our attention to play as a basic form of children's activity and emphasizes its importance for the child's learning.

It would seem that the growth of the mobile devices market should be focused on educational applications fully responding to the needs of today's children. It would seem that the growth of the mobile market should be geared towards educational applications that fully meet the needs of today's children. Such a role is played, for example, by Elmo Loves 123, which helps children in a funny way to learn numbers from 1 to 20, or Fish School HD, which allows pre-school children to learn letters, numbers, colors and develop the ability to differentiate shapes in an interesting way. Children's attention is also drawn to applications such as Disney Story Central, which are very popular with parents and which use storytelling - *(...) those are very interesting games, I noticed that my daughter eagerly talks about what was happening in the game, and even about what else could happen there (...) she has trouble speaking, so I am glad that she comments on what she does (...)* [mother, 34 years old].

Games and applications of this type, developing children's imagination by means of stories or metaphors, engage them emotionally and encourage dialogue, staying in their memory for a long time. Thoughtful stories are an ideal tool for remembering and learning. By binding facts in an easy way we can understand the whole context. In

addition, stories help to understand behaviour and also motivate, inspire and relax. A high emotional load remains in the child's memory longer than the dry facts, definitions or numbers.

Parents from Poland like to use Ciufcia.pl – a website with games for children, which is the first in Poland, innovative educational service for children aged 2-6 years and their parents, based on the idea of edutainment, which meets the expectations of those parents who would like to spend time with their own child in a valuable way. The proposed games will not only maintain the family bond, strengthen mutual relations, show the possibilities of playing together, but also enrich the child cognitively.

Among the many positive aspects of games and applications that effectively support the child's education, there are also disadvantages. Stamatios Papadakis and Michail Kalogiannakis (2017) indicate that according to American research, only slightly more than 50% of applications for children aged 3-5 have a customized interface, graphics and sound, or provide a child with assistance in using them. Searching for applications for children can be difficult not only because of the large amount of available software, but also for other reasons. In services where software is downloaded, there is a lack of transparent application categorization systems due to the age of the user, and even if such systems exist, applications are often assigned incorrect symbols, because manufacturers' declarations are not verified. There is no independent source of control and verification of applications, at least in terms of their adequacy for children at a certain age, which is also emphasized by parents who point out that *(...) I do not know if a particular game is good, sometimes I ask others, but they do not always know (...) they have the same problem (...) the kindergarten teacher does not know about it either (...)* [mother, 36 years old]; *(...) my expectations as a parent are connected with a good explanation of what age the game is for, but also with the justification that it is really appropriate for my child(...)* [father, 38 years old]; *(...) I do not know if the game played by my son who likes shooters is good, if I play it myself and I do not see anything terrible there, then I allow him to play (...)* [father, 31 years old].

In practice, application developers mark games with "for all age groups " rating, if, in their own opinion, they do not contain inappropriate content for children, which does not constitute a real guarantee of adapting the application to capabilities of children of pre-school and early school age of. It is essential that the software is age-appropriate because children quickly get bored with too easy apps, while too difficult ones can cause frustration and withdrawal, or aggressive behaviour. Younger children should therefore play less complicated applications - such as puzzles, color matching, or using applications with a teacher, older children prefer games that are more intellectually demanding.

Positive examples of such applications are, for example, those that encourage children to maintain order and cleanliness, brush their teeth, teach them how to take care of animals.

Figure 1: Example of the Avokiddo Emotions educational app

However, the need and necessity to support parents in the difficult task of choosing the right app is becoming more and more apparent, as the use of mobile apps by children raises various types of concerns, such as online safety or other threats from the virtual world. Research from IMDEA Networks Institute in Madrid and the University of California in Berkeley shows that a significant number of the most popular apps and games available on Google Play can be used to track children's habits.

An international group of researchers analyzed 5,855 children's apps and found that 57% of them could violate the US Children's Online Privacy Act. This means that thousands of apps collect and share data from people under the age of 13 without their parents' permission with third parties. Researchers also found that 28% of these applications had accessed confidential data protected by Android permissions and 73% of the applications had sent information over the Internet.

While using applications, the child may also encounter those intended for older teenagers or adults, such as the so-called shooters, in which the player fights against other virtual characters with different types of weapons.

Figure 2: An example of an application from a group of so-called shooters: Modern Strike Online

Applications in which the characters (or even the voice-over actor) use incorrect Polish should also be worrying, this unfortunately is often the result of the poor quality of the translation of foreign language applications. Applications with inadequately selected melodies, flashy and loud characters, ill-considered, poorly selected colours (too bright or too dark), may cause negative emotions and also be unpleasant for children.

Figure 3: Example of an application with pop-up advertisements: Baby Hair Salon

The Foundation Give Children Strength (formerly Nobody's Children) has become involved in the search for "friendly" teaching and entertaining applications in Poland. The research and development project Best-App was aimed, among other things, at developing solutions that would make it easier for adults to safely introduce children to the world of new technologies. Best App is a catalogue of safe and age-appropriate mobile applications for preschool children. Only those applications for children that meet specific eligibility criteria are included in the catalogue.

To create standards for certification and evaluation of applications, a theoretical model of adapting electronic media to children's developmental possibilities [14] and a typology of threats and opportunities related to the use of mobile applications were used, taking into account the parent' needs identified in the study [15], which were developed by researchers from the Faculty of Educational Studies of Adam Mickiewicz University in Poznań.

It is worth noting that the educational application "Necio", which aims to introduce preschool children (ages 4-6) to the Internet and provide basic information on online safety is available for download free of charge on Google Play (android) and AppStore. The Giving Strength to Children Foundation developed it together with the Orange Foundation, as part of the European Commission's Safer Internet program.

Figure 4: Start page of the Necio application. Retrieved from

http://www.necio.pl/aplikacja

In the BestApp catalogue of safe mobile apps for children from 3 to 6 years of age, there are many applications that not only allow children to have fun, but also to develop new skills.

Figure 5: The Safe Mobile Applications Catalogue available on the Sieciaki.pl website. Retrieved from http://www.sieciaki.pl/e12c8394110fefb57c829f59f7769989/

The most popular educational application on the Polish market is Squla. Squla is a modern educational platform that will help every child depending on their talents and interests - it provides interactive games, quizzes and educational videos that encourage independent and systematic learning, contains almost 60 000 quizzes and tasks tailored to the age and pace of learning of the child and allows parents to track the child's learning progress in the parent's panel. Even though some parents are afraid of the rivalry in some of the games - *(...) a lot of my friends, who are also parents talk about Squla positively, but my daughter does not cope well with situations when she fails at doing something right the first time. I asked the teacher who recommended Squla, but she couldn't help me. So I don't know if I should introduce my daughter to this kind of app or not? (...)*[mother 42 years old].

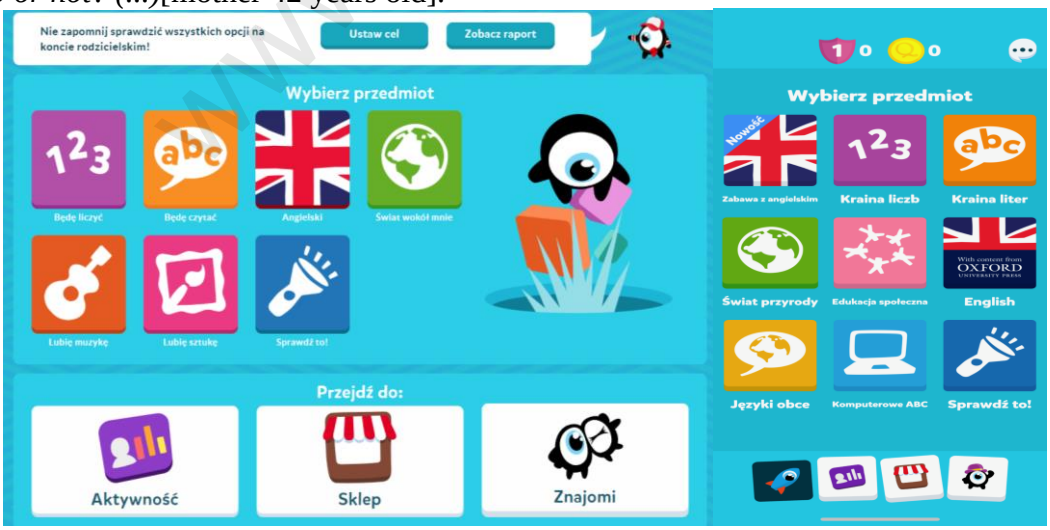

Figure 6: Squla app and website. Retrieved from https://www.squla.pl/

CONCLUSION

On the basis of analyses concerning the use of mobile educational applications and programs for children and the problems and questions related to them, it should be stressed that although thousands of them are currently available, it is difficult and problematic not only for parents, but also for teachers of younger children to choose the most appropriate ones for their children. This is not only the result of the lack of information from the developers of these applications, but also of the lack of actions that would allow adults to learn about the strengths and weaknesses of each app, learn to recognize the dangers not only related to the age of the child, but also to his/her intellectual, emotional and social maturity. None of the apps or computer programs are universal - it is up to an adult who ought to know the needs, capabilities and limitations of a particular child to choose applications that can be valuable for the educational process. Their undeniable advantage is their multitude and availability, but the use of this tool requires from an adult to be competent enough to allow the child to improve the knowledge and skills he/she already possess and, at the same time acquire new ones.

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ONLINE LEARNING TO DISSEMINATE FASHION SUSTAINABILITY

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ABSTRACT

Although recognizing its importance for the global economy, and despite the positive examples within the textile and clothing industry, fashion's environmental and social impact is indeed highly negative. Even so, technological innovations in materials, processes, design, production, and distribution of fashion products, combined with changing in consumption habits are slowly transforming the sector, with designers and brands adopting more sustainable, environmental and ethical practices, and opposing the planned obsolescence principle, formerly associated with it. However, these changes concentrate in highly developed regions, where influential fashion companies have the resources and knowledge to investigate and implement sustainable innovations. Furthermore, these changes take too long to be disseminated worldwide, especially in those regions where the fashion sector contributes to economic development and represents a way to participate in the global economy. This paper analyzes sustainable initiatives in fashion design sector that are already in place and presents the relation between fashion and sustainability in fashion design higher education programs and courses, delivered online by fashion design higher education in Europe. The results demonstrated that sustainability is nearly absent in the accredited online offer, but indicated it was present in non-traditional, open models of education. This paper considers that, without geographical limitations, online learning presents a huge opportunity to educate about current and future issues on fashion and sustainability.

Keywords: fashion design education; online learning; fashion and sustainability.

INTRODUCTION

Initiatives to innovate in materials, processes, design, production, distribution, and discard of products, combined with efforts to promote a change in consumption habits, are slowly transforming the fashion sector. Designers and brands adopt more sustainable choices, opposing the fashion planned obsolescence principle. Despite that, unsustainable and unethical practices continue to be usual in the fashion sector, and it is challenging to track, to measure, and to assess the total impact of those practices. Undoubtedly, the lack of access to information, time, financial or technological resources, makes the change to a ‘circular fashion system' even more problematic.

This paper considers three main premises. The first one is that fashion design sustainable and ethical initiatives are implemented by major fashion companies, located in highly developed regions of the world, slowly arriving at other regions, not quick enough to provoke a substantial change. As a consequence, higher education institutions (HEI), able to educate and develop research on fashion sustainability, are also concentrated in the highly developed regions, where their research centers and programs are associated with the major companies of the sector - this is the second premise. The

final premise is that HEI traditional education model takes too long to educate students on current issues. By the time they arrive in the market, they are outdated. So, we assume that online education, with its global reach, free of time and space limitations, academic stages or calendars, can help disseminate the sustainable and ethical initiatives worldwide and be rapidly absorbed by the fashion sector, therefore promoting essential and rapid changes in the sector.

MATERIALS AND METHODS

This paper analyzed sustainable initiatives in fashion design sector that are being implemented by companies, brands, organizations, academic research centers, or professionals as their core values, their mission. Next, the analysis focused on sustainability in fashion design higher education programs and courses, delivered online.

Sustainable initiatives in the fashion sector were identified in numerous sources, like sectorial and statistical reports, academic studies, governmental or private organizations information, helping to uncover not only the agents compromised with a sustainable system but what would consist of sustainable actions in the fashion sector. Current news was soursed in the Business of Fashion (BoF) and Fashionista, fashion resource online platforms. Also, the UN Alliance for Sustainable Fashion, that works with organizations worldwide to implement the Sustainable Development Goals in the fashion sector provided valid data. The following publications contributed to establishing a clearer contextualization of the sustainability problem in fashion: 'The State of fashion 2019' [1], a McKinsey & Company report, elaborated together with Business of Fashion (BoF), about the performance of the fashion industry, the KPMG 'Sustainable Fashion 2019 - a survey of global perspectives' [2] that overviewed the sustainable fashion perspectives of 5,269 consumers in 5 different cities, the Greenpeace report 'Destination Zero - seven years of detoxing the clothing industry' [3]. The Mamoq 'Sustainable Fashion Blueprint' [4], supported by Cambridge University Judge Business School to assess consumer knowledge about sustainable fashion were also consulted, as well as, the 'A New Textiles Economy – redesigning fashion's future' report [5], by the Ellen MacArthur Foundation. Another essential sources were the Centre for Sustainable Fashion (CSF), supported by the London College of Fashion (University of the Arts London) to develop sustainability and fashion-related projects, the 'Pulse of Fashion Industry 2018' report [6], published by the Global Fashion Agenda and The Boston Consulting Group, based on the Higg Index, that measures fashion companies social and environmental sustainability performance, the Global Fashion Conference (GFC), and the Global Fashion CEOAgenda 2019 (GFA) [7], that established eight priorities for the fashion sector, anchored by the Copenhagen Fashion Summit, an event that congregates fashion stakeholders to discuss sustainability.

From this research it was possible to define the concepts of sustainability to apply to this study: Sustainability, as related to the environmental impact, sustainable design, eco-design, slow versus fast production and consumption, conscious consumption and use, material/process wastage, product life-cycle, circular design or 'circular fashion.' Also important, but not too focused in this study is the concept of Ethics, related to the fashion impact on human wellbeing, including social justice and responsibility, cultural diversity, inclusivity and disability, and gender equality.

Aiming to uncover the academic online offer in fashion design, a previous study about fashion design education in Europe [8] was consulted and selected two courses in Italy in accordance with the following criteria: the programs focused on fashion design (a), delivered online (b) by an European Higher Education Area (EHEA) institution (c), (d) respecting the Qualifications Framework in the European Higher Education Area (QFEHEA), being equivalent to Level 6 (granting between 180 and 240 ECTS - European Credit Transfer and Accumulation System), of the European Qualifications Framework (EQF) along with National Qualification Framework (NQF). Alternative models of online delivery were also considered (massive, open, flexible, short, and so on) as long as they met the criteria a, b, and c. Finally, only HEI and courses that follow the standards of the international, European, or national quality assurance councils and agencies (e) were selected.

So, the next section will present the results that compound the sustainability strategies as being implemented by companies and brands as well as by public or private initiatives, Reflecting on the 'Transformational priorities for fundamental change', mapped by the GFA-CEOAgenda [7], 'circular fashion system' seemed particularly important since it not only relates directly with the designer practice but it confronts the very core of fashion 'planned obsolescence' to a fashion 'planned circularity', which requires a whole new perspective for fashion education. Furthermore, the design phase of a fashion product carries the responsibility not only to sourcing for materials and suppliers, but also to consider maintenance and discard solutions after the consumption. It seemed logical then, to highlight initiatives that invest in 'design, produce, sell, and collect products that enable the reuse and recycling of post-consumer textiles at scale' [7, p.7].

RESULTS AND DISCUSSION

This section presents and discusses the findings of current sustainable and ethical strategies professionally and academically sectors. Those were considered at a global level since the fashion supply chain has an impact worldwide. It is relevant to underline, though, that these results are neither exhaustive nor conclusive, since they don't encompass the myriad of business and academic strategies adopted either transversely or by focusing on specific issues, from technological solutions in processes and materials, retailing, packaging, design methods for assembling and disassembling of clothes, or the promotion of conscious consumption, through seasonless collections. It is also relevant to indicate that the term 'clothing company' encompasses the business of design, produce and retail high-end or high-street fashion products.

The following selection of brands and companies have a worldwide or a regional impact and emphasize their sustainable and ethical actions in the design process. Further up it is presented a list with private or public initiatives, associations, programs, and platforms that promote, debate, educate about sustainable and ethics in fashion. The final part presents and discusses the online offer of fashion education courses in light of the sustainable and ethical strategies that are being implemented in the professional landscape.

- C&A Group (the Netherlands, worldwide), through C&A Foundation, initiated and implemented several programs and initiatives, with global impact, to promote the circular economy, focusing on the use of sustainable cotton and the improvement of working conditions.

- Designers Remix (Denmark) program ‘Make Fashion Better' promotes the adoption of certified and sustainable fabrics, the attentive care, the redesign of pre-used pieces, and the ‘climate neutral' outfits. In collaboration with the Royal Danish Academy of Fine Arts, stimulates students to develop circular design collections
- H&M Group (Sweden, worldwide), through the H&M Foundation, created the H&M Global Change Award, to promote circular fashion
- Katharine Hamnet (United Kingdom), adopts an ethical business philosophy expressed in the sustainability manifesto.
- Levi Strauss & Co. (the United States of America, worldwide) code of conduct for global supply chains served as the basis for the standards of the entire industry labor, safety, and environmental strategies. Levi's Design process ponders the whole product life cycle.
- Marks & Spencer Group plc (United Kingdom), Sustainability approach is implemented through Plan A (well being, community and planet). In the case of fashion products, it supports organic cotton and tackles the ‘clothing health attributes.'
- NIKE Inc. (the United States of America, worldwide), sustainable and ethical approaches covers from community impact to fair working conditions, waste, and research on recycled materials. The company developed its sustainability index (Nike sustainable indices of products) to help designers make sustainable choices.
- Patagonia Inc. (the United States of America, worldwide outdoor clothing) has, a long time ago, engaged with the environmental causes. The Worn Wear program, is a commitment to quality and durability, repairing or recycling the products.
- Silfir (Germany) offers an end-to-end care service that extends the product lifecycle.
- Veja (France), produces ecological sneakers, bags, and accessories. Besides using organic materials and promote social reintegration, the brand invests in upcycling (plastic bottles).
- Zara, Inditex Group (Spain) in 2012 signed the Greenpeace Detox Commitment to achieving zero discharge of hazardous chemicals by 2020. It partnered with Global Fashion Agenda to implement the ‘closing the loop' initiative, encouraging customers to hand over used garments to be upcycled or recycled.

From the brands and companies analyzed, six not only have a global impact through their multinational presence, but their adoption for social and environmental responsibility influenced (Nike, M&S, H&M, Inditex) and defined the standards (C&A, Levi's) for sustainable and ethical conduct of the entire industry. Other six businesses ‘were born' with sustainable and ethical values (Katharine Hamnet, Patagonia Inc., Veja) and are proposing ‘new' ways to design for a ‘planned circularity' through upcycling, redesign, or extended product lifecycle strategies (Designers Remix, Silfir). These brands and companies actively collaborate, support, and are members of the private and public initiatives presented next:

- Circular Fashion Lab, developed by the Wageningen University & Research, brings together designers, scientists, students, and companies to work towards a more fair, clean, and sustainable fashion industry.

- Copenhagen fashion summit, a business event, and a platform to help fashion small and large companies to implement sustainability in their processes.
- Ellen MacArthur Foundation, supported by C&A Foundation and Walmart Foundation, works with business, government, and academia to implement the circular economy framework and its design principles.
- Ethical Fashion Initiative connects brands with artisan communities and collaborates with the United Nations Alliance for Sustainable Fashion.
- Fashion for good, co-founded by William McDonough Institute, implements the Cradle to Cradle (C2C) Certified™ Product Standard, and the five ‘goods' for fashion: Good Materials, Good Economy, Good Energy, Good Water, Good Lives.
- Fashion Positive initiative, also supported by Cradle to Cradle Products Innovation Institute (William McDonough), published a manifesto in favor of the circular economy, supported by many influential fashion brands.
- Future Tech Lab is an incubator, with locations worldwide, that supports start-ups into sustainable fashion, through science and technology innovation.
- Global Fashion Conference (GFC), an annual collaboration with the Centre for Sustainable Fashion (CSF), from the University of the Arts London Research Centre.
- Impact Hub, located in the Netherlands, but with centers worldwide members to support businesses and organizations through meetings, ‘Sustainable Development Goals Meetup' and the C-Change, a social enterprise.
- Sustainable Brands, a global community formed by brands, from the fashion sector.
- The Sustainable Apparel Coalition (SAC) created the Higg Index for measuring the full life-cycle impact of clothing and footwear products.

Similarly, this public and private initiatives focus on fashion products life cycle, under a circular economy perspective in different ways. They create ‘spaces' that bring closer the sector stakeholders to foment discussions and take actions (Circular Fashion Lab, Ellen MacArthur Foundation, Fashion for Good, Fashion Positive, Global Fashion Conference, Sustainable Brands,), they monitor and certify good practices (Ethical Fashion Initiative, Sustainable Apparel Coalition). Others support small, medium-sized enterprises to adopt more sustainable and ethical practices (Copenhagen fashion summit, Future Tech Lab, Impact Hub Amsterdam).

These brands, companies, and initiatives concentrate mainly in the European (Northern, Western accordingly to the United Nations Statistics Division of the world's geographic regions) and North America zones, where influential fashion groups, companies, research centers, and other organizations have the resources and the knowledge to investigate and implement sustainable innovations. Meanwhile, the gross of the manufacture is sourced in the least developed regions, in Northern Africa or Southern Asia, for instance, where the fashion sector contributes to the local economic development and represents a way to participate in the global economy. The actions implemented by multinational companies (or even by businesses like Veja or Katherine Hamnet) affect the supply chain in other parts of the world. Nevertheless, since substantial change takes too long to reach other regions, small and local companies merely try to imitate the leaders in the sector, reinforcing a co-dependency behavior.

In the educational landscape on sustainable and ethical fashion, the London College of Fashion of the University of the Arts London is among one of the most critical initiatives, offering a research project, 'Rethinking fashion design entrepreneurship - fostering sustainable practices', a 'Fashion Future' master's programme supported by Centre for Sustainable Fashion (CSF), and a short course 'Sustainable Fashion Design'. Also worth mentioning is the Bachelor's in Fashion Sustainability at IFA Paris Fashion School and the sustainability programme created by the 'Youth Fashion Summit' (part of the Global Fashion Agenda strategy), with the United Nations Global Compact initiative, the Copenhagen School of Design and Technology (KEA), and the Centre for Sustainable Fashion (CFS). Also regionally located, these are available for students from European countries or, being from other regions, can afford to study abroad.

This paper considers that online education presents a reasonable alternative to disseminate fashion sustainable and ethical practices, beyond the European - North American nuclei. Therefore, the next list presents fashion design courses that focus on sustainable and ethical issues and were delivered online by higher education institutions (HEI), as short (upper secondary or vocational higher qualification) or as massive, open, online courses (MOOCs).

- The Fashion Design Academy of Ireland offers an online Diploma, Level 5 (IrishNFQ, Level 4 of European Qualification Framework, EQF), with a duration of 6 months, a Postgraduate Diploma, a Higher National Certificate (BTEC) and a Higher National Diploma (BTEC), all Level 6 (Irish-NFQ, Level 5 EQF), with a duration of 9 months each. The HEI is accredited by the International Approval and Registration Centre (IARC) and awarded by BTEC certification - Edexcel Pearson Education.
- Fashion and Sustainability: Understanding Luxury Fashion in a Changing World, a 6 weeks online course, delivered by FutureLearn and provided by the University of the Arts London, London College of Fashion supported by the Kering Group.
- Who Made My Clothes? 3 weeks online course delivered by FutureLearn and provided by the University of Exeter.
- So far, a broader landscape was mapped of sustainable practices, strategies, and researches developed by brands, companies, private or public initiatives, as well as by online short and open courses. The next step is to understand how the academic online offer is preparing fashion design students to the new requirements of the market:
- Corso di Laurea in Design e discipline della moda (Bachelor's in Design and Fashion discipline), at Università Telemática E-Campus, Facoltá di Lettere (Faculty of Letters), Italy.
- Corso Triennale de Architettura e Design Industriale indirizzo Moda (Bachelor's in Architecture and Industrial Design, Fashion pathway), at Università Telemática San Raffaele Roma, Italy.
- A ministerial decree regulates both UTE-Campus and UTSan Raffaele Roma (DM270/04, 22 ottobre 2004, n.270) that standardizes the 1º cycle programs (Laurea triennale) offered by private or public HEI, including the digital offers.

When analyzing both courses curricula (2018-2019), it became evident that sustainability and ethics are contents within the course units. In the 'bachelor's in Design and Fashion discipline,' Fashion Sociology II is offered in the third year as a

non-mandatory course unit. The learning outcomes focus on analyzing the fashion phenomenon under the sociological and communication scope, discussing its current problems, one of them being sustainability. The single mention of sustainability as a content in the entire curriculum, which discards a more holistic approach, in which sustainability would ground the designing of fashion products. In the second year of the 'Bachelor's in Architecture and Industrial Design, Fashion pathway,' sustainability is also a topic discussed in two course units. Learning outcomes in 'Interior Design' focuses on sustainable projects of contemporary architecture, and in 'Textile Design' (optative), focus on eco-sustainable alternatives to the textile. In the case of the online vocational courses offered by the Fashion Design Academy of Ireland, for instance, sustainability appears as a content of the 'Contextual Studies' topic, together with the study of the evolution of fashion movements and styles, as well as wearable technologies. It seems that, in the case of fashion education, the short courses offered online by the FutureLearn MOOCs, provided by the London College of Fashion, and by the University of Exeter, are more aligned with the market reality, presenting content that not only tackle important and current issues on sustainability, but also can be quickly absorbed by professionals and companies (between 1 to 2 months). Also, they are offered in English, coherent with a global reach, while the online bachelor's at UTECampus and UTSanRaffelle are offered only in Italian.

It became evident that instead of using the flexibility and adaptability offered by the online model, which would help disseminate, educate and ultimately collaborate for the implementation of a 'circular fashion system,' sustainable and ethical issues in fashion are not adopted as a whole approach that would guide the entire design development. Instead of being educated with soft innovation capabilities, that would promote change in the mindset of professionals and companies already working with the fashion industry, fashion designers continue to be educated for a 'planned obsolescence' model of fashion design and end up reinforced outdated practices. Fashion designers need to be educated to acknowledge their footprint as professionals, to think about the fashion product from 'cradle to cradle', integrating the sustainable and ethical perspective, from the research phase (e.g., respecting the cultural heritage when looking for inspiration), sourcing for materials and processes, creating seasonless pieces, to the delivery phases, considering conscious consumption, packaging, maintenance, discard or reintroduction options. Moreover, the future fashion designers will not only be required to create from scratch, but they also are expected to redesign, to create from textile or outfit leftovers. The fashion designers must work closer, not only to the entire supply chain but also to the consumer. The proximity to market is the reason online learning can accelerate the diffusion of sustainable practices throughout the fashion industry, but most importantly it can ensure that the capabilities of fashion designers promote a substantial change in the sector and create sustainability as a core value in a global scale.

CONCLUSION

To design a more sustainable and ethical fashion, designers need to develop the capability to make choices that reduce the environmental footprint and extend the life cycle of the products they develop. The holistic and transversal approach to the design project, which, in general, fashion design higher education sector is not encompassing can, this way, be entailed. This paper aimed to understand if fashion design education, delivered online, was aligned with the market demands and how it could contribute to

disseminate sustainable initiatives quickly. Initiatives implemented by brands and companies, by private or public organizations and by non-traditional online courses were analyzed, and the results demonstrated that sustainability is nearly absent in the accredited online offer. However, fashion and sustainability courses offered by alternative and open models of education (e.g., MOOCs) appeared to have the potential to disseminate the concepts and practices among learners, on a global scale. This paper considers that, without geographical limitations, online learning presents a huge opportunity to educate about current and future issues on fashion and sustainability, accelerating the diffusion of this knowledge. Furthermore, online learning can help disseminate these initiatives through collaboration, enabling strategic partnerships, and forming a community of learners, designers, professionals, and companies, ultimately spreading sustainable and ethical practices worldwide.

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ONLINE TRANSFORMATIVE LEARNING IN HIGHER EDUCATION: OPPORTUNITIES AND CHALLENGES FOR IMPROVING EDUCATIONAL PRACTICES

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ABSTRACT

Many researchers and scholars nowadays view the online environment as the ideal context for fostering transformative learning. However, although the growth of online education has resulted in a plethora of investigations, for the moment, few empirical studies exist about promoting transformative learning in online environments.

This paper focuses on the application of the transformative learning model in two distinct online learning environments in higher education. The first is a traditional blended learning environment while the second is a digital social learning environment.

In this paper, we present the preliminary results of an ongoing research aimed at employing online learning for different student needs. It has been carried out within an applied research project, DocTDLL (Implementation of Transformative Digital Learning in Doctoral Programs of Pedagogical Science in Latvia), funded by the Latvian Council of Science.

We analyze and discuss how environment variables in an online context can influence an educational approach based on a transformative learning process and vice versa. We highlight a conceptual model comprising interacting contextual components, including personal factors (motivational beliefs and achievement emotions) as well as personal behaviors (use of cognitive and metacognitive learning strategies).

Our final objective is to design a multidimensional model of learning for Ph.D**.** students that integrate students' thoughts, feelings, and actions while they are learning online.

Keywords: online education, transformative learning, online transformative learning, digital social learning, digital learning environments

INTRODUCTION

Transformative learning has become an increasingly popular practice in a variety of educational settings, including higher education, professional education, and community education.

The primary aim of transformative learning is to develop autonomous thinking. Accordingly, transformative learning seems especially appropriate for adult learners.

Cultural baggage that includes attitudes, patterns, concepts, values, feelings, and conditioned responses affects adults' behavior. It represents the *frames of reference* through which people understand their experiences, selectively shaping and delimiting expectations, perceptions, cognition, and feelings.

In the transformative learning theory, a frame of reference is composed of two dimensions: *habits of mind* and a *point of view*:

- Habits of mind are viewed as broad, abstract, orienting, habitual ways of thinking, feeling, and acting influenced by assumptions that constitute a set of codes.
- Points of view are the set of belief, value judgment, attitude, and feeling that shape a particular interpretation.

Ethnocentrism, being the belief that that one's ethnic group is superior to another, is one example of habit of mind, while the corresponding point of view is the complex of feelings, beliefs, judgments, and attitudes to specific individuals or groups (for example, homosexuals, welfare recipients, people of color, or women).

Mezirow observed that people have a strong tendency to reject ideas that don't meet their own habits of mind and points of view [1]. What fails to fit with their preconceptions is labeled as unworthy of consideration and wrong.

Transformative learning appears to be the learning model that can satisfy the current challenges in learning arising from recent technology advances.

The digital revolution is producing changes that require continuous learning interventions. The spread of digital applications is leading to huge pressures on education and training systems, especially in regard to retraining people in order to acquire new skills and competences. The increasing demand for lifelong learning is accompanied by a need to change the teaching-learning approaches so as to make them more flexible and applicable for large numbers of learners.

Research shows that changes in net occupational growth or decline imply that a vast number of people may need to shift occupational categories and learn new skills in the years ahead [2]. Advanced economies are at a turning point, and their primary challenge in the future will be to retrain mid-career workers.

However, it has also been observed that cultural norms regarding gender stereotypes in work, and geographic mismatches between workers and jobs could impede the transition to new forms of occupation [3].

Moreover, in some higher education sectors, there is a need, closely related to the integration of different disciplinary knowledge, to adopt learning approaches that support creativity and innovative thinking. This is the case with mechatronics, where mechanical and electronic engineering are integrated with ICT.

RESEARCH OBJECTIVE AND METHODOLOGY

Our research aims to rethink the Mezirow model [4] in light of the rise of digital technology. We investigate the application of the transformative learning model in the scope of two distinct online learning environments in higher education. The first is the

traditional blended learning environment, while the second is the digital social learning environment.

Online university courses and programs are increasingly available, and online education is expected to continue to increase. Given the growth of online educational opportunities, it is crucial to understand what educational practices effectively enable students to develop and learn.

Mainly, we would like to answer the following questions:

Q1. How transformative learning can allow students to discover knowledge at their own pace in a blended learning environment.

Q2. How learning can become more interactive, less authority-dependent, and more focused on the learning experience rather than on the transfer of content.

Q3. How transformative learning can support digital social learning.

The methodology of our research was qualitative. It was description-based research that included:

- The analysis of the literature focusing on studies and experiments conducted in the field of higher education and adult learning;
- Discussions in online forums;
- Nonsystematic direct observation of learning processes with students, especially PhD students.

We also decomposed the learning process, identifying the primary contextual components such as personal factors (motivational beliefs and achievement emotions) as well as personal behaviors (use of cognitive and metacognitive learning strategies).

TRANSFORMATIVE LEARNING IN ONLINE ENVIRONMENTS

Nowadays, online education has become an increasingly important part of tertiary education, and takes two primary forms. The first consists of for-credit courses offered by higher education institutions. The second form of online education consists of professional training and the preparation for certifications.

An online learning environment is characterized by the use of the internet to access learning materials and to interact with content, teachers, and other students. Online learning should allow time and space for independent learning, enabling learners to progress at their own learning speed.

The primary learning models in an online environment are blended learning and digital social learning.

Blended learning combines e-learning with traditional classroom methods (face-to-face learning), while digital social learning is an approach whereby an individual achieves their learning goals by accessing learning resources available online as well as by interacting on the internet with teachers and other learners.

Blended learning is a formal education program in which a student learns through, at least in part, online tools. Essentially, it is the combination of two historically separate teaching-learning models: traditional face-to-face learning systems and distributed

learning systems. In blended learning, computer-based technologies play a central role (Figure 1).

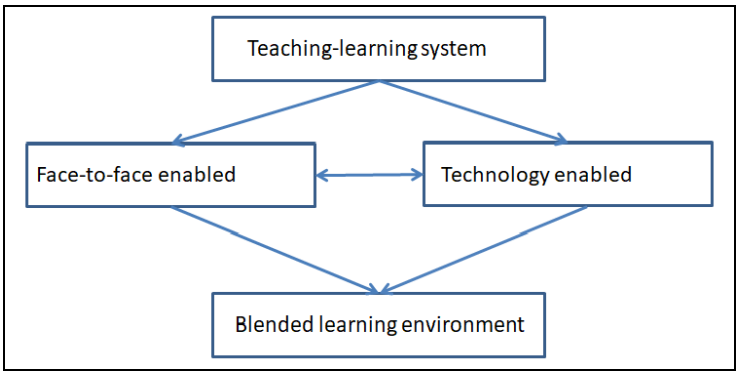

Figure 1. The blended learning model (authors' own source)

Over the last few years, as a consequence of the spread of digital technologies, digital social learning has been assuming a strategic role in the online learning environment. In an effort to alleviate critical aspects due to poor interactive capability and asynchronous scheduling, some e-learning platforms such as BlackBoard and Moodle have begun to incorporate digital social learning components (chatrooms and virtual classrooms). Nowadays, most of the platforms allow interaction between students (through user-generated posts/comments), and provide question asking/answering functions.

Figure 2 illustrates the digital social learning model.

The massive abundance of online content also suggests new forms of self-learning activities. Accordingly, new opportunities and challenges have arisen.

The presence on the internet of broad and disparate scientific claims necessitates selective retrieval tools and effective evaluation strategies. Learners should be supported in the selection of learning materials and trained on how to evaluate the internet content, e.g., what is the authority of the venue/website/institution that is the source? What are the motives that pushed the author of a content to write and publish it?

A search engine such as Google or Bing allows searching for information on the internet using the users' query (which is in the form of natural language) to find contents and rank them. They return the set of webpages that best matches with the query. However, the process of getting the semantic information out of text data available on the internet is not easy. Recent work on Intelligent Information Retrieval try to support conceptual search, but the results are not so encouraging.

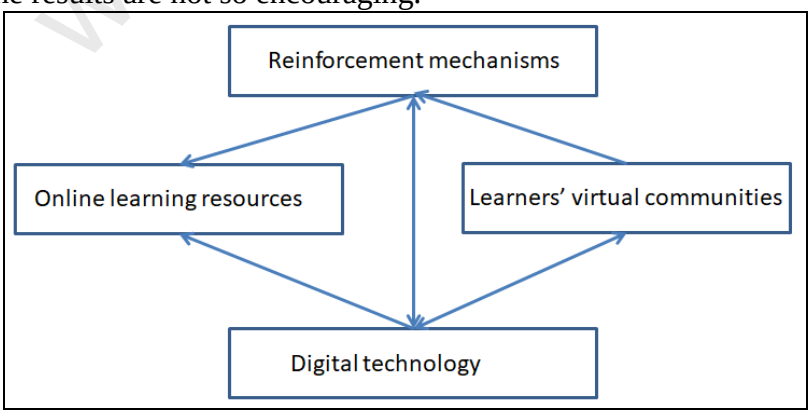

Figure 2. The digital social learning environment (authors' own source)

Finally, the growth of online education has not been without challenges in other areas, both technical and social.

Individual learning styles (e.g., visual, auditory, kinesthetic) impact learners' preferences and results [5], whilst there is evidence that people's experiences of digital education are patterned distinctly in relation to social class, race, and disability. As such, online learning environments do not unproblematically reduce differences between individuals [6].

Transformative learning is argued to be a powerful approach to tackle the online learning issues descending from the fact that online learning programs are designed and configured to the norm of an abstract self-motivated and high-level individual. The actual cultural background of learners can limit the benefits associated with online learning, but transformative learning can provide the opportunity to learn, confront, engage, and reflect on the possibility of learning exploring new meanings, roles, relationships and actions contained within it [7].

In the transformative learning perspective, learning is voluntary in that the learner must be willing to engage in critical self-reflection. Accordingly, learners should be self-directed to be aware of their beliefs and assumptions, as well as to actively participate in discussions related to their self-analysis.

A MULTIDIMENSIONAL LEARNING MODEL FOR PHD STUDENTS

According to transformative learning theory, we develop and construct personal meaning from our experiences, and validate it through interaction and communication with others [8].

Learning is a social process. We do not learn isolated facts and abstract theories but, rather, we learn in relationship to what else we know, to what we believe, to our prejudices, and to our fears.

To improve the digital social innovation competence of Ph.D. students in the field of social work or social education, we have developed a multidimensional model based on Computational Thinking (CT) in an online environment. Our model integrates both Mezirow's transformative learning and Bandura's social learning theories.

According to Wing, thinking computationally is a fundamental skill for everyone, not just computer scientists. Indeed, CT is a method of analytical thinking that encompasses many skills, such as designing algorithms, decomposing problems, and modeling phenomena. It can take place without a computer since it is "a way of solving problems, designing systems, and understanding human behavior that draws on concepts fundamental to computer science" [9].

CT is crucial for the design and support of digital social innovative services [10].

From Bandura's theory [11], two fundamental principles have been included in our multidimensional model:

- Intrinsic reinforcement offers learners a reward that is derived internally and which gives them a sense of accomplishment and satisfaction.
- The gain of knowledge through participating and interacting with others, since learning is reinforced through observing the behavior of other individuals.

These principles, included in a transformative learning approach, can allow learners to achieve their learning goals in an online environment.

Indeed, cultivating critical thinking may not be enough to create the disorienting dilemma that is the first step in transformative learning [12]. A disorienting dilemma occurs when an individual is provided with experiences that disconfirm evidence and which offer an alternative perspective, causing the individual to question their own previously deeply-held beliefs. Hence, we need to train learners, providing them with new patterns through which they can interpret their experience and learn to overcome their biases. Figure 3 shows how observation and interaction can facilitate learner engagement in critical reflection, bringing them beyond their beliefs and assumptions.

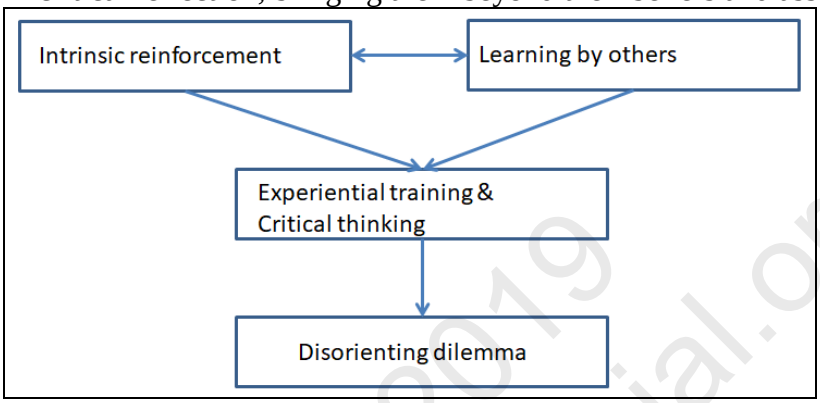

Figure 3. Learning by others and intrinsic reinforcement as key factors for generating the disorienting dilemma.

CONCLUSION

Online learning has the potential to revolutionize higher education.

The potential of digital technology is enormous, and can allow the creation of massive teaching-learning programs. Learners will be able to learn at their own pace, and non-formal and informal learning activities will be advantaged. Companies will increase their business by continuously re-training their workforce, while workers can retain and safeguard their jobs and careers by improving their range of skills and competencies.

Digital technology will generate changes in the scope of education, making new things possible but, at the same time, introducing new issues and challenges.

Our research focuses on the professionalization of social educators and their competence acquisition.

We aim to develop and experiment with a multidimensional learning model that can support the acquisition of digital social innovation competencies by Ph.D. students in the field of social work or social education.

We are working on the integration of the Mezirow's and Bandura's theoretical principles in order to create a transformative learning model for computational thinking.

We started with a preliminary investigation into the primary learning models in an online environment, namely blended learning and digital social learning.

The results of this investigation will be used to develop an experiment in which we will involve Ph.D. students from various Latvian universities.

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ONLINE, LIFELONG LEARNING FOR A SUSTAINABLE FASHION DESIGN

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ABSTRACT

This paper aimed to understand how fashion design higher education programs are approaching fashion 'eco-design' initiatives and how or if this could influence the diffusion and adoption by the whole sector. Furthermore, this paper argued that online education, sustained by a lifelong learning perspective, would present a valid way to deliver and disseminate the knowledge about sustainable principles in business, technological, social and environmental practices, making them quickly available for professionals and companies and thus, promoting the competencies required to prospect meaningful changes in the sector.

Part of broader research about fashion design education in the European Higher Education Area, this paper identified previously selected fashion design courses, delivered onsite and online, and analyzed their curriculum and syllabus, to determine how and if sustainability integrates the design project and development of fashion products. The results demonstrated that sustainability is articulated with the fashion design curriculum diversely with few programs presenting sustainability as a 'design philosophy,' as a mindset for developing products and projects for the fashion sector. However, the findings of this study helped to acknowledge that sustainability, present either as a program strategy or as an approach for the development of fashion projects, form a competence complex and hard to measure since the market does not absorb it quickly and thus it is permanently and inevitably outdated. The ability to maintain fashion designer and companies updated represents the central advantage of an accredited online lifelong learning. Freed from the rigidity of traditional academic stages, calendar and physical limitations, online learning would be able to approach important themes, as well as adopt a prospective approach about sustainability in the fashion sector and then enable this knowledge to be easily accessed and diffused by professionals and companies in a flexible, adaptable and affordable manner.

Keywords: fashion design education, sustainability in fashion, online lifelong learning.

INTRODUCTION

It is clear that higher education structure still follows a twenty-century structure and adopts a reactive behavior towards the changes in the market, and fashion design higher education follows the same path. When focusing on sustainability in fashion design, once again, higher education is responsive in preparing students to be more conscious designers. While in the fashion market, professionals, companies are discussing and developing strategies, experimenting with more sustainable and ethical approaches, the education sector is merely using them as examples or case studies, and few course implement this approach in their curriculum, which creates - in fact, it is already creating

- a gap in the sector.

Fashion professionals and companies are in constant need to update their skills, but fashion higher education still seems to impose barriers to its acquisition, and difficult the access, with time, space or financial resources constraints.

This paper recognizes that this learning gaps and shortage of professionals are due to an education system with slow reaction time, and that ends up educating people for unemployment. It is also recognised that in order to promote any curricular change, higher education institutions (HEI) are required to follow bureaucratic procedures that, although varying between the different education systems, starts with the development of a proposal, to be analyzed and approved by their internal academic committee, and the national accreditation agencies or similar educational boards. After receiving authorization to implement the changes, HEI must structure the new curriculum in a new intake. In result, between the initial proposal, the approval process, the implementation, and the student's graduation, at least five to six years go by. This ‘new curriculum' might be already outdated before the first group of students reaches the market. During all this period, instability in the market provokes changes in the sector, as has happened to sustainability issues related to fashion development and production.

Companies either adopted different methods of production, demanding a new set of competencies from fashion professionals or, new competences on sustainability were expected to promote change in the way companies design and produce fashion products. One way or the other the nearly graduated fashion professionals started to feel that the knowledge they brought was meaningless and outdated, did not respond to the new demands in the market. The distance between the academy and the market grows, and companies don't see their market challenges reflected in education, nor glimpsed in higher education programs proposals for sustainable innovation in the sector. The fashion sector trapped itself in the same system it once created.

Similarly, higher education systems froze in fixed structures and rigid policies, limited by the necessity of maintaining the control over the learning experience, which is a digitally connected society [1], more and more integrated by social media, is an illusion and a waste of resources. Global changes in demographics and the job market, as well as the incoming of disruptive digital technologies, inevitably provokes more student-centered, flexible, engaged and interactive learning experiences ([2], [3]). The purchase behavior in the fashion sector, especially concerning issues of sustainability and social responsibility of the brands also is changing both in extent and in-depth. The growing adoption to unlimited mobile technologies, digital platforms, and services (e.g., virtual fitting rooms), opens opportunities for a more participative and authentic dynamic between designers, brands, companies, and consumers. This exchange can be stored and analyzed through data analysis and can, in turn, promote new and personalized experiences, that generates more transparent content and recommendations or criticism.

Before this context, this paper aims to understand how fashion ‘eco-design' initiatives are being approached by fashion design higher education programs, whether and how the online courses include the sustainable approach in their curricula, prospectively, urging students to question and propose innovative approaches for the sector. Elaborated by fashion education professionals, working within the system, the research on fashion education, to which this paper is part, recognizes the importance of quality, validity, and credibility in the sector. The analysis focused accredited courses and programs, offered

by accredited HEI, showed that the traditional model of education is not responding to the needs of professionals and companies and does not promote prospective learning. There is an urgency in investigating new models of education in fashion design, so new capabilities can be quickly widespread and adopted by the whole sector and, on the other hand, that the sector itself finds, in education, a space to explore new capabilities for fashion designers. Accredited online lifelong learning offers the possibility of fast change or fast access to change, gaining a substantial advantage over traditional learning systems as a reliable solution in terms of flexibility, and quick response much needed for the advancement of sustainability strategies in the fashion sector.

MATERIALS AND METHODS

In order to understand how sustainability fits in the learning process of fashion products development, we identified and selected the fashion design courses, following similar criteria applied in a broader research about fashion design higher education in Europe: the courses, compatible with Level 6 of the Qualification Framework (QF-HEA), had to be certified by a Higher Education Institution (HEI), belonging to the EHEA (European Higher Education Area). Professional and academic ranks helped define the final sample. This paper complements previous studies ([4], [5]) by focusing on the sustainable approach adopted by fashion design courses, delivered onsite and online, analyzing each curriculum, the course unit's syllabus, ECTs (European Credit Transfer and Accumulation System), and learning outcomes (LO). So, to access all the required information, the courses must provide full access to their curriculum and syllabus and must be taught in English. Finally, when analyzing the fashion design courses, one of the first difficulties arose from the way sustainability was conceptualized and articulated with the fashion design curriculum, its learning outcomes and even the content of the course units.

We consulted the following projects, initiatives, and publications in the academic, institutional, governmental or private sectors that provided a more precise conceptualization and contextualization of the sustainability problem in fashion: The UN Alliance for Sustainable Fashion [6], a United Nation initiative, the Mamoq Fashion Survey [7], supported by Cambridge University Judge Business School to assess consumer knowledge about sustainable fashion and the Centre for Sustainable Fashion (CFS) ([8], [9]), supported by the London College of Fashion (University of the Arts London), that presents a clear strategy towards sustainability in the fashion sector, with short courses and a master's degree in the subject. Likewise, the Circular Fashion Lab [10], supported by the Biobased and Circular Economy research centre, at Wageningen University & Research, as well as the Design for Sustainability [11] research area and the Design United [12], the 4TU (an initiative the TU Delft, Eindhoven University of Technology, University of Twente and University of Wageningen) research center for design at the Delft University of Technology. Other relevant sources of information, methodologies, and tools associated with sustainability were the Global Fashion Conference (GFC) [13], and the Global Fashion Agenda (GFA), that established eight priorities for the fashion sector, anchored by the Copenhagen Fashion Summit [14], an event that congregates fashion stakeholders to discuss sustainability.

From this consultation, two main focus surfaced: Sustainability and Ethics. The first considers fashion impact on biodiversity, on the environment and sustainable development, and encompasses concepts such as environmental design or sustainable

design, eco-design or eco-friendly design, slow versus fast fashion, material/process wastage, fashion product life-cycle, conscious consumption, and use. The second contemplates fashion impact on human wellbeing and covers aspects of social justice and social responsibility, cultural diversity, inclusivity, and disability, as well as gender equality. The thematic revolving around these two focuses guided the analysis of the curriculum and helped identify the discrepancies and perspectives adopted by the courses.

RESULTS

For this study, six fashion design courses were selected. From these, 29-course units were further analyzed, focusing on their approach to sustainability and ethics:

Fashion Design Course	Course units / credits
BFA Fashion Design Borås University	1st year Basic design 1: body and structure, (15cr) Design project 1: body, structure, expression (7.5cr) Dyeing, textile printing and preparation techniques (7.5cr) Design Project 2: techniques and expression (7.5cr)
	2nd year Basic design 3: materials and expressions, (15cr) Design aesthetics 2: perspectives and principles (7.5cr) Design Project 3: specialization (10.5cr) Project Management and production technique (7.5cr) Design Methodology 2: contemporary art and design methods (7.5cr) Design aesthetics 3: criticism and assessment (4.5cr) Sustainable business development and product development (7.5cr)
	3rd year Design project 4: applied design (18cr) Experimental methods in artistic research (15cr) Documentation and presentation of design research (7.5cr) Degree project (15cr)
BA(Hons) Fashion, Ravensbourne University	Level 4 Fashion Practice in Context (15cr) Introduction to Print and Textiles (7.5cr)
	Level 5 Big Ideas and Philosophies (15cr) Industry Brief: Denim Innovation (15cr) Sample Finish & Swatch Packs for fashion (15cr) - elective
BA(Hons) Fashion Design, University of Leeds	1st year Green Design and sustainability (10cr) – optional
	2st year Marketing Creativity and Innovation (20cr) Eco-Design: understanding Design's role in Global Ecology (10cr) – optional
BA(Hons) Fashion, University of Edinburgh	1st year Fashion Design 1B: Principles of Minimalism, form, simplicity and function (10cr)
	2nd year Design and Society (10cr) – optative
	3rd year Environmental Design: Materials, Ecologies, Futures (10cr) – optative

Design and Fashion discipline, UT e-Campus (online)	3rd year Sociologia della Moda II (Fashion sociology II), 6cr – optional

Architecture and Industrial Design-Fashion Pathway, UT San Raffaele (online)	2nd year Interior Design, 8cr Textile Design, 3cr - optional

●BFA Fashion Design at Borås University, Swedish School of Textiles, Sweden. Six principles, transversal to the three years of the course, support the learning outcomes presented in the curriculum. From nineteen course units, fifteen incorporate the Design Ethics principle, that addresses sustainable development issues. In result, a total of 135 credits contemplates sustainability field in the learning of future fashion designers.

●BA(Hons) Fashion at Ravensbourne University, School of Design, United Kingdom. The curriculum places great importance in the ethical, environmental, social, and economic aspects of the fashion design practice and even contemplates ‘sustainability management' as a career in the sector. The course adopts the ‘Mindsets and Skill Sets Manifesto,' constituted by five principles that relate to the curriculum learning outcomes. One of these principles, ‘Advocate / where purpose meets practice', is directly contemplated by the course units in Level 4 and Level 5: ‘Fashion Practice in Context' (15 credits), ‘Introduction to Print & Textiles' (30 credits), ‘Big Ideas & Philosophies' (15 credits), ‘Industry Brief: Denim Innovation' (15 credits), ‘Sample Finish & Swatch Packs for Fashion' (15 credits - Elective).

●BA(Hons) Fashion Design at the University of Leeds, Faculty of Performance, Visual Arts and Communications, School of Design, United Kingdom. One compulsory course unit, in the second year, contemplates sustainability as a theory to understand future scenarios in a competitive and demanding market: ‘Marketing Creativity and Innovation' (20 credits). The fashion program allows students to choose among several course units (modules) offered by other departments of the University. ‘Green Design and Sustainability' (10 credits) and ‘Eco-Design, Understanding Design's Role in Global Ecology' (10 credits), for instance, relate the impact of the design practice with ethical, environmental, social and economic aspects.

●BA(Hons) Fashion at the University of Edinburgh, Edinburgh College of Art, United Kingdom. One of the aims of the course is to approach ‘ethical and professional principles involved in Fashion.' The compulsory course units of ‘Fashion Design 1B: Principles of Minimalism, Form, simplicity, and function' (10 ECTS credits / 20 SCQF - Scottish Credit and Qualifications Framework) taught in the first year, addresses material waste in pattern making. Two other optative course units contemplate the ethical, inclusivity, diversity aspects entailed in the design practice, also considering the role of the consumer. They are ‘Design and Society' (10 ECTS credits / 20 SCQF credits) and ‘Environmental Design: Materials, Ecologies, Futures' (10 ECTS credits / 20 SCQF credits).

●Corso di Laurea in Design e discipline della moda (Design and Fashion discipline), online at Università Telemática E-CAMPUS, Facoltá di Lettere (Faculty of Letters), Italy. In the third year, ‘Sociologia della moda II' (Fashion Sociology II - 6 ECTs credits

/ 6 CFU – Italian Crediti formativi universitari) is a non-mandatory course unit that

proposes a discussion about local and global contemporary issues surrounding fashion, including sustainability.

●Triennale - Architettura e Design Industriale indirizzo Moda (Architecture and Industrial Design, Fashion Pathway), online at Università Telemática San Raffaele Roma, Italy. Design eco-sustainability in textile materials and processes is part of the content in the 'Textile Design' (3 ECTs credits / 3 CFU) optional course unit in the second year.

DISCUSSION

While few programs analyzed presented sustainability as a 'design philosophy' inherent and permeated in the curriculum and its learning outcomes, two cases stand out, by their approach and the credits awarded. The BFA Fashion Design course at Borås University, includes sustainability and ethics as a principle (Design Ethics) which must be achieved (LO) by each course unit in the curriculum, and this practice means that fashion design theory and practice, are grounded in a sustainable and ethical approach, compelling learners creative and reflexive capabilities to find alternative and innovative designs solutions. Likewise, sustainability and ethics are transversally present in the curriculum of the BA(Hons) Fashion course at Ravensbourne University, accounting 75 credits of compulsory course units. The 'Mindsets and Skill Sets Manifesto,' and its principles conduct the approach on fashion design theory and practice. In both cases, there is a clear perspective on how sustainable and ethical aspects should be contemplated in the learning outcomes, guiding both teachers and students' perspectives when working in fashion projects. Therefore, these cases serve as positive guidance in establishing sustainable and ethical parameters to ground fashion design education.

However flexible a curricular structure maybe, when sustainability and ethics are optional learning paths, the choice in studying to be a more sustainable and ethical designer falls into the hands of the students', his/her inclination or professional expectations, which might create a certain level of disparity among fashion designers graduates. Also, when included as part of the content, sustainability and ethics depend on the interpretation of the teacher and how he/she approaches these issues concerning the fashion design theory and practice. Such is the case of the BA(Hons) Fashion Design at the University of Leeds, in which sustainability is part of the content of only one compulsory course unit and perceived as a competitive advantage for businesses. Despite being a correct view, it is not enough to integrate sustainability and ethics in fashion design practice as a whole. Similarly, sustainability and ethics are addressed as contents in one compulsory course unit at the BA(Hons) Fashion at the University of Edinburgh. In this case, the content places greater importance to the responsible use of materials. The two curricular approaches that presented a more significant misalignment with the present (and future) reality of the sector are in the online courses analyzed: Design and Fashion discipline course, at Università Telemática E-CAMPUS and the Architecture and Industrial Design, Fashion pathway course, at Università Telemática San Raffaele Roma.

Both courses present sustainability and ethics as a discussion matter, part of the sociological context or as a skill to be applied when dealing with materials. They represent a disengaged fashion design education, that does not implement sustainability and ethics as essential principles throughout the curriculum. This perspective reinforces

an already outdated linear fashion system, in which production, distribution, and consumption create short-live products, made for the landfill. Designing fashion products made for durability, disassembly, and recycling requires a very complex global change, that implicates companies, consumers, and surely designers. New theories and practices need urgent dissemination and adoption and online, lifelong learning is to adopt a more flexible curriculum so that a prospective approach about sustainability and ethics could be easily accessed, incorporated, and diffused by professionals and companies. This paper assumes that online, lifelong learning has the potential to address themes that are urgent at that moment or to set a discussion about themes that are important in the future. Online, lifelong learning can potentially promote a sustainable and ethical designing of fashion products.

CONCLUSION

The fashion sector needs to improve its environmental and ethical performance. Challenged continuously by consumer behavior and evolving technologies, fashion needs to implement new, more sustainable, and ethical models of designing, producing, consuming, using and discarding products. However, the results presented in this paper indicated that not only fashion design education takes too long to place, in the market, fashion professionals, equipped with sustainable and ethical capabilities, but it is far from exploring learning models that promote the level of change the sector needs to implement.

This paper aimed to identify and analyze the sustainability approach in fashion design higher education, mainly focusing on the online offer. However, few programs met the criteria defined to be studied, which constitutes a limitation. Regardless, the results demonstrated that sustainability, as a curricular strategy, is not present in four courses (two onsite and two online) of the six analyzed. Those courses integrate sustainability and ethics as part of a course unit content, thus dependent on the teacher's perspective, or as optative course units, thus dependent on the student's choice. It is a fact that the learning outcomes cannot prove the competence in sustainability issues. Nevertheless, two courses successfully delineated principles of sustainability and ethics to substantiate the learning on fashion products design.

Although there is an effort in the fashion sector to adopt more sustainable practices, this movement concentrates in some fashion companies, and its diffusion is slow and insufficient to promote the desired impact. Unsustainable and unethical practices happen by lack of access to information, to time, to financial resources, to technological development. is why it is necessary to consider online, lifelong learning for sustainable fashion design since it has a global reach, free of time and space limitations, of the regular academic stages, and calendar. Although recognizing that online learning itself presents a relatively new competence, this paper considers that this would represent a potential way to disseminate a sustainable fashion design, that could be rapidly absorbed by the fashion sector.

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OPTIMIZATION THE MOTOR CAPACITY OF STUDENTS FROM PRIMARY SCHOOL BY INTRODUCING INTERACTIVE GAMES

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ABSTRACT

In Romania, the physical education lesson goes through a stage of reforming in line with student requirements, adapting exercises to video and computer games.

Thus, for six months, 40 students (aged 8-10 years) participated twice a week in work programs that had interactive games in their structure. Subjects were tested before and after the application of work schedules, following their progress in some components of motor capacity. The tests performed referred to the coordination, balance and speed.

The statistical analysis of the data was made by SPSS, v.21, with descriptive statistics and Paired T test. At the end of the study, there were significant differences between pre and post-test environments ($p < 0.05$). It was also noticed a better involvement of the students in the physical education class, being attracted by the applied working means. It identifies, therefore, the need to modernize the traditional means of working in the physical education lesson and to always be alongside modern technology.

Keywords: physical education, lesson, students, primary school.

INTRODUCTION

Physical education (PE) is a compulsory course for primary school students from Romania, with 2 hours per week. Only the students with health problems (that contraindicate physical effort – like hearts conditions) can miss the PE lesson.

It is well known that the lack of physical activity can determinate some health conditions in childhood [1], especially infantile obesity [2, 3]. This is way; the PE lesson became more important for sedentary students, being the only moments when they are somehow involved then in physical activity. The teacher must be focused especially on those students.

In his study Bechter et al [4] offered important information regarding the effects of teaching physical education using the student-centred learning strategies.

The positive change in the social phenomenon of physical education and sport must begin with the change in the fundamental general concepts of physical education and sports in a transition society.

New concepts will have to meet all the exigencies demanded by social, individual and group interests. In this situation, physical education and sport must be studied as a complex social phenomenon, dynamic at a national scale with implications, motivations, conceptions, individual, group interests, varied and always changing [5].

Beni et al [6] offers information about how a teacher promote meaningfulness in PE showing direction on some pedagogical strategies.

In this direction, the paper proposes to find solutions in order to increase the attractiveness of physical education lessons, which can lead to an improvement of the students' motor capacity.

METHODS

In our research we have adapted some games that students are playing on the computers and phones (eg Fortnite) and used them in the physical education lessons. The games were developed together with the students according to their preferences.

These means have been introduced into the school, being a help to the teacher and a novelty for students, being accepted and appreciated by them.

The research lasted 6 month and implied the introduction in each lesson of physical education of interactive programs based on lesson themes, which were used as aids in the basic part of the lesson, according to themes and to the proposed objectives.

The research subjects were 40 students, aged 8-10 years (±1,5 years) who voluntary participated in this research (the parents also agree with the tests we proposed).

At the beginning of the school year the students were tested to verify the level of motor development, testing the balance, general coordination, movement speed, abdominal and back muscle strength. After that, the sets of exercises were developed, with the aim of observing the proposed planning, and the active participation of the students in the physical education classes. After 6 months, the subjects were finally test and their progress was recorded. Also, throughout the experiment, students were informed and encouraged to download free mobile applications that exemplify eloquently and correctly the execution of certain simple exercises, especially for abdominal muscles, programs that can be easily practiced during their free time.

Local ethical permission was given by the Ethical Commission of the Faculty of Physical Education and Sport and all the experiments were conducted according to the latest version of the Helsinki declaration.

A statistical analysis was performed through SPSS version 21 using descriptive statistics and Paired TTest in order to find if there were significant differences between pre and post intervention.

RESULTS

The results achieved on Flamingo Test for balance (Table 1) recorded in the initial test for left foot an average of 51.17 (S±17,42 seconds) with the measurements ranging between 10 and 60 seconds. In the final testing (T2), the balance for the left foot increased at 55.62 (S±9.73 seconds).

Appling the Paired T test for the Flamingo Test – left foot (Table 6) the t value was -3.86 at a bidirectional level of significance ($p<0.01$), resulting that the mean difference is significant.

Table 1. Statistical parameters – balance test - left foot (FLAMINGO)

The statistical parameters	Flamingo T1	Flamingo T2
average	51,17	55,62
stdev	17,42	9,73
max	60	60
min	10	28

The results (from the Table 2) recorded in the initial test, for right foot, prove an average of 51.02 (S±16,63 seconds) with the measurements ranging between 9 and 60 seconds. In the final testing (T2), the balance for the right foot increased at 56.93 (S±6.38 seconds) with values between 30 and 60 seconds.

Appling the Paired T test for the Flamingo Test in right foot (Table 2) the t value was -3.97 at a bidirectional level of significance ($p<0.01$), resulting that the mean difference between first and second test is significant.

Table 2. Statistical parameters – balance test - right foot (FLAMINGO)

The statistical parameters	Flamingo T1	Flamingo T2
average	51	56,93
stdev	16,63	6,38
max	60	60
min	9	30

In the initial testing on the Tapping Test the overall average for the left arm was 65.36 (S±19,62 repetition), the maximum being 90 repetition and the minimum 35 and for the right arm the average was 68,83(S±19,62 repetition), with values between 40 and 95 repetition.

In the final test, the speed execution increases for both arms, the average being 68.58 (S±18.55 repetition) for the left arm and 73,24 (S±10,29 repetition) for the right arm. Applying the Paired TTest (Table 6) the t value for Left arm was -5,62 and -4,18 for the right arm, values situated at a bidirectional level of significance ($p<0.01$). Result that the mean difference between first and second test is significant.

Table 3. Statistical parameters – Tapping Test

The statistical parameters	Left arm T1	Left arm T2	Right arm T1	Right arm T2
average	65,36	68,58	68,83	73,24
stdev	19,62	18,55	13,40	10,29
max	90	90	95	98
min	35	39	40	48

The general coordination (Table 4) recorded at the first test an average value of 330.83 degrees (S±55,25) with maximum of 360º and minimum 180º. In the final test, the average of jumping with rotation was 352,32 (S±27.29 degrees), the values being between 270º-400º. The mean difference was statistically significant at $p<0.01$.

Table 4. Statistical parameters – coordination test (MATORIN)

The statistical parameters	Matorin T1 (degrees)	Matorin T2 (degrees)
average	330,83	352,32
stdev	55,25	27,29
max	360	400
min	180	270

For the abdominal strength, the evolution of the subjects revealed an improvement of that parameter, the testing average results of crunches was at the first 16,67 (S±14.32) respectively 19.55 (S±6,25) at the final.

Applying the Paired T Test, it has been obtain a value of t (-9.68) at the bidirectional level of significance ($p<0.01$).

Regarding the back strength, extension test, and the final results indicates an improvement, the mean difference between first and second test being -2.74 repetitions. That indicates a positive development of the strength after applying the games in the PE lessons.

Table 5. Statistical parameters – Strength test

The statistical	Abdominal	Abdominal	Back strength	Back strength

parameters	strength T1	strength T2	T1	T2
average	16,67	19,55	30,62	33,87
stdev	14,32	6,25	7,45	6,23
max	29	30	47	48
min	6	10	7	12

Table 6. Paired Samples Test

		Paired Differences				t	Sig. (2-tailed)
		Mean	Std. Error Mean	95% Confidence Interval of the Difference			
				Lower	Upper		
Pair 1	Flamingo left Ti – Flamingo left T2	-4,44	1,14	-6,75	-2,145	-3,86	,000
Pair 2	Flamingo right1 – Flamingo right2	-5,82	1,47	-8,78	-2,87	-3,94	,000
Pair 3	Tapping left arm1 – Tapping left arm2	-4,36	,77	-5,91	-2,80	-5,62	,000
Pair 4	Tapping right arm1 - Tappingrightarm2	-3,20	,76	-4,74	-1,67	-4,18	,000
Pair 5	Abd Strength 1 – Abd Strength 2	-2,86	,29	-3,45	-2,27	-9,68	,000
Pair 6	Back Stenght1 – Back Strength 2	-2,74	,33	-3,41	-2,06	-8,16	,000
Pair 7	Matorin1 - Matorin2	-21,46	5,37	-32,22	-10,70	-3,99	,000

CONCLUSION

The general objective of Physical Education is to develop bio psychomotor skills and to develop the ability of students to work on them in order to maintain an optimal health status permanently, to ensure a harmonious physical development and psychomotor capacity that is favourable to their future professional and social insertion like healthy adults.

According to Podstawski R. [7], motor fitness is an important tool for assessing health. Health must also represent a stable psychophysical balance and a good adaptability to the varying requirements of the physical and social environment.

Thus, the notions of physical education and sport become notions of biological and social specificity at the same time.

From the presented ones, it appears that the means proposed and applied to the subjects of the research have contributed to the improvement of some components of their motor fitness. The effectiveness of the applied work programs that had in their structure interactive games was validated by tests, the mean differences being significant over the time, in the final testing.

In the education process, we recommend to the teachers to use also the means agreed by the students in order to accomplish the course objectives. Even if many students spend a lot of time on their computer or telephone, the present research highlights the possibility of adapting working methods to some of their favourite IT games.

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PARENTING STYLES - INSTRUMENTS AND PRACTICE

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ABSTRACT

Our research focuses on different ways of understanding parenting styles and the similarities and differences between conceptual understanding as well as statistical issues for 2 measurement instruments.

Starting with Baumid vision of consistent and persistent ways of interactions between parents and child, there is evidence that these constant ways of interactions do have certain influences on child development. As it was shown in previous research, addiction to substance abuse, especially alcohol in adolescence is linked to parenting styles [1], delinquency [2], aggression and intimidation behaviors in school [3], self-confidence [4], low self-esteem, attention deficit [5] leadership behaviors [6], academic competence in school [7].

One of the questionnaires was developed within a Comenius project (COM-11-PR-06-GJ-RO) [8] (https://www.primariarovinari.ro/download/1018/) and it is focused on fermity and care/kindness dimensions; it results a 4 types structure:

- non-care/non-kindness - firm ;
- care/kindness - non-firm ;
- non-care/non-kindness - non-firm ;
- care/kindness - firm.

There are 18 statements that have scale intensity attitude for agree or disagree with the statements.

Second one is built on Hart model, C. H., Mandelco, B., Olsen, S.F. & Robinson, C.C. [9] understanding of parents -children interactions; within their paper, they do state that the aims are to identify specific practices in parenting, as well as to contextualise typologies.

The paper introduces comparative results, as well as independent ones and provokes to reflection and deeper understanding of the parenting styles within Romanian cultural practice.

Keywords: parents profile, children, parenting style

INTRODUCTION

Scientific research in the field of developmental psychology is highly interesting and relevant in the area of parental influence. Until 2000, parents were generally informed of school results and confronted with positive (but especially negative) behaviors of children. However, recent years have shown a significant and accelerated change in the way school, education, and society as a whole are reporting to the parent. The parent has become a partner who often seeks explanations (sometimes not very pertinent ones) to the child's education, is concerned with learning about him and his parenthood role, taking his child to the afterschool, or attending additional school courses, demanding a certain level of teacher training, formulating questions and expressing extremely strong and stable attitudes (often not positive) towards the education of his/her child. In this context, the purpose of the present study was to examine the gender and age related distribution of parenting styles.

Different areas of concern and preoccupation of teachers and researchers are turning to family and parents as factors of success or failure for the child's evolution and academic results during kindergarten or school years.

A study [10] sample consisted of 627 elementary and middle school parents showed that results indicate significant (but, relatively weak relationships) between student achievement and parent involvement typologies in volunteering and collaborating with community; there are stronger relationships between student achievement and parent involvement typologies in conjunction with parent education level and parent educational expectations for their child.

As Zahedani et al. emphasize in their 2016 [11] study, the relationship of parents with children or parenting style serves multiple purposes. Moral and psychological training, identification, growth and development of children's talents, skills, familiarizing with the rules and norms of the society from the perspective of parents are among these purposes.

The majority of published studies on parenting styles have used some variation of the Baumrind construct (1966) [12], which has identified three parenting styles: authoritative, permissive, and authoritarian. Authoritative parents use to be characterized by high levels of involvement, nurturance, reasoning, sensitivity and encour-agement for autonomy behaviors. Conversely, permissive parenting is characterized by authors as making few demands, non-controlling behaviors and they use minimal punishment. Authors say that parents who do not establish rules and guidelines would be described as possessing a permissive parenting style. Authoritarian parenting tends to go to the opposite side. Authoritarian parents exhibit highly directive behaviors, high levels of restriction and rejection behaviors [13].

The results [14] showed that parenting styles are related to how one comes to interpret the Bible; also, worship style and that gender also relates to parenting style. The *Authoritarian* and *Authoritative* parenting styles related more and the *Permissive* parenting style the least to a literal approach to biblical interpretation and to a structured worship style. Another research findings [15] suggest that families' income influences more affection and less aggression- for middle income values.

METHODOLOGY

A. instruments

We used 2 **instruments** for identifying parenting styles.

One of the questionnaires was developed within a Comenius project (COM-11-PR-06-GJ-RO) [8] (https://www.primariarovinari.ro/download/1018/). We called it: SPc (Parenting Styles classic- Romanian topic).

It is focused on fermity and care/kindness behavioral dimensions; it results a 4 types square-structure:

- non-care/non-kindness - firm (nC-F) ;
- care/kindness - non-firm (C-nF) ;
- non-care/non-kindness - non-firm (nC-nF);
- care/kindness - firm (C-F).

There are 18 statements that have scale intensity attitude for agree or disagree with the statements. The authors say little about its construction and any type of fidelity or validity. With more than 3800 parents submissions, we found that Crombach-alpha fidelity is 0.85, scales fidelity varies between 0.45 to 0.87.

Second one is built on Hart, C. H., Mandelco, B., Olsen, S.F. & Robinson, C.C. [9] understanding of parents -children interactions; within their paper, they do state that the aims are to identify specific practices in parenting , as well as to contextualise typologies. We called it: SPh (Parenting Styles hart - Romanian topic). It has 20 items with Likert scale. Also, the author, in her dissertation paper (*Parenting style as mediating children self image* - unpublished) says little about its construction. With a total Crombach-alpha of 0.59, the questionnaire uses a Likert scale in 4 level of intensity for attitudes and behaviours frequency.

B. population

We applied those 2 questionnaires almost on partially different population. There are 478 parents that completed both questionnaires.

SPc was used on 3884 parents, majority is mothers, between 20 and 52 years old, ,with an average of 36.

SPh was applied on 2088 parents, majority is mothers, between 20 and 67 years old, with an average of 37.

RESULTS

One of the first question we ask ourselves (and our data) was whether there are or not differences between mothers and fathers regarding parenting styles they use.

For SPc, there are significant ($p<0.05$) differences for F-nC (fathers use to be more firm and less caring), nC-nF (mothers use to be more indifferent than fathers) and C-F (mothers use to be more focused on offering emotional support when use/ apply rules than fathers).

For SPh, there are significant ($p<0.05$) differences for all 4 parenting types:

- *Authoritative* (mothers use to be more frequently than fathers),
- *Permisiv* (fathers use to let children do what they want than mothers),
- *Authoritarian* (fathers use to apply rules and be more strictly about them than mothers) and
- *Indifferent* (fathers use to care less about children's behaviour as its' social impact and involve less in their activities).

A second question was about differences between parents age (we used grouping ages: <26, 26-30, 31-35, 36-41, above 42) and adopting one or another parenting style. **For SPc**, there are difference between younger parents (up to 26yo):

- F-nC is used by more by parents up to 26yo and above 35yo;
- nF-C is often used by parents up to 25yo and there are no significant differences for age groups;
- nF-nC is often used by parents between 26 to 41yo;
- F-C is significant used by parents up to 41yo.

For SPh there are less significant differences for age groups: *Permissive* style is more used by parents between 26 to 31, while Indifferent style is significant less used by parents above 41yo.

A third question was whether it does or does not correlate styles from the 2 questionnaires. Pearson correlation show no significant ($p<0.05$) correlation for non of the styles. For a better understanding we tune this correlation analysis on those 478 parents that completed both questionnaires; we found many significant correlations:

- F-nC correlates with *Authorian* (p=0.427, r= 0.18) and *Indifferent* (p=0.226, r= 0.05) and negatively with *Authoritative* and *Permissive*, but with modest values (-0.177, -0.158);
- nF-C positively correlates with *Authoritative* (p=0.121) and negatively with *Authoritarian* (p= -0316, r= 0.09) and *Indifferent* (p= -0.167);
- nF-nC positively correlates with *Authoritative* (p=0.162) and negatively with *Authoritarian* (p= - 0.289) and *Indifferent* (p= -0.189);
- F-C positively correlates with *Authoritative* (p= 0.185) and *Permissive* (p= 0.149) and negatively with *Authoritarian* (p= -0.445, r= 0.19) and *Indifferent* (p= -0.234).

There is no significant correlation for number of children and none of the styles (both questionnaires).

For the 478 sample of parents that completed both questionnaires we wanted to find out whether or not there are differences between the number of children they have. One-Way ANOVA analysis show no significant differences for either of the styles (both questionnaires).

CONCLUSIONS

The significant differences between mothers and fathers show that it is important to address and develop different approach (also for training) for fathers and mothers. Parenting style may conduct to different perceived self parenting images according to theoretical/ methodological model and approach. So that, completing more than one questionnaire parents may recognise easily or not and from that they might get more confidence on results or not.

Parenting style is very subjective to the parents age; this is due to the model of parenting they experience themselves. Parents between 26 to 36 (even 40yo) may form a more compact sample than those up to 26 and above 41. Parents above 41yo are obviously more involved in children's lives and education (in any form of interaction, more or less caring) and less able to let children do what they want: children must obey rules and must have a direction in life.

There is an interesting similarity between younger parents (up to 26yo) and those above 41yo; both groups use to be more similar in using parenting styles than they would expect or it would be expected.

Number of children has no significant impact on parenting styles, even if it would be expected to. So, parenting styles are not to be improved by having more children, but by learning and being open to learn about.

Results show that the concept is still young and needs further development. Both questionnaires need further improvement in dimensions and items and differentiating styles.

There is further research to be done on understanding second and last used styles due to the fact we did not run any analysis on the reliability of the first used style and second, third and fourth. We suspect that this kind of analysis enforced with a so-called lying scale may produce some interesting aspects, due to the fact that most of the parents are very sensitive of their perceived role as parents in other people's eyes.

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PARENTS OF CHILDREN WITH DIABETES MELLITUS AND THEIR SATISFACTION WITH IN THE CONTEXT OF PRESCHOOL EDUCATION

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ABSTRACT

This study is focused on families of pre-school children with 1 type diabetes mellitus. The aim of the study was to explore if there is any difference between parents of diabetic children and parents of typical children in their life satisfaction and their satisfaction with the kindergarten. Also the relationship between parent´s satisfaction with kindergarten and their satisfaction with life is analyzed here. The research sample of 166 respondents was divided into two groups of parents of children with the diabetes mellitus and without this diagnose. Data was collected using an electronic questionnaire of own construction and Diener´s SWLS questionnaire. Based on statistical analysis and comparison of subsamples life satisfaction of parents with a diabetic child is statistically lower and their satisfaction with kindergarten is depended on several factors (accommodating, locality, child satisfaction, need take to insulin, etc.). The relationship between life satisfaction and satisfaction with kindergarten is significant but there were no difference in the attitude to the kindergarten between subsamples.

Keywords: type 1 diabetes mellitus, parents, life satisfaction, kindergarten.

1 INTRODUCTION

Recently, the Czech Diabetological Society [1] processed a national diabetological program for the period 2012-2022 and reports a steep rise in diabetic persons every year (about 10.000). Institute of Health Information and Statistics of the Czech Republic states that more than 800 thousand people with this disease were recorded in the Czech Republic in 2010. If the increase of patients with diabetes rises at a similar tempo, we can expect that every tenth citizen will suffer the disease in 2035.

Diabetes mellitus with the beginning in the childhood has a negative impact on the whole family. It is a difficult period when parents are in a responsible and emotional life situation and the primary caregiver must sometimes give up her job to take care of the child. The intensive parenting affects the quality of quality and life satisfaction. The fact that parents have a child with a disease is a big test in their life for them. Families need the support from professionals – in the pre-school age of children early intervention is a very important service that is later supported by kindergartens´ teachers [2] [3]. The aim

of this study is to explore how pre-school education of children with 1 type diabetes mellitus influences the life satisfaction of parents.

1.1 Diabetes mellitus

Diabetes mellitus is characterized as a chronic disease that is manifested by elevated blood glucose [4]. There are two basic types - type 1 diabetes mellitus and type 2 diabetes mellitus. Type 2 diabetes mellitus is characteristic of adults. The body has enough insulin, but it is not able to use it efficiently. Cells loose the ability to respond to correctly to glucose metabolism. This can be caused not only by genetic predispositions, but also by obesity and poor lifestyle (alcohol, smoking, stress, etc.) [5].

Type 1 diabetes mellitus is typical for children. The body does not have enough insulin – it does not produce it. These individuals have to feed insulin with help to inject it. It is a disease that is not possible to be cured, but we have several options to alleviate it on an acceptable level. This is based on the so-called treatment plan, which according to Czech Diabetological Society should include diet regimen, lifestyle changes, disease education (patient and family), pharmacological treatment and psychosocial care.

The treatment plan is determined according to the individual needs of the individual, his / her age, physical activity, social situation or psychological and general health of the individual. [6]. Insulin pens, insulin pumps, and blood glucose meters are used for the treatment. The aim of the treatment is to compensate for the deviations in the body that are caused by the disease and thus reach an acceptable state of glycaemia [7].

Children with diabetes mellitus are considered to be individuals with special needs. This is because of the disease itself, but also because of the care that must be provided for them. In the Czech Republic, there is compulsory kindergarten education, at least one year prior to admission to elementary school [8].

1.2 Life satisfaction

Life satisfaction is a part of well-being. Diener, Sucha, Lucas and Smithe [9] consider it one of the three components of subjective well-being. It contains emotional component, cognitive component (satisfaction in different areas of life) and other cognitive component (as an overall assessment of life satisfaction) [10].

Well-being is often based on exploration of life satisfaction because there is mutual interconnectedness [11]. According to Binarová [12] life satisfaction is influenced by several factors: demographic factors (gender, age, employment, education, etc.), behavioural factors, personal factors (temperament, character, intelligence, self-concept, etc.), and biological factors connected to individual´s health.

2 AIMS AND HYPOTHESES

This study is focused on the life satisfaction of parents of pre-school children with diabetes mellitus. The aim was to find out:

- Whether the life satisfaction of parents of preschool children with diabetes differs from the life satisfaction of parents of typical children.
- Whether the life satisfaction of the parents of diabetic children is related to the kindergarten and whether it affects their overall life satisfaction.

2.1 Hypotheses

H_A1 Parents of preschool children with diabetes have a significantly lower rate life satisfaction than parents of typical pre-school children.

H_A2 Parents of preschool diabetic children are significantly more satisfied with their kindergarten than parents of typical pre-school children.

H_A3 There is a relationship between the satisfaction of the parents of diabetic preschool children with the kindergarten and their life satisfaction.

3 METHODS

3.1 Research sample

The basic sample includes all the parents of preschool children with diabetes mellitus (type I.) who attend the kindergarten. Kindergarten was defined as pre-school educational facility according to the Education Act 561/2004 Coll. Several inclusive criteria were set: the child attend the kindergarten, absence of comorbidity of diabetes to any other disability or illness, the age of child 3-6 years.

The study was carried out with the participation of 166 respondents (parents) – 130 women and 36 men. Two subsamples were formed from the respondents – Sample 1 of parents with typical children (N = 83, included 67 women and 16 men), Sample 2 of parents with a pre-school child with diabetes mellitus (N = 83, included 63 women and 20 men). See also Table 1.

Participation in the research was anonymous and voluntary based. Data was collected for 3 months using the questionnaire method. It was mainly located on social networks (facebook, etc.) or sent via an electronic link.

Table 1: Number mothers and fathers in the research file

Answers	**Parents of typical children (A)**		**Parents of children with diabetes mellitus (B)**		**All parents A+ B**	
	Number	***%***	***Number***	***%***	***Number***	***%***
Mothers	67	81%	63	76%	130	78%
Fathers	16	19%	20	24%	36	22%
Together	83	100%	83	100%	166	100%

3.2 Instruments, data analysis

The research was based on quantitative methodology using a questionnaire survey of own construction and SWLS questionnaire. The questionnaire consisted of two parts:

- Part A included 10 questions dealing with the relationship between parenting satisfaction and kindergarten.
- Part C - contained 11 questions that focused only on parents of children with diabetes mellitus.

The evaluation of the questionnaire was carried out using methods of descriptive statistics (calculations of absolute and relative frequency, and standard deviation) and methods of inductive statistics (t-test and Pearson correlation coefficient).

4 RESULTS

4.1 Results of descriptive statistics:

- **Gender:** women prevailed in the sample.
- **Structure of the family:** 89% of respondents live in complete families. The difference in match between Sample 1 and Sample 2 is only 1%.
- **Employment:** 63% of respondents have a job, 20% is on parental leave, 16% is unemployed. Unemployment varies between sub-samples (Sample 1 = 4%, Sample 2 = 29%). Parents of children with diabetes mellitus are limited in gaining or retaining employment, because of parenting demands. Parents' unemployment can also affect their life satisfaction because they miss permanent income and have higher expenses caused by the care of a child.
- **Age categories of children:** In Sample 1 prevailed 4-years-old children (N = 27%), while in Sample 2, prevailed 5-year-olds children (N = 37%). The average age for all children was 4.6 years.
- **Kindergarten**: Children of respondents attended these types of kindergarten: 95% state schools, 5% private schools; 48% kindergartens in the city areas and 52% kindergartens in the rural area.
- **Parent´s satisfaction with kindergarten:** Respondents used a 7-point scale to evaluate their satisfaction with the kindergarten attended by their children (Table 2). Another factor surveyed was the helpfulness of kindergarten staff. See also Table 3. Higher scores in Sample 1 in friendliness are according to the parents influenced by child's illness and increased care for him / her. The evaluation of satisfaction of the children in the kindergarten from the point of view of their parents differs slightly between sub-samples. In Sample 1 the average answer is "rather yes", while in Sample 2 the average answer is "yes".

Table 2: Satisfaction of parents with kindergarten: *"Are you satisfied with your kindergarten?"*

Answers		**Parents of typical children (A)**		**Parents of children with diabetes mellitus (B)**		**Sum of points**	
Points		***Number***	***%***	***Number***	***%***	***A***	***B***
1	**Definitely not**	1	1%	0	0%	1	0
2	**No**	0	0%	1	1%	0	2
3	**Rather not**	5	6%	8	10%	15	24
4	**Neutral**	9	11%	10	12%	36	40
5	**Rather yes**	15	18%	12	14%	75	60
6	**Yes**	27	33%	26	31%	162	156
7	**Definitely yes**	26	37%	26	31%	182	182

Together	83	100%	83	100%	471	464
Diameter					**5,7**	**5,6**

Table 3: Kindergarten helpfulness: *„You evaluate your kindergarten overall access as accommodating?“*

Answers	**Parents of typical children (A)**		**Parents of children with diabetes mellitus (B)**		**All parents (A+B)**	
Helpfulness	***Number***	**%**	***Number***	**%**	***Number***	**%**
Yes	72	87%	68	82%	140	84%
No	11	13%	15	18%	26	16%
Together	83	100%	83	100%	166	100%

Part of the questionnaire was focused only on parents of children with diabetes (Sample 2). It included questions about difficulty in finding a kindergarten for their child (with average answer "rather not"). 78% of parents indicated their child needs to use insulin in kindergarten. The insulin is served mostly by mothers (34%), then by teachers (20%), or by both parents (18%). Another area investigated was the usage of health care technologies. 38% of children do not use any aids, 35% use a sensor, 25% insulin pump and sensor and 2% children only insulin pump. Respondents in Sample 2 also assessed the teacher's willingness to administer insulin and measure glucose with the glucometer. Teachers rather measure glucose than serve the insulin. Nevertheless, parents feel that is adequately cared about their children.

For evaluation of parents' life satisfaction the SWLS questionnaire was (Satisfaction with Life Scale). The questionnaire was created by Diener et al. Also Czech version of this questionnaire is available in the literature [13]. The questionnaire contains 5 questions evaluated with a 7-point scale [14].

4.2 Statistics analysis

H_A1 was confirmed: There is significant difference between sub-samples in their life satisfaction. Sample 2 approach the lower limit of the range between "neutral" and "slightly satisfied" whereas Sample 2 approach the range between "slightly satisfied" and "satisfied". It follows that despite the conformity of both groups on the "slightly satisfied", the differences are significant in numerical rating, so that there is a statistically lower life satisfaction in parents of children with diabetes (Table 4).

Table 4: Data for verification H1

T-test H1	**Diameter Group A n = 83 SWLS**	**Diameter Group B n = 83 SWLS**	**Standard deviation (Group A)**	**Standard deviation (Group B)**	**Degree of freedom**	**Value t**
Values	24,12048	21,45783	4,98876	5,92082	164	**0,00411**

H_A2 was not confirmed: In the survey, the satisfaction with kindergarten of both groups was the same. The small differences in the evaluation are not relevant for the given area, so both samples are positively satisfied with their kindergarten. Satisfaction

with the kindergarten is illustrated by the fact that the children like to visit the kindergarten (Table 5). An indisputable fact is also the friendliness of kindergartens in relation to the life satisfaction of parents. Both groups are largely satisfied with the care and access of this institution (Table 6).

Table 5: satisfaction of children with kindergarten: *„Do your children like to visit the kindergarten? ((according to you)“*

Answers		**Parents of typical children (A)**		**Parents of children with diabetes mellitus (B)**		**Sum of points**	
Points		***Number***	***%***	***Number***	***%***	***A***	***B***
1	**Definitely not**	0	0%	0	0%	0	0
2	**No**	3	4%	0	0%	6	0
3	**Rather not**	3	4%	3	4%	9	9
4	**Neutral**	4	5%	5	6%	16	20
5	**Rather yes**	23	28%	26	31%	115	130
6	**Yes**	50	60%	49	59%	300	294
7	**Definitely yes**	0	0%	0	0%	0	0
Together		83	100%	83	100%	446	453
Diameter						**5,4**	**5,5**

Table 6: Data for verification of H2

T-test H2	**Diameter Group A n = 83**	**Diameter Group B n = 83**	**Standard deviation (Group A)**	**Standard deviation (Group B)**	**Degree of freedom**	**Value t**
Values	5,7	5,6	1,31438	1,29660	164	**0,26359**

H_A3 was confirmed: The difference between the samples was evaluated using the Pearson correlation coefficient. Life satisfaction of parents is related to satisfaction with the kindergarten, but the determination coefficient is only 4%. This means that it doesn´t depend only on this relationship (Table 7).

Table 7: Data of verification H3

Pearson H3	**Diameter n = 166**	**Standard deviation**	**Pearson correlation coefficient (r_p)**	**Determination coefficient (r^2_p)**
Life satisfaction	22,8	1,12380	**0,19033514 (i.e. 0,02)**	**4%**
Satisfaction with kindergarten	5,6	1,30206		

It is important to note that the selection of participants was not randomized and the sample is not representative for the basic sample in the population. Also significantly higher number of women in this study may bias the results. The concept of satisfaction

with kindergarten is multicomponent and should be researched by better conceptualised questions in future studies.

5 CONCLUSION

The main benefit can be the examined sample - parents. As a rule, people with a disease - in this case with diabetes mellitus - are the focus of attention. However, we focused on parents of sick children and their life satisfaction. The life satisfaction of parents with a child with diabetes mellitus and parents with typical children differs but indeed on the basis of the data analysed, we can positively evaluate the satisfaction of both groups (Group A and Group B) with the kindergarten. Therefore the relationship between the life satisfaction of parents of children with diabetes mellitus and kindergarten was demonstrated. However, parental satisfaction may also be affected by other factors such as family structure or employment. It is important to note that the participation of respondents to research was entirely voluntary, so the total number of 166 participants may not be quite sufficient. However, the overall satisfaction of parents of children with diabetes is smaller than that of parents of intact children.

This pilot study may serve as a basis for future research when attention could be focused also on teachers working with diabetic children. Also some methodological recommendations are listed here to improve the validity of future studies.

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PERSONAL AND SOCIAL SELF-DEVELOPMENT OF ACADEMIC STAFF MEMBERS OF HIGHER EDUCATION INSTITUTIONS IN TODAY'S RUSSIA

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ABSTRACT

The article is dedicated to the current issues of self-development of teachers and is aimed to identify the main reasons for their poor social and personal self-development. The issues addressed in the article are of particular relevance due to the growing role of teachers of higher education institutions in the modern society. The most important research method used by the authors was the pedagogic experiment, including such particular empirical methods as monitoring, tests, surveys, questionnaires, interviews, self-assessment and psychological diagnostics. As a result of the study, it was found out that teachers' leisure time is not properly organized; therefore they have no opportunities for rehabilitation and recreation in their free time, which considerably reduces effectiveness of their personal self-development. The article describes a set of measures aimed to enhance the effectiveness of teachers' self-development through the organization of cultural and creative associations in higher education institutions, including four stages and six spheres of activity that can be implemented in such cultural and creative associations. Materials of this article may be useful for the management of higher education institutions and department heads, advanced training centers for higher education professionals and for all academic staff members.

Keywords: personal self-development, modern university teacher.

INTRODUCTION

Higher school teachers lay the foundation for students' professional knowledge and skills, set standards of social and cultural behavior and form their communication skills. These functions require great commitment and constant professional, social and personal self-development, the lack of which significantly reduces the effectiveness of their professional activities. Working consistently heavy workloads caused by the increased number of classroom and extracurricular activities, teachers are now suffering from constant overwork and failing to replenish their physical and spiritual energies.

Hypothesis. Now more than ever, socio-pedagogical tools for the support of higher school teachers in their self-development are of great importance, and search for them is highly relevant, and, in our opinion, culture and leisure associations of higher education institutions can become such tools. Such culture and leisure associations, aimed to develop creative, communicative, social and cultural skills, can help in solving the identified problem and increase effectiveness of teachers' leisure activities.

In order to identify this problem, prove its existence and propose an adequate solution, we used a number of empirical and theoretical research methods. In our study we used such theoretical methods as the theoretical and methodological analysis and terminological concept analysis. The general empirical method was the pedagogic experiment, including such partial empirical methods as monitoring, tests, surveys, questionnaires, interviews, self-assessment and psychological diagnostics.

Let us proceed to an analysis of the concept of self-development and examine self-development in terms of philosophy, sociology, psychology and education sciences. The concept of self-development, as an interdisciplinary research subject, has been studied in the context of different sciences: philosophy, psychology and sociology. Thus, philosophers (I. Kant (2016), Hegel (1968), K. Marx (1949), etc.) historically studied self-development in the context of research into human development. Modern philosophers (Mamardashvili M.K. (1997) [1], Scheler M. (1992), etc.) have connected self-development with the system of values and interpreted it as a need for self-improvement and self-motion.

In the works by such sociologists as L.V. Kilimova (2006) [2], Yu.V. Mokerova (2006) [3] and others, self-development is considered in close connection with personality and society. Personality is a product and a subject of social systems, their change and development. Consequently, personal self-development is related to the social environment and personality changes within the frames of social norms, traditions and rules of behavior.

In psychology (S.L. Rubinstein (2003), L.S. Vygotsky (1996), D.A. Leontiev (1997) [4], B.F. Lomov (1984) [5]), self-development is considered as a conscious change resulting from the inner activity of a person.

In education sciences (M.R. Ginsburg (1994) [6], A.V. Mudrik (2000) [7], Isaev E.I. and Slobodchikov (2000) [8], etc.), self-development has been considered as a possibility of choice in life transformation and increased self-awareness, realized by the person over a lifetime.

Issues related to teachers' self-development based on the use of anthropological concepts were considered in the works by well-known scientists, educationalists and psychologists: Isaev E.I. and Slobodchikov (2000) [8], L.M. Mitina (2003) [9], A. Maslow (1982), G. Allport (2002), C. Rogers (1994) and others.

Summarizing the analyzed research findings on personal self-development, we have come to the conclusion that self-development is a qualitative process of personality sphere transformation, reflecting self-motion of personality under the influence of inner contradictions, and some kind of manifestation of human attitude to the external environment. Thus, we have identified the following dominating structural elements of self-development: attitude to self-development and self-development activities.

MATERIALS AND METHODS

In order to confirm our research hypothesis that today's teacher has a need for personal self-development and energy replenishment through cultural and leisure activities, we conducted a study in the form of an ascertaining experiment (establishment of an indisputable fact), which was aimed to identify and ascertain the existing problem. Based on the experiments carried out in one of the leading higher education institutions

of Russia – South Ural State University (a national research university), we have identified key problems and trends of self-development of higher school teachers, analyzed the factors influencing the self-development and created the program of active leisure activities for academic staff members, which is designed to increase effectiveness of their personal and social self-development.

The conducted questionnaire survey provided the following data on teachers' self-improvement motivation and on possible assessment of self-development skills (Table 1). We introduced age segmentation and, based on the obtained data, came to the following conclusions:

- the highest self-development motivation is demonstrated by young teachers;
- self-development motivation is decreased with the gained experience in professional activities, especially among associate professors;
- self-development skills of teachers are further improved in the process of their professional activities;
- self-development skills are stabilized, without further improvement, after the age of 45 years old;
- self-development skills are closely connected with professional achievements (the better the self-development skills, the higher the teacher's professional achievements);
- decreasing self-development motivation is observed in those academic staff members who have already defended their theses (especially Dr.Sci. theses);
- the level of teachers' self-development is closely related to their professional knowledge and skills;
- insufficient attention is paid to personal and social aspects of self-development.

Table 1. Analysis of self-development motivation and skills

	Age				
	20-30 years old	30-40 years old	40-50 years old	50-60 years old	60-70 years old
Self-development motivation among teachers	6.0	6.4	6.2	5.1	4.1
Self-development skills of teachers	4.5	5.5	5.6	5.6	5.5

We identified personal motives for self-development, which, according to our data, do not depend on age or professional status. There are following motives: self-expression needs – new knowledge, full realization of personal capacities, competence building; motives related to the need for recognition – growing reputation among colleagues; rational motives related to personal security – salary increase, professional growth.

The observed distribution of self-development motives gives grounds for conclusions on the age-related changes in self-development motivation. For example, such self-development motives as career-building and salary increases were mostly mentioned by younger teachers (under 35 years), while the reputation-related motives were important for teachers in the age range of 35-45 years. The motives related to obtaining new

knowledge and realization of personal capacities were selected by teachers over 45 years old.

The results of the questionnaire survey allow us to make the following conclusion: professional self-development is of major importance for teachers, prevailing over self-development in the sphere of social contacts and development of personal characteristics. Thus, social and personal self-development is carried out spontaneously, without a clear plan, set objectives and assessment of results.

To identify the reasons for this lack of interest in social and personal self-development among teachers, we carried out interviews and asked teachers to fill in questionnaires, in which most teachers referred to such reasons as the lack of time (78%); lack of money for active leisure activities (72%); physical and emotional exhaustion (89%); lack of opportunities for recreational activities (53%); lack of knowledge on organization of social and personal self-development (64%); absence of interest or need (61%).

Our conclusions are supported by findings described in works of other scholars. For example, low satisfaction of teachers with their work is reflected in the works of L.M. Mitina (2003) [9], A.N. Yakunina (2014) [10] and others. Psychological aspects of the interaction between students and teachers are reflected in the studies carried out by R.V. Kupriyanov (2015) [11], T.V. Kryukova (2016) [12] and others. The issues related to personal self-development of teachers are considered in the academic papers by N.I. Suchkova (2004) [13], E.A. Burdina (2014) [14] and others.

The administration of higher education institutions does not make any demands for the personal self-development. At the same time, both department heads and students are not satisfied with personal and social characteristics of some of the teachers. The results of the survey conducted among managers (department heads and deans) are presented in Table 2.

Table 2. Satisfaction of management with personal and social characteristics of teachers (%)

Categories of respondents	Fully satisfied	Not fully satisfied	Partially satisfied	Dissatisfied
Department Heads (350 persons)	3.4	9.64	85.56	1.42
Deputy Deans (70 persons)	6.85	31.51	56.17	5.48
Deans (25 persons)	10.72	32.15	60.72	7.15

Based on our findings, we can make a conclusion that only 5% of department heads are fully satisfied with personal and social characteristics of the teachers in their staff. All the rest identified inconsistency of and dissatisfaction with the social and personal characteristics of teachers.

These conclusions are also supported by the results of the survey on teachers' personal and social characteristics conducted among students. The students pointed out that 8% of teachers should be banned entirely from working with students. 42% of teachers, according to the students, should correct their personal and social characteristics, while

36% of teachers need to improve their personal and social skills. The students were fully satisfied with the social skills of only 12% of their teachers.

We assumed that teachers' leisure time is not properly organized, therefore they have no opportunities for rehabilitation and energy replenishment in their spare time. This hypothesis was confirmed by our survey, analyzing the forms of teachers' leisure activities and the time spent on them. Our findings on types of leisure activities are summarized in Table 3.

Table 3. Types of leisure activities and number of teachers involved in such leisure activities (%)

Leisure activities	Teachers involved in respective leisure activities
Culture and leisure clubs (creative associations and workshops, chess, gardening)	4.5
Sports clubs, fitness, workout room	5.8
Individual sports activities (skiing, skating, swimming, hiking, jogging)	13.6
Watching TV	97.6
Rest (time with friends, relaxation)	98.99
Reading professional literature and literary fiction	100
Visits to theatres, museums, philharmonics, cinemas	86.7
Internet and social networks	100
Hobbies (dancing, music, singing, breeding animals and flowers, technical creativity, photography)	65.4
Household chores and family communication	86

The results of the conducted survey show that the majority of teachers prefer passive leisure pursuits, like watching television, reading books (professionally-oriented, as a rule) or browsing Internet and social networks. Only 65% of teachers have hobbies, for which they spend part of their free time. The majority of respondents are reluctant to attend sports and hobby clubs. Most of them spend part of their time taking care of household issues and looking after their relatives.

RESULTS

Summarizing the results of the described experiment, we have come to the following conclusions. Teachers' free time is either an extension of their professional activities (reading professional literature) or is not organized at all (or organized passively). This confirms our assumption that teachers do not actually rest in their free time and are not able to replenish their energies, which inevitably leads to the low levels of social and personal self-development.

How can a higher education institution help teachers organize their leisure activities? Search for an answer to this question let us identify ways to improve the effectiveness of teachers' leisure activities and improve their social and personal self-development. Using the experience of the South Ural State University (a national research university)

as an example, we performed an analysis of activities in the leisure clubs and associations that were organized by the higher education institution in 2016-2018, with the following results:

- academic staff members are poorly informed about opportunities for leisure activities provided by the higher education institution;
- the University organized various forms of leisure activities, but the academic staff do not actively participate;
- in the University there are no clubs or leisure associations for teachers only. The academic staff members can participate in the activities of creative associations and clubs together with the students, which negatively affects teachers' interest in attending them;
- some associations and groups provide their services to teachers free of charge or at a significant discount. Consequently, the economic factor is not as important as previously described by the teachers in the filled questionnaires.

We can see a solution to this problem in a complex of measured aimed to improve the personal and social self-development of teachers in a contemporary Russian higher education institution, which can be tested and introduced into practice at the South Ural State University (a national research university) in the city of Chelyabinsk. This complex includes 4 stages:

1st stage – analysis. At this stage, the consulting centers organized at the higher education institution provide psychological and counseling services to all academic staff members, revealing the motives and internal requirements related to their social and personal self-development.

2nd stage – target setting. At this stage, the teachers set their long-term and short term objectives, based on the earlier formulated motives and needs. This is made possible with the help of personal growth trainings and techniques of building the "Objective Analysis Tree" and "Balance of Success and Failure" (Vekovtseva, 2015 [15]).

3d stage – practical implementation. At this stage, the teachers select the types of activities or forms of active leisure corresponding, as much as possible, to the objectives set at the previous stage. We offered a choice of six activities implemented in various cultural and creative associations of the university. There were the following sets of activities:

- educational (clubs of managerial and political debates, intellectual clubs for communication with interesting people, psychological trainings and seminars, and a club of the New Cinema fans);
- relaxation (philharmonic evenings, "Prima Vera" choir, theatre studios);
- arts and creativity (artistic creativity clubs: designing, painting and beading, technical creativity);
- cultural (historical and cultural clubs, excursions in the region, pilgrimage tours, industrial tourism);
- extreme activities (extreme sports and tourism);
- physical training (physical culture and wellness, hiking).

Fourth stage is summing up. At this stage, the academic staff members analyze the changes and plan further actions aimed to include active leisure activities in their daily routines.

CONCLUSION

Our study showed that university teachers need a set of measures for personal and social self-development, by means of cultural and leisure activities. It is active leisure activities will allow teachers to increase their creative abilities, use compensatory mechanisms of personality, improve communicative qualities, improve personal and social qualities, restore physical and mental strength, and receive greater satisfaction from life. Practice of introducing this complex to improve the effectiveness of the social and personal self-development of the teacher by improving cultural leisure showed that the teachers have significantly changed their attitude to their own free time. Teachers have become: actively engage in sports, visit the swimming pool and fitness room; constantly engage in clubs and leisure associations of the university; join in an active initiative; organize regular round tables with informal communication.

Today, a modern teacher is not just a teacher who carries knowledge or provides educational services, but also a person with a capital letter. Teachers became a good example and source of inspiration for students, they receive spiritual and moral support, ask advice on professional and personal development. A high school teacher should initiate and promote scientific ideas, work with the times, which is a requirement of the modern standard of higher education. This becomes possible only with the constant social and personal self-development of the teacher. At the same time, support for such self-development can only be provided by active leisure and by active organized cultural and recreational activities for teachers.

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PLAYING-2-GETHER: TEACHER SENSITIVITY AS A BASIS FOR INCLUSION IN PRESCHOOL - NEW CHALLENGE FOR PRESCHOOL TEACHERS IN SLOVAKIA

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ABSTRACT

High level of teacher training, as well as well-designed career development and long-life learning of teachers are considered to be very important standpoints for education from preschool to university settings. It is no doubt, that without professional competences of teachers, quality education of preschool children cannot be secured. European organizations explicitly argue for providing and securing high-quality early childhood education (e.g., European Commission, 2013; European Council, 2011). Several studies have provided compelling evidence that an investment in education and training benefiting young children produces the largest gains in terms of human capital, for both children (e.g., better job, higher income, better quality of life) and society. The P2G program is focused on teacher sensitivity in education in a kindergarten. The intention of the program is to help the teacher improve the environment with play activities in order to help children to better inclusion and socialization in kindergartens. Within the project, free and directed plays are defined based on the theories of Pianta [10], Hamre et al. [5], Vancraeyveldt [14] and others. Based on the above mentioned theoretical sources of the program, we apply individual principles in Slovak conditions. The program is implemented in a kindergarten with two teachers and two selected children, who have behavioural problems and problems with adaptation in the classroom environment. The paper deals with the description of child behaviour and teacher intervention through P2G. The analysis of realized video recordings shows the possibility to implement the program in Slovak kindergartens with regard to the socio-cultural context. At the same time, it will serve as a methodological source for pre-service and in-service teachers. The outputs of the project published on the web platform in MOOC will provide the possibility for sharing the mutual experience of kindergarten teachers at the European level, which is also the goal of the project and it contributes to the internationalization of pre-school education. The project will answer the challenge in supporting attractivity of teacher profession: all categories of teachers involved in the project (in-service preschool teachers, university teachers/teacher trainers and pre-service preschool teachers) will get opportunity to enhance their skills in innovative methods of education, to use ICT in education, to present their creativity, sense of human understanding and believes that teacher profession is a way how to help in developing child individuality and personality as well as in supporting social/mankind development.

Keywords: playing together, preschool education, Massive Open Online Course (MOOC), teacher sensitivity, child behaviour

INTRODUCTION

Playing-2-gether: Teacher Sensitivity as a Basis for Inclusion in Preschool is the title of the project, that Department of Pedagogy at Faculty of Education, Constantine the Philosopher University Nitra applied successfully for the grant in cooperation with higher education institutions from Leuven, Belgium; Amsterdam and Leeuwarden, the Netherlands; and Porto, Portugal. European organizations explicitly argue for providing and securing high-quality early childhood education for all children (e.g., European Commission, 2013; European Council, 2011). This demand is aligned with international steering documents, such as the UN Convention on the Rights of People with Disabilities (2006) that has been advocating for the right for education for all children. This means educating all children together in mainstream classrooms, regardless their abilities and disabilities, with teaching methods, materials and classroom environments that address the diversity of needs of all [4]. Furthermore, creating a school for all prompts societies to value diversity, to promote the respect for differences and to combat discrimination.

Currently, societies are facing new challenges of increasing diversity in Europe (e.g. the refugee crisis, exclusion of minorities). Within this context the need for adapted early childhood education is stringent. Several studies have provided compelling evidence that an investment in education and training benefiting young children produces the largest gains in terms of human capital, for both children (e.g., better job, higher income, better quality of life) and society (e.g., less crime, less unemployment). Following the refugee crisis and an increasing super diverse society, the project explicitly focuses on enhancing the quality of early childhood education for all children in general and for at risk children in particular, as was highlighted in the Paris declaration on education (2015). In this way, the project focuses on two Erasmus KA2+ Horizontal priorities: Enhancing the quality of early childhood education and inclusive education, training, and youth. Recent research has shown the importance of teacher sensitivity for young children's recent and later academic, behavioural and socio-emotional development [6], 12]. Moreover, teacher sensitivity has been found to have compensatory effects for the development of at-risk children [11]. Therefore, the Playing-2-gether project aims to improve teacher sensitivity for both pre-service and in-service teachers when playing with pre-schoolers in the classroom. By training both non-verbal and verbal teacher sensitivity skills, teachers are supported in dealing with diversified groups of learners (such as refugee children, migrants, socially disadvantaged…) and to adopt innovative practices from the start of their careers and during their careers. Doing so, the project is consistent with both the Erasmus KA2+ School education priority for high quality early childhood education and the Erasmus KA2+ Horizontal priority for social inclusion. More specific, the present project focuses on the youngest group (i.e. pre-schoolers of 2.5 to 6 years old) and on their teachers.

THEORETICAL BACKGROUND

An online Playing-2-gether course has already shown its positive effect on teacher sensitivity of Belgian preservice teachers [14], [15]. The P-2-G intervention was developed by colleagues from UC Leuven-Limburg and KU Leuven, Belgium, based on an attachment and learning theory that aims at improving the quality of teacher-child interactions and to decrease child externalizing problem behaviour. This type of

problem behaviour refers to disruptive and harmful behaviours for others (hurting other children, being disobedient, talking back..) and has been shown to be linked to future child maladjustment in several areas, such as peer rejection, social isolation, school failure, and mental disorders [7], [1]. Finally, this behaviour becomes not only a risk factor for the child´s development, but also for class climate and for the teacher as well. Therefore it is inevitable to redirect this behavioural maladjustment in an early stage [12].The P-2-G intervention was developed for pre-schoolers showing relatively high levels of externalizing problem behaviour and their teachers [15]. Teacher-child interactions are considered as environmental factors that influence pre-schooler behavioural adjustment. The growing number of observational studies has aimed at the link between the affective quality of the teacher-child relationship, teacher behaviour management and pre-schooler behavioural adjustment [9]. The interventions grounded in attachment and learning theory, aimed at improving pre-schooler behavioural adjustment by focusing on both enhancing the teacher-child relationship and teacher behaviour management are on the rise [14], [15].

According to attachment theory developing a secure attachment bond with primary caregivers is important to promote children´s development and to prevent adjustment problems in general and externalizing problem behaviour in particular. (see meta-analysis by Fearon et al. 2010) [3]. Parents are the primary attachment figures for most children and relationships with teachers are time-limited and not exclusive. Children spend a lot of time with their teachers for at least one school year. Teachers can be temporary considered as attachment figures playing the role of secure base and they may influence children´s adjustment in preschool [2]. High-quality teacher-child relationships are considered important resources which may help children to maintain adequate behaviour or redirect externalizing problem behaviour in times of stress at school.

Learning theory focuses on importance of teacher-child interactions for children´s behavioural development as well. More specifically, the operant conditioning model focuses on the importance of the antecedents and the consequences of behaviour as targets for behavioural change. Teacher should set up the conditions under which desired behaviour is likely to occur (stating clear rules), and if it occurs, the teacher should reinforce this behaviour (praising desired behaviour) [14].

Attachment and learning theories point at different aspects of teacher-child interactions which are considered to be complementary in improving child behavioural adjustment, and may be combined in two component interventions. The first component may be attachment-based and focused on improving the relationship quality. The improved relationship is, in turn, expected to act as an affective base, which facilitates the effectiveness of behaviour management techniques focused on in a second, learning theory based, intervention component [14].

In the parent–child literature, several authors have combined insights from attachment theory and learning theory in two component interventions, the first component aimed at promoting the quality of the caregiver-child relationship and the second at promoting the caregiver's behavioural management. The assumption underlying the combination of these intervention components is that behavioural management, shown to be effective in reducing externalizing problem behaviour - EPB will be most effective if it is applied in the context of a warm caregiver-child relationship. Therefore, these interventions

start with a child-directed interactive play time. This play time is viewed as a foundation upon which to build a high quality relationship that may promote improved caregiver-child communication, increased positive emotional experiences, and motivation to change within the child. [15]. This, in turn, is expected to facilitate the child's openness for, compliance with, and the efficacy of the behaviour management techniques based on learning theory which are practiced during the second intervention component.

METHODS

The project management methodology goes from preparatory activities to implementation, evaluation and dissemination. All activities are bundled into clearly defined outputs. The project itself is broken down into 4 outputs. Each output is assigned to a lead partner. By delegating authority to run activities for this output to each partner is ensured the inclusiveness of most of the partners in the project management and therefore ownership for the outputs. In doing so the special consideration of the profile of the institution was taken as well as, the qualifications and experience of people involved. The responsibility on the different intellectual outputs and multiplier events is taken by different partners, based on their specific expertise in this output.

Output 1: Animated videos - the goal is to give an attractive summary of the state-of-the-art on two important elements of the project: teacher sensitivity and inclusive preschools. However, to date, an attractive animated video that explains the exact meaning of teacher sensitivity in inclusive preschools is not yet available. Such informative video will help teachers to understand the importance and the essence of these concepts in layman terms and inspire them to implement more teacher sensitivity in their inclusive classrooms.

Output 2: Good practice videos – are made by the pre-service and in-service teachers in the national professional learning communities. They show the examples of teacher sensitivity and inclusive classrooms. They also show examples where teacher sensitivity and inclusive classrooms are less easy to attain. These videos will be put on the Massive Open Online Course (MOOC) on Playing -2-gether. Videos of strong moments or troublesome areas have been made by the pre-service and in-service teachers of the participating schools in every country except Belgium. The teams of teachers are in the position of detecting and anticipating the "hard parts" of teacher sensitivity. The "hard parts" are these areas where improvement is not so easy to access. Singling out the "hard parts" for special attention, practicing them on the side, developing strategies to deal with them better, ultimately, make it easier to recall the information and reintegrate later into daily practice.

Output 3: Developing of a Massive Open Online Course (MOOC) on Playing-2-gether that will include the following items: a general introduction, the animated videos which provide the state-of-the-art on teacher sensitivity and inclusive preschools in layman terms, good practice videos on high quality teacher-child relationships with moment-to moment description of the shown interactions. Moreover there will be included discussion forum where pre- and in-service teachers can post their comments on the good practice videos of other countries (as part of an assignment for the professional learning communities). In the discussion forum, new issues on specific topics related teacher sensitivity in inclusive classrooms (innovation problems, god practices) can be

raised. Playing-2-gether coaching manual will be also part of it. The MOOC is based on the principle of Observational Learning in which it is shown that the observation of good examples has positive effect on the self-designing products. The tool will be open access and thus will be able to be consulted and used by all EU pre-service teachers, in-service teachers and teacher trainers.

Output 4: Playing-2-gether coaching manual. In the final phase of the project participating teachers will be trained as coaches for other pre-service and in-service teachers. Therefore the coaching manual will be developed which may be used complementary to the MOOC. Complementing the MOOC by a coaching trajectory has demonstrated more effective teacher-child interactions in comparison to only implementing the MOOC. The coaching manual will be based on the four components of the 4C/ID model for complexing learning: learning tasks, supportive information, procedural information and part-task practice (Merriënboer and Kirschner, 2013) [15]. The coaching manual will be available in English, Slovak, Dutch, Portuguese and French, so that many European teachers can consult it. The try-out version of the coaching manual will be presented at the national multiplier events and will be tested in the following months by the participating teachers.

RESULTS

Playing-2-gether intervention consists of two six week components during which one-on-one play sessions with the target child take place outside the classroom. These play sessions are held twice a week, for approximately 15 – 20 minutes per session. During these sessions, the teacher is given the opportunity to practice skills to improve the teacher-child relationship quality - TCR (1st component) and the teacher´s behaviour management (2nd component) in a safe learning environment, and the teachers are encouraged to apply these skills to the classroom. In the 1st component, Relationship-Game, the play sessions are child-centred. The child can choose the activity or the game and the teacher has to follow the child's lead. The teacher practices skills that improve teacher sensitivity and that focus on making a strong connection with the child. For example, the teacher observes the child during the game, imitates his play, describes his actions and labels his feelings and also pays attention to the children´s relational needs and tries to respond to them in an adequate manner ("developing relational themes" in Banking Time) [2],[8]. When the teacher feels comfortable with these basic techniques, he or she can take the child's relational needs into account and let them guide his/her actions. In case the teacher feels like the child has difficulty expressing his/her emotions, the teacher can label his/her feelings more frequently to give a voice to the child's emotions. In the 2nd component, Rule-Game, the sessions are teacher centred. The teacher chooses the activity or the game, and the child has to follow the teacher´s lead. Moreover, the teacher practices skills to improve child behavioural adjustment and reduce externalizing problem behaviour - EPB, such as giving clear commands, introducing rules. If the child disruptive behaviour persists, the teacher can make use of time-out, but it is important that the sessions remain a positive time spent together [13], [14].

During the period of 2018 – 2019 in every participating country were recruited pre-schools and chosen the children with EPB. In every class of pre-school group parental

consent to participate in the intervention part was requested for the selected pre-schooler.

At the start of each intervention component, the consultant provided training to the teacher. These training sessions were designed to (a) introduce the teachers to the Playing-2-gether skills, (b) help solving practical problems, such as finding a teacher for supervision of the other children during the sessions, finding a place and time for the sessions during the school day, and (c) inspire teachers to apply the Playing-2-gether skills in the sessions and in the classroom. In the fourth week of each of the intervention components, a consultation took place, including a recorded observation of a Playing-2-gether session, followed by a video-feedback session with the teacher. Consultation and performance feedback have been shown to improve the outcomes of school-based interventions beyond those achieved through instructional workshops.

Beyond the results the project generates following results:

Better outcomes for pre-schoolers. Recent research has shown the importance of the teacher sensitivity for young children´s current and later academic, behavioural and socio-emotional development [13]. Moreover, teacher sensitivity has been found to have compensatory effect for the development of at-risk children (e.g., children from disadvantaged home backgrounds [11].This project aimed to improve recognisability of effective teacher-child interactions as a basis for inclusion for all preschool teachers also for teachers who focus on teaching at-risk children.

Offering pre-service and in-service preschool teachers possibilities for professional development in matters relating to teacher sensitivity as a basis for inclusion in the classroom, which are fundamental basics for providing high quality early childhood education. By practicing in co-teaching and video feedback, teachers are professionalized to take the role of Playing-2-gether ambassador for other teachers.

Professionalization of the participating staff within and beyond the partnership – offer to experience intense international cooperation, to overcome intercultural and language differences (e.g., clarification of the concepts “teacher sensitivity”, “inclusion” in different educational systems) and to improve their skills in distance teaching and learning via MOOC [4]. Moreover there is an opportunity to integrate the Playing-2-gether MOOC into the own curriculum, as the MOOC is open access. The staff of the partner pre-schools and other participating pre-schools gets unique opportunities to professionalize with the whole team via a broad supportive international network, which fits within the priority of “intercultural education and lifelong learning.” Current challenges in European education (e.g., refugee crisis, super diversity) will be tackled better when European counties cooperate, think together and learn from each other on how to provide high quality early childhood education for all.

Strengthening of existing cooperation and relationship among the partner university colleges of teacher training and teachers of the participating schools. Teacher trainers will coach both pre-service and in-service teachers in the professional learning communities.

CONCLUSION

The project activities showed that the Playing-2-gether intervention reduced teacher-child conflict and child externalizing behaviour, and thereby contributes to the empirical evidence on two component interventions targeting teacher-child interactions to decrease child externalizing problem behaviour. Additionally, it is also an approach to shed some light on the (differential) contribution of a relationship-focused and a behaviour management-focused intervention component in the effects of two-component teacher-child interventions. The results showed that a first, relationship-focused intervention component, in itself, produced positive effects on child externalizing problem behaviour, closeness, and conflict. To further disentangle the unique effects of both components, future research should reverse the order of the intervention components and/or compare the effects of two-component-interventions with one-component-interventions. Moreover, future studies are strongly recommended to include intermediate assessments to gain more insight in what happens during the intervention.

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POSSIBILITIES OF IMPLEMENTATION OF ONCOLOGICAL PREVENTION IN HEALTH EDUCATION IN ELEMENTERY SCHOOLS IN THE CZECH REPUBLIC

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ABSTRACT

Neoplastic diseases are among the most frequent chronic non-communicable diseases. In the Czech Republic, every year over 95,000 malignant tumours are diagnosed and over 25,000 patients die as a result oncological diseases despite the fact that their onset is largely affected by lifestyle. After cardiovascular diseases, neoplastic diseases represent the most frequent cause of death. For this reason, it is very important to know the basic information about this issue in order to prevent the disease and reduce the number of oncological patients. The family and the school play a major role in primary prevention of oncological diseases. Health education is a key subject that can have a major impact on health literacy among the population and reduction of the prevalence of oncological diseases susceptible to lifestyle. The text presents the results of an analysis of a health education textbook and the Framework educational programme for elementary education. It also describes materials that can be used in teaching oncological prevention, but these are designed only for primary school or contain only some topics. The key message of the paper is the presentation of a methodological material aimed at teaching of oncological prevention in lower secondary schools and the partial results of its practical verification.

Keywords: Oncological diseases, prevention, Framework educational programme for elementary education, textbooks, health education, methodological material

INTRODUCTION AND THEORETICAL BACKGROUND

The most frequent neoplastic diseases in Czech Republic include the following [8]: skin cancer, prostate cancer in men, breast cancer in women, colon and rectal cancer, and lung cancer.

In the Czech Republic, the three following screening programmes are in place that focus on oncological diseases: breast cancer screening (from 45 to 69 years mammography examination once every two years), cervical cancer screening (from 15 years cytological and colposcopic examination of the cervix), colon and rectal cancer screening (from 50 to 54 occult bleeding test once a year, from 55 years once every two years or once every 10 years colonoscopy screening).

In the Czech Republic, the colon and rectal cancer screening programme is joined by only 30 % of the population, while the desirable number of participants is 45 to 65 % (70 to 80 % can be achieved by personal invitations); the cervical and breast cancer screening programme is joined by 70 %. In January 2014 in the Czech Republic, a personal invitation programme started that focused on those who are in the risk age group and so far have not undergone a screening programme [5].

In the Czech Republic there are several organizations, campaigns and projects aimed at oncological prevention. The best known organizations include League Against Cancer [4], the Masaryk Memorial Cancer Institute [6], web portal for example Linkos [5], and campaigns aimed especially at communicating information about for example breast or testicular self-examination or the significance of preventive gynaecological examination.

The primary prevention of oncological diseases should start in the family and elementary school. In elementary schools in the Czech Republic the most important subject focusing on health is Health education. The health education curriculum is addressed by Hřivnová [2] and Mužíková, Mužík [7].

OBJECTIVES

The main objective of the paper is to present a methodological material aimed at oncological prevention intended for elementary (and secondary) school teachers, the application of which leads to the implementation of the topic in elementary schools and contributes to increased health literacy. The issue of cancer prevention tends to be neglected in elementary schools. Hřivnová [2] states that one of the topics absent in Health education is the prevention of chronic non-communicable diseases including oncological diseases. By means of practical teacher training, the authors of the present paper investigated the needs of health education teachers and these needs were used to develop a methodological material aimed at oncological prevention in schools. In many cases, the school is the only source of this vital information. Particularly the health education teacher should be the one to inform students in a sufficient and relevant way about these diseases and to have a positive impact on students and improve their preventive behaviour.

METHODS AND RESEARCH SAMPLE

During the first stage of the research, an analysis of a health education textbook [3] intended for lower secondary schools was performed.

The authors also performed an analysis of the Framework educational programme for elementary education [1] and the inclusion of the issue.

In the third stage of the research the authors focused on an analysis of available materials on oncological prevention intended for teachers.

The authors of the present paper created the methodological material on oncological prevention entitled "*We're not afraid of cancer or prevention as a doorway to health"*[9]. The authors implemented the methodological material in an elementary school and verified its effectiveness by means of a pretest and posttest. The testing

included 33 pupils from two classes of grade 9. The test was designed to cover all issues contained in the methodological guidebook – 23 questions on risk factors, primary and secondary oncological prevention, self-examination, information resources.

RESULTS AND DISCUSSION

The textbook is Výchova ke zdravému životnímu stylu [3]. The issue of neoplastic disease prevention is not specifically included in the textbook; it only uses the term "chronic non-communicable diseases", but no specific chapter is devoted to these diseases. As far as general prevention is concerned, the textbook includes a chapter on nutrition, harmful effects of smoking and alcohol consumption. The analysis of the textbook suggests that the themes are not specifically linked with neoplastic diseases and their prevention. Insufficient attention is paid to this issue, or more precisely, the issue is absent.

In Framework educational programme for elementary education [1] is the issue included in the educational field Man and health, educational area Health education, theme Healthy lifestyle and health care (protection against chronic non-communicable diseases and injuries), Health value and promotion (health promotion and its forms), p. 95-96.

The issue of oncological prevention in terms of supporting a healthy lifestyle is addressed by Žaloudíková and Hrubá, whose methodological publications *Normální je nekouřit I–V* [12, 13, 14, 15] focus on primary school. Oncological prevention is available for teaching younger pupils, but a didactic transformation of the issue for lower secondary schools is absent from a comprehensive perspective.

The oncological prevention material "*We're not afraid of cancer or prevention as a doorway to health*" [9] is intended for lower secondary school teachers, but can also be used by secondary school teachers.

The material proposes 10 units. The themes of the units are as follows: Oncological diseases, Prevention of oncological diseases, Colon and rectal cancer, Breast cancer, Cervical cancer, Testicular cancer, Skin cancer, Lung cancer, the European Code Against Cancer, and Where to find information about oncological diseases. Each unit provides a theoretical insight into the issue, lesson plan, worksheet, worksheet key for the teacher, and additional activities. An important part of lessons plans are applications – home tasks, the purpose of which is to educate parents, friends and grandparents through students and in this way increase their health literacy in the area of oncological prevention. The lesson plans are designed in an interesting, enriching and varied way and each lesson places an emphasis on a diversity of tasks and activities.

The methodological material was supported by the League Against Cancer in three versions: printed publication, CD-ROM and online – pdf [9].

An analysis of the pretest and posttest suggests a significant increase in the number of correct answers. After the implementation of the methodological material, almost all items had a majority of correct answers. The text below analyses only those responses from the pretest and posttest that related to the age group of the respondents.

In the pretest, the question on risk factors included answers such as: alcohol consumption (6 %), low level of physical activity (3 %), stress (6 %), bad lifestyle (9 %), UV radiation (6 %), and inheritance (12 %). 30 % of pupils did not answer the

question on risk factors at all. The posttest suggested increased awareness about risk factors: smoking 94 % (39 % in the pretest), unhealthy diet 76 % (15 % in the pretest), and alcohol consumption 42 % (6 % in the pretest). After taking the oncological prevention course, some other risk factors were suggested, albeit with a smaller percentage (obesity, solarium, unprotected sexual intercourse, promiscuity, sexual intercourse at a young age, irregular visits to the gynaecologist, late pregnancy). The respondents were also aware of internal factors that cannot be affected such as inheritance, age, and gender. Interesting results appeared in items relating to testicular and breast self-examination. Before the oncological prevention course, 85 % of the pupils were not aware of testicular self-examination or its procedure. In the posttest, 94% of the respondents suggested that they knew the procedure of testicular self-examination. At the beginning of the research study, 82 % of the respondents were not aware of breast self-examination; after the oncological prevention intervention a total of 85 % of the pupils believed that they knew how to perform breast self-examination. Every woman should undergo a regular preventive gynaecological examination once a year. In the pretest, most of the respondents (45 %) indicated an interval of preventive examination twice a year; 12 % suggested once every two years, and 6 % of the pupils did not answer this question (36 % of the responses were correct). The posttest suggested an increase in awareness to 88 %. 39 % of the pupils in some way informed others about oncological prevention and the information was passed on to other people. The pupils informed their family and friends about the risk factors (especially smoking and poor diet), preventive examinations, colon and rectal cancer, breast cancer, cervical cancer, lung cancer, breast and testicular self-examination. After the intervention 61 % of the pupils tried to eliminate the risk factors from their lifestyle [10].

The results mentioned above describe the verification of the methodological material. The results suggest a clear increase in pupils' awareness concerning the significance of the issue, transferring information to other people, and an increase in the number of pupils who try to eliminate risk factors and behave in a preventive manner. This confirms the effectiveness of the methodological material aimed at oncological prevention [10].

In the Czech Republic, the colon and rectal cancer screening programme is joined only by 30 % of the population, while the desirable number of participants is 45 to 65 % (70 to 80 % can be achieved by personal invitations); the cervical and breast cancer screening programme is joined by 70 % [5].

The authors of the paper believe that including oncological prevention in elementary schools, increasing pupils' awareness about oncological prevention, and changing their beliefs about the significance of oncological prevention may lead to spreading of the basic information among the population, which may result in an overall increase in health literacy not only of pupils but also their parents, grandparents and friends.

CONCLUSION

Hřivnová [2] emphasises themes that are absent in Health education, including the prevention of chronic non-communicable diseases. Following the results of the implementation of the methodological material, consultations with teachers and discussions with teachers during the practical teacher training, the authors decided to build on the methodical material We're not afraid of cancer and at the moment are

finishing another methodological material aimed at a comprehensive system of prevention of chronic diseases (except oncological diseases; i.e. diabetes, cardiovascular disease, osteoporosis, dental caries). This new material will also be subject to practical verification and will be disseminated among elementary (and secondary) school teachers.

The dissemination will take place through the Health education methodological portal and all schools involved in the Health promoting schools network will be informed [11]. At present, the Faculty of Education, Masaryk University places a great emphasis on professional and methodological training in the area of prevention of chronic non-communicable diseases in future health education teachers, which results in ideas about changing the concept of some professional courses (e.g. Didactics of health education, Current issues in health education) and also the state final examination.

We believe that strengthening of the role of Health education in elementary schools may have a strong impact on an increase in health literacy among the citizens of the Czech Republic and in the future may lead to a decrease in the prevalence of chronic non-communicable diseases.

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PRATICAL TRAINING SYSTEM IN PEDAGOGICAL EDUCATION: STUDENTS' OPINIONS

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ABSTRACT

The State Standards of Pedagogical Education in the Russian Federation envisage the core component of school-based experience for pedagogical students. The experience falls into obligatory and optional components and is organized throughout the whole course of studies. The paper describes the system of school-based experience in a selected Pedagogical University where all students are enrolled in the programs with double majoring. The methodology applied includes case study, evidence-based education research and meta-analysis. Meta-analysis is implied to study the relationship between the amount and inventory of school-based experience activities and the students' readiness to teach. Data are gathered by means of observations and conversational interviewing. The research sample consists of students trained in undergraduate programs. The obligatory part of the school-based experience system consists of "the passive experience" and two series of "the active experience". The optional part of school-based experience envisages the choice of working in summer camps for school students. Each component of the school-based experience system is described. Students' opinions on the quality of school-based experience are shown and discussed.

Keywords: practical training, pedagogical education, obligatory and optional practical training

INTRODUCTION

The State Standards of Pedagogical Education in the Russian Federation envisage the core component of practical training in the form of school-based experience for pedagogical students. The State Standard no 1426 issued 04.12.2015 [6] consists of three basic components, the second is "Practical training". Undergraduate students of the second, third, fourth and fifth year are taught on the basis of this State Standard.

The new Decree "On the Approval of the Federal State Standard of Higher Education – Magistracy. Direction 44.04.01 Pedagogical Education" declares two parts of practical

training: educational practice and Internship [4]. Educational practice envisages the following kinds of practical training: projecting and technological practice, research practice. Internship consists of pedagogical practice, technological practice, research practice.

The issues of practical training and school-based experience have been studied in pedagogical literature [1] [8], [9], [10].

This paper aims at answering the research questions: *1) What is the system of practical training and school-based experience? 2) What is the impact of the type of practical training on students' readiness to perform the functions of the teacher?3) What is the relationship between the amount and inventory of school-based experience activities and the students' readiness to teach? 4) What is the quality of school-based experience in students' opinions?*

RESEARCH METHODOLOGY

To study the system of practical training and school-based experience case study, evidence-based education research and meta-analysis have been applied.

Case study has allowed selecting a university, training students in pedagogical programs. The Teacher Training University is licensed and accredited in the Russian Federation. It is a Pedagogical University typical of Teacher Training higher schools in Russia. The University educates teachers of all school subjects.

Evidence-based education research and meta-analysis is the basic research method in the paper, where "evidence comes from randomized controlled trials" [2]. Meta-analysis envisages comparisons integrated into a single curve showing the relationship between the amount and inventory of school-based experience activities and the students' readiness to teach.

Data collection techniques are *conversational interviewing and participant observation*. Data sets in the research are obtained from students' opinions about the effectiveness of practical training and school based experience and observation of teachers, professors engaged in pedagogical students' practical training. The respondents are undergraduate students (n=104).

SAMPLE

To study the students' opinions on the quality of practical training and school-based experience eight groups of respondents (n=104) have been interviewed. The sample consists of university students, studying in undergraduate teacher training programs: senior undergraduate students (n=75), junior students (n=29).

The students come from the Ural region. Since the university is specializing in pedagogical training and humanitarian education, the majority of respondents are studying to be teachers in the Humanities (n=88). The University selected for the research also includes Faculty of Mathematics and Physics. Consequently, to make the sample representative students majoring in Science (n=16) have been invited to join the research.

To obtain additional assessment of students' readiness to perform teacher's functions professors and school teachers engaged in students training (n=5) were asked to share opinions.

THE STUDY NARRATIVES

The first part of the research was aimed at answering the research question *What is the system of practical training and school-based experience?*. It envisaged the description of the system of school based experience in a given pedagogical higher school on the basis of case study.

The school-based experience system of the university in question consists of the obligatory part and the optional part. The system of school based experience includes the following types of school-based experience: Educational practice and Internship. Educational practice includes the following types of practical training:

1) practical training in the major subject,

2) passive pedagogical school-based experience (lesson observations, extracurricular work observations),

3) research practice.

Internship consists of the following types of practical training:

1) practical training in summer camps for children (corresponds to "technological practice" in the State Standard [4]),

2) school-based experience as a teacher of a subject – the first major and the second major – (corresponds to "pedagogical practice" in the State Standard [4]).

Educational practical training in the major subject consists in doing practical tasks beyond the frames of the program. E.g., pedagogical students majoring in foreign language (FL) teaching might do audio-courses; do tasks from language portfolio, etc. Students have this type of practical training in the first and second year. This type of practical training is obligatory.

Passive pedagogical school-based experience might have different forms. Students go to school one day each week to observe lessons and extracurricular activities, to learn how to decorate classrooms with visualization, help class mistresses and class masters to engage pupils in games in the break, etc. Pedagogical students have "passive pedagogical school-based experience" in the second year. This type of practical training is obligatory.

Research practice is the time spent on doing a research at school; writing research papers, Bachelor's theses, Master's dissertations. It is organized for senior students and lasts for two weeks. This type of practical training is obligatory.

Practical training in summer camps for children is the part of practical training to teach pedagogical students technology of extracurricular activities organizing. It lasts four weeks and envisages three options for students: working in school summer camps (in the city), working in summer camps out of town (in the region), working in all-Russian summer camps ("Artek", "Orlenok" etc.). This type of practical training is optional. Nevertheless students are encouraged to participate.

School-based experience as a teacher of a given subject is organized four times in the course of teacher training. Two periods of school-based experience are aimed at training students to teach the first major subject (e.g., students work as teachers of Physics). The other two periods of school-based experience are aimed at training students to teach the second major subject (e.g., students work as teachers of English). This type of practical training is obligatory.

The whole trajectory of practical training is s follows:

1) Educational practical training in the major subject,
2) Passive pedagogical school-based experience,
3) Practical training (none, one or several) in summer camps for children,
4) School-based experience 1 as a teacher of the first major subject,
5) School-based experience 1 as a teacher of the second major subject,
6) School-based experience 2 as a teacher of the first major subject,
7) School-based experience 2 as a teacher of the second major subject,
8) Research practice.

FINDINGS

The data for the second research question *What is the impact of the type of practical training on students' readiness to perform the functions of the teacher?* have been obtained from conversational interviewing. Students were asked to assess the impact of the type of practical training on their readiness to teach (to perform all the functions of the teacher proclaimed in the Professional Standard of Pedagogue [5]). Quantitative values of the types of practical training type impact have been determined: the high level is 3 points; the average level is 2 points; the low level is 1 point. Educational practical training in the major subject average was assessed by the students as 2.1; Passive pedagogical school-based experience was assessed by the students as 2.3; Practical training in summer camps for children average was assessed by the students as 1.3; School-based experience 1 as a teacher of the first major subject, average was assessed by the students as 2.8; School-based experience 1 as a teacher of the second major subject average was assessed by the students as 3,0; School-based experience 2 as a teacher of the first major subject 1 average was assessed by the students as 2.8; School-based experience 2 as a teacher of the second major subject 1 average was assessed by the students as 2.7, Research practice average was assessed by the students as 2.4.

The data for the third research question *What is the relationship between the amount and inventory of school-based experience activities and the students' readiness to teach?* have been obtained from participant observation. Professors and school teachers engaged in students training (n=5) were asked to assess students' readiness to perform teacher's functions after each type of practical training. Evidence-based education research and meta-analysis [3], [7] has been implemented. Educators' comparisons have been integrated into a single curve showing the relationship between the amount and inventory of school-based experience activities and the students' readiness to teach.

The procedure consists in pedagogues' assessment of students' progress in competences necessary for performing functions of a teacher after teach type of practical training. Practical training is aimed to master two competences; each of them is subdivided into knowledge, skills and techniques.

The competence called '"the ability to prepare texts of professional and socially significant content" is subdivided into three components:

Nr 1: "knowledge of FL lexical units and grammar peculiarities",

Nr 2: "skills to process and transfer information in a FL",

Nr 3: "techniques to edit texts of professional and socially significant content".

The competence called "readiness to implement educational programs in subjects in accordance with the requirements of educational standards" is subdivided into three components:

Nr 4: "Knowledge of theoretical foundations of teaching a FL as a means of communication, education of students",

Nr 5: "skills to effectively build the learning process in schools of various types",

Nr 6: "techniques of analyzing FL learning KITs with the aim of their rational use".

Consequently, practical training is to influence six structural components of competences. Teachers were asked to assess each component of competences based on the quantitative values ranging from 1 to 10, 10 being the strongest degree of mastering. The total score of mastering both competences, consequently, varies from 0 to 60 points. The average score for students graduating from the University (n=43) after each type of practical training was marked to make a curve (Fig 1).

Fig 1. The relationship between the amount and inventory of school-based experience activities and the students' readiness to teach

The same evaluation technique has been applied to answer for the fourth research question *What is the quality of school-based experience in students' opinions?*. Data have been obtained from conversational interviewing. Pedagogical students graduating from the university were inquired if they felt well prepared, how they assessed the quality of school-based experience. Students graduating from the University (n=43) were asked to assess their competences (the above mentioned components (nr 1 – nr 6) of competences) after all types of practical training. Each component was assessed from 1 to 10. The average score given by the students has been 57 (while the score obtained from educators' participant observation is 59).

DISCUSSION

The last research question *What is the quality of school-based experience in students' opinions?* has resulted in two different values obtained from teachers (59 out of 60) and students (57 out of 60). This can be interpreted as students' cautiousness in self-esteem. Students are nervous before being employed and starting their career. While university staff is convinced in students' readiness to teach and meet the requirements of schools they are going to be affiliated with. This discrepancy is not crucial, the difference is minimal.

The research question *What is the impact of the type of practical training on students' readiness to perform the functions of the teacher?* has shown interesting dependences. All school-based experience types have contributed to competences development. School-based experience 1 and 2 in both majors has contributed most. This means that students are more focused on developing competences connected with teaching than other kinds of competences. E.g., students evidently underestimate competences connected with research and extracurricular activities. This can be explained by the fact that the State and the "customers" (parents, school students) assess teacher's work from the point of view of academic results of students. Consequently, students are targeted to this aspect of activities more and appreciate experience gained in this aspect stronger.

The results of the research question *What is the relationship between the amount and inventory of school-based experience* show that teachers-to-be are convinced in the necessity of all types of practical training.

CONCLUSION

The paper aimed at answering four research questions. The answer to research question 1 – *What is the system of practical training and school-based experience?* – has been obtained from on the basis of case study. The school-based experience system consists of practical training in the major subject, passive pedagogical school-based, research practice, practical training in summer camps for children, school-based experience as a teacher of a subject.

The answer to research question 2 – *What is the impact of the type of practical training on students' readiness to perform the functions of the teacher?* – has been obtained from conversational interviewing. The most effective types reported by the students were school-based experience as a teacher. The second important in students' opinion were educational practical training in the major subject, passive pedagogical school-

based experience and research practice. Least effective was practical training in summer camps for children.

The answers to research questions 3 and 4 – *What is the relationship between the amount and inventory of school-based experience activities and the students' readiness to teach?, What is the quality of school-based experience in students' opinions?* – have been obtained from conversational interviewing and participant observation. Both students and university teachers have reported students' readiness to perform teacher's functions.

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PROBLEMS IN THE EDUCATION OF PUPILS WITH SPECIAL EDUCATIONAL NEEDS

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ABSTRACT

The possibility of attending a regular classroom close to home, having sufficient support from the school and creating the conditions for a full-featured development should be a matter of course for equal inclusion in society. In Slovakia, there are no optimal conditions for the education of children with different needs in mainstream education. The authors of the article describe the issue of inclusion of children with special educational needs which has been a topical topic for several years, not only in pedagogical, but also social and political discourse. They point out that in Slovakia there are still many pupils with different disabilities, they are educated segregation, either in special schools or in special classes with other pupils. The inclusion of children with specific needs in mainstream schools is accompanied by material but also other obstacles, including personal conditions. Based on the questionnaire research, the paper analyzes problems in the area of support of education of pupils with special educational needs in Slovak schools from the perspective of teachers and directors of primary and special primary schools. The results of questionnaire surveys indicate the multidimensionality of problems that accompany not only the inclusion process, but primarily the process of integrating children with diverse needs into mainstream schools.

Keywords: inclusive education, special educational needs, support options, primary school, teacher, director

INTRODUCTION

The access to the common class in the vicinity of the child's home, sufficient support from the school and state, conditions for optimal development, equal access to quality education, and the chance to blend into society – these are the attributes of inclusive education. Inclusive education is based on the presupposition that each child is unique and has individual educational needs. Diversity is perceived as natural, something that can be enriching. The basic idea of inclusion is to help every child achieve their individual best. Inclusive education draws from the basic principles of human rights: all people are equal and have equal rights. This is considered the key to understand the importance of and need for inclusive education. Through inclusive education, basic educational goals are achieved in terms of children's rights. However, major

deficiencies persist in the area of disadvantaged children education in Slovakia. It opens the discourse on stripping children of their right to equal access to education.

EDUCATION OF PUPILS WITH SPECIAL EDUCATIONAL NEEDS IN SLOVAKIA

In Slovakia, an explicitly declared requirement for inclusive education is not present. Only references can be found which have been imported by supranational politics. Moreover, the necessity of inclusive education has not been proved by research, only idea-based arguments are presented. Vančíková et al. [1], claim that: *"inclusive education is not perceived as a social necessity, and there is little probability that the public policy makers will define it. The mind-set of Slovak citizens is in conflict with the idea of inclusion and as are sult, introducing inclusive education requires considerable political courage."* In other words, it can be stated that today's Slovak mind-set prefers exclusion in its broadest sense. In turn, the successful introduction of inclusive education in Slovakia requires a change in the population mind-set. In reality, there are groups of children and pupils who do not have equal access to education. It has a negative impact not only on the children and pupils, but also on their families. They are denied anequal chance to start their life and become a part of the common education system. Although the need for inclusive education is widely discussed, the reality in Slovak schools is different. Today's educational system is not ready for the growing diversity at schools; optimal conditions for teaching children and pupils with different educational needs are not provided in the educational mainstream. The first obstacles are encountered as early as kindergarten. There are several reasons why the number of children in Slovak kindergartens is low. One of the main is the current low capacity of the existing kindergartens. Another of the reasons is that the legislation allows the kindergarten to reject a health disadvantaged child if the personal, spatial, or material capacities are not provided. International data show that more than half of the health disadvantaged children in Slovakia are denied the opportunity to attend a kindergarten.], In the EU, the average kindergarten attendance of children (aged from 4 years to the start of primary school) is 94%, while in Slovakia it is only 77% [2]. Data provided by the Association of Early Intervention Providers and Supporters indicate there are approx. 14,000 health disadvantaged children from 0 to 7 years of age [3]. Approximately 5,500 children are of kindergarten age, but the number of actual kindergarteners is much lower. To compare, in the 2018/2019 school year, 2,221 children diagnosed with a health disadvantage attended kindergartens. It means, that approx. 60% of health disadvantaged children do not attend a kindergarten currently [4].

One would seek help from the state in vain, as it does not participate in providing educational conditions in the kindergartens. Not do the arguments presented by OECD reports (2013, 2012, 2010) or scientific studies (SAHA, 2016; HBSC, 2014) seem to help, although they have been warning that prevention and intervention is necessary as early as pre-school age for quite some time. It would prevent a large number of problems. Therefore, the question whether children and pupils with special educational needs should be taught in special schools must be discussed in the pedagogic, social, and political discourse. According to the results there are 68,304 pupils with special educational needs (SEN) in Slovak kindergartens, primary and high schools. Approximately half of them are integrated in the common education system. The other

half attends special schools and classrooms [5]. In 2018, 6.28% of children were attending special schools. The European average is 2.3%. To explain, it does not mean that there are significantly more children with SEN in Slovakia – it means that common schools are unable to accommodate the individual needs of health disadvantaged children [6]. According to Hapalová [7], if a child starts attending a special school or classroom, there is little chance they will switch to the education mainstream. In Slovakia, special schools represent segregated education instead of temporary child support. Despite persisting myths about children achieving better results if they undergo special education, the research has repeatedly shown the exact opposite. International research proves that inclusive education is the right way to give every child the chance for education: inclusive education is more efficient than segregation. In their research, Kochhar, West, and Taymans discovered that the benefits of inclusion on different levels of education significantly prevail over the inclusion-related difficulties. It was shown that introducing inclusive education provides benefits not only for the children and pupils with SEN also others can benefit from it. The research also shows that all children can benefit from individualised approach and specific educational strategies [8]. A large meta-analysis, which processed 48 research studies performed on almost 4,800,000 primary school pupils and high school students from different countries showed that the presence of disadvantaged children does not have a negative impact on the study results of the non-disadvantaged children. They continue achieving the same or moderately better results than their peers in homogeneous classrooms [9]. Regardless of the type and degree of disadvantage of their classmates. No deterioration in study results was observed on any of the examined levels of education in any of the countries [10]. However, it must be emphasized that not even the best practice examples from abroad can help us, unless they are introduced in Slovakia with the local context and the needs of children and pupils in our schools in mind. Integrating SEN children and pupils to common schools is accompanied by multiple obstacles, including the personal ones. In Slovakia, there is a lack of assistants, special teachers, and psychologists.

RESEARCH METHODOLOGY

In this part of the article, we refer to the results of a survey performed within the *To dá rozum project,* which aims to achieve a complete change in the education system. The survey was performed using the questionnaire data collection method in 2018. The goal was to identify the following: *„What are the biggest issues in teaching children with special educational needs in their respective schools"*

The questionnaire survey was performed on a representative sample consisting of the participants of kindergartens, primary and high schools across the whole of Slovakia. 202 primary school headmasters, 106 specialised employees, 214 teaching assistants, 1,396 primary school teachers, and 145 educational counsellors were questioned. The questionnaire was anonymous. At first, the respondents stated basic information: age, gender, region, and establishing institution. The research sample was categorised based on age, since this parameter may be of importance in further research and argumentation. Therefore, six age groups were specified: 1) less than 25 years, 2) 25–35 years, 3) 36–45 years, 4) 46–55 years, 5) 56–65 years, 6) over 65 years. The

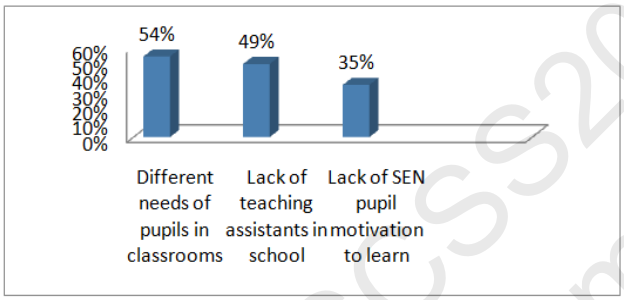
respondents answered multiple choice questions. The questionnaire was a closed item type.

RESEARCH RESULTS AND INTERPRETATION

In the *To dá rozum* questionnaire survey, several obstacles faced in child education were identified. They are related mainly to insufficient personal capacity, expert, material, and financial issues. The biggest issues related to supporting SEN children in their respective schools, the respondents referred to different needs of individual children and pupils in a single classroom, lack of specialised employees and teachers in schools. Another obstacle was the high number of children and pupils in classrooms. This high number is one of the reasons why the conditions allowing for an individual approach towards each child are unsuitable.

As can be seen in the chart below, the headmasters stated that they perceived the differences in pupils' needs within the same classrooms, lack of teaching assistants and specialised employees in schools as the biggest issues.

Chart 1 The biggest issues in supporting the education of SEN pupils as seen by the headmasters



Source: To dá rozum questionnaire survey 2018

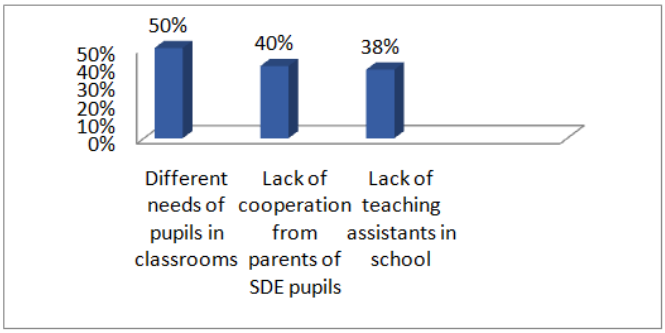
In the survey, the teachers views are the same as those of the headmasters. Their experience problems are in certain areas as headmasters. Percentages were similar. That means differences in pupils' needs within the same classrooms said 55%, lack of teaching assistants said 47% and lack of motivation in SEN pupils to learn as the biggest issues said 33%. At the same time, many respondents of state schools pointed out that it is necessary to provide financial and material support for educating SEN pupils.

The specialised employees stated that they perceived the lack of teaching assistants in schools as the biggest issue –without them said 55%, it is impossible to provide support services for SEN pupils, low motivation of SEN pupils to learn said 52%, and the diversity of their needs as the biggest issues said 45%.

In the survey, the educational counsellors stated that they perceived the differences in pupils' needs within the same classrooms said 71%, lack of teaching assistants said 66% and lack of motivation in SEN pupils to learn as the biggest issues said 60%.

The teaching assistants stated that they perceived the differences in pupils' needs within the same classrooms, lack of cooperation from the parents from the socially disadvantaging environment, and the lack of teaching assistants as the biggest issues.

Chart 2 The biggest issues in supporting the education of SEN pupils as seen by the teaching assistants



Source: To dá rozum questionnaire survey 2018

Based on these answers, it can be stated that most issues experienced by the respondents relate to insufficient personal and expert capacities. Diverse needs of children and pupils as well as the high numbers in classrooms disrupt the conditions for an individual teaching approach. It was assumed that the attitude of individual respondents and school managements and age would play an important role in educating SEN children and pupils. It was not confirmed. However, the analysis of teacher responses showed a nation-wide issue: the teachers are not trained to work with SEN children. They feel unprepared and unsure, and call for further education. The lack of financial support to fulfil the needs of pupils from socially disadvantaging environment and SEN pupils was also selected by respondents. The least selected items included lack of cooperation from the parents of pupils from the socially disadvantaging environment (minimum respondents) and the lack of methodological support for the teachers and teaching assistants. Only a fifth of the respondents think that their respective schools are ready to educate SEN children. Despite the persisting conviction about the suitability of segregating SEN children, most respondents from state schools think that children with diverse needs should be directed towards the education mainstream: Either by integrating them among other pupils in common classrooms, or by educating them in special classrooms [7].

CONCLUSION

As can be observed, educating disadvantaged children and pupils is one of the areas with persisting major deficiencies in Slovakia; currently, we are in the stage of integration efforts, but there is no actual inclusive education yet. The aim of this paper was to point out that many disadvantaged children in Slovakia are educated in segregation: either in special schools, or in special classrooms with other pupils. The questionnaire survey indicates the issues in the area of educating pupils with special educational needs in the Slovak schools based on the information collected from teachers, headmasters, specialised employees, teaching assistants, and educational counsellors. The results of the questionnaire survey point to the multidimensional nature of the issues accompanying not only the inclusion process, but the process of integrating children with different needs into common schools as such. As a priority the state should facilitate basic necessities for inclusion on anation-wide scale, only then the system measures can commence. To initiate a major change such as inclusive education,

a complex national strategy is necessary. Inclusive education should be viewed as the way to shape the satisfied people needed by this country.

ACKNOWLEDGEMENTS

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PROJECT-BASED LEARNING AND CULTURAL DIVERSITY

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ABSTRACT

Being one of the most multi-ethnic areas of Russia, Tatarstan is home to representatives of over 115 ethnic groups, including 8 nationalities, and a "bridge" of tolerance between different religious communities, nationalities, cultural backgrounds and people. Therefore, it is very important to construct a cultural interaction between different people where their needs should be recognized and united in terms of gender, race, belief, age, disability, and culture. The modern role of a language teacher in the educational process is being reconsidered. New targets and goals are set both for teachers and students. Student is no longer just the recipient of finished and completed information from the teacher, but the active learner through research and creative thinking. Thus, knowledge is the result of the student's learning experience, culture exploration, and the systematic investigation into materials and sources. A teacher should recognize the value of independent learning, guided independent learning, and the diversity of cultures and approaches in order to organize his/her lesson to create convenient conditions for everyone to learn. Thus, diversity is equal opportunities for students to receive education when a teacher knows that students come from different backgrounds in order to contribute and realize their potential. Language training, in this light, is seen as a non-breaking process of influence on the language, personality and culture. Language teaching should advance skills and abilities for interaction and cooperation and knowing foreign languages is a significant 'tool' of inseparable global integration. This paper is based on practical experience of using project-based learning strategies in the language classroom in order to respect and promote cultural diversity of Tatarstan.

Keywords: awareness, education, language teaching aims, a project-based learning, active learning

INTRODUCTION

Tatarstan is one of the most multi-ethnic areas of Russia. Representatives of over 115 ethnic groups live in the republic, including 8 nationalities, the number of which exceeds 10 thousand people: Tatars, Russians, Chuvashes, Udmurts, Mordovians, Maris, Ukrainians and Bashkirs. Tatarstan is a "bridge" of tolerance between different

religious communities, nationalities, cultural backgrounds and people. Thus, it is very important to construct a cultural interaction between different people where people's needs should be recognized and be united in terms of gender, race, belief, age, disability, and culture. Thus communication in culture, society, economy, social life, technology, and politics has become an integral part of modern society through dynamic and boundless process of globalization. For example, Voronchenko, Klimenko and Kostina emphasize the importance of resolving war and religious conflicts, keeping to peace policies, supporting ethnic minorities and cultural diversities [1]. In this perspective, the question about the modern role of a language teacher and his/her role in the educational process is raised where a close relationship between individual, culture and language is clearly seen and teaching is placed in a broader communication.

New targets and goals are set both for teachers and students. Teachers should take into account constructive, creative, educative and diverse approaches to language teaching. Furthermore, for successful teaching it is very important to be able to identify students' uniqueness in order to engage students from diverse backgrounds effectively and provide equal opportunities for all students to get knowledge. And students, in turn, must acquire such skills and knowledge that they can effectively apply in different situations on a qualitatively high level. That is, the student is no longer just 'the recipient of finished and completed information' from the teacher, but the active learner who actively learns through research and creative thinking. Thus, knowledge that learners set up and gain is the result of their learning experience, culture exploration, and the systematic investigation into materials and sources.

According to modern trends, teacher should recognize the value of independent learning, guided independent learning, and the diversity of cultures and approaches in order to organize his/her lesson to create convenient conditions for everyone to learn. Thus, diversity is equal opportunities for students to receive education when a teacher knows that students come from different backgrounds in order to contribute and realize their potential. Language training, in this light, is seen as a non-breaking process of influence on the language, personality and culture. Language teaching should advance skills and abilities for interaction and cooperation and knowing foreign languages is a significant 'tool' of inseparable global integration.

These days education in the bilingual environment has reached a new level of value and significance. Various forms of organization of education in the bilingual contexts could be clearly reflected in national and cultural features of the country. In this article we considered organization of academic environment and created active learning conditions for our bilingual multi-ethnic students through project based activities, which are rapidly gaining popularity and developing in many different fields [2].

Project-based learning (PBL) can be defined as a learner-centred pedagogy that involves students in investigations of real world problems or cases and organizes learning around projects [2, 3]. According to handbooks for teachers, projects are complex tasks, based on challenging questions or problems, that involve students in design, problem-solving, decision making, or investigative activities; give students the opportunity to work relatively autonomously over an extended period of time; and result in realistic products or presentations [2, 4, 5]. Obviously, there is nothing new in assigning projects to students. Yet, there are some requirements PBL must meet. Thomas outlines five main

criteria which are centrality, driving question, constructive investigations, autonomy, and realism [3].

As we can see from the definition above, projects may involve solving problems, which makes project-based learning very close in meaning to problem-based learning. In theory, they have many common features such as using active student-centered learning strategies, open-ended questions and challenges, teacher acting as a facilitator, promoting group work, student independence, inquiry and resorting to various sources to find information. However, some researchers define project-based learning as longer, more structured, related to real life and multidisciplinary.

Today, the potential of both project-based and problem-based learning is widely studied in terms of engaging cultural diverse students in various disciplines and moldering harmonious multinational states [6, 7, 8].

As Quartaroli and Sherman note, PBL enables teachers to help their culturally diverse students become successful in most of the areas of knowledge and skills identified as critical for 21st citizens: core subject/themes (global and cultural awareness; financial, economic, business, civic, health literacy); learning/innovation skills (creativity, higher order critical thinking, problem solving, communication and collaboration); information, media and technology skills; and life/career skills (flexibility, adaptability, application of knowledge, initiative and self-direction, social and cross-cultural skills, productivity and accountability, leadership and responsibility) [7].

According to the conclusions made by Voronchenko, Klimenko and Kostina in their research, project-based learning in international (multi-ethnic in our case) student groups generates high level respect and self acceptance combined with respect and tolerance towards a different nation (ethnicity) representative. Collaboration contributes to the creation of deep existential community of people, which is so important in contemporary globalizing society. Tolerance which is taught through PBL defines the further choice of cooperation strategies, respect for dissent instances, understanding different social phenomena. So, "project-based learning generates not only professional competencies, but tolerant culture of a person, who will be ready to positively change the world community" [8].

Within the framework of this paper, an academic group of students studying in Kazan Federal University was chosen to perform a project-based activity aimed at producing a poster and delivering a report on the topic "Museums in Kazan". The topic is chosen on purpose. As our university is located in the capital of the republic of Tatarstan, it is very popular among school-leavers from the cities, towns and villages of the republic as well as from other regions and republics of the Russian Federation and abroad. Therefore, academic groups are usually not homogeneous and may comprise people from different religious and ethnic communities, nationalities, cultural backgrounds. Thus, a project on Kazan museums can not only enhance students' language skills by practising English in a live environment, but also promote collaborative learning, nurture more cultural exchange and awareness and bring students from diverse cultures in working together towards a common goal. The citizens of Kazan were able to share their knowledge in a live environment, while those who had just moved to the city got an opportunity to acquire some new cultural knowledge and get familiarized with Kazan history.

As with PBL very little time is devoted to teacher-directed seatwork or whole-class discussions, students are to spend the majority of their time working on their own or in small groups. Teachers typically do not lead instructional activities, nor do they dispense resources, or present material to be learned. Students are supposed to find their own sources, conduct their own research, and secure their own feedback [4]. Thus, the students involved in performing the project activity were split into groups of four and had to choose a museum in Kazan from a recommended list. To produce a poster and a report, the participants were to gather information: 1) find some background information (e.g. some history, audience, etc.); 2) contact a person or several people knowledgeable and experienced in the chosen topic and interview them with their permission, or use secondary data. The final step was to analyze the information they got, make a poster and get ready to present it to their class. All group members were to participate in the interviews.

The process of work (main steps) should be illustrated with photos taken by students specifically for this task. The teacher should make it clear that photos downloaded from the Internet cannot be used for the task. Each photo should have a caption explaining what is happening. In the course of the task, students also learn how to obtain information observing the law: they must be instructed that interviews and taking pictures require a permission which should be obtained prior to the observation.

Students' involvement as well as their success in fulfilling the task depends on the correct allocation of duties. Each participant should clearly understand the scope of his/her responsibilities. Ideally, every group should comprise 4 participants:

1) the leader responsible for managing the work of the group;

2) a person responsible for finding background information about the chosen museum;

3) a person responsible for interviews;

4) a person responsible for the visual appearance of the poster.

Since the poster is a group product, students are recommended to plan their work ahead so that each group member has enough time to complete the task. Poster decoration should be done by the whole group.

The stage of assessment is also of great importance in PBL. It gives an opportunity to utilize in-depth assessments providing a more complete picture of students' progress and performance in addition to conventional tests [7]. Project-based tasks should have a well-developed set of assessment criteria, which students in their turn should be made familiar with prior to the task performance. The project under consideration can be assessed on content and completeness, language accuracy and overall presentation. The criteria are explained in the table below.

Table 1. Poster Assessment Criteria

	Content and completeness	**Language accuracy**	**Overall presentation**
86 - 100%	Complete and accurate information. Outstanding research, many interesting facts engaging a reader. Written pieces are well-structured and easy to follow. A properly compiled bibliography.	No grammar, spelling and punctuation mistakes. There may be occasional typographical mistakes. Authentic language, not a word for word translation from native language. Scientific terminology if used is explained in details and does not impede understanding.	High quality of pictures and design. The poster is consistent in layout. Clear spatial organization of the information on the poster. The poster is creative, neat and easy to read.
71- 85%	Complete and mostly accurate information. There is evidence of research. There are some interesting facts engaging a reader. Written pieces are well structured and quite easy to follow. A properly compiled bibliography.	Occasional grammar, spelling, punctuation and typographical mistakes which do not corrupt the message. Authentic language, not a word for word translation from native language. Some words are used incorrectly, but it does not impede understanding. Scientific terminology if used is explained.	High quality of pictures and design. The poster is mostly consistent in layout. Clear spatial organization of the information on the poster. The poster is easy to read, neat, has some evidence of artwork.
56- 70%	Slightly incomplete information with some inaccuracies. There is evidence of research. Facts do not add much interest. Some minor problems with the structure of written parts, which makes reading problematic. Some inaccuracies in bibliography.	Some grammar, spelling, punctuation and typographical mistakes, awkward sentences and phrases, which do not corrupt the message. Some words are not used correctly but it does not impede understanding. Scientific terminology if used is explained.	Average quality of pictures and design. The poster is more or less consistent in layout. Spatial organization of the information on the poster is illogical, which makes it difficult to follow the main ideas. There are some elements of creative approach. The poster looks a bit untidy.
30-55%	Limited and irrelevant information. Little evidence of research. Information presented is scholarly and does not add interest. Some problems with the structure of written parts which makes reading problematic. Multiple inaccuracies in bibliography.	Frequent grammar, spelling, punctuation and typographical mistakes, awkward sentences and phrases. Some words are not used correctly, which impedes understanding. Scientific terminology if used is explained.	Low quality of design. Pictures are indistinct and decorations are poorly done or even unfinished. Little consistency in layout. Spatial organization of the information on the poster is illogical, which makes it difficult to follow the main ideas. No elements of creative approach. The poster looks untidy.

0- **30%**	Very limited and mostly irrelevant information. No research. Information is too scholarly and does not add interest. Written parts are messy, which makes reading problematic. No bibliography.	Numerous grammar, spelling, punctuation and typographical mistakes, many awkward sentences and phrases. Many words are not used correctly, which impedes understanding. Scientific terminology if used is not explained.	Very low quality of design. Pictures are indistinct and decorations are poorly done or unfinished. No consistency in layout. Spatial organization of the information on the poster is illogical, which makes it difficult to follow the main ideas. No elements of creative approach. The poster looks untidy.

Subsequently, the research carried out for Project 1 prepares students for Project 2: an individual five-minute-long oral presentation "My Own Museum". Students were asked to think of a museum they may open or advance in their home town. This stage of work provides students with an opportunity to process the gathered data, use the findings of Project 1 and their own creativity and imagination to present their own well-structured project consisting of an introduction, the main body and a conclusion. The Oral Presentation task develops students' ability to communicate information in oral form supporting it with visual aids such as Power Point slides, posters, etc. The presentation should be followed by questions from the audience to give the students more freedom to practice unprepared speech and build up their confidence in public speaking.

Teacher may suggest following the steps below:

- Think of a name of your museum;
- Decide what will be your position in the museum (e.g. manager, guide, administrator, etc.) and what skills are required for that position;
- Think of the ways you could promote your museum;
- Think of possible obstacles you could have in attracting visitors and the ways you could avoid/tackle them.

Teachers often find it difficult to accomplish the overwhelming number of state and national standards within an academic year. As we see from the wide range of steps above, problem/project scenarios enable teachers to effectively incorporate multiple standards across many subject areas within one PBL experience. The concepts and skills involved are likely to be applicable in multiple contexts across numerous academic subjects [7]. Moreover, the steps/tasks may vary and can be easily tailored by the teacher for a particular topic, group of students, specific aim or language which the students need to practice (e.g. modal verbs, conditional sentences, personal qualities, etc.).

The work can be assessed according to the following criteria: 1. quality of the content; 2. ability to structure the material; 3. interaction with the audience using body language and eye contact and dealing with questions appropriately; 4. quality of visual aids.

The idea of active learning implies student's clear understanding of the assessment criteria and their involvement in the process itself. Learners usually don't tend to remember positive experiences of assessment and generally do not actively seek out opportunities to assess themselves or be assessed [8]. In most cases, the assessment

criteria used by teachers are based on so-called ‘tacit knowledge’ which may be self-evident for teachers, but not quite clear to students. Even when attempts are made to make assessment criteria more explicit to students, they are not always articulated clearly and may be often interpreted incorrectly [9]. Therefore, to clarify the required standard and raise students' awareness of their learning outcomes we suggest using a standardized feedback form, which may be either developed by the teacher or negotiated and decided upon together with the students in the classroom. A possible variant of a feedback form is presented in Table 2.

Table 2. Oral Presentation Assessment Criteria

		Comments
Content 25 %	Relevance	
	Evidence of research	
	Appropriateness of language	
Structure 25%	Introduction	
	Clear logical structure	
	Summary	
	Use of signposting	
Delivery 25%	Fluency	
	Voice projection and speech clarity	
	Pace	
	Body language	
	Eye contact	
	Dealing with questions	
Visual Aids 25%	Well designed visual aids	
	Well executed visual aids	

CONCLUSION

As a complex multidisciplinary and student-centred pedagogical strategy, PBL has several stages including allocation of duties, group work, presenting the results and assessment, where each of the stages is important and requires active work and responsible attitude from both sides: the teacher and the students. If all the requirements are met, PBL activities, especially in the field of foreign language learning, can serve as a highly useful teaching tool in a culturally diverse environment and foster interethnic and intercultural cooperation.

Ideas for projects can be diverse and can come from social and cultural issues. In our project we checked the following learning outcomes: carring out research using a variety of techniques and facilities; communicating in writing and orally; working in groups; producing a poster; delivering a presentation.

Generally speaking, the PBL activity discussed in this article enabled the teacher to secure equal opportunities for the learners representing different ethnicities and coming from various cultural backgrounds. The students were able to identify problems and goals, find relevant information, use their imagination and develop their creativity, boost their higher order thinking skills as well as media and technology, social and cross-cultural skills, work together towards a common goal, enhance their cultural

awareness and exchange, conduct their own research reflecting on both the process and the solutions and learn actively through this process.

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PROPOSALS FOR THE DEVELOPMENT OF KEY DIRECTIONS OF FORMING PROFESSIONAL COMPETENCIES OF BACHELOR'S DEGREE GRADUATES AS THE MOST DEMANDING SPECIALISTS IN THE DIGITAL ECONOMY

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ABSTRACT

The education and science system is among the priority areas for modernization and development of digital economy for the close future. It requires detailed consideration of the features of training specialists most demanding in the digital economy.

Currently, of particular interest is the definition of directions, profiles and specializations of students education, which will require special approaches and methods not only in terms of the organization of the educational process of bachelors, but also in terms of the implementation of educational technologies and innovations.

The article discusses the list of key directions to form professional competencies of bachelor's education, methodical recommendations and proposals to introduce the innovative educational technologies and individual trainings into the system of bachelor's education.

The proposals formed within the framework of the study will allow students to master a wider range of competencies. The educational trajectory chosen by students, based on innovative educational technologies, provides adaptation to the formation of human potential for the development of the digital economy in Russia.

Keywords: digital economy; innovative educational technologies; professional competences; individual trajectory.

INTRODUCTION

Currently, Russia has formed a list of professions and priorities for their development for the next five years. The prospects that need to be included in the development plans of organizations and the results that will need to be achieved in the near future to

implement the planned values are outlined. However, a detailed scheme of tools and levers by which the achievement of these indicators will be possible remains not fully developed. In particular, the legislative framework remains insufficiently developed, there are many unresolved issues in terms of legislative regulation of new technical solutions implementation and their mass use.

There are also many unresolved issues in the regulation of the technological side of most processes that implement a purposeful movement to the digital economy.

It is important to note that it is necessary not only to set goals and identify the desired results with the timing of their implementation. A very important task that ensures the success of achieving certain results is the technological process itself, which includes a specific set of levers, tools and methods that can significantly change the situation and introduce new tools, methods and approaches, implement a new methodology for solving certain tasks.

THE BODY

Focusing on the fact that in the near future there will be a need for "person-oriented" services, we can assume that the first place will be such professional competence that will develop creativity, invention, design, the ability to solve problems. This is exactly the list of qualities that cannot be incorporated into the program code.

There is no doubt that the current regulatory framework in Russia makes it possible to train specialists of a wide profile with a sufficient number of competencies that provide a very serious list of knowledge and skills. However, the new realities of economic development and, accordingly, the new needs of the labor market form the need for continuous revision of the set of competencies of future specialists. The indicator of demand for graduates in the labor market will soon come to the first position. And since it is the bachelor's degree graduate who is becoming the main driving link in the Russian labor market today, it is he who should have the optimal set of universal competencies that allow him to change along with the changing conditions around him.

Competence is a special type of knowledge organization that provides an opportunity to make effective decisions in a certain subject area of activity (including extreme conditions).

The professional competence can be understood as a generalized characteristic of the various qualities of the graduate, formed as a result of experience in this field, reflecting the existing experience in knowledge and skills, as well as the ability to self-development and solving new professional problems [1].

Today, professional competence determines the ability of an employee to perform certain tasks in accordance with specified standards. Thus, professional competence implies a certain ability to successfully act on the basis of practical experience, knowledge and skills in solving professional problems [6].

Professional competence of the graduate are the skills and abilities to solve problems in a certain subject area entrusted to him.

This category is also used in personnel evaluation. In this case, it is a list of qualities of the employee in a particular area.

In the system of management theory abroad, the concept of professional competence was first formulated in the system of situational approach. In this interpretation, the organization is understood as an open system that is in constant interaction with the external environment, and the management process includes four main macro-steps, the first of which is the formation of managerial competence of the head. It involves the mastery of controls that have proven to be effective in practice. Thus, from the point of view of the situational approach, the competence of the Manager includes the formed management skill set.

The following definitions of professional competences can be found in the works of British scientists:

- ✓ sufficient physical or intellectual qualities;
- ✓ adequate qualifications and abilities;
- ✓ ability to be qualified;
- ✓ ability to do something well or according to the standard;
- ✓ skills acquired through experience or training;
- ✓ the ability to be qualified and able to perform a certain role, taking into account knowledge, abilities, behavior.

The possession of competence in any field implies a mastery of three basic skills:

Educational and cognitive, providing the opportunity to learn new things, improving theoretical and practical knowledge. By reading the relevant literature and attending refresher courses, a person improves this parameter.

Information, developing which the employee finds, analyzes and processes the necessary information.

Communicative, establishing communication with the staff and customers of the organization.

Forming a model of professional competence, it is important to consider that it should include a set of knowledge and skills necessary to perform a particular job.

Considering the General approaches to the construction of models, it should be noted that they are of the following types: personal; social; organizational; administrative; technical.

When developing a particular model of professional competencies, it is necessary to take into account its main criteria: structuring; clarity and simplicity; adaptability to market requirements.

During the development of a new competence model, it is important to take into account the main stages of its formation, which should include the following items:

1. Definition of the list of possible competencies that meet the needs of the labor market and the realities of economic development. For each area of training developed its own model of competencies.
2. Formation of an expert group that determines the validity of the formed competence skills.
3. Analysis of information and formed results and proposals.
4. Elaboration of the main levels of the model that determine the key competence and the number of levels in which it is included.

5. Definition of quality requirements (skills) of the graduate. The adaptability of the competence qualities of the future specialist to the requirements of the market is analyzed.
6. Analysis of the developed model in test mode. Correction of defects made.
7. Implementation of a new competency-based training model.

Forming a model, of course, it is impossible not to pay attention to the key factors that determine its durability and adaptability to market requirements. The main of these factors is the reliability of the facts used in the process of building a model that reflect the real situation and development priorities, political and economic processes that accompany this development, forecast data, the reliability of which is not in doubt.

No less important is foreign experience, approaches and methods of which can also be used in the framework of building a competence model. However, this should take into account the features of the environment in which the model will be implemented for its compliance with the model taken as a sample.

Taking into account these factors will ensure the success of the model in the future, will allow to form and timely adapt curricula according to the requirements of the time.

American experts, defining the category of "professional competence", adhere to a personal approach, using the abbreviation KSAO: Knowledge; Skills; Abilities; Other characteristics.

It should be noted that the position of "ability" as well as the position of "other characteristics" is difficult to determine, and sometimes simply impossible. Experts' assessments on this issue may have serious differences.

Summarizing the understanding of functional and personal approaches to the justification of professional competencies, it should be noted that the "personal" approach determines with what own resources and what people can perform the work well enough, while the "functional" approach describes at what level and with what quality the employee should perform entrusted to him professional functions. Thus, the "functional" approach does not take into account due to what the result will be achieved: experience or knowledge, abilities or increased motivation of the employee - the main thing is that the work will be done at the proper level, what, in fact, is interested in any system of economic relations aimed at a high result.

The competence model of the University graduate, on the one hand, covers the qualification that connects its activities with the subjects and objects of labor, on the other hand, reflects the interdisciplinary requirements for the result of the educational process [1].

The methodical system of formation of professional competences of the graduate should include the following components:

- ✓ the task component that defines the objective of training graduate;
- ✓ informative, defining the content of professional training of the graduate;
- ✓ organizational, defining the forms and methods of work with the graduate;
- ✓ effective, determining the level of formation of professional competencies of the graduate.

For the successful implementation of the proposed methodological system, the organizational conditions for the formation of professional competencies are necessary, which are as follows:

- ✓ the presence in the school of the developed information-educational environment includes software tools for educational purposes, special software tools, mathematical packages, the resources of the Internet (educational websites, e-mail, chat, videoconference);
- ✓ modernization of methodical work of educational institution including high professional level of teachers, among them the existence of methodical base on the read disciplines relating to all three components of professional competences of the training of graduate, including methodical and educational manuals on the read disciplines;
- ✓ variability of methodical work taking into account the required level of professional competence of the future graduate, including the development and use of differentiated tasks, involving the preliminary diagnosis and consideration of previously identified levels of professional competence.

International experience shows that applied bachelor programs are designed to train professionals having competences both in the specific field of professional activity, and administrative - line managers, middle managers. They usually involve practice-oriented training and preparation of a diploma project dedicated to solving the production problem of the company, where the student has an internship. It is the practical focus that is their distinctive feature.

Table 1. Comparison of the parameters of applied and academic undergraduate

Characteristic	**Applied baccalaureate**	**Academic baccalaureate**
Final state certification	The diploma project is focused on solving the practical problem of a particular enterprise/industry	The diploma project has a theoretical, scientific focus
The content of the educational program	The content (the professional profile) is formed together with employers on the basis of the real requirements of the labor sphere	The content is formed mainly by the academic community
Forms and methods of teaching	The dominance of the project method in the workplace – the main requirement of this type of program	Dominance of the research-oriented project method

The main principle of training in applied bachelor programs is to provide students with the opportunity to test the suitability and level of their knowledge and skills in the workplace, participating in the performance of various tasks. Orientation to practical actions allows to master such general competencies as teamwork, willingness to make decisions, responsibility for the quality of work. Students develop independence, the ability to plan and organize their own educational and work activities, to lead other people. All this reduces the period of adaptation of graduates in the organization.

Thus, universities have a wide field of activity in terms of participation as a developer and, most importantly, the testing of new competencies required by the digital economy.

One of the conditions for the transition to the digital economy is the change of the paradigm of economic regulation to the innovation-stimulating regime.

The targets for training and education for the digital economy [4] are as follows:

1. To create the key conditions for the training of digital economy personnel.
2. To provide the economy with competent personnel.
3. Formulate the needs of the labor market with a focus on the requirements of the digital economy.
4. Create a system of motivation to develop the necessary competencies and participate in the development of the digital economy of Russia.

The implementation of the program is planned through the direct participation of the system of "startups", the cultivation of which can also take place on the basis of the University environment. It is important to note that the legislative framework and practical guidelines for this have already been prepared [2].

A number of professional competencies of the business unit may eventually be replaced by neural networks.

Ensuring high quality of the students training can be achieved primarily through the introduction of modern educational technologies and best international practices in the educational process.

The introduction of new educational technologies in the system of training bachelors of social orientation profiles can not be considered without taking into account the modern requirements of economic development of the state and globalization processes.

The main requirements of the market today include the following: independent problem solving; creative approach to solving problems; the ability to convince; design.

Innovative educational technologies today are represented by a fairly wide range of tools to ensure the qualitative implementation of any list of professional competencies.

The introduction of the most promising areas of new educational technologies can be achieved by increasing the share of e-learning and distance learning technologies and the introduction of project-based learning technologies.

The introduction of e-learning should be provided by the development of appropriate methodological support for the implementation of independent work of students and control by the teacher of the work performed. The implementation of this approach involves: the adaptation of the LMS-system of the University to the use of e-learning in all ongoing educational programs; the development of appropriate methodological support (electronic textbooks and manuals, workbooks, etc.) of the educational process and its placement in the LMS-system of the University; accounting for the results of the study of disciplines by students at open electronic courses (MOOCs, - massive open online courses) and at partner universities in the framework of networking; changes in the structure and standards of pedagogical load [3].

The project training is aimed at the formation of students ' skills of teamwork and practical development of professional competencies, ensuring the establishment of direct connection of educational material with the practical experience of students in their cognitive and joint creative activities. The objectives of project training are: the formation of students' skills of practical work on the chosen professional activity; the formation of students' teamwork skills; individualization of the educational process; improving the competitiveness of students in the labor market; increasing motivation for learning.

Applied (practice-oriented) projects are aimed at the practical application of the obtained and the development of new professional competencies in the process of solving the practical problem. The result of the implementation of applied projects can be a product of "service" activities within the framework of internal projects/grants of the University; a product aimed at solving practical problems of third-party organizations, etc. Implementation of applied projects is possible in the following forms: participation in projects implemented by structural units of the University and aimed at solving practical problems facing the relevant structural unit or the University as a whole; participation in startup and other projects implemented by the business incubator of the University; participation in applied projects implemented in the interests of third parties. Implementation of research projects is possible in the following forms: participation in research work carried out by the structural units of the University; participation in research projects implemented in the interests of third parties [5].

Developing a model of a new competence approach, it is also important to focus on two main areas in the training of future specialists:

1. the development of the qualities necessary for this or that direction of training defining success of the graduate in this profession;
2. support and strengthening of personal qualities that contribute to the effectiveness of the implementation of a specialist in the workplace.

However, the focus of the formation of any competencies model are still human qualities that ensure success in work.

CONCLUSIONS

A modern specialist in a particular field of knowledge should, on the one hand, have very universal qualities, and on the other - have a specialization that allows to ensure appropriate demand in the labor market. At the same time, he should be useful for the progressive development of the company. The combination of these requirements should fit into the model of implementation of the competence approach of training specialists in any field of knowledge.

Taking into accoun the practice-oriented approach to the construction of competencies, particular importance should be given to the use of the experience of practitioners in the field of training of specialists of the necessary profile. It is the view of the practician that is decisive in the formation of the competence model that ensures the success and relevance of future specialists training. This aspect makes it necessary to use recommendations, expert assessments and direct participation of practitioners in the process of graduates training.

In this regard, a very important aspect of the implementation of the model of competence approach is its connection with the model of innovative development of the economy. In this part, it is very important to take into account the priority directions of economic development, as well as appearing trends and market conditions of management.

ACKNOWLEDGEMENTS

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PROTOTYPE TRAINING EQUIPMENT FOR RESEARCH PURPOSES AND PRACTICING CUTTING OPERATIONS IN RESCUE ACTIVITIES

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ABSTRACT

Training device prototype is primarily intended conditions research and the specifics of each part of the car and practical training cutting operations using a hydraulic recovery device. In practice, in delivering persons in traffic accidents, most often occurs to cut A, B, and C posts what they prove past experience and statistics. Since 2010 occurred several changes in the automotive industry from the point of view safety standards. Accelerate to incorporate high strength steel to vehicles is resulted in strengthening the important design elements of the car. The construction itself in this direction allows replacement of pillar samples the car with the handles suitable for the specific properties of the posts different types of vehicles. In the study program emergency services students will allow a training device various experiments during the final works, such as analysis of time frames of selected operations analysis of the time dependence of the individual posts, pressure data for cutting and other parameters. In practical training members of the Fire and Rescue Corps operating pressures can be monitored inferenced as well as the force exerted by the hydraulic scissors.

Keywords: training device prototype, testing, hydraulic equipment, car construction, rescue services

INTRODUCTION

In terms of the Fire and Rescue Service has hydraulic equipment important position. Hydraulic equipment that is currently Equipped in fire trucks and rescue services, by the statistics throughout the territory of the Slovak Republic uses the notably in road accidents (rescue of injured).

History of Hydraulic Equipment in the Slovak Republic within firefighters is an essentially young. Since 2002, by changing the structure of firefighters and by adopting relevant laws in this area, in particular Act no. 315/2001 Z.z. on Fire and Rescue Corps as amended and of Act no. 314/2001 Z.z. on fire protection as amended and related (including internal) regulations professional services were created among other things Fire and Rescue Service, whose task is specifically the liberation of persons animals and things just by this device.

Past experience and statistics within Slovak Republic proving that hydraulic equipment have most important role in dealing with traffic accidents. In practice, in saving people in traffic accidents, the most common occur the cutting of the columns A, B and C. This led to the idea to build a prototype training device with the goal to find out dependence of cut time the type and size of the material used in passenger cars. It also provides the ability to access to optimizations technical and safety procedures special activities during accidents.

SCIENTIFIC AND TECHNICAL DEVELOPMENT IN THE AUTOMOTIVE INDUSTRY

There are a few standards specifically mandating that vehicles meet minimum requirements to protect passengers in a crash. These requirements are specified in such a manner "*that the public is protected against unreasonable risk of crashes occurring as a result of the design, construction, or performance of motor vehicles and is also protected against unreasonable risk of death or injury in the event crashes do occur.*" Newer and safer construction methods, improved design and the use of high strength materials are found in today's vehicles. The new technology in these cars often causes a paradox of safety versus accessibility. In other words, the car construction that makes it possible for a driver to survive an accident could be the same reason why it is impossible for rescuers to free him out of his car. Currently there are no uniform conditions of categorization unconventional automotive steels by their properties. It is generally used, division according to metallurgical names - Dp, TRIP, IF and so on. (Figure 12.2). Since 2010 occurred several changes in the automotive industry and that from the perspective safety standards. It is important to remember that vehicle construction technology is advancing and changing almost on a daily basis. [1,2,3]

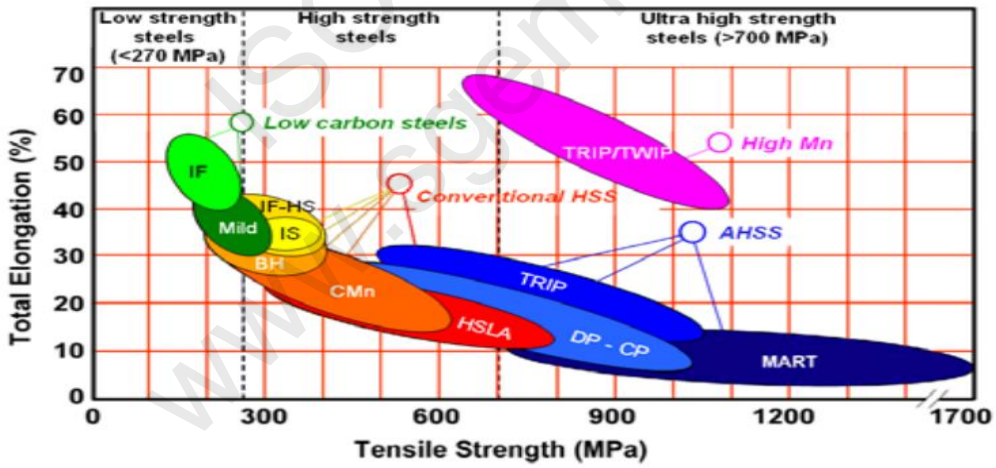

Fig. 1 Strength-elongation relationships for low carbon steels, HSS, AHSS and HMS [4]

The ranges Figure 1 indicates changes in creativity while crossing from one category to another. It is clear from the data that changes in properties they are linked with a full range of strength steel. Many types of steel have wide range of the degree covering two or more strength ranges. As technology progressed, elements were incorporated into the steel making process of advanced high strength steels that dramatically increased the strength of a vehicle. Every part of the vehicle is designed to do a specific task and each part is made from a specific material with a specific thickness. Older vehicles have posts/pillars made of rolled sheet metal, with reinforcements at both ends, leaving a

single thickness of metal at the centre. Newer vehicles have much thicker posts/pillars, often with strengthened steel inserts. Unfortunately, these are the areas where fireman normally place tools, for cutting with hydraulic recovery means. It is impossible to determine the type of material or the hardness of the material by just looking at it. The challenge for firefighters is to cut into parts of the vehicle that aren't reinforced. [1,2,3]

Fig. 2 Pruning post B by hydraulic equipment [5]

The structural system around the passengers and driver is basically becoming a high-strength steel roll cage. This includes vertical posts, roof rails, cross bars between the roof rails and posts, rockers and doors. Automakers are greatly increasing the strength of the B-Post area and floor section of the vehicle. Because of the increase in strength, the B-Post is becoming more difficult to cut. Fig. 3, we see how some manufacturers are strengthening the posts in order to meet the requirements of the new safety standards. [1,2,3]

Fig. 3 Post A (left) and Post B (right) after execution cutting works by hydraulic equipment

Fire brigade units have a lot of difficulty experience when attempting to cut through these posts. Some tools, such as hydraulic scissors, will not have sufficient cutting force to cut through these posts. Fire brigade units chasing the progress of the automotive industry and we can only hope to be prepared by constantly researching and learning. The following pictures show how other auto manufacturers are dealing with the more stringent safety. S you can see, some posts have more reinforcement than others, but all represent a tough challenge for today's rescuers. Currently are used carbon fibber and other light and solid materials. [1,2,3]

Fig. 4 The structure of the material (colour see Figure 1) B – post in the car of the middle class in the years 1995 – 2005 [6]

All the innovations used in today's vehicles represent the latest and greatest technologies on the market. As the safety standards become more stringent will be developed requiring newer, stronger tools. Staying abreast of all the new changes and knowing the limitations of your tools will ensure that rescuers make the best decisions when it comes to choosing which evolution is to be used. [1]

CONCEPTUAL DESIGN AND MAKING A PROTOTYPE TRAINING EQUIPMENT FOR USE HYDRAULIC EQUIPMENT IN RESCUE ACTIVITIES

Training device prototype (fig. 5) has aims to provide implementation shearing work by using hydraulic equipment with focus to selected structural parts of the car. Design is a primary focus for car parts – A and B pillars allows exchange of specific posts for different types of cars through original solution their attachment supporting structure. Project solution can greatly help research conditions intervention activities fire units' education and training students. The trainer can contribute to increase efficiency and safety cutting works and allow objectively different resistance materials used.

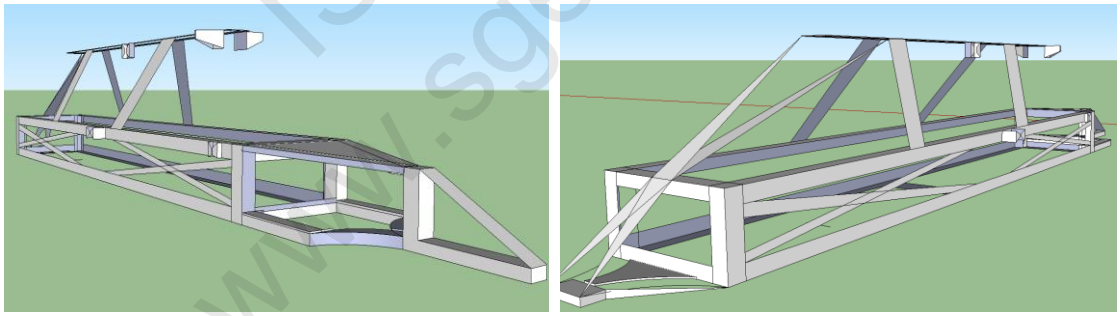

Fig. 5 Sketch of prototype training device [10]

Design of the proposed simulator is a rigid steel construction ensuring, that posts A, B they will be firmly fixed in special anchorages, what will allow testing several specific samples posts from different types of cars. In practical firefighter training is possible monitor operating pressures exerted during the cutting, and the force exerted by hydraulic scissors. Proposed device should enable identifying the optimal cutting position on the car. For students of study program emergency services is important to proposed construction implementation various experiments during the final works, such as time frame analysis selected operations time dependence analysis cut-out individual posts data pressure for cutting and other parameters.

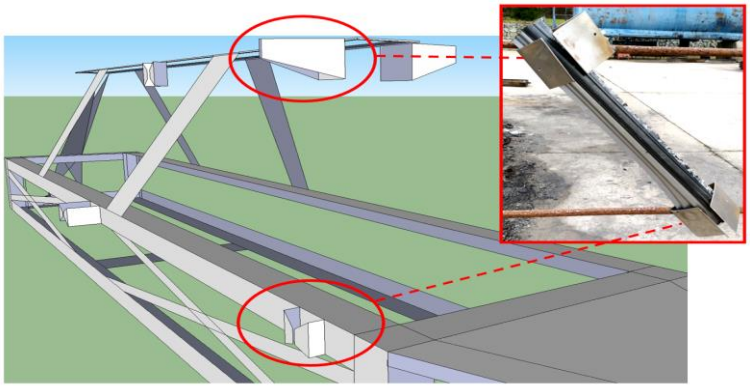

Fig. 6 Mounts on structures for tip posts A [10]

Past experience and statistics within the Slovak Republic show that hydraulic equipment plays most important role in dealing with traffic accidents. Within the hydraulic means of firefighters used in intervention activities hydraulic shears HOLMATRO model CU 3035 NCT (year 2002) which are intended for cutting. Requirements which were whether in the past or nowadays put on recovery tools they were and are clearly defined just for cars, produced and ride on the roads. [7,8,9]

Fig. 7 Process cutting works by a training device prototype

By that since 2010 there were several changes in the automotive industry and that in terms of safety standards. Incorporation of AHSS accelerated vehicles what had result strengthening the important design elements of the car and at the same time introduce tougher and stricter safety standards. From the perspective of fire units these measures have significant impact rescue operations because of fire members used in traffic accidents (in larger measures) hydraulic recovery, which was produced in 2002 and in the same year they were tests individual parts vehicle structure. Vehicle design requirements by today's applicable safety standards and regulations in the result can reduce the efficiency of hydraulic equipment implementation rescue work in road accidents.

CONCLUSION

A significant benefit of the proposed design is a removal of obtaining car wrecks from different providers (raw materials, scrap metal, etc.) but it will need to be purchased only individual posts. Using the proposed simulator is possible hone time course of work activities the performance of firefighters and the effectiveness of rescue work. The scientific benefit of the simulator is testing samples (A, B, and C pillars) and that

assessment the dependence of the post cutting time passenger car with a hydraulic device. This concerns the implementation of the various experiments. Thereby objectively assess the development of structural parts passenger cars which ones in road accidents subject cutting activities. Data obtained enable suggestions and recommendations which would lead to efficiency and improvement cutting activities in intervention in road accidents. At the same provides optimization of technical procedures in saving people in road accidents. Trainer users they are scientists, which the activities deal the issue of technical support for firefighters' intervention activities, problems of structural parts passenger cars as well as the issue of the resistance of posts, as passive safety features of cars, intervention activities. Predicted users are students of emergency service, who deal with as part of their studies hydraulic recovery devices and firefighters in traffic accidents.

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REGIONAL LITERATURE AS A FACTOR OF FUTURE SPECIALISTS' READING CULTURE DEVELOPMENT: PERSONALISTIC ASPECT

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ABSTRACT

Pedagogical Faculty of Vasyl Stefanyk Precarpathian National University (PNU), the Faculty of Humanities of Mukachevo State University (MSU), and the Medical Faculty of Ternopil I. Horbachevskyi State Medical University (TSMU) within a four-year period (2013-2018) became a space for an intense research into intransient educative potential of arts and literature aiming to prove regional fiction power to nurture modern students spiritually and culturally competent despite their obvious alienation from reading. Methods used in the experimental study allowed organizing and compiling works of the Precarpathian, Transcarpathian, and Ternopil regions writers and ethnographers in order to make literature fully accessible for the students. In these literary enriched surroundings via empirical methods (surveys, conversations, interviews, and observations) the place of regional literature and other arts in the system of students' requests, their role in the general cultural development of the individual were estimated. The results of the pilot study formative stage proved the rise of students with a *high* level of reading culture from 24% at the beginning of the experiment to 32%; of those with an *average* level who read sporadically and are able to recall the names from seven to ten Precarpathian writers and their works, two-three famous native ethnographers and their works, and those who occasionally read the "news" went up to 41% against 28% at the beginning of the experiment. At the same time, the number of students with a *low* level of reading culture went down to 27% as compared to 48% at the beginning of the experiment. No bibliophobes have been revealed. Similar methods and activities began to be implemented at MSU and TSMU. This work is ongoing.

Keywords: regional literature, Precarpathian region, Transcarpathian region, Ternopil region, future specialists, students.

INTRODUCTION

Today, a lot of students claim to not enjoy reading, listening to classic music, visiting theater or artistic exhibitions. The Internet, social networks, cinema etc. have pushed out the arts from the sphere of cultural interests of young people. This is confirmed by the results of our study. It was conducted during 2013-2018 at the Pedagogical Faculty of Vasyl Stefanyk Precarpathian National University, the Faculty of Humanities of Mukachevo State University, and the Medical Faculty of I. Horbachevsky Ternopil State Medical University.

So, according to our respondents, literature as one of the genres of art ranks third, being inferior to cinema and music. And such arts as decorative crafts, opera, circus, ballet, symphony music, painting, sculpture, architecture, choreography occupy the last positions. Thus, 35% – 46% of the respondents stated that they had never been interested in these arts. 33% of our respondents go to the theater occasionally, 67% attend outdoor concerts (usually held in Ivano-Frankivsk, Ternopil, Mukachevo).

In terms of human learning this lack of the arts (all genres) educative effect is worrying because the arts in collective sense drift apart from the student youth. Such a situation requires the strategy to improve formation of university students cultural and intellectual competences. We believe that regional fiction can become a powerful means to stimulate students interests in reading, i.e. it can become that particular initial stage that will encourage them to get further deeper knowledge of culture and arts.

This problem is at the center of public attention. In this country the Ukrainian Institute of Books has been created to provide a state "support of book publishing, popularization of reading, stimulation of translation activity, popularization of Ukrainian literature in the world" [1]. The discrepancy is that for the key functions of this institution there is no means to implement "popularization of reading" task. In our opinion a state institution of this rank should long overdue possess elaborated mechanisms to form the young people reading culture and to promote the nation reading interests.

Analysis of the research done in the field has revealed that the issues of literary competence of future specialists are considered by a number of foreign scholars, for example, by German researchers W. Nieke (competence and culture) (2012), Gerda Haßler (2017) and Thomas Stehl (linguistic, textual, literary competence, creativity, linguistic variability etc.) [2]. M. Heynitz emphasizes the need to improve literary education and to assess educational knowledge after PISA [3].

The works of methodological character of Coyne Kami'Enui and Carnine (2007) [4], Snow and Sweet (2003) [5], Daniels and Steres (2015) [6] related to the subject matter of our research are also interesting.

In this context, the following publications are worth attention: "Literary competence and the literature" by T. Witte, T. Janssen and G. Rijlaarsdam [7] devoted to two empirical studies to describe the variation in the literature curriculum and the development of literary competence in upper secondary education in the Netherlands; "Enhancing the literary competencies of literature learners through activities – an action research" by E. Sulochana Neranjani [8], which considers the foreign (Dutch) experience of enhancing the level of literary competence of personality and the means of forming students' literary education; "Teaching and learning English literature", "Teaching and learning the humanities in higher education. U.K." by E. Chambers and M. Gregory [9] (M.

Chambers E. & Gregory M. (2006) Teaching and learning English literature", "Teaching and learning the humanities in higher education. U.K. SAGE Publishers), "Literature in the language classroom. A resource book of ideas and activities" by J. Collie and S. Slater (Collie J. & Slater S. (2001) Literature in the Language Classroom. A Resource Book of Ideas and Activities. Cambridge University Press.) [10]. All of these works emphasize the relevance of literary education.

The role of the book in the life of an individual is the subject of research of national humanities sciences. However, the aspect of our research dedicated seemingly to the same issue stand apart in this field. In this study hypothesis we claim reading culture of future professionals to be a core component in their spiritual world, general level of culture, and ultimately, in their competence, - a complex poly structural phenomenon, which represent a set of abilities, skills, and personality traits, necessary for future productive work. An authentic methodological and systemic approach to reading training was developed which significantly increases the students' interest in reading. This approach implies: a) ensuring knowledge of contemporary litterateurs' works in general and regional writers, inter alia; b) modification the universities curricula by introducing studies of popular regional authors, writing for young people; c) introducing local writers fiction ("regional component") into the extracurricular work; d) creating a rich literary environment; e) ensuring teachers' active advocacy of reading; e) involving teachers-writers in the reading support process.

While analyzing the university curricula we identified certain contradictions which predefined the relevance of the indicated above problem and urgent need to solve it. This obvious mismatch is between the following: the "general competences" of future professionals, moreover, none of the specified competences, do not include "general *cultural* competence"; modern information society requires intellectual and cultural development of future specialists whereas students' reading interest drops, they ignore a book as a source of knowledge and spirituality; in the contemporary society there are needs to train active patriot intellectuals, but the trainers give insufficient attention to this social demand (given that literary regional studies are the generative starting point in patriotic education); state agents declare their close attention to reading promotion but the elaborated mechanisms to implement this teaching practice are lacking; universities are concerned about the deficiency of reading interest in the Ukrainian students but a developed methodological system aiming to generate it is unavailable.

We argue that this problem solution can be found if to look for it from another perspective. Today's students are tomorrow's parents. They will be the first trainers for their own children. They will introduce them to the world, inter alia the world of children's literature and art. Thus, we believe that the priority should be given to popularizing modern books for children and youth, in particular, written by the regional authors. Our research (among other things) is intended to systematize and summarize the legacy of writers and ethno scientists of the Precarpathian, Transcarpathian, and Ternopil regions, to show the place of regional literature in the literary process of Ukraine, and to highlight the great potential of the literature of the native land for the education of readers.

The literary Precarpathia is represented by dozens of both well-known and little-known names, among them 12 writers being the winners of the Shevchenko Prize (Iryna Vilde, Roman Ivanychuk, Ivan Malkovych, Vasyl Herasymiuk, Taras Melnychuk, Dmytro

Pavlychko, Stepan Pushyk, Fedir Pohrebennyk, Yarema Hoian, Roman Fedoriv, Vira Vovk, Mykola Andrusiak). In 2018, 57 writers were the members of the National Union of Writers of Ivano-Frankivsk region. Ternopil region is represented by five winners of the Shevchenko Prize: Stepan Sapeliak, Hrygoriy Shton, Roman Andriiashyk, Ivan Hnatiuk, Roman Lubkivskyi. Five Transcarpathian writers are also the holders of the highest literary award: Ivan Chendey, Petro Skunts, Dmytro Kremin, Petro Midianka, Myroslav Dochynets. However, the majority (80%-85%) of our respondents are not familiar with the works of their regional writers.

MATERIALS AND METHODS

The research work was carried out at the Pedagogical Faculty of PNU (90 students majoring in Pedagogical Education), the Faculty of Humanities of MSU (60 students majoring in Secondary Education (English language and Foreign literature), and the Medical Faculty of TSMU (90 students specializing in Medicine) in 2013-2017.

Applying the empirical methods such as questionnaires, conversations, interviews, and observations, we studied the place of fiction in the system of students' requests, its role in the spiritual development of a personality. Pedagogy and medicine students were of special attention since our research aimed to learn if they are acquainted with regional fiction, and the reflection in it of modern pedagogical problems. Statistical methods were used to process the research results.

The whole complex of the methods used ensured the validity of the results obtained. We also managed to compare the results obtained in 2017 with those got during the research carried out at the then Pedagogical Institute of PNU, and the Faculty of Humanities of MSU in 2013 (a more detailed consideration is given in: G. Bilavych & I. Rozman (2016)) [11]. This made it possible to trace the development trends of students' reading interests, and introduce some appropriate changes into the methodology of its formation.

RESULTS

As the results of the study showed, compared with 2013, the "love for reading" indicator for PNU students – future pedagogical professionals – decreased from 82% to 53%. Similar changes took place in the way students spent their free time. In 2013, in response to the question "How do you spend your spare time?" 68 % of the respondents said they were reading fiction. In 2016, answering the same question, only 47% of the respondents pointed reading fiction as the way they spent free time while 43% of the students indicated "active use of social networks and the Internet to communicate with their friends" (in 2013, this indicator was 20%). 60% of the respondents spent their spare time listening to music, watching movies, reading popular blogs. We think that such a situation is caused by a number of social and cultural reasons: information level rise, rapid Internet development, movies and TV domination in culture, high prices for books, prevalence of Russian-language literature in the book market (often of low art value), insufficient popularization of regional writers books for children and youth.

The results of the survey conducted in 2018 indicated the appearance of such a phenomenon as "bibliophobes" (20% – 26%). Such figures raise the problem of cultivating the culture of reading among future specialists, and think over the ways to find the appropriate solutions.

We also analyzed the reading interests of students from the three universities. Typically, boys and girls prefer detectives (averaging 50%–60%), fantasies (40%–45%); historical literature (30%), adventure literature (20%), "love novels" (50%–55%), and lyrics (8% – 10%).

Interestingly, students are aware of fiction educational value and recognize a book to be an educational tool. But most of our respondents (75%–80%) were not able to give examples of contemporary works of art dedicated to education issues. Consequently, fiction, for various reasons, loses its educational role among higher school students; students' interest in reading drops. Unfortunately, the student community is ignorant in Precarpathian, Transcarpathian, and Ternopil regions literary potential.

The formative experiment was conducted on the basis of PNU. It was discovered that the literary regional studies of the Precarpathian region as a branch of educational knowledge was absolutely not applied in the higher school, as evidenced by the results of the analysis of curricula for the preparation of both bachelors and masters of pedagogy. The conclusion is unambiguous: in the higher school, future specialists are not trained to teach literary regional studies in public schools or in educational institutions of the I-II levels of accreditation. In the curricula there was found no subject of the literary-linguistic cycle dealing with such studies. In part, these issues are considered in the course "Literature for Children". Unfortunately, only 1 lecture and 1 practical lesson of this course are devoted to making students acquainted with the writers of the Precarpathean region, who write for children: Mariyka Pidhirianka, Kostiantyna Malytska, Dmytro Pavlychko, Stepan Pushyk, Lesia Dyrkavets-Pylypiuk, Vira Bahirova, Yaroslav Yarosh, Stepan Protsiuk etc.). The curriculum for the preparation of masters of pedagogy does not support the regional literature studies.

Under these conditions, the need to create such a literary rich environment in a higher school that encourages and motivates students to read becomes urgent. Using the theoretical gains of the researchers dealing with the problem of literary studies at school and the experience of V. Sukhomlynsky in Pavlysh school, we created such an environment at the pedagogical faculty of PNU, where the literature of the native land was the key factor.

The competition of creative projects "Writer of my land", in which students took part during 2016-2018, was an effective means and form of developing students' interest in reading. The contest participants wrote an essay on a regional ethnographer or a writer; presented it during round table discussion in the "Literaturna Svitlytsia" (Literary Room), thus promoting information about Precarpathian region little-known authors. To meet the contest requirements an essay had to briefly characterize the writer's biography and his/her work, to advertise these works, to make a scenario of an educational event or an outline of a lesson dedicated to this regional writer. The best students' works were published, an electronic catalogue "Writers of the Precarpathian region", an electronic dictionary-reference "Writers of the Precarpathian region" were formed to highlight the future pedagogues research achievements. During the round-table discussion, we asked the students to complete a questionnaire: "What writers have you heard about for the first time today?", "Whose works would you like to read?" This way, the students "discovered" very little known names of poets and writers - Mykola Yanovskyi, (collection "Mountain heart" etc.), the poet Yosyp Kuz ("The unsubdued song"), Paraska Plytka-Horytsvit, a writer, folk philosopher, fairy tales author, ethnographer,

("The Gift to the Native Land"), Halyna Maksymiv (poetry "Berezil" etc), Nataliia Danyliuk ("The Woman in the Opposite Window"), Mariia Vaino (novel in short stories "Warm Piece, or Rhapsody of the String Quartet", screen novel "The man on credit, or the fourth version", collection "The woman with a glass of rain"), Vasyl Babiy ("Revenge of the Vigilantes (Opryshkys)", "The Rostyslavovychs", "Disturbed nights" etc), Stepan Pidhirniak ("The Temple of Soul"), Myroslava Hryniv ("The Tale of the Soul"), Bohdan Tsiutsiak ("Flowers for Children"), Mykhailo Borys ("Sophia, the Slave", "Shine of Light"), Liubomyr Mykhailiv ("Formula of Grain", "Mountain Land", "Keys of the Sun", "The Autograph of Love"), Oksana Spodar ("Birth of the Flower"), Evdokia Kiprych ("My Beloved World"), Ivan Drapchuk ("Poetry of Stars", "On the Palms of the Earth", "Rain of Autumn Apples"), Mykola Dizhevsky ("The Clear Stars of Taras", "Chervona Ruta", "The Baltic Dawns of Taras"), Dmytro Khalus, a poet-priest ("Revelation") etc. In order to create rich literary environment, we organized a steadily growing mobile student library. New members donated a novelty book (region writers inclusive). Books swap helps overcome reading interest drop. Discussions, exhibitions of new works for children and youth of the regional writers feasibly contributed to the process. The Ukrainian Book Festival for students within the Ukrainian Writing Day was an interesting quest game for the best knowledge of the writers of the Precarpathian region. The interactive methods game proved its power to motivate students to read more, as a result of their own creativity in shooting ethnic videos. Thus students not only took part in organizing literary rich environment, but also promoted their own reading habits.

DISCUSSION

The use of educational coaching as an innovative form of learning, ensured the effectiveness of a method for increasing the level of general culture of future teachers. This included their participation in the activity of the Scientific and Methodological Center "University for Gifted Children", which operates at the "Precarpathian University" Science Park of Vasyl Stefanyk Precarpathian National University. This unique in Ukraine educational and scientific project brought together highly-qualified university teachers and creative personalities on the idea to create an innovative educational environment that would serve the development of gifted children. Teachers, together with their students, arrange live events for schoolchildren, aimed at making them learn more about their native land history and culture and literary regional studies. Creative meetings with local prominent teachers (O. Derkachova, T. Prokhasko, V. Yeshkiliev, O. Sloniovska, S. Protsiuk, M. Tkachivska and others) proved to be an important factor serving the aim of our research.

Good experience in creating a literary-rich environment was gained at TDMU, where since 2016 the "Ukrainian Language and Culture Club" (a permanent open space for students' spiritual and intellectual communication) has been working. Due to its activities the students became acquainted with the people who successfully combine their professional activities and writing. Inter alia are a talented prose writer, surgeon, associate professor Orest Berezovskyi ("Intermaidservant" etc.) and an associate professor of the department of obstetrics and gynecology and a famous novelist Lesya Romanchuk ("Do not Leave", etc.). In Mukachevo State University we organized a contest of creative projects and offered students studying at the humanitarian faculty, to write a creative work "My favorite writer of the Transcarpathian region". The

competition results revealed the best students' works. This allowed making a literary gallery of the region authors, which demonstrates the names of not only the aforementioned laureates of the Shevchenko Prize, but also some others, less known.

While creating a rich literary environment, we focused on the necessity for the teachers to be a role model in love reading. Great importance in this process was assigned to the local faculty library, whose employees, in close cooperation with the teachers, could become a factor in increasing the future specialists' interest in reading books.

At the end of the experimental study, a student survey was conducted again. The following aspects were taken into consideration: students' love for the book, interest in reading, including works by regional writers, knowledge of the literature of their native land. Thus, the students of PNU, who enjoy reading, know most writers and ethnographers of the Precarpathian region, are eager to learn more about the literary process of their native land (32% of the respondents compared to 24% at the beginning of the experiment) were referred to people with *high* level of interest in reading. Master students, who read from time to time, can name seven-ten Precarpathian writers and their works, can recall the names of two-three famous native ethnographers and their works, and sometimes read the "news" (41% against 28% at the beginning of the experiment) were referred to people with an *average* level of reading interests, and those who are indifferent to reading, know three to five authors and their literary works, are not interested in regional studies (27%, at the beginning of the experiment – 48%), were attributed to people with a *low* level of interest in reading. Comparison of the results at the beginning and the end of the study proves that the methods and forms of activities with the works of the Precarpathian writers provide productive assimilation of artistic information, expand the reading horizons of future specialists, and increase their general cultural level. As we witnessed, the developed methodology proved to be effective, so similar methods and forms of activity began to be implemented at MSU and TSMU. This work is going on now. At the end of the school year (June 2018), we plan to complete an experimental study at these educational institutions.

We confirmed our hypothesis that the regional fiction could become a powerful means of developing students' interest in reading, being the initial stage, encouraging students to get further deeper knowledge of culture and art. Our methodology was to create a rich literary environment at universities, to systematize and generalize the creative achievements of writers and ethnographers of the Precarpathian, Transcarpathian, and Ternopil regions as a factor in the education of students.

We believe that it is essential to change the curricula in universities where specialists in various spheres of life are being trained. The components of the education programs for bachelor's and master's should include selective courses, for example "Literature of the Native Land", "Modern National and Foreign Literature", "Art of Ukraine", "The Artistic Culture of the World", etc. For future specialists (especially for future educators) it is important to create rich literary and artistic environment to enhance their cultural level. This problem is relevant to the State Standard of Primary General Education with the "New Ukrainian School" concept, which is being implemented in Ukraine. The elementary school teacher profile is supplemented with general cultural competences the essence of which demands developing the mechanisms to replenish general cultural level of future elementary school teachers of: after all it is them who would build a New Ukrainian School, forming the appropriate values for children.

CONCLUSION

The results of the analysis of scientific works show that literary regional studies as a scientific problem are relevant in both theoretical and practical aspects. This issue has not yet been the subject of a holistic scientific study. Regional literature has great potential for the spiritual development of the individual, in particular the formation of interest in reading, the development of the general cultural level of future specialists. However, the use of literary regional studies as an educational factor does not fully meet the needs of the time. Thus the search into ways of the regional literature educational possibilities practical implementation is relevant and appropriate.

Given the lack of theoretical developments, we proposed authentic method to expand the reading horizons of students by means of the regional literature. The proposed method implied introducing the local writers' works as the subject of study and education. It was introduced gradually, following a certain logical sequence, the emphasis was made on creating a literally saturated environment that would motivate students to read, stimulate their interest in the book, and develop their cultural horizons. It has been proved that involving future specialists in creative activities contribute to the development of the students' general cultural level. The positive outcome of some modern innovative forms use was evidenced by the results of the study. It is gratifying that we did not reveal any bibliophobes among students. This testifies the great potential of the regional literature as a factor in cultivating the love for reading.

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SAFETY AND PROTECTION OF PUPILS' HEALTH – POSSIBILITIES AND LIMITS

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ABSTRACT

Occupational safety is a key condition of any work activity, especially in the sphere of education. The occupational safety aspect is a part of teaching technical subjects, including in a wider context (environmental, medical, aesthetic, economic, energy, and others), and constitutes the basis of the modern vocational training concept.

According to J. Pechar and J. Pehe [9], occupational safety is a set of work conditions which limits the influence of hazardous factors in the work process. The goal is to handle the "person – technical tools – work environment" system in a complex fashion.

In classrooms, laboratories, workshops, and the practical education as a whole, teachers of technical subjects guarantee not only occupational health and safety requirements during the teaching and training process itself, but at the same time instil in their pupils a positive attitude to the issues of occupational health and safety. That is why educators must be aware of the wider occupational health context.

Individual activity spheres of legal provisions which concern the safety of those participating in educational activities are governed by a variety of laws and regulations, from the Labour Code to the decrees of the Ministry of Education, Youth, and Sports. These issues are collectively addressed in methodical education guides.

Ensuring the safety and health of students is one of the basic duties schools shall provide. The theoretical part of the work describes the general conditions aimed at ensuring safety of students and analyses school injuries and first aid. The practical part contains results of a questionnaire survey and compares them with individual hypotheses/

Keywords: safety and health protection, safe school, pupils' health, health and safety risks, education

INTRODUCTION

Forms and methods of education are result of development of the society and extent of its knowledge[1]. In the last years, education is directed to the activities of which basis are

[1] The National Occupational Safety and Health Policy of the Czech Republic. (2008). Prague: The Ministry of Labour and Social Affairs. http://www.mpsv.cz/files/clanky/5599/narodni_politika_CR.pdf

approaches in the constructivist, experiential or activity-based, research-oriented, activating concept with the use of modern technologies, multimedia and digitization. Therefore, the integral part of education is not just a transfer of new findings and skills, but also, and in the first place, a development of reflective and self-reflective competences.

For education in the field of occupational safety and health, the mentioned constructivist concept of human cognition about their safety in an ordinary life in a working environment has the fundamental significance for the construction of own understanding of this safety during the reflection of personal experience and the concept of learning as a process of finding the meaning and understanding of whole or part of the given area related to the given educational area. In fact, it means that during the education about occupational safety and health, it is necessary to base it not just on the extent of knowledge, but also on the fact what a pupil thinks about the given phenomenon, how they imagine it, what relation do they have with it and how they are able to assess it. It is such concept of preparation in which there is a confrontation between what is already known and new findings that pupils have yet to learn. How to overcome these discrepancies? How to properly integrate new findings and experience into existing structures and construct new structures at a higher level?

In a school environment, the safety and protection of pupils during education and also outside education is being connected with the occupational safety and health of school employees during work, and this is why it is one of the most complex fields as for the ensuring of requirements, but also as for the execution of necessary documentation and corresponding form of education at the same time. Laws of the Czech Republic require to ensure a safe working environment for everyone participating in the education system and it may be nursery, primary, secondary and higher education. Safety and health protection in schools is affected especially by the complexity of education and technical demands of the environment on which many requirements are imposed (educational, technological, hygiene, …) [14]. The complexity of safety and health protection in the education system depends especially on the type and complexity of the given education, but also on technical demands and environment of school buildings. It means that the areas related to technical, chemical or laboratory focus will be certainly much more demanding on safety and health protection than, for example, areas of linguistic or art schools. However, at the same time, occupational safety and health is the integral part of teachers' and school workers' work activity. In this context, it represents especially the creation of conditions for the performance of work in a safe working environment that is not health threatening, and where the exposure of occupational risks to employees is excluded, basic requirements for a workplace, working environment and working conditions, but also for the safety of technical devices, work organization and workflows are respected [15].

The right of every citizen to a fair and satisfactory, safe and healthy working environment is governed by the Charter of Fundamental Rights and Freedoms in the Czech Republic. The method by which these rights are enforced is given by the Convention of the International Labour Organization No. 155 of 1981 on the safety and health of workers and the working environment. This Convention was implemented to our laws on 2nd December 1989 by Decree No. 20/1989 Coll., on the safety and health of workers and the working environment (see, for example, Černá et al. [4]). Therefore, the right to education included in the Constitution of the Czech Republic and the

Charter of Fundamental Rights and Freedoms and put into a concrete form through the system of schools is closely connected with the right to safe and not threatening conditions in which such education takes place.

TERMINOLOGY ABOUT OCCUPATIONAL SAFETY AND HEALTH

If we look at the definition of terms, then safety and health protection may be defined as a set of rights and obligations of participants of a working or educational process focused to ensure safety and health protection of employees or pupils against any damage to their health during such working or educational process through a set of organizational, educational and other measures [5]. Laws, i.e. life and health protection regulations, hygiene and anti-epidemic regulations, regulations about the safety of technical equipment and technical norms, traffic regulations, fire protection regulations etc. are necessary to ensure safety and health protection, if they govern any matters connected with the life and health protection.

If we look on the concept of safety and health protection closer, then this field may be viewed in a narrower and broader sense. In the narrower sense, the main objective is to prevent possible injuries during working activities. In the broader sense, the main focus is on the complex protection of human health, prevention of injuries and diseases (Bek, 1998). It is understandable that the current concept of occupational health and safety seeks to limit all negative aspects connected with work, including stress, bullying, harassment, unequal treatment etc. [8], [13].

In the work environment, two basic functions perform safety and health protection – preventive and production [10]. The preventive function seeks to capture and prevent the possibility of occurrence of occupational injuries and to prevent health and life of employees at a workplace. This function is connected with employers' obligation to create such work environment for their employees, where the possibility of occurrence of an occupational injury will be prevented as much as possible. On the other hand, employees' obligation is to actively participate in the increasing of their professional qualification and knowledge to ensure their safe work [3].

The production function is usually characterized by an emphasis on an uninterrupted and high-quality production and working cycle. Nowadays, with the development and engineering and technology, there are much higher demands imposed on employees than they used to be in the past. The labour productivity itself is affected by a number of indicators, such as knowledge, skills, stress, exhaustion, use of modern technologies and microclimatic conditions.

So, the issue of preparation and quality of education in the given field may be considered a key issue. Neugebauer [7] states in his publication that it is necessary to realize that training, experience and abilities may affect the risk, but none of these factors should be used as a substitution to eliminate risks.

INNOVATIVE APPROACHES TO THE SAFETY AND HEALTH PROTECTION PROCESS

The basic issue of recent years, which has been addressed in various professional circles, is how to integrate the field of safety and health protection into education

programs of initial and continuing education, how to improve the level of education in this field during the preparation for future occupations [12].

The main tasks in the field of safety and health protection in the upbringing and education system include the knowledge of regulations and principles of safe work arising from them. As we have already mentioned in the introduction, an employer is responsible for ensuring that employees are properly acquainted with legal and other regulations that lead to the knowledge of safe work and safety of technical equipment, and they should also ensure the health protection when performing the given activity [11]. All these measures include the prevention, not only to protect health of employees, but also to prevent any damage to property. The precondition for a successful prevention is the compliance with legal and other regulations of all participants, while this circumstance arises also from favourable working conditions [6].

In the European Union, more and more emphasis is put on the educational process in the field of safety and health protection [2]. In the context of the Czech Republic, we may state that there is not created any comprehensive, interdependent and complex system in the upbringing and education to safety and health protection at the moment:

- The currently applicable legislation of school facilities (primary, secondary and apprentice schools, universities) addresses the issue of safety and health protection rather marginally. The issue of safety and health protection is not sufficiently included in school curriculums. Teachers at all types of schools do not have the necessary knowledge to implement a systematic upbringing and education program to safety and health protection.
- At the majority of employers (especially small and medium companies), there is not a sufficient emphasis put on the further education in the field of safety and health protection, and therefore the Labour Code[2], which defines employer's obligation to continuously inform employees about the rules of safety work in their current form, is not fulfilled sufficiently.
- At other educational entities – the education in the field of safety and health protection may be, in fact, provided by everyone and without quality assurance. The quality is mostly provided by a professional and pedagogical level of a lecturer.
- The extent and support in the field of public education about safety and health protection by a state may be considered practically non-existent.

The fact mentioned above is not just a matter of the Czech Republic, but similar issues are addressed even in other countries. For example, Andersson, Gunnarsson a Rosen [1] mention precisely the importance of a systematic and complex education in the field of safety and health protection as a basis to prevent risks, and they prove the necessity of changed approach to transfer of knowledge in the field of safety and health protection in the research investigation [1].

In today's state, the education in the field of safety and health protection is primarily conceived as:

[2] 262/2006 Coll. the Labour Code

- education to protect health and safety during work in the given field;
- education to safety and health protection for managers and executives of all levels;
- specialized education focused on professionals in the field of safety and health protection or in related disciplines.

Apart from the education and training mentioned above, in the field of safety and health protection, it is possible to distinguish even other expert education and other professional education including employees of administrative bodies operating in the field of safety and health protection, employers, employees of organizations, companies and other persons performing an activity or providing services in this field. However, this education in a form of courses and seminars may be carried out by everyone in the Czech Republic, just based on a trade licence or other certificate to provide education. However, only very few institutions providing services in further education can prove themselves by an accreditation, i.e. a certain form of guarantee on the quality of their provided services.

In accordance with modern educational trends, we perceive the necessity, in the education focused on the field of safety and health protection, to focus this on activities of which basis are, among others, constructivist approaches, experiential and activity orientation of teaching, use of modern technologies and research approach. The integral part of this preparation is also the development of reflective and self-reflective skills. It is a concept where a pupil or a student in general actively overcomes any inconsistencies, they integrate new findings and experience into existing structures and construct new structures at a higher level.

RESEARCH INVESTIGATION

The objective of the research investigation was to identify the most suitable educational tools in the field of safety and health protection at the target group of teachers. In the results mentioned here, we focused on the empirical survey of a sample of the selected target group of teachers. The defined objective was the high rate of acceptance and the maximum effectiveness of the tools used for education in the field of safety and health protection.

During the survey, hypotheses were established and they were verified by statistical methods:

H1: Approved teachers of technical subjects better understand the issues of safety and health protection than non-approved teachers.

H2: Secondary vocational school teachers have better knowledge of safety and health protection than primary school and grammar school teachers.

The research investigation methodology was based on a set of questions that were presented to respondents, while the concept of this set was based on knowledge questions that had an unequivocal answer. For the statistical analysis, the unpaired t-test was used to compare the data made up of two independent selections, i.e. from two different groups. To check the both hypotheses, also the Mann-Whitney U test was carried out and it gave the same conclusions of statistical significance as the t-test,

although the significance value slightly varied in some cases. The statistical significance was standardly calculated for the significance level $\alpha = 0.05$.

Hypothesis 1 "Approved teachers of technical subjects better understand the issues of safety and health protection than non-approved teachers."

The objective was to find out whether the approved teachers have a better level of knowledge about safety and health protection issues than non-approved teachers. It can be assumed that teachers who studied technical subject didactics or engineering studies of technical fields have well-developed technical thinking including the field of safety and health protection.

In the test, there were compared the results of two groups (table 1), where the significance value was P = 0.0100, test statistics t = 2.6803, variance df = 169. It is therefore possible to deduce a difference in the results of both groups and this difference can be considered statistically significant. The hypothesis that approved teachers of technical subjects better understand the issues of safety and health protection than non-approved teachers was confirmed.

	Group 1 approved teachers	Group 2 other teachers
Number of respondents	26	145
Average points achieved	27.1	24.9
Standard deviation	3.5	4.0

Table 1. Numeric results of the test of the 1st hypothesis

Hypothesis 2 "Secondary vocational school teachers have better knowledge of safety and health protection than primary school and grammar school teachers."

In the case of testing of the second hypothesis, the data were divided based on a school type into three groups: secondary vocational schools, lower secondary schools and grammar schools. Answers of teachers of secondary vocational schools of non-technical nature were not subject of the research, therefore they were not included in the research sample.

	Group 1 grammar school teachers	Group 2 lower secondary school teachers	Group 3 secondary vocational school teachers
Number of respondents	29	100	30
Average points achieved	22.9	25.3	27.1
Standard deviation	3.5	3.9	3.6

Table 2. Numeric results of the test of the 2nd hypothesis.

Within the analysis, the results of groups 1 and 2 were compared, where the significance value was P = 0.0034, test statistic t = 2.9832, variance df = 127, and further groups 2 and 3, where the significance value was P = 0.0223, test statistic t = 2.3135, variance df

= 128. The results of the first test showed that lower secondary school teachers have better knowledge of safety and health protection aspects than grammar school teachers, and this difference is statistically significant. The results of the second test showed that secondary vocational school teachers have better knowledge in the fields of safety and health protection than lower secondary school teachers, and this difference is statistically significant. Therefore, the hypothesis 2 was also confirmed.

CONCLUSION

Occupational safety affects all areas of vocational human life and therefore it represents one of the cornerstones of a professional training for future occupations and it is one of the basic areas to which the attention is given within the legislative definition of the relationship employee – employer – place of work. Safety and health protection is the sphere that accompanies an employee throughout their productive life and it is therefore the area that directly requires lifelong learning. The basic pillar of vocational education is not only the acquisition of new competences based on legal regulations, but also the monitoring of innovative approaches, knowledge from abroad, exchange of experience and willingness to learn.

Ideally, all teachers should undergo a basic professional training related to safety and health protection and the method how to integrate risk areas into their practice during their professional preparation and later professional practice. Yes, it can be agreed that the inclusion of occupational risk education in school educational programs is a difficult task, and that the inclusion of these issues in studies of future teachers is also difficult. However, this is necessary, or even essential.

Based on researches and personal interviews with teachers, the following need can be mentioned:

- professional training as part of a comprehensive approach that combines the risk education and promotion of effective safety and health protection management, including the fact that this area will become a common part of teachers' everyday work;
- professional training of all future teachers that will contain basic information about safety and health protection and the method how to implement the risk education into teaching;
- to provide a specific support, information and tools with the objective to create healthy and safe environment, so teachers and then pupils will attach great importance to issues of safety and health protection.

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SCHOOL INVOLVEMENT OF STUDENTS ADDICTED TO AND NOT ADDICTED ON COMPUTER GAMES

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ABSTRACT

The effectiveness of school pupils' functioning is conditioned by many factors. One of them is the involvement of students referring to active participation in lessons and knowledge preoccupation. The positive attitude of a student to school, participation in school and class life as well as identification with the class prevents various forms of socially unacceptable behavior. Involvement causes students to have such traits as perseverance, creativity and effectiveness in achieving goals. The condition of commitment is the diligence and effort that the student must put in mastering the material. Student involvement sometimes goes in a different direction, for example computer games, which often causes addiction to them. In recent years, computer games have become a popular and widespread entertainment and form of recreation around the world. People who are addicted to games are becoming younger and their behavior is often irrational in such cases. Therefore, there is a need to examine pupils addicted to computer games in the context of their school involvement.

The aim of this research was to check if there is a significant relationship between the school involvement of addicted and non-addicted (on computer games) students. Theoretical analysis of pupils 'school involvement and problem of students' addiction to computer games and the results of the research conducted so far allowed to formulate the following main hypothesis: Students characterized by a high degree of dependence on computer games demonstrate lower involvement in school problems than students with low addiction. This hypothesis has been empirically verified by means of the following tools: Schaufeli's, Bekker's and M. Salanov's School Engagement Questionnaire in the study of S. Tucholska. The second tool was the personal worksheet used for gathering basic information about the studied youth and their activity related to participation in computer games. The research was carried out personally in the second half of 2018. The selection of the subjects was deliberate. The study was attended by a total of 338 students 16-18 studying in high schools in the Lesser Poland Voivodeship in Poland. From this group, two extreme groups (75 students) were identified, ie group A - students who declared their low activity in computer games and group B - students declaring high activity in computer games. Obtained results of research on student school involvement differentiate extreme groups. Students with high activity in computer games received a low score of school engagement on the scales: vigor, dedication and preoccupation, energy and perseverance. The obtained test results have their confirmation in the adopted general hypothesis.

The studies carried out have a socially important meaning, because they allowed to formulate application forms for pedagogical practice.

Keywords: school involvement, addiction, computer games, student.

INTRODUCTION

The effectiveness of school functioning of students is conditioned by many factors. One of them is the engagement of students in the active participation in lessons and absorption of knowledge. Positive student attitudes towards school, participation in school and class life and identification with the class prevent various forms of socially unacceptable behavior [1]. School engagement is most often treated as the entirety of mental and physical energy that a student devotes to school activity. The condition for engagement is diligence and effort that the student must put into mastering the material, accuracy, diligence and deliberate, active participation in the life of the class and school [2]. School engagement has a very significant impact on how students performs at school. It is related both to the student's performance and to his/her motivation to act. Effective and optimal functioning at school, according to Pstrąg [3], requires students to show: intellectual and cognitive activity, which determines the positive, consistent implementation of tasks set by the curriculum, school and teachers; internalization, understanding and acceptance of norms and regulations determining behavior; establishment of beneficial interpersonal relations, social interactions, the nature of which is formal and factual. These relationships are established both with adults and with peers; and the ability to cooperate with peers in informal groups, in case of which the intentions and rules of conduct often oppose those in force at school. However, according to Konarzewski [4], the individual's behavior at school and in the classroom is characterized by participation, aspirations and perseverance. Many researchers dealing with engagement believe that it is composed of many elements, such as emotional and behavioral characteristics. Behavioral engagement refers to active participation in activities, absorbing gained knowledge and to the lack of behavior harmful to the environment. Emotional engagement involves satisfactory interpersonal relationships within the school, between students and teachers. Other authors, e.g. Tucholska [5] emphasize that the phenomenon of engagement also includes properties such as: affiliation, self-updating, internal motivation and attachment. According to Macey and Schneider [6], engagement can be analyzed as a state modified by the environment, as well as a set of behaviors and an individual personality trait. The most important dimension of school engagement is the way young people function, which allows them to achieve educational goals. Many factors influence the school engagement. Individual and environmental factors are considered to be the main ones. When looking at environmental factors, attention should be paid to family, school and peer factors. A well-targeted school activity can be a source of contentment and satisfaction for an individual. However, for some reasons, student engagement sometimes goes in a different direction, e.g. due to negative experiences at school, students resort to engagement in video games, which often results in being addicted to them. It is well known that the vast majority of children starting to learn in primary school are optimistic, start learning with joy, enthusiasm and full commitment. At higher levels of education, most students experience frustration and school starts to be associated only with negative emotions, experiences and situations. Instead of enthusiasm, commitment and joy, discouragement, passivity, apathy, tiredness and irritability appear. There may also be increased anxiety and aggression. In general, it can be assumed that the vast majority of students consider school to be the main source of stress and difficult situations [7]. Obuchowska [8] distinguishes: Typical school stress-inducing factors, Specific, for particular school

and/or teacher, stressful situations and Individually-stressful situations. Some of the foregoing factors may significantly affect the satisfaction of basic, natural needs of school youth, including the need for free time, the need to develop their own interests, the need to belong to a peer group and consequently lead to the development of stress (Różańska-Kowal, 2004). It can also contribute to the selection of an unfavorable strategy to deal with stress, namely to escape into virtual reality and become addicted.

Over the recent years, video games have become a popular and widespread form of entertainment and recreation around the world. Younger and younger people become addicted to games and lose control over their on-line activities, and their behavior often becomes irrational in such cases. These people have problems in establishing and maintaining real interpersonal contacts, show a lack of self-confidence, have low self-esteem or isolate themselves from others [9], [10], [11]. According to Augustynek (2010) [12], three criteria point to game addiction and Internet addiction in general: symptom, time (at least 50 hours per week) and self-assessment (whether a person considers himself/herself to be addicted) criteria. The consequences of spending too much time on video games are disturbances in family relationships, neglect of learning, attention deficit and thinking skills. Gaming addiction can lead to a deterioration in school performance. The efficiency of the tasks performed is reduced. The impact of inadequate content in games may cause aggression and destructive behavior in students. In some cases, the virtual world has such a strong influence on the psyche of a young person, that it is treated as a reality. Direct relations with other people are no longer necessary, as the need for contact can be met successfully via the Internet. As Woronowicz [13] writes, the result of Internet abuse is putting the computer in the first place and subordinating almost all activities to it. For those affected by Internet addiction, it is irrelevant what kind of activity they engage in on-line. Being in a virtual world is the most important thing for them. Young people overusing games are usually not popular among peers, they are lonely and often isolated from the peer group, which according to Kuss [14] is related to the time-consuming Internet use on the one hand, and the lack of social training on the other.

In this context, the cognitively interesting question arises: how does the level of school engagement of students change in in the context of growing engagement in video games?

METHODOLOGY

The aim of this study was to examine whether there is a significant correlation between the school engagement of students who are addicted to and those who are not addicted to video games**.** Theoretical analysis of the problems concerning students' school engagement and their addiction to video games, as well as the results of the research conducted so far allowed to formulate the following main hypothesis:

H1: Pupils with a high level of addiction to video games are less involved in school problems than students with a low level of addiction.

This hypothesis has been empirically verified using the following tools: Questionnaire on Engagement in School Education by Schaufeli, Bekker and M. Salanov, edited by S. Tucholska. The second tool was the Personal Questionnaire developed by the authors of this publication, which was used to collect basic information about the studied young people and their activities associated with engagement in video games.

The study was conducted in the second half of 2018. The selection of the respondents was purposeful. The survey involved a total of 338 16-18-year-old students studying in high schools in the Lesser Poland Voivodeship in Poland. Two extreme groups (75 students each) were distinguished from this group, i.e. group A - students who declared their low activity in video games and group B - students who declared their high activity in video games.

RESULTS

Time spent on games by the surveyed youth

As the research shows, over half of the surveyed persons (168 persons spend about 2 hours using video games on average, i.e. 14 hours a week for this type of activity on average. As many as 89 people spend about 5 and more hours a day on games, which gives 35 and more hours a week, while 81 people declare that the time spent by them on the Internet does not exceed 1 hour a day, so the weekly time of use of games is within the range of up to 7 hours. The obtained results allowed to distinguish two extreme groups, 75 students each, i.e. the An group - students declaring their low activity in video games and the Bu group - students declaring their high activity in video games.

Engagement of the surveyed young people in school education

The survey of young people's engagement in school education was conducted using *the School Engagement Questionnaire (Utrecht Work Engagement Scale - UWES-U) by W. Schaufeli, A. Bakker and M. Salanova* in the Polish edition by S. Tucholska. The following aspects were studied: 1) Vigor manifested by mental flexibility during intellectual effort, high level of energy, readiness to make efforts, overcoming encountered difficulties; 2) Dedication manifested in perceiving science as important, meaningful and significant, experiencing pride, enthusiasm and challenge; and 3) Absorption, i.e. students' concentration on science. The subjects took a stance concerning the individual statements and responded to them on a seven-point scale.

Table 1. Numerical summary of UWES-U results.

	M	*SD*	*Min*	*Max*	*N*
UWES-U	*46.08*	*8.71*	*17*	*78*	*338*

The overall result for the adolescents participating in the study (N=338) was 46.08, while the standard deviation was SD=8.71. The results presented in the table above show that there is a big difference in the results among the adolescents. The lowest score obtained by the respondents was 17, and the highest score was 78 points in the UWES-U Questionnaire. The largest group of students - 47.81 - achieved results within the range of 39-53.

School engagement of students who are addicted to and not addicted to video games

Engagement of young people addicted to games in science [N: 76] in students with a low level of engagement (LE)

UWES-U	M	SD
Vigor	**33.98**	**5.78**
Dedication	**33.23**	**8.23**
Absorption	**34.25**	**7.38**

The young people surveyed, who scored between 17 and 37 points in the UWES-U Questionnaire, are a group with a low level of engagement. The mean of the results is M=33.67 and the standard deviation is SD=4.63.

Engagement of young people not addicted to games in science [N: 58] in students with a high level of engagement (HE)

UWES-U	M	SD
Vigor	**59.98**	**9.21**
Dedication	**58.39**	**7.01**
Absorption	**64.27**	**8.19**

The young people surveyed, who scored between 55 points and 78 points in the UWES-U Questionnaire, are a group with a high engagement level. The mean of the results is M=63.07 and the standard deviation is SD=7.13.

Students with a high level of activity in video games scored low on the following scales: vigor, dedication and absorption, energy and perseverance. The obtained results are confirmed in the general hypothesis.

CONCLUSIONS

The obtained results allow to formulate the final conclusions. It was found that there are links between high activity in video games and school engagement of the studied adolescents. The higher the activity in terms of using video games, the lower the students' engagement in school education.

The results of the studies showed the need for interdisciplinary studies in this area. In addition, it would also be advisable to extend research to other age groups of students at different educational stages.

The conducted study is also socially important, as it allowed to formulate application conclusions for pedagogical practice. They can be used in psycho-prevention, pedagogical counseling aimed mainly at young people, and in the development of new educational and preventive programs. Both parents and teachers should pay attention to the problem of addiction to video games and the Internet in growing youth. On the other hand, they should stimulate young people's engagement in learning at school.

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SCIENCE AND TECHNICS HISTORY COURSE TEACHING IN A MODERN UNIVERSITY

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ABSTRACT

The writers of the article try to prove the necessity to teach Science and Technics History Course for a modern innovation engineer formation. They use general scientific research methods such as analyses and synthesis, comparative and also historical methods, such as narrative, historic-genetic, typological, structural and systematic approach. The authors claim that the given course is necessary for modern specialists as in technical as well as in humanitarian sphere to form their wide scientific knowledge, high-level scientific culture. The authors of the article share their experience in creating Science and Technics History department in Ural State Technical University (later Ural State Federal University, which is one of the biggest Universities in Russia, They also write about their experience in teaching the given course, writing textbooks and organizing the work of the students, masters and post-graduates of this university. They consider issues of cooperation with the specialists of other humanitarian, natural-science and technical directions in academic and scientific fields. Accomplishments of the department's specialists in organizing regional and all-Russian conferences are shown. The examples of public and science responses to the department's work are given.

Keywords: history of science and technology, engineering education, university, USTU, Ural Federal University.

INTRODUCTION

Higher education development in our country has gone through a number of transformations in recent decades and now it is distinctly different from the one in the past. That education used to be the pride of the past epoch and the reason of envy of a whole number of different countries. No doubt, this transformation has led to a number of positive and negative points, which are widely discussed by the public, and the specialists. A significant number of scientific and pseudo-scientific works, which considered the problems thoroughly, have been written. Though, the authors of such studies very often come to completely opposite conclusions based on the same background.

Without getting into any discussion, we would like to consider one of the innovations, which unfortunately couldn't find its place in the curriculum of the country's universities. We mean Science and Technics History Course.

Denial of many ideological courses, which had Marxist position in the end of the 1980s and beginning of the 1990s, displayed the need for new courses among the specialists in different areas of science (technical, humanitarian and natural-scientific). They were the courses which could give understanding of the social-economic and political processes, occurring as in our country, as well as in the whole world. Thus appeared the idea of introducing a comprehensive in its nature course in Science History for humanitarian and natural-science directions in higher education, and science and technics history for technical direction.

One of the first universities here was Russian State Humanitarian University, which was managed by one of the "leaders of perestroika" academician Y.N. Afanasyev. It introduced the Science and Technics History Course for its students [1].

The course was made up well, had general philosophical characteristics and was designated to humanitarian students. It was characterized by a well-thought of structure within the chronological frame, high scientific processing of every parts and methodological confidence. This course had been taught to the students for quite a long time, although now it disappeared from the curriculum. Besides that, the attempts to introduce such a course were fulfilled in a number of Russian provincial universities, and also in both of the capitals. The given course wasn't big in its volume, but extremely necessary for future specialists in different areas of human knowledge.

At that very moment, in 1999, such a course was introduced in every faculty of the Ural State Technical University except the economic one in accordance with the suggestion of the professorate and decision of the Scientific Council of the given University.

Why was the course so necessary for teaching the students of the technical areas? In the opinion of the leading teachers of technical specialties students needed to get at least the minimal knowledge in the field of science and technics development, determine stages of their development and the role of their industry in the global industrial progress.

Such a department was created based on such needs within the Faculty of Humanitarian Education. It was headed by V.V. Zapariy, one of the authors of this article.

Initially the department, which consisted of four people at that time, faced a number of problems. They were of various kinds. There was no program of the course, there were no lecture texts, nobody had taught to teach such a course. The specifics of the situation was that the given course was taught to the students of different faculties, where among the well-set directions, such as metallurgy, chemistry, construction and materials science were the new specialties such as radio-technical and physical-technical. They didn't have long-lasting technics history.

Work on the course of the lecture led to the necessity to write a textbook and to create an electronic course. At the first stage we worked on the textbook together with S.A. Nefedov [2]. The short course was written and later published as a tutorial for part-time students. It has made itself a reputation and is still popular in the net.

Later a more extended text book was written at the department itself, and it has been reissued four times. It has been gradually perfected. The number of the authors, which

mainly remained stable, increased. The last text book was published with the preface of B.V. Litvinov, an academician, famous nuclear physicist, who gave a few good recommendations during the work on the textbook and they were take taken to the account.

Boris V. Litvinov recommended supplying the book with the pictures for more visualization, to add a dictionary of the terms after each topic, and also to make up the chronicle of the greatest discoveries of the mankind within the whole period of history. This was done and no doubt significantly improved the issue, the preface of which was written by the academician. Later the textbook was placed in educational portals of Russia, Belorussia, Kazakhstan and Ukraine.

Later the text of the lecture courses was developed, programs of Science and Technics History Course were published as well as of other courses: History and methodology of science and production, history of material culture and Household, history of defense in emergency situations. Besides that, the department taught the course "Concept of modern natural science", the program for which and the tutorial were written [3].

We shouldn't avoid paying attention to the active scientific work in the Science and Technics History department. The evidence of this work is the bibliographies published for the 10th and 15th anniversaries of the department in the according article collections.

Along with the organizing regular all-Russian conferences "Industrials Urals. Bakunin's readings" the department actively participated in conducting a number of regional conferences such as "Tatitshev readings" and "Ural military-historical readings".

In addition to this we have held a number of conferences in our department. These are department conferences which have become traditional, and also students' conferences which were held in cooperation with the National University of Science and Technology "MISIS". All in all we have held six the first ones and three the second ones.

It is of interest, that not only the employees of the department have taken part in the work and publications of the conferences (there were about 20 employees and also some post-graduates), buy also invited scientists and teachers from other universities and cities, as well as Academy of Science. The greatest number of representatives was at the conference of 2016, were 15 Doctors of science, 20 PhDs, 7 post-graduates and 15 masters took part [4].

As far as the second students' and post-graduates' conference is concerned the best works of the students were published within its work. They took part in the competitions in Ural State Technical University (USTU) and MISIS. There have been five such conferences all in all, and the finals of them were held within the TV-bridge between Moscow and Yekaterinburg. The first materials of the conference were published by MISIS, and the rest – by us. Thus, for example 16 students' and post-graduates' articles were published in the second collection, 20 – in the third one, 19 – in the fourths one, 17 – in the fifth one [5].

A large number of works have been done by the department staff on the history of their Alma Mater, its faculties, and were also devoted to its scientists and employees. It's necessary to particularly mention the last book published under logo USTU – Professorate of USTU-UPI, where short biographies of more than 600 professors, who worked in the university in the last 90 years, are contained. A number of significant and

large-scale works about scientists of the region was written with participation of the employees of the department. These are encyclopedias: “Ural Metallurgists” and “History of the Urals”, which caused a positive resonance.

The collective was friendly and capable to solve not only educational, but also scientific problems. Among the people who worked in the department there was one academician of the Russian Academy of Science – V.V. Alekseev, 6 professors, doctors of science. These are D.V. Gavrilov, V.V. Zapariy, S.A. Nefedov, S.N. Gutshin. Among them there are honored workers of higher education B.V. Lichman and Kamynin, 18 PhDs, 6 senior lecturers. I.E. Erobkin, I.I. Vasina, A.T. Kot, V.N. Kornik, M.G. Kirillova were the post-graduates of the department. I.E. Erobkin, I.I. Vasina and A.T. Kot became PhDs, besides that Vas.V. Zapariy, E.S. Lakhtionova, M.R. Moskalenko, E.V. Lazareva defended their theses while working in the department.

Alongside with the development of educational programs, there appeared the necessity to extend textbooks preparation for the courses taught by the department. We published readers for the Science and Technics History Course, some of which were later reissued [6]. The reader textbook on new time was prepared and sent to publish.

After transferring from specialist degree teaching to bachelors and masters programs, the employees of the department for a short period of time taught the courses for masters. They were such courses as methodology of scientific research and some other. However due to the one year reduction of the educational process and abrupt reduction of non-profile subject started, especially in technical faculties which led to the dramatic reduction in stuff. This led to the decrease in the number of vacancies in the department from 14,5 to 4, and later on to the liquidation of the department and its merger with the Russian History department. These two departments were transformed into History and Social Technology department. Now we teach the Science and Technics History Course to few specialist degrees of some departments and it has been minimized.

There used to be an interesting initiative to change the contents of a philosophy course for the post-graduates and to substitute it with the History and Philosophy of Science Course which included two components: philosophy of science and history of industry. On the one hand the post-graduates received philosophical knowledge, on the other – understanding the place of their industry among others, as well as the main stages in engineering development and history of their industry’s science and technics.

During the industry history classes the post-graduates wrote essays and made reports based on them and gave speeches on the chosen topics. Later with the agreement of faculty’s and department’s management, with the agreement of post-graduate and doctorate department, and according to the wishes of the applicants, they could write an article instead of on essay. The articles contained literature review within the frame of research. As a summary of their work an anthology of post-graduates’ articles was created. Professor V.V. Zapariy, the Head of Science and Technics History department edited and compiled it. Totally there were made three anthologies under the title “Youth Science in UrFU”. Two of them were placed in Youth part of scientific portal in UrFU. These anthologies were supposed to be published in a small number of copies, but unfortunately these plans were not fulfilled.

The above mentioned initiative was met with the understanding and supported by the post-graduates and their tutors. On the one hand, the applicants received knowledge and skill in writing articles, which had to be reviewed by specialists and had comments of

their tutor. On the other hand, they prepared scientific publications, which were necessary for the post-graduates for their defense. While writing an article the applicant studied publications on the research topic and did preliminary analysis of how well the problem had been studied, or even not studied on the theme of his or her scientific research. As a result he or she prepared a chapter of his or her future thesis. I.e. this work was not just educational and irrelevant, but necessary for thesis writing, which motivated a post-graduate student to think it over thoroughly.

CONCLUSION

Thus, the study of the course of history of science and technology with the support of the textbook of the same name and other publications of the department contributes to students not only the qualitative assimilation of educational material, but also the understanding of "the important place and the leading role of humanitarian knowledge both in education and throughout the scientific technical culture of the third millennium" [7].

Unfortunately while transferring to bachelor's degree and academic hour's reduction, the Science and Technics History Course was lost for the majority of specialist degrees in our university, which sufficiently impoverished engineering education. It is necessary to return Science and Technics History Course to the process of Higher Technical Education, but not only here. It could be rather useful and informative to teach it to humanitarian and natural-scientific specialist degrees.

Perhaps, the first step could be its interactive form introduction, though nothing can substitute real communication between the teacher and the students. This is the most important form of education. New forms of education, which use lectures' and seminars' recordings, and are appearing everywhere, are good and have the right to exist, but only as the extra ones, along with the real communication.

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SELF-EVALUATION OF PERSONALITY TRAITS AND THE STYLE OF LEADERSHIP USED BY PRIMARY SCHOOL PRINCIPALS

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ABSTRACT

Relationships between principal and teachers in the school require communication skills through partnership and collaboration. The quality of this cooperation is very important, which consists in the increasing involvement and creativity of teachers. In order for the potential inherent in the teachers to be fully utilized, a person who will manage them properly is necessary - manager, supervisor, less often referred to as a leader. The role of the leader is to motivate attitudes aimed at achieving goals and to help define the culture of the group or organization and evoke voluntary behavior of people [2][3]. In shaping behaviors and exerting influence in school as an organization an important role is played by a specific style of management, ie the techniques and methods of the director's work as a leader. Therefore, the question that was cognitively important was: Is and what is the relationship between the declared personality traits and the style of leadership used by the director? as well as What factors determine the choice of the style of leadership by the research group of principals? The following research tools were used in the research: Inventory of Styles of People's Management and Self-Design Questionnaire regarding the declared personality traits by the research group. The study group consisted of 128 primary schools principals in Poland, in the Małopolskie Voivodeship, including 68 from public schools and 60 from non-public schools. The selection of groups was intentional. The prerequisite for selecting a person to be tested was for him to carry out managerial duties in a public or non-public school. Participation in the research was voluntary and anonymous. The research was carried out from September to December 2018. The age of the respondents ranged from 45 to 58 years. 76 women and 52 men participated in the study. The general results of the study confirmed that sociability, cordiality, activity, assertiveness, seeking feelings, emotionality in the field of positive emotions do not determine the application of the specific dominant style of targeting of the surveyed directors. However, openness to experience affects the choice of the style of directing among research group. Similarly, the dominant style of targeting is characteristic of people with competence to be leaders. On the other hand, agreeableness is connected with the competence to cooperate with others, taking steps that are essential to achieving the group's goals by making motivational actions and giving employees latitude.

Keywords: educational leader, cooperation, teacher, director.

INTRODUCTION

Education management in Poland is dominated by the political and administrative model. The reforms that have been implemented over the years have had different effects. Transferring schools to local governments after 1989 did not bring the expected results. In general, various reports and studies show a decline in the level of teaching. Students' experiences at school are unsatisfactory and often discouraging and unpleasant. Therefore, there is an urgent need to develop a platform for professional dialog on education management. Work efficiency is determined by the social environment of employees - adopted values, loyalty, engagement and relations between employees, and not the management's demands. Managing should serve the development of the organization, as well as each individual member.

Penc [1] speaks of the need to build a learning organization based on trust and responsibility.

Relationships between the school management and teachers in the school require communication skills through partnership and cooperation. The quality of this cooperation, in terms of the increasing engagement and creativity of teachers, is very important. In order to fully exploit the potential of teachers, it is necessary to have a person who will manage them properly - a director, a manager, a supervisor, less often referred to as a leader. The role of a leader is to motivate goal-oriented behavior and to help determine the culture of a group or organization and to induce voluntary behavior by people [2] [3]. Educational leadership is a key element in educational management. It means both educational leadership and leadership that facilitates education - learning for all members of an organization and its environment. Employees should use their strengths, knowledge and skills. According to Avery [4], it is important to adopt a specific paradigm of leadership: classic leadership with one person or an elite group as leader, transactional leadership with a lot of attention to the skills, needs and motives of a group, or visionary leadership with a charismatic and inspiring organization of organizational culture at school. It should be remembered that leadership management in the field of education results in a well educated student. The effects of this education depend on the processes taking place within the school (professional development of teachers, innovation and creativity, atmosphere, quality, functioning context, students, teachers, curricula, etc.).

The fundamental question remains about the social function of management and about who has the right to expect managers to be accountable to it. Educational leaders should have the ability to hold a partnership-based dialog with co-workers, students and parents in order to guarantee social order at school as an organization. They should know and apply the principles of educational management, be able to agree on values, needs and educational content in such a way that the educational process belongs to all participants in this process. Education is a group investment. In today's school, there is a one-way information transfer, not communication. Meanwhile, as scientists say, implementing total quality management at school and putting the customer satisfaction at the top is right as long as reasons for doing so are known. That is why today's school management reality requires discussion and reaction from researchers, scientists and teachers.

It seems important to consider the scope of activities of an educational leader, his or her choice of leadership model and the conditions for effective leadership. Leader according to MacBeath [5] should think simultaneously about four areas of learning: learning of

students, learning and professional development of school teachers, organizational learning and systemic learning (networking). The author pointed to the following model of educational leadership:

- Adequacy to the context
- Reflexibility and servitude towards people and institutions
- Respect for autonomy and diversity
- Continuous support for participation and dialog
- Special focus on learning and development.

This requires special personality traits from leaders. In this text it was assumed that personality is a complex whole of thoughts, emotions and behaviors, giving direction and pattern (cohesion) to human life [6].

Personality traits are not very important for the intentions and actions of leaders. This relationship is important and allows interesting cognitive analysis. Certain general personality traits may set motives that will guide leaders in their activities by choosing, for example, the style of leadership.

Personality traits are among the most basic variables in the description of personality [7][9]. Based on the theory of characteristics, the questionnaire methods in the self-descriptive version are commonly used. Various five-factor models have been developed, one of the most frequently used in research is the Big Five model [7] in which the basic structure of personality traits consists of: extraversion, amicability, conscientiousness, emotional stability (or its inverse - neuroticism) and the factor of intellect or imagination.

The leader - the school headmaster should be characterized by self-esteem, persistence in the pursuit of the goal, a tendency to act prudently, which is promoted by conscientiousness. The director's entrepreneurial behaviors are also supported by such features as: extroversion manifested in greater activity to activity and overcoming difficulties. Neuroticism, on the other hand, is not a feature that would provide rational rather than emotional behavior in situations requiring the resolution of difficult problems. Similarly, excessive or small agreeableness can lead to bad relationships with subordinates in the workplace. It can be assumed that Kaczmarek's research on the personality traits of people wanting to run their own company will be analogous to school heads. Namely, people who want to run their own company differ in their personality traits, compared to the general population of people of similar age. They are distinguished by their greater emotional balance, activity, energy in action and optimism, creative and open view on reality as well as greater ambition, task orientation and diligence. This result is consistent, as the author writes, with the results described in international literature [8] (see Brandstätter, 2011).

METHODOLOGY

A specific style of leadership, i.e. techniques and methods of working as a leader, plays an important role in shaping behavior and influencing the school as an organization. Having considered that, the following question turned out to be a very important problem in terms of learning: Is there and what is the relationship between the declared personality traits and the principal's style of leadership? and What factors determine the choice of management style by the surveyed school principals? The following research tools were

used in the studies: Inventory of Human Resources Management Styles and Self-Design Questionnaire regarding the declared personality traits by the surveyed school principals. 128 principals of primary schools in Poland, in Lesser Poland Voivodeship were surveyed, including 68 from public schools and 60 from non-public schools. The selection of the groups was deliberate. A necessary condition for selecting a person for the study was the performance of managerial duties in a public or non-public school. Participation in the study was voluntary and anonymous. The study was conducted from September to December 2018. The age of the respondents ranged from 45 to

58 years. 76 women and 52 men participated in the study.

RESULTS

Inventory of Human Resources Management Styles

The authors of WERK management styles have proposed an interactive approach to combine leadership competence with managerial behavior. Different personality resources, different situations, experiences and preferences cause people to have different styles of leadership and adopt a different leadership orientation.

Table 1. In the group of respondents the least frequent is the dominating style of management defined by dimension - orientation towards people

	Women	Men	Total
Human orientation	1	2	3
Procedural orientation	49	27	76
Idea orientation	3	4	7
Task orientation	33	19	52
Total	86	52	138

The leadership style among Polish school principals turns out to be quite uniform, mainly related to the focus on procedures and tasks. Perhaps this is a consequence of a specific professional ethos, reaching back to the sources of deeply rooted tradition. These studies limit the possibilities of interpretation, which in turn determine the methodological level of conclusion generalization. First, the leadership style in this publication is reduced to the variables included in the questionnaire interview, and in fact it is a much broader concept.

Declared personality traits:

Table 2. The school surveyed principals achieved the following results in terms of self-assessment of their personality traits.

Personality traits	Women	Men	Total
excessive self-criticism	25	12	37
oversensitivity	14	4	18
Sociability	48	42	90
assertiveness	39	43	82
Openness	71	51	122
amicability	27	18	45
dutifulness	69	48	117
the pursuit of achievements	53	50	103
self-discipline	50	48	98

School principals recognize openness, responsibility, pursuit of achievements, self-discipline, sociability and assertiveness as the dominant traits of their personality. They recognize the following personality traits as less frequent: amicability, excessive self-criticism and oversensitivity.

Relationship between the declared personality traits and the principals' style of management

The management style used by principals was compared with the two most rarely emphasized personality traits (oversensitivity and excessive self-criticism) and the three most frequently emphasized personality traits (pursuit of achievements, dutifulness, openness). Average personality traits were distinguished.

Table 3. Descriptive statistics on personality traits by dominant style. Variables a, b, c, d, e are marked with the appropriate style. M - mean value; SD - standard deviation; n - number of people in a given style

	Human orientation (N=3)		Procedural orientation (N=76)		Idea orientation (N=7)		Task orientation (N=52)	
	M	SD	M	SD	M	SD	M	SD
Oversensitivity	22	2.64	26.81	5.71	24.68	6.91	28.73	5.13
Excessive self-criticism	17.33	1.53	16.64	4.98	22.31	5.58	21.19	7.43
Pursuit of achievements	30.67	0.58	35.21	7.81	33.29	6.67	30.89	5.89
Dutifulness	33.67	5.91	29.18	6.98	31.71	5.71	30.18	4.49
Openness	25.81	3.61	27.71	5.27	26.29	4.78	27.18	4.36

The dominant style of Human orientation is characteristic for principals with personality traits Dutifulness M=33.67 and Pursuit of Achievements M=30.67 and also with traits Openness M=25.81 and Oversensitivity M=22. For principals with traits Pursuit of achievements M=35.21 and Dutifulness M=29.18 the style of Procedure Orientation and Excessive self-criticism turned out to be the dominant M=16.64. The dominant style of Idea Orientation is related to the traits of Pursuit of achievements M=33,29 and Dutifulness M=31,71, followed by Openness 26,29 and Sensitivity M=24,68. The dominant style of Task Orientation in the respondents is characteristic for principals with personality traits Pursuit of Achievements M=30.89, Dutifulness M=30.18 Oversensitivity M=28.73 and Openness M=27.18.

CONCLUSIONS

The overall results of the study confirmed that oversensitivity, excessive self-criticism, pursuit of achievements, Dutifulness, Openness do not determine the use of a certain dominant style of management of the surveyed principals. The dominant management style is characteristic for people who have the competence to be leaders, it is associated with the competence to cooperate with others, to take steps that are important for the achievement of the group's goals by taking motivational actions and providing employees with freedom. It can be confirmed that the characteristic traits of principals and the experience gained over the course of lifetime determine their activity and leadership behavior. Then again, in terms of educational leadership, there is a huge potential to support the learning process. Educational leadership should be understood as the relationship of influence between leaders and their supporters. Therefore, as Wren [10] writes, it is easier to achieve social or group goals. It is necessary to consider the possibilities of improving the situation and building an effective and coherent system of development for educational leaders. It seems that one of the conditions may be to help develop leadership skills and provide appropriate opportunities for development (throughout one's career), adequately to the developed model of educational leadership focused on selected values, learning and development of students, professional development of staff and organizational development of the school. It would be

interesting and extremely important to carry out interdisciplinary research in this subject area.

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SOME SPECIFIC TACTICAL PRINCIPLES OF GAME SYSTEMS

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ABSTRACT

The paper presents the most important aspects of the defensive positioning of football players according to the possible ways of approaching offensively the opponent. The study focuses on general principles, which are valid in all ways of positioning, as well as on some specific principles that are required to be used according to the characteristics of the own players in the direct relationship with their opponents.

There are described ways of behavior of the players who are positioned in different defense systems: 1-4-4-2; 1-4-3-1-2; 1-4-4-1-1; 1-6-3-1.

The methods and means used to learn different defensive situations vary depending on the game situations. These methods include:

- Positioning (players' positions) when the ball is rebounded from the opponent goal;
- Positions and maneuvers of the defenders when the opponent attacks at the middle of the field;
- Players' positions in the field and the way of acting when the attack takes place in the finalization area.

In terms of practical training, the exercises are designed to the following purposes:

- Simultaneous learning of individual and collective actions (mainly doubling);
- Positioning games with emphasis on defensive balance, to defeat in order to take the ball from the opponents;
- Positioning games with defensive movements to anticipate the adverse attack.

The game model is fundamental in creating some specificity in relation to the multitude of situations the game can offer at all times. In this case, the player needs to have as many opportunities as possible to solve the situations of the game, which will make him more creative.

This theoretical model simplifies the way in which defensive positioning is made and highlights how individual and collective tactical actions are put into practice, each time taking into account the individual and collective qualities of the forwards (in the context of creating a superiority in defence) as well as the ways of achieving these aspects depending on the physical, technical and especially mental qualities of the team players.

The paper presents the practical ways to approach the game according to the defensive game system chosen to counteract the attack actions of the opponent team.

The results of the research can contribute to certain national philosophy based on the specific characteristics of the Romanian football players. The conclusions provide concrete data, about the opinions on defensive positioning.

Keywords: football, tactics, defence, model.

INTRODUCTION

The main concern of the football coach when his team is in defence is to be carefully studying the opponent's offensive action. The defensive positioning is built taking into account this aspect. The team in defence must achieve a defensive balance that is strategically superior.

The careful study of the opponent, taking into account the entire adverse group, as well as the individual qualities of each player in this group, will require detailed knowledge of the offensive way of individual and collective action adopted by the adverse team. "The offensive phase and defensive phase are not two separate contexts, attack actions and defensive actions influence each other. If a team in possession lose the ball, they must equally react defensively to its rebounding. Another important factor is that, when playing against a good team, we have to choose players who can rebound the ball as quickly as possible. If the opponent's possession is a consistent one, there are teams that direct the offensive action by deliberately offering areas for action. There are other cases against opponents who can not keep the ball for a long time, and then an active action to recover the ball is required "[1].

"The defensive tactic of the game in the area is aimed at recovering the ball. In this context, players must have the feeling that they have the real ability to succeed. Therefore, depending on the position of the player with the ball, each player has a previously established area in which he constantly acts "[2]. All types of defence in the area, man to man or mixed, will be chosen depending on the situation. The opponent's game can never be anticipated one hundred percent, so we will try to deduce the opponent's possible attack situations and to have a defensive balance that will either hinder the attack or result in rebounding.

The game system should never be considered as an aim in itself, it will be somewhat flexible, in the service of the team and not vice versa, there will be very clearly defined and precise tasks for all the members of the team [3]. Each player will have a complex motor memory, given by the multitude of situations worked out during the training sessions and concretely executed in games. "The ability to recognize the evolution of a situation and to judge it correctly, the ability to predict the behavior of colleagues and opponents is defined as tactical perception. Most football actions are challenged and driven by cognitive activities: perception, analysis, decision, which through constant work become the player's cognitive capabilities. As the situations are always changing

during the game, the player must always be active and creative. This is specific game intelligence based on tactical memory "[4].

"The game that a team proposes depends on the quality of the players and a good collective organization, but this is not enough to achieve continuous results. The team must also reflect the so-called philosophy of the game. It is the philosophy that guides the club and the coach's work in order to achieve sustainable performance "[5].

The purpose of the paper is to delineate the general and specific principles of defense in the context of the existence of own game philosophy, which will be described as it follows.

The hypothesis of research derives from the idea that highlighting some small training principles will effectively lead to achieving great playing principles at the level of the team. The reaction of the team and each player separately will be in accordance to the imposed tasks and only to a lesser extent there will be deviations from them.

For the success of tactical defensive action, the following defensive sub-principles need to be obeyed:

I. Analysis of individual defense tactics

In current football, players are required to act effectively in both attack and defense. Relationships between players, who are alternatively attackers or defenders during the game are relationships of direct adversity, expressed by delimited tactical and technical means such as pressure, marking, dispossession and substitution. Collective defense tactics of a team will not be effective if players do not master the elements of individual defense tactics.

1. Pressure is the individual tactical action that the defending player does to prevent the opponent with the ball from continuing the action he / she proposes. To be effective, the player must:

- Make the right decision to intervene;
- Be followed by possible group pressure;
- Have chances of success for defeating or removing the ball from the opponent's possession.

2. The opponent's marking is done to directly prevent the opponent from taking possession of the ball or making progression towards the goal. In order to achieve this it is necessary that the defender

- place himself between his opponent and his own goal, constantly watching the ball and the striker's movements;
- anticipate the continuation of the adverse game action and consequently to react by an appropriate positioning that will make the opponent head towards the margins of the field;
- permanently cover the imaginary space leading to his / her own goal in order to prevent the opponent from doing individual progression or shooting to the goal;
- double whenever necessary in order to achieve dispossession by an effective defensive balance.

3. Dispossession (stealing the ball) is the effect of making an effective mark. It would be important for dispossession to be carried out with possession (keeping the ball), but

there are many situations in which it is very useful to steal the ball from the opponent's foot. For effective dispossession, the following are required:

- Analysis of the situation when the ball is disposed of;
- High-speed intervention on the ball with great care to avoid fouls;
- Accelerating the speed of when doing technical procedures on positive transition, driving, passing or shooting to the goal, etc.;
- Anticipating failures of dispossession.

From tactical point of view, goal protection measures are taken; after dispossession posterior doubling is done, in large areas attacks are done by blocking and among the unmarked opponents a welcome placement is made in order to delay the attack actions [6].

4. Substitution is the individual tactical action performed by a player who takes the place of another player in a different post. To be effective, the player must

- properly analyze the action of substitution;
- leave his / her own post unless he/she poses a threat to collective defense; this can be done only for the benefit of his / her own team (a necessary evil);
- precede the substitution by the action substituting another teammate.

II. Analysis of collective defense tactics

1. Doubling provides mutual help among teammates of a team in defence. For effective doubling it is necessary to obey the following:

- Help must be permanently ensured, especially when the defender attacks the player with the ball, especially when he is near the gate and there will come a combination or a shoot to the goal;
- The position of the player who performs the doubling is behind the doubled player (defensive diagonal) and on the imaginary line between the latter and the goal;
- Doubling will mean a defensive balance that will not leave uncovered areas near the own goal.

2. Pressing is the collective action by which players in defence attempt to recover the ball. Effective pressing requires the following:

- Players must act in situations with high chances of success (the ball on the edge of the pitch, bad passes, etc.)
- It must be followed by a collective decision to intervene on the player with the ball as well as on the others nearby;
- There should be consistent field coverage if the ball is long passed to their own gate.

3. Returning is the collective tactical action by which the team moves into a compact group in a defensive functional block. To be effective, it is necessary:

- To be followed by pressure-pressing of players who act in the first line of the adverse attack;
- To be the decision of the entire group of players, who react coherently to organizing adverse attack actions;

- To be done on the shortest route and in the defensive position.

In the case of a consistent offensive construction of the opponent, we propose as defensive organization the following situations in which the team in defence respond collectively and with concern to respect the above playing principles. The forms of defence known in football theory (in the area, man to man or mixed) will succeed according to the playing situations imposed by the attack of the adverse team. It is good for a team to learn more concrete defense situations, so as not to be surprised by new actions, other than those already worked out after having analysed the opponent.

Individual and collective defence capabilities of the team will be taken into account so as to act according to the real possibilities of intervention on the opponent. For methodologically efficient development it is necessary to:

- Design special training programs to develop the abilities of intuiting and anticipating the opponents' offensive tactics;
- To do “school” trainings and games to enlarge the visual field and distribute the attention in order to see the opponent’s intentions and the movements of the ball, at the same time being aware of the organization of their own tactics;
- Create collective thinking in specific situations of play;
- Reject the adverse attack by collective pressing actions;
- Adopt defense positions according to opponents and own players;
- Adapt rapidly to any anticipated or emerging situation through effective distribution in the game area.

III. Strategies for achieving defensive movements within game systems

We are going to describe some game models of defensive formations. We chose some models in the base defensive formation 1-4-4-2, because many teams use this system, as it was demonstrated by the recent European U21 Championship. Many theoreticians of the domain describe concrete defensive positioning models that describe the possibilities of blocking adverse offensive actions.

Any defensive model has the following objectives [7]:

- Rebounding. By this goal the team in defence tries to take the ball from the opposing team and start the defence-attack transition.
- Creating progression difficulty for the opponents. By this goal the team in defence tries to prevent the opponent from approaching the goal.
- Avoiding finalization. By this goal the team in defence tries to prevent the opponent from scoring.

The tactical principles contribute to the organization of the game and the performance players on the pitch. It is helpful for the coach to know the guidelines, objectives and specifications. Players' understanding of these principles has the advantage of structuring actions as goals, intentions and tactical sense that help regulate and organize tactical actions during the game. In addition, knowledge of tactical principles can help the process of evaluating the players from the tactical point of view. The designing, construction and validation of working tools capable of quantifying and evaluating the application of tactics are important for getting to an answer or outcome that helps to understand the tactical behavior of the player on the pitch [8].

Situation 1. In the event of losing possession of the ball, with the opposing goalkeeper rebounding, the team attempting to position themselves in the 1-4-3-3 game system may be blocked in our opinion as it follows:

- Two players will block the construction towards the two opposing central defenders;
- A player will mark the construction towards the adverse defensive midfielder;
- It is deliberately created area to transmit the ball to one of the two side defenders;
- In this way you can do pressing to the ball area; the construction options on the side areas being limited.

Figure 1. Defensive Position 4-3-1-2 vs. 4-3-3 - Adverse Area 1

Situation 2. In the event of a positional attack from the opposing team, the ball being in zone 2, the team adopts a defensive positioning 4-4-2. Defensive movements will consider the following:

- Deliberate release of area in adverse zone 1;
- Compact defensive block in zone 2, with pressing-pressure on the player who received the ball on the side of the field;
- All players act in a compact defensive group, making the translation to the ball area;
- Deliberate release of area on the adverse side, forcing the opponent to do a long pass and allowing the ball to be rebounded more easily.

Figure 2. Defensive 4-4-2 vs. 4-3-3 - away 2nd

Situation 3. If the adverse attack continues towards the own gate, the concern will be:

- A defensive balance should be achieved for blocking the areas in the central zone;
- Deliberate release of area to the sides of the pitch;
- Changing the 4-4-2 defensive team into 6-3-1 by lowering the side midfielders to block the ball from being passed to the goal, with less opportunity to continue the game on the sides of the field.

Figure 3. Defensive 6-3-1 against 4-3-3 - away third

CONCLUSIONS

The forms of defence used by football teams must be the result of the analysis of the opponent as well as anticipatory training, of knowing the many possibilities of reacting to the opponent's offensive tactics.

The form of defence used is determined by the team's individual capabilities and values, by offensive tendencies and by focusing on the score.

A certain type of defence requires players to have a developed sense of anticipation of the game and a fair appreciation of the opponent's possibilities.

Regardless the form of defence used, it will always be taken into consideration:

- Eliminate the possibility of individual overcoming or collective adverse progression of any kind;
- Cause your opponent to make a mistake or to shoot to the goal from distance;
- Creating superiority in defense and a defensive balance that will imply a constant collective effort of all players;
- Training and using all defensive principles and sub-principles at the highest level as a result of their programming in each training session;
- Any defensive action will be conceived in the respect of the immediate offensive reaction;
- Anticipating any opponent's offensive reactions;
- Creating and training concrete situations for each area of the pitch;
- Careful study of the individual offensive possibilities of the opponent;
- Get the defence players accustomed to occupying the established areas as well as those which have been left uncovered in defence;
- Each player will be directly responsible for the action area established in the training;
- Any defensive training activity will involve a higher moral-volitive education;
- Combined defense (man to man and in the area) tends to solve all the problematic situations that have arisen as well those imposed by the opponent;
- The construction of the defensive block is based on a consistent defensive balance in which the occupation of the area in the ball zone and in front of the own goal is the most important.

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STRENGHTENING FUTURE VOCATIONAL TEACHERS' SELF-AUTHORSHIP VIA ACTION RESEARCH

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ABSTRACT

Current discussions about future vocational teachers' perspectives usually imply the notion of a strong personality and a competent professional. The idea of professionalism is inseparable from the idea of self-authorship the central issue of which is the formation and development of personal interior voice not only of students, but of young teachers as well. Self-authorship is regarded to be more than a skill that can be taught; it requires a transformation in young teachers' attitude towards nature of knowledge, a confidence in themselves and their unique identity and an appreciation of relative perspective. The development of self- authorship may be scaffolded and strengthened while supporting the students' confidence in constructing knowledge, situating learning in the learner's own experience, defining learning as meaning constructing process. These aspects can be developed while performing action research because of its collaborative, analytical, self-critical inquiry and transformative nature. The research findings, expressed by qualitative categories' content demonstrate that the future teachers while indulging in action research process have learned to diagnose learning problems of their pupils, have become open in real learning environment, and developed a dialogue with their pupils and colleagues. While developing their internal voice through external and internal conflict negotiation they got more self-reliant in their pedagogical solutions what let them to being self-authored.

Keywords: Action research; future vocational teacher; self-authorship**.**

INTRODUCTION

In the second decade of the 21st century the increasing importance of labor market needs inspired the separate attention of employers and educators to the development of highly qualified professionals [1], [5], [6]. The business world, corporate executives claim that vocational training centers, vocational education and training schools are understaffing; moreover, those who graduate from the vocational training institutions do not always have the required qualifications [6]. There are several reasons that stimulate the search of the labour market needs' solution: the first one is related to the particularities of students who choose vocational training. According to the researchers [1], [6], VET institutions are usually chosen by the less educated, towards practical activities oriented general education school graduates. Secondly, researchers also emphasize the deterioration of students' general education, weakening motivation for learning, students' health and behaviour, psychological problems, which negatively influence the success of employment and future life carrier. No less important is the reason, highlighting the never-ending education reform, which demonstrates the lack of

a clear vocational education policy and the attention to vocational teachers' training and professional development. Thus, in order to start solving the problem of professional workers' training one must concentrate on highlighting new ideas about vocational teachers' education [1], [5], [6]. No one will argue, that only a strong personality with clear value system and a competent professional can cope with demotivated, having behavior problems students. Here comes to surface the idea of professionalism, which, on its turn, leads the researcher to the issue of self-authorship. The theory of self-authorship [3] urges learners to create personal interior voice, articulating 'how I know' rather than 'how everyone else knows', developing their capacities to reflect, possess an internal set of values, attitudes and beliefs that guide decision making and the capacity to engage in mutually interdependent relationships to assess others' expertise.

Self-authorship development strengthening capacities are developed while performing action research. Action research came into the focus because of its reasoning on taking purposeful actions to improve learning and to create knowledge or theory about that action [8]. The improvement of students learning outcomes is one of the main goals of self-authorship as well. Moreover, the major concept of action research highlights the self-reflective enquiry function, which could initiate the interior voice trying to respond to question 'how I know'. This process, undertaken by participants in social situations, develops and improves their own educational practices, their understanding of these practices. In other words, self-reflective, self-critical inquiry of action research, its participatory, collaborative, reflexive nature [8] promotes the formation of personal interior voice, in this way strengthening self-authorship process. Numerous investigations of action research underline its links with teaching practice in continuous teacher professional development. However, there is a lack of data about action research effect while forming future vocational teachers' internal set of beliefs that would guide pedagogical decision making, and develop vocational teacher identity as a whole. Thus, the major research question is: how does action research help to strengthen the development of vocational future teachers' self-authorship? The purpose of the research is to reveal the educational possibilities of action research as study method promoting self authorship of future vocational teachers. Though the majority of the self – authorship research is connected with the improvement of students' learning outcomes [2], [3], [9], still because of its inclination to the investigation of personal capacities to investigate learning process, it might be directed towards the professional development of future vocational teachers as well.

METHODOLOGY

The basic methodology of the research is qualitative research strategy chosen because of the complex nature of the self-authorship phenomenon and its assessment. The research of strengthening the future teachers' self-authorship capacities is based on Baxter Magolda's model of Learning Partnerships [2], [3] which is fulfilled while performing three actions: regarding learners as knowers, organizing learning in learners' experiences, defining learning as mutually constructed meaning [3], [9]. These actions and the activities performed create a lot of educational situations, the context of which engage learners in developing their own understanding, defending it while relying on their beliefs and values [9]. The discourse created in these situations reveal the prevailing major themes of self-authorship: knowledge, identity and relationships [3]. In this situation knowledge is understood as socially constructed, complex element;

identity or "self" may be treated as the key factor in knowledge construction, and relations are formed under the influence of authority and expertise in the mutual construction of knowledge [3]. These statements imply that educational settings, in the given case - action research based education practice, promoting self-authorship, accept learners as knowing persons, able to construct knowledge via self-reflective enquiry [9]; organize learning process according learners' own experience, enabling learners to present their understanding and identity into the learning; define learning as process of meaning construction that helps the learners to involve in the dialogue the content of which demonstrates the exchange of perspectives and socially constructs knowledge [3]. These assumptions serve as the major themes for the quantitative content analysis, investigating the possibilities of action research as study method promoting self authorship of future vocational teachers.

The research was conducted in 5 centres of vocational education. The research participants had to be the master students of vocational education program, performing their pedagogical practice in a vocational training institution. Their educational practice training had to be organized in the context of action research. Alongside practice training all the research participants were expected to have some teaching practice. The latter requirement would allow the research participants to feel and characterize the specification of action research in the process of the self-authorship development. According the framework of action research, the future vocational teachers had to fix their teaching/learning reflections while compiling the practice diaries, describing their action research based teaching/learning activities. The reflective discourse presented in the master students' practice diaries had to be the major source of the research data. The major characteristics of the researched discourse was the revealed points of cognitive dissonance, the highlighted contextual and environmental factors related to the professional development, the defined experiences, promoting factors of self-authoring behaviours.

The received data were analyzed following the pattern of quantitative content analysis [7]. It was carried out in four essential steps: thorough and detailed reading of the text, separation of the categories according the key words, distribution of the categories into subcategories, interpretation of the categories and subcategories, if necessary it is possible to present the rate of the categories and subcategories with the appropriate reasoning. Quantitative content analysis integrates both: qualitative and quantitative research aspects. Distinguished by its specificity, it may be defined as a quantitative group of social science methods, but the unit of study is qualitative categories and subcategories that do not need to be measured; it is enough to understand the received categories, to classify, systemize them. Thus, this method also has qualitative research features. Such method of data analysis is the systematic reduction of text into a set of statistically quantifiable units expressing the presence, intensity, or quantity of specific categories which disclose the essence of the research problem: the possibilities of action research promoting self authorship of future vocational teachers.

Action research is not a very common practice in vocational education, so the action research based reflexive diaries, presenting the discourse that would meet the research requirements, were rather scarce. During the first detailed analysis of the presented 34 (the major amount of the analysed discourse was 234.000 words) diary discourses there were selected only 12 diaries displaying the issues of cognitive dissonance, contextual and environmental factors related to the professional development, promoting self-

authoring behaviours. The remaining diaries were more of referential, but not reflective reasoning nature. The selected diaries were coded from D1 till D12 (the major amount of the target discourse was 124.000 words). During the second detailed analysis of the target discourse was split into meaningful units according the key words, descriptive and analytical categories and subcategories were generated and grouped into thematic blocks.

RESULTS AND DISCUSSION

During the second detailed analysis of the target discourse there were revealed 847 meaningful units that were distributed into qualitative categories and subcategories according the key words [7]. While following the theoretical concepts of Baxter Magolda's model of Learning Partnerships [3], the deductive quantitative discourse analysis confirmed the existing three major themes of self-authorship: knowledge, identity and relationships [3]. Still, their intensity revealed by quoted meaningful units, is different. The least intensive is the theme of "Knowledge". The total amount of quotations is 106. It is represented by two qualitative categories, defining students' attitude towards knowledge forming. The first category *"Working with relevant information"* (39 quotations), formed by selecting the discursive meaningful units related to cognitive dissonance, revealing the future vocational teachers' attitude towards educational activities with relevant information, is represented by two subcategories: *"Personal evaluating of the information"* (11quotations) and *"Judgements about sharing knowledge with the students"* (28 quotations). It represents the argumentative discourse and future teachers' reasoning concerning the reflection of their teaching activities connected to the development of their students' competencies. The future VET teachers' argumentative discourse, forming the first subcategory *"Personal evaluating of the information"* is connected with teachers' consideration about the relevance of information which has to be presented to the students (*"I had to ask my students, what they really knew about healthy products, what their experiences were. I am not sure, whether the official material is interesting enough". D1; "Students usually accept textbooks as indoctrinated and boring. I used to support this position. Now I think that the traditional material and tasks might be modulated in the statements for discussion" D3*). These approaches demonstrate the future VET teachers' involvement in action research while thinking how to help their students to get involved into active learning while dealing with interesting material. At the same time they start to develop their self-authorship while setting the premises for creating their personal voice [3] *"I used to support this position, but now I think..."*. Action research context, implying the question "How can I help my students..." strengthens this process. The second qualitative subcategory *"Judgements about sharing knowledge with the students"* presents the young teachers' attempts to evaluate the learning situation and the possible learning activities (*"Majority of students complain that teachers just dictate the compulsory material, but not share their experience and knowledge. They may to some extent be right. Some time ago I thought that the most important is to present the material. I felt safe with my traditional approach, but now students' reaction to my authentic insights, their willingness to discuss made me change the opinion. I do not feel safe anymore. Still I am excited about possibilities to be asked unexpected questions"D7; "I share my approach via facebook group. I expected some rude evaluations, but was pleasantly surprised about the comments. I have changed my*

approach towards such methods. They are evidence about students' knowledge which is already possessed. Students sometimes are real expersts"D2). These reflections of action research activities demonstrate the future teachers' internal cognitive dissonance revealing the change of future teachers' attitudes towards the teaching methods, the shift from teacher centred teaching to student centred teaching. The action research process, promoting constant search for the new teaching ideas [8] provoked future teachers to regard their students as knowers *(Students sometimes are real expersts"D2*). This attitude characteristic to Learning partnerships [3], [9] emerging in action research activities demonstrate the growing intensity of self authorship formation of future vocational teachers. The second more numerous qualitative category (67 quotations) "Uncritical assimilation of knowledge from authority" is represented by two qualitative subcategories as well. The first subcategory *"Designing pedagogical activities according recommendations"* (30 quotations) discloses the contrary attitude towards self-authorship process (*"I decided to conduct my classes according my mentor's recommendations..."D1; "I find my mentor very competent, I prefer to be safe and follow her directions and notes ..."D4;"Majority of my colleagues stick to the classical model of the lecture: start with the homework check and finish with the homework assignments. It is a reliable path...D6"*). These short reflexive comments demonstrate the trainees' search for safe space in their pedagogical activities. Though contrary to Baxter Magolda's conception of Learning Partnerships [3] the future vocational teachers prefer to follow the authority's (mentor's and more experienced colleagues) recommendations, it cannot be regarded as a action research failure in strengthening self-authorship. It testifies the trainees' efforts to investigate their learning to be a teacher and serves as an evidence of the reasoning activities leading to the formation of interior voice and being on the threshold of "Crossroads" positions [3], [9]. The second subcategory *"Modelling pedagogical behaviour according the authority pattern"* (37 quotations) compliments to the discourse of the former subcategory *"Designing pedagogical activities according recommendations"*. Moreover, it is more attached to the role of authority in their becoming a teacher path *(I'd like to be a teacher like my mathematician was: always ready to the lesson, always full of knowledge, a real working encyclopaedia...D8; "My profession master mentor was a strong personality, never lost his temper, I wish, I were like him...D9).*The content of the second category demonstrates the stability of the traditional teaching paradigm in vocational education. Positive is the fact that the trainees, performing action research are stimulated to start analysing their teaching activities, are looking for solutions, no matter that they are still traditional. What is really important in this context is the strengthening process of pedagogical proficiency search. The trainees compare their knowledge they have with the knowledge of their students, their colleagues. It is possible to state that the content of the diaries' quotations of the first theme "Knowledge" testify the trainee teachers' ability to collect, interpret, and analyze information and reflect on one's own beliefs in order to form judgments[3], [9]. Thus, it supports the position, that while performing action research, the trainee students are actively involved in collaboration, reflection processes which lead them to the regarding learners as knowers, organizing learning in learners' experiences, and defining learning as mutually constructed meaning [3], [9]. For this reason it is possible to state that primary indulging in action research activities strengthen the process of the formation of trainee teachers' pedagogical self-authorship.

The second theme "Identity" is connected with the understanding of personal internal status while making professional decisions (231quotation). It is more developed in

comparison with the first theme. It is represented by two qualitative categories: the first qualitative category is the *"Evolving sense of personal self"* (73 quotations), supported by three qualitative subcategories *"Awareness of personal values and beliefs"* (15 quotations), *"Formation of the internal voice" (27 quotations), "Development of cognitive skills" (31 quotations).*The subcategory *"Awareness of personal values and beliefs"* reveals the trainees' attempts and orientation to understand their personal value system which serves as a basis for their becoming a professional vocational teacher *("Today I was captured by the conflict situation when my students abuse my tolerance. Though I remembered our action research instructions, that I must observe my students and think how to help them, I lost my patience and start raising my tone....I understand that my major value – patience – has to be trained. I have to find out how..D11; "I always believed that a teacher has to be an authority, somebody prior, but my class is so crosscultured, that partnership may help to find the key to their confidence...D12; "It is so difficult to be sincere, when you balance between the obligation and rules and willingness to be free..."D10).* These reflections demonstrate the vividness of internal personal conflict, which gives birth to stable personal value system; still there are no hints to the solution what they have made. The trainees are talking about the perspectives ("...has to be trained...", "...may help to find..." ect.). This testifies that they found themselves in awkward, provocative and uncomfortable situations [9] and demonstrate the intentions to solve it, while looking for specific knowledge (…to find out how…). It means that trainees, performing action research, are moving towards self – authorship which is characterized as an epistemological orientation helping to clarify the skills that future vocational teachers should cultivate in their students so that they can meet learning and development outcomes [3], [9]. The subcategory *"Formation of the internal voice"* mainly presents the reflections on future teachers' interior reasoning about their didactic activities. *("My students sometimes demonstrate specific knowledge, so I will drop the plan for some time and work with their experience. It is really interesting. I will speed a bit and will catch a program"D5;"I have to decide about the discussion. My major task is to evaluate it… I have to concentrate not only on the correctness of the material, but to enable their thinking too. Values are also important" D7).* It is clear that trainees are involved in the process of reflective interior controversial evaluation of personal decisions concerning their students' status, organizing learning in learners' experiences, defining learning as mutually constructed meaning [2], [3], [9]. The subcategory *"Development of cognitive skills"* reveals the trainees' reflections on organizing the inquiry based learning. This shows that majority of future teachers see the development of cognitive skills as complex process based on teaching how to argue, while presenting deductive or inductive reasoning *("…students were indulged in the discussion, but they lacked the ability to form arguments and evidence. I have to think, how to explain it to them."D12; "Inquiry based learning is important for their apprenticeship practice. My mission is to explain this model to them, to teach how to analyze and systemize…" D5; "Next week I will try the debates. Though it sounds like utopia, I hope that it will develop their thinking skills…"D6).* The most reflected communicative practices demonstrate that the trainees develop their cognitive skills as well because they are compiling strategies that would push their students to develop their own knowledge systems and beliefs, see themselves as capable to solve complexities, to enrich their experience and to construct knowledge independently. These activities highlight the features of being self-authored. Such teachers will not blindly follow the directions and expectations of the school authorities or wait for the

advice how to do the best [9]. The second qualitative category, belonging to the theme "Identity" is *"The emerging responsibility for evaluating knowledge and beliefs"* (158 quotations) is spited into two subcategories: *"Reasoned judgments on personal ethical behavior"* (42 quotations), *"Diagnosing learning problems of the pupils"* (116 quotations). The subcategory *"Reasoned judgments on personal ethical behaviour"* is concentrated on the understanding of teacher's value system which empowers pedagogical professional behaviour. The quotations show that the most relevant values are frankness and objectivity *("Students wrote that they respect me because my objectivity. I am sure, that being objective provides students with more freedom to present what they know" D1; "While evaluating our term activities, students mentioned that I am unpredjudicated. I was so happy that they noticed my efforts to be frank to them. Students are very sensitive referees. They feel all fake nuances" D5).* These reflections demonstrate that future vocational teachers think that their presented value system should increase confidence and autonomy of their students so that they could construct their own ideas. This testifies that the trainees validate their students as knowers [3]. At the same time they state ("… *I was so happy that they noticed…)* their proving personal confidence and autonomy from stereotypes what testifies their getting self-authored teachers. The subcategory *"Diagnosing learning problems of the pupils"* may be defined as the process during which the future vocational teachers, conducting action research, are indulged in the constant observation of their students with the purpose to provide the learning advance while understanding their learning problems and helping to eliminate them *("I usually discuss with my students our learning goals, then we analyze how to reach them, I encourage students to speak about their learning difficulties…Then we together make decisions" D7; "My students do not like to speak about their problems < > it is difficult for them to understand the perspectives, if they try to solve the problems. But I prefer to be persistent…D9").* Such aspects as goal setting, multiperspective analysis of the learning process, defending the personal position may be regarded as a way to self-authorship, as it is related to the decision making concerning learning process. As Jane E. Pizzolato states [9], the decision making urges students to assess a situation, the expectations dictated by the situation, and their own desires. This leads to the idea that students who consider multiple perspectives, reflect on their goals, and work from these internally defined goals and perspectives approach being self-authored [9].

The third theme "Relations" is closely related to the becoming self-authored. It is represented by 510 quotations. It is a quite homogeneous and the most expressive theme. Category *"Learning as a mutually constructed process*" (246 quotations) is represented by two subcategories *"Active dialoguing with the students and colleagues"* (118 quotations) and subcategory *"Accepting the alternate perspectives and viewpoints of others"* (138 quotations). The great number of quotations and possibility to distribute them into two subcategories demonstrates quite similar experiences of the trainees. The subcategory *"Active dialoguing with the students and colleagues" ("My students became quite free to express their ideas, to reveal their experiences. It is so interesting" D1; "...we are on dialogues terms, we do not argue anymore..."D2; "During classes we share our opinions..."D4; ect.)* demonstrates the emerging of dialogue culture which in vocational training institutions may be regarded as an educational achievement, because majority of students are demotivated and indifferent towards their learning achievements. This standpoint is supported by the quotations of the second subcategory *"Accepting the alternate perspectives and viewpoints of others"("At last I can say that*

we start being tolerant and do not bully other people for different opinion"D3). Majority of the quotations, presented in the latter subcategory also reveal that the trainees enable students to assess the diverse positions of other people. The ability to cope with diverse opinions and to treat them as knowledge resources may be regarded as the attempt to be self-authored. Category *"Interpersonal relationships with others"* (264 quotations) is represented by two subcategories: "The formation of internal voice" (87 quotations), "Sharing of self-reflections" (177 quotations). The subcategory *"The formation of internal voice"* reveals students attempt to develop an internally defined and integrated belief system and identity *("At the beginning of my practice I set my teaching goals, and thought that I will stick to them...But I have to tell to myself that I was too optimistic. Nevertheless, I will try once more to explain my students what I am aiming at. I want us to have common goals" D8; "Sometimes I start thinking who I am, whether I really want to be a teacher. Yes... sometimes one must understand what a strong will is" D7)* which prepare them personally and intellectually for lifelong learning. Trying to be self-authored is reflected not only in the change of attitudes, but also in behaviour to. The subcategory's "Sharing of self-reflections" quotations *("I start my class with the short reflection of my approach to what was done during the previous class. My colleagues think, that it is waist of lesson time, but I decided to try to learn to be objective and precise" D3;"I remember what my students have said about their expectations, I want this issue to be active"D11; "I always encourage my students to approach me any time to discuss and understand what is relevant to them" D1*) highlight trainees attention to students' interests, abilities and skills, learning goals, obstacles to reaching goals, ect. Their mutual conversations, discussions, open reflections that enable trainees and their students to validate the learning perspectives enable them to take responsibility for their academic outcomes at the same time becoming self-authored.

CONCLUSION

The findings of quantitative content analysis demonstrate that in most cases self-authorship appears from conflict, disequilibrizing situations in which future vocational teachers occur. These provocative situations might be managed with the help of action research. Because of its collaborative, self-reflexive nature, action research may be defined as a learning strategy, promoting strengthening of self-authorship process.

Action research came into the focus because of its reasoning on taking purposeful actions to improve learning and to create knowledge or theory about that action. For this reason self-authorship can be facilitated through action research.

Action research is centred on the fulfilment of learning goals. The future vocational teachers who were indulged in action research, observed increased sophistication in thinking, speaking, and writing, recognizing assumptions, bias, and arguments; openness to larger perspectives; tolerance for ambiguity, what might be regarded the features of being self-authored.

Although participants of the research did not fully achieve self-authorship, increasing complexity in how they viewed knowledge, their own role in decisions, and how to consider others' wishes contributed to their professional development progress.

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TEACHER´S AUTHORITY AS A ONE OF THE MOST IMPORTANT FACTOR OF SCHOOL REFORM

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ABSTRACT

In the life of a child, a pupil, student, the authority is fundamental and is of key importance for its further social experience. As a dynamic element, it is subject to a number of changes especially between childhood and adolescence. We cannot separate the authority from the educational process, as the constitutive element of the teaching profession it manifests itself in the social relationship between the teacher and the learner. The teacher plays an important role in this process, as the pupils are reliant on the support teachers can offer them and ultimately build on their authority. This should be seen as one of the important tasks of school reform in Slovakia.

Teachers can't think, that based on their formal position and social role, they will always be considered by the pupils as their authority. Although their formal authority is legitimately recognized by society and the law, pupils in the present day do not attribute high importance to the formal teacher´s authority.

Since the basis of the educational process is created by the interaction between the teacher and the pupil, the teacher's interactive style must be considered significant from the point of view of the teacher's authority.

Our research task was to find out the interaction style of primary school teachers. Our research findings have pointed out that pupils perceive their teachers as educators who are good organizers, help them when they need it, can understand them, and lead them to accountability, which can be positively evaluated.

We also consider the fact that pupils did not perceive their teachers as uncertain, dissatisfied and strict. Based on these findings and adhering to the teacher's interaction style model T. Wubbels et al. [1], we can conclude that in the studied classes the educational process was carried out by authoritative and tolerant-authoritarian teachers. We are of the opinion that this also points to the awareness of the importance of teacher's authority to pupils in educational reality.

Keywords: authority, teacher's authority, pupils, interaction style, authoritative teacher, school reform

INTRODUCTION

Today, there is a consensus in pedagogical and social sciences in the description of authority not only as a quality of individuals but also as a quality of the social relationship between them. This interactive way of looking at the issue gives the opportunity to handle the nature of authority more creatively. Since the interaction is

determined by two participants, there are also two ways to perceive authority. On one hand, the authority is required by the teacher and, on the other hand, it is acknowledged by the pupil. Corresponding with the opinion of R. Reichenbach [2] and T. Molnár [3], it is a reciprocal influence between a person who accepts the authority, and a person whose authority is acknowledged, it is a social process in which every behaviour is both cause and consequence.

The authority in the interaction between teacher and pupil is formed by acknowledging their reciprocity despite their inequality, which also offers a chance of self-acceptance for both of them. In this reciprocal acceptance, the respect and dignity of the individual are irreplaceable. Based on these facts, we may state that a true and ideal pedagogical relationship between teacher and pupil is influenced by the reciprocal acceptance which is described by W. Herzog [4] as a moral dimension of educational procedures.

TEACHER'S AUTHORITY MANIFESTED IN THE PROCESS OF EDUCATION THROUGH INTERACTION STYLE

The teacher's activity during lessons is influenced by many various determinants. Particular teachers often repeat some elements that occur in their teaching regularly. We may speak about a permanent characteristic of a teacher's activities, which represents the teacher and is described as the teacher's interaction style. This style helps the pupils to predict the teacher's reactions during the realisation of the teaching process. Every teacher inclines to a particular type of behaviour and communication which is dominant in different interaction episodes (Gavora and Mareš, [5]). On that account, we may consider the interaction style as a characterisation of the teacher. It is based on the concept of interaction style and has its roots in the theory of T. Leary, who contributed to the interpersonal behaviour model. His theory was brought into education and the field of upbringing by Dutch educationalists. The teacher interaction style can be manifested in eight dimensions:

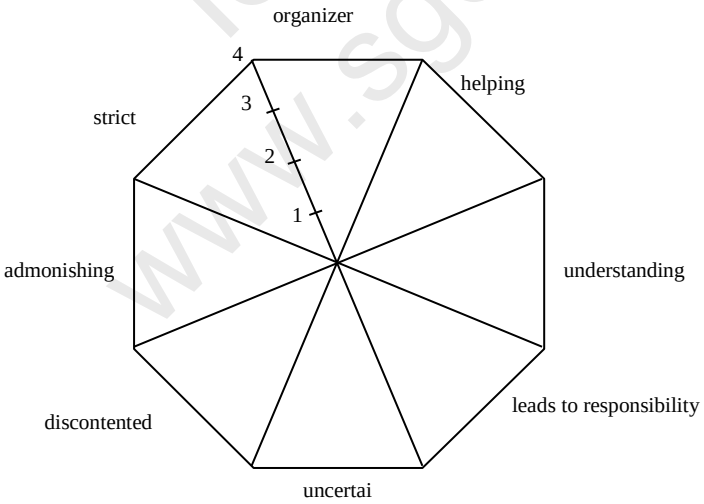

Figure 1 Eight dimensions of the teacher interaction behaviour model

According to P. Gavora and J. Mareš [5], particular dimensions can be characterised as:

- teacher organizer – notifies pupils of what is going to happen in the class, organizes, gives orders, gives homework, determines the proceeding of the lesson;

- helping teacher – helps, shows interest, behaves friendly and consistently, has a sense of humour, encourages self-confidence among the pupils and arouses trust, creates a pleasing environment in the class, is considerate and patient;
- understanding teacher – is sympathetic, able to accept the pupils' apology, is open and patient, finds ways of solving conflicts, expresses trust in the pupils;
- teacher who leads the pupils to responsibility – gives the pupils the opportunity to work individually, waits while the pupils relax, gives them freedom linked with responsibility, respects the pupils' suggestions;
- uncertain teacher – retains his distance, often makes apologies, admits his fault, avoids responsibility, and does not hold his/her ground;
- discontented teacher – waits silently in the class, requires calm, expresses his/her discontent, questions and criticises the pupils, is bad-tempered;
- admonishing teacher – often angry, openly expresses his/her irritation, forbids, likes to punish pupils and does so frequently;
- strict teacher – always checks on pupils, evaluates them strictly, demands that pupils are silent in the class, calls for strict observance of rules and regulations.

Corresponding to an opinion of P. Gavora, J. Mareš and P. den Brok [6], we put an emphasis on the sectors' order in the octagon, which is not random. The behaviour in the neighbouring sectors is more cognate than the behaviour in the sectors that are distant from each other. For example, if the teacher behaves in a friendly way to the pupils (sector *Helping*), he/she is also very likely to be able to listen to the pupils (sector *Understanding*), if the teacher is able to listen to the pupils, it is very probable that he/she enables them to make suggestions (sector *Leads to responsibility*), etc. The opposite sectors create the weakest relationships. The hesitant teacher (sector *Uncertain*) is probably not able to organize the proceeding of the lesson (sector *Organizer*).

The given octagon in Figure 1 needs to be perceived not only as a group of eight sectors, but also as two axes on which these sectors are built. We can certainly say that the teacher with a strong characteristic of *Helping* is dominant (because this sector is situated near by the position of dominant) and partially forthcoming (because this sector is situated near by the position of forthcoming). On the other hand, the teacher who has a strong characteristic of *Discontented* is certainly submissive and admonishing (Gavora and Mareš [5]).

RESEARCH METHODOLOGY

Perceiving and realizing the fact that authority in the process of education is being formed through the interaction style, in pursuing the research we focused our attention on the ascertainment and analysis of the elementary school teachers' interaction style. The teacher's interaction style was ascertained with the help of a QTI – Questionnaire on Teacher Interaction. Our aim was to find out the values of the particular dimensions (8) of the interaction style of research sample. The QTI focusing on the teacher interaction style. The questionnaire consists of scaled entries by which it is possible to consider individual sectors of the teacher interaction style. Each sector is covered by eight entries. Each entry consists of five positions which express the frequency of the teacher's behaviour from 'never' to 'always'. Based on the questionnaire, it is possible to define the teacher interaction style in eight sectors (Gavora, Mareš, den Brok [6]).

The research participants were also N=411 pupils who considered the interaction style of their teachers of Slovak language and Math. Research sample of pupils (N=411) to whom 23 teachers distributed the Questionnaire on Teacher Interaction (QTI), with respect to gender: n=316 (71.77%) male pupils and n=95 (23.11%) female pupils.

RESULTS

Table 1 Arithmetic mean of 8 dimensions creating the teachers' interaction style from the point of view of the pupils (23 classes)

Arithmetic mean of teachers according to classes	O (AM) [1]	H (AM)	U (AM)	R (AM)	I (AM)	D (AM)	A (AM)	S (AM)
Class 1	3.35	3.42	3.05	3.07	0.73	0.82	0.84	1.40
Class 2	3.05	3.21	3.12	2.03	0.65	1.00	1.39	1.02
Class 3	3.21	2.82	2.77	2.31	0.9	0.65	0.67	0.89
Class 4	3.11	2.98	3.12	2.26	0.78	0.81	1.12	1.21
Class 5	3.09	3.09	2.96	2.79	0.88	0.94	1.45	1.84
Class 6	2.99	3.10	3.18	2.82	0.76	0.75	0.58	1.11
Class 7	2.81	2.67	3.22	2.55	0.81	0.78	0.90	1.13
Class 8	3.20	3.42	2.96	2.75	0.87	0.71	0.76	0.91
Class 9	2.31	2.78	2.58	2.32	0.99	0.97	0.98	1.11
Class 10	2.55	2.85	2.50	2.27	0.69	0.94	0.89	1.00
Class 11	3.95	3.31	3.21	2.65	0.84	0.86	0.86	1.23
Class 12	2.65	2.46	2.32	2.47	0.90	1.17	1.26	1.16
Class 13	2.67	3.01	2.80	2.53	0.89	0.90	0.80	1.09
Class 14	3.24	3.21	3.12	2.71	0.78	0.91	0.99	1.86
Class 15	3.04	3.31	2.89	2.59	1.11	1.19	1.10	1.51
Class 16	3.25	3.39	3.21	3.14	0.47	0.48	0.76	0.85
Class 17	3.06	3.49	3.47	2.98	1.03	0.75	0.46	0.58
Class 18	3.55	2.84	2.70	2.48	1.40	1.50	1.42	1.45
Class 19	3.70	3.23	3.05	2.88	1.03	0.95	0.99	1.13
Class 20	3.43	2.75	2.37	2.37	1.06	1.10	1.13	1.09
Class 21	3.61	3.48	3.79	3.53	0.21	0.21	0.39	0.52
Class 22	3.25	2.97	2.69	2.55	1.08	1.04	1.01	1.01
Class 23	3.49	3.42	2.81	2.70	1.01	0.96	0.97	0.89
Together	3.15	3.10	2.95	2.64	0.86	0.88	0.94	1.13

From the results given in Table 1, it is obvious that the teachers achieved higher average score (AM=3.15) in the Organizer dimension, which is a proof that the pupils of surveyed classes consider these teachers good organizers of the educational process.

[1] **Key** O (AM) – Arithmetic mean of dimension Organizer, H (AM) – Arithmetic mean of dimension Helping, U (AM) – Arithmetic mean of dimension Understanding, R (AM) – Arithmetic mean of dimension Leads to responsibility, I (AM) – Arithmetic mean of dimension Uncertain, D (AM) – Arithmetic mean of dimension Discontented, A (AM) – Arithmetic mean of dimension Admonishing, S (AM) – Arithmetic mean of dimension Strict

Similar results can be seen in the Helping dimension in which teachers of all the classes achieved a higher average score (AM=3.10), which indicates that the pupils consider their teachers as helping.

Pupils from all surveyed classes consider their teachers as the teachers who can understand them. It is indicated by the higher average score of teachers (AM=2.95) in the above-mentioned dimension. According to the pupils' opinion, they are educated by the teachers who lead them to responsibility. It is also indicated in the higher average score of teachers (AM=2.64) in the surveyed classes in this dimension. According to J. Mareš and P. Gavora [5], the teacher who is a good organizer may be possibly characterised as the teacher who knows what is going to happen in the class, gives homework, and determines the path of the lesson. According to the above mentioned authors, the teacher who excels in the Helping dimension is characterised by the fact that he/she shows interest in his/her pupils, behaves friendly and consistently all the time, has the sense of humour, encourages self-confidence of the pupils by arousing trust, is considerate and patient, and, last but not least, creates a positive environment in the class. The Understanding teacher is open and patient, sympathetic, able to accept the pupils' apology, finds ways of solving the conflicts, and expresses trust to the pupils. The teacher who leads the pupils to responsibility always gives them the opportunity to work individually, links freedom with responsibility, and respects the pupils' suggestions.

The positive discovery is that the teachers in the surveyed classes were not considered as uncertain, discontented, admonishing or strict. It can be seen in the lower average score in the above-mentioned dimensions (AM=0.86, 0.88, 0.94, 1.13).

On grounds of the average score achieved by the teachers in individual dimensions of the interaction style, we can create a circumplex (octagon) of the teacher interaction style.

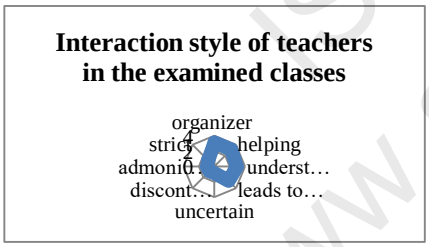

Figure 2 Circumplex model of teachers' interaction styles in the examined classrooms

The circumplex based on the achieved values of arithmetic mean shows that the surveyed pupils considered their teachers as good organizers, helping, understanding and leading to responsibility.

The higher achieved average score in the dimensions of organizer, helping, understanding and leading to responsibility also shows that the educational activity in the classes was performed by the authoritative and tolerant-authoritative teachers. This statement is based on the comparison of the interaction style of the teachers in the surveyed classes in Figure 2, and of the 8 models of circumplexes of teacher interaction style according to T. Wubbels et al [1].:

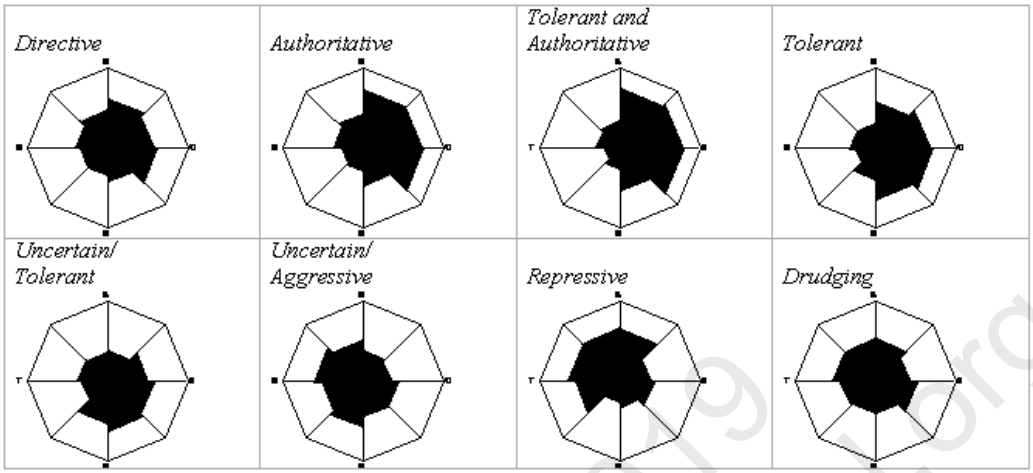

Figure 3 The circumplex models of teacher interaction style according to T. Wubbels et al.

CONCLUSION

This empirical discovery is considered highly positive. Teachers should become aware of the fact that their authority is being created through the interaction relationship with pupils. Therefore, it is essential for them to be endowed with enough theoretical knowledge adequately connected with the basis of educational praxis of the teacher interaction style. With this grounding, they will be able to diagnose the teacher interaction style by the use of which they will also succeed in building, using and sustaining their authority.

A. Hemmings and J. L. Pace [7] undertook research on the ways of using authority and on the observation of its influence on the study results in various stages of school. They described the influence of the interaction between the subjects of education as the most important variable impacting the formation of teacher authority. As follows, in accordance with M. H. Metz [8], the authors state that to build and assert authority in classes, it is necessary that the subjects of education are in constant negotiation. It is true that the teacher's legitimate position as the person with authority is connected to his/her role (formal authority), but in concordance with other authors researching authority (Metz, [8], Tirri – Puolimatka, [9], Vališová, [10]), we also suggest that teacher authority is distinctively influenced by the teacher interaction style.

This premise was also emphasised in the research of R. Šikulová et al. [11], who showed that through everyday interaction between teacher and pupils the relationships are built, and authority is formed and implemented. The research in the Czech Republic in 2011 focused on perception of the teacher's authority through the pupils' eyes. 1735 pupils from 5th to 9th class of elementary school participated in this research. The aim

of this empirical research carried out by R. Šikulová et al. [11], was to identify the possible differences in perception of the interaction style of a teacher who has authority among the pupils and one who has not. The authors of the research tried to find the answers to the following questions: Which dimensions represent the largest opposites in the perception of the interaction style of teachers with and without authority? Are there any differences in perception of the interaction style of teachers with and without authority among girls and boys in the surveyed classes? In which dimensions of the interaction style were the differences monitored? Are the researched differences statistically significant? The quantitative research was realized through the QTI - Questionnaire on Teacher Interaction. The analysis of acquired research data helped by identifying the most significant differences in the perception of the interaction style of teachers with and without authority in the dimensions of organizer, helping, understanding and uncertain. Teachers who have authority are considered by pupils as able to organize, help the pupils and understand their needs. The research results also show that the teacher with authority is also considered as one who likes to help and who gives advice when pupils need it. Pupils can rely on this teacher, he/she is very friendly, has a good sense of humour, creates a pleasing environment, understands the needs of others, supports the pupils in their development of responsible behaviour, gives the opportunity to participate on decision-making in the class and does not show any insecurity or discontentment or admonish the pupils.

According to the research results of T. Wubbels et al. [12], the authoritative and tolerant-authoritative teachers are most commonly described by pupils as good teachers. Thanks to the achieved and asserted authority, the above-mentioned types of teachers are able to organize, lead to responsibility and create a positive relationship with pupils. That should be one of the main tasks of teachers within the curriculum reform. T. Wubbels et al. [12], characterise the authoritative and tolerant-authoritative teachers as the teachers who are task-oriented but also able to create a positive environment in the class. Their educational activity may be characterized by its structure, lesson planning, using a wide scale of educational methods; their lessons are entertaining, however, the rules are set strictly. They have a positive relationship with pupils, they are more loving than the directive types of teachers, they consider pupils' needs, show their personal interest in pupils and form closer relationships with them. The authoritative and tolerant-authoritative teachers motivate their pupils, by which they not only achieve their educational aims but also stimulate the pupils to higher and better performance. The empirical ascertainment may be summarized in the statement that, in terms of the mentioned characteristics, it is very pleasing that the teachers who teach in the surveyed classes are authoritative and tolerant-authoritative.

ACKNOWLEDGEMENTS

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TEACHER'S INDIVIDUAL CONCEPT WITH FOCUS ON COOPERATION WITH PUPIL'S FAMILY

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ABSTRACT

Our article focuses on the teacher`s individual concept aimed at the cooperation with pupil`s family. It analyses the individual concept of teachers as part of their professional competence which influences the way teachers teach and it also determines the teaching process. To a certain degree, it also has an impact on their communication and cooperation with families of their pupils. The article clarifies the understanding of the family-school relationship. It explains how to include parents into the teaching process at school so that this mutual cooperation is beneficial for all participants. For a long time, the relationship between school and families has not been considered as a topic necessary to deal with. However, the situation has changed and now parents are perceived as partners and clients who are active participants in the school life and activities. For this reason, authors emphasize the importance and significance of the cooperation between family and school. In this context, it is indispensable so that teachers have cooperative competences within their professional competences. The article contains also results of the research examining how future teachers are prepared for the cooperation with pupils` families.

Keywords: teacher's individual concept, family-school relationship, cooperation, future teachers

INTRODUCTION

Teachers are responsible for fulfilling their professional tasks and for the harmonious development of every pupil. They are very important in the educational process because their communication, attitudes, expectations and relationships to their pupils can significantly influence the attitudes as well as learning results of their pupils. Teachers represent living models their pupils imitate and they also identify with them in many areas. The quality and effectivity of educational-formational work of teachers depends on their general culture, personality, moral profile and professionalism.

All teachers have their own understanding of aims, topics, methods and forms of work, of their pupils and class, as well as of their own role and self-perception in the teaching process. Their way of thinking is reflected in their perception of teaching and applied pedagogical strategies. We can call it pedagogical thinking of a teacher (Mendelová – Fenyvesiová [8]). The synonym of this concept can be the teacher`s perception of teaching (Mareš [6]), teacher`s pedagogical thinking (Průcha [10]) or individual concept of teaching (Pavličková[9]).

TEACHER`S INDIVIDUAL CONCEPT

Teacher`s individual concept is understood as a complex of pedagogical opinions, pedagogical attitudes and teacher`s reasons which explain them. This complex forms the cognitive and emotional basis for teachers` thinking about education, their evaluation of the education and for their dealing with all participants of the educational process (i.e. with the parents of pupils as well). It has certain features:

- implicit, hidden: it does not have a unified, stable form of detailed elaborated rules;
- subjective: it is related to the specific features of a personality and pedagogical experience. It leads to an individual style of acting;
- relatively unconscious: teachers do not usually analyse it consciously, they do not control if deliberately;
- oriented: it includes positive, neutral and negative attitudes. Teachers accept something, they do not feel interested in or they refuse some issues;
- stereotypes: it has a stable course, small variability and flexibility;
- relatively stable: it is resistant to external impact and it changes slowly during the course of time [6].

It is possible to say that individual concept of teachers does not influence the pedagogical reality just in one direction, i.e. only from teachers to their social environment, but pupils, their parents, colleagues, managing staff create their own idea about their perception of teachers` teaching. Subsequently, this idea represents a measure of how to interpretate and evaluate teachers` work (Slavík et al., 1994, p. 378, In [2]).

Teacher`s individual concept is related to all teachers. It modifies efforts to change the pedagogical reality from „above“ (by means of laws, regulations, methodical instructions and orders). Teachers can accept only some parts, they adapt some ideas to their personal needs and they also refuse some ideas. Their individual concepts are modified also by the influence from „below“, i.e. they deal with opinions, activities and results of their pupils, their parents and the public. This is a variable which can be verified. It consists of several parts: understanding of aims, topics, organisational forms, teaching methods, perception of pupils, their development and school class, understanding of teacher`s role, the role of school managing staff and other participants of the pedagogical process (including parents) [7].

Teacher`s perception of teaching fulfils several **functions**:

- projecting (what teachers want to do and how they want to achieve it),
- selecting (what they consider to be important and what is marginal for them),
- motivation (what motivates them to do certain activities, what is not interesting for them and what they reject to do),
- regulation (how they really decide, which ways of managing they prefer),
- acting (what they try to do, what specific acting they have in pedagogical situations),
- evaluation (how they evaluate the pedagogical reality, themselves and other participants in the education, what criteria they apply in this evaluation),
- achieving of results (what results they have and what results are difficult for them to be achieved) [6].

We can say that teacher`s individual concept is the basis for their thinking about the eduacational reality and the starting point for planning the teaching process, for real

acting of teachers at the lessons, for their perception of teaching, as well as for the evaluation of themselves, of their colleagues, managing staff and parents.

COPERATION OF TEACHERS WITH PUPIL`S FAMILY

Family and school represent naturally different forms of educational environment. However, they have a common interest in the well-being of a child (pupil). From the point of view of parents, one way of avoiding mutual misunderstanding is to fulfil, at least, the basic obligations they have according to the legislative. They should inform teachers about really serious situations in the family environment of the child. On the other side, teachers as professionals try to find all possible ways in order to create the most optimal conditions for the healthy development of the child. This is the basis of a real partnership between family and school [4].

The relationship between family and school is primarily dependent on the cooperation of every teacher with every parent. According to Frýdková [1], communication is the basic determinant and assumption for creation of a successful cooperation between family and school. Communication influences our mood, behaviour, relationships with other people, our success or failure in different areas of our private as well as professional life. The way and frequency of communication in family and school environment often influence learning results of pupils, their behaviour and their attitudes to their environment.

We often deal with questions regarding unclear competencies between school and family. In the pedagogical practice, there is a frequent tendency of families to move several obligations to school. Both institutions should act in a complex way. Each of them has also its specific educational features. The partnership in mutual cooperation between family and school is a relationship that is symmetrical and reciprocal. Trnková [11] differentiates two types of such a relationship: *educational* partnership and *social* partnership. The first relationship represents a partnership based on the care and interest in children, their education and formation. In the second relationship all participants try to achieve a development of school as institution and, in this way, to provide pupils with better educational services.

Regarding the family-school relationship, authors Kikušová and Kostrub [3] define school as a specific institution dealing with highly qualified and quality education of a child. For this reason, school is expected to be the initiator of open dialogue and the stimulator of creating and keeping mutual educational continuity. Family has a similar intention, but the education in family does not have the attributes of expertness and professionalism. Průcha [10] emphasizes the role of parents and he considers them to be the first teachers in the life of their child. Parents are the main partners in the relationship of the school with its environment. It is evident that parents also influence the school success of their child in a significant way.

Nowadays, the cooperation of teachers with parents of their pupils is an indispensable part of their work. This cooperation is based mainly on the communication, which can be direct or indirect. In this way teachers develop the social relationship between family and school. Majerčíková et al. [5] analyses this relationship at several levels:

- the relationship of school at the level od ***social institutions,***
- the family – school relationship at the level of ***social organisations,***

- the family – school relationship at the level of ***people – teachers and parents*.**

The mutual coordination of these qualitatively different environments is possible only by means of mutual acceptance of all participants, strengthening of confidence and seeking for suitable forms of cooperation. It means that mutual respect and support can create such cooperation that will be acceptable and effective for all people interested in this participation.

PREPARATION OF FUTURE TEACHERS FOR THE COOPERATION WITH THE FAMILY OF A PUPIL

Creation of teacher`s individual concept is a long-term process. It is formed gradually and it is often changed during the course of a professional career. Its beginnings can be found in the period when teachers were still in the role of pupils and students. During the pre-graduate preparation for the teacher profession, future teachers acquire many theoretical recommendations and they form intuitive, and in many cases, vague perception of teaching. During their first pedagogical practice within the pre-graduate preparation, when they are directly at school, their little functional perception of teaching undergoes the first changes. Their teachers at universities recommend them certain ways of teahing. Under all this pressure their perception of teaching, i.e. their individual concept is being changed and clarified [6]. The formation of the precursory individual concept is based on spontaneous and intuitive opinions, ideas, attitudes, their own experience from childhood and their subjective experience in the role of pupils. The emotional part, positive and negative experience or manifold unconscious feelings play an important role in this formation of the pre-concept [2].

The activity of teachers is not related only to teaching. One part of their work consists of the cooperation with parents. We agree with Majerčíková et al. [5] that this is not only a supplement to teachers` activities, but this cooperation with parents is an important activity that helps to form the relationship of parents to teachers and school. Therefore, the aim of our research was to examine the self-efficasy of teacher students – future teachers about the cooperation with parents. We wanted to find out what they think about themselves, their own cooperative competences, how they evaluate their own skills and competences for the cooperation with family.

The research sample consisted of 86 students – future teachers for the lower and higher grade of secondary education at the Constantine the Philosopher University in Nitra. They had to fill in the questionnaire by Majerčíková et al. [5] called „Self-efficasy of a teacher to cooperate with parents“. The questionnaire had 24 questions, each question had a set scale 0-1-2-3-4-5 from no/low skills up to high skills. The participants expressed their opinions in the scale from 0 to 5, where 0 meant no skills and 5 high skills.

We evaluated the research results in 5 dimensions regarding the given area of the cooperation between school and family. We processed the results into the tables with arithmetical means (Ø).

From the table no.1 it is evident that students achieved the best self-evaluation of their own skills in activities related to the possibilities of informing parents about the learning results of their children at school. This dimension included activities of teachers such as informing about the learning results, behaviour, problems in learning, conflicts with

classmates, feelings of their children at school. The arithmetical mean was 3,35 in this area. Based on this value, we can say that future teachers feel relatively prepared to inform parents about the learning results of their child. They understand that getting information is the primary right of parents in their relationship to the school of their child. They know that this is their basic obligation towards parents, the legal representatives of a child.

Table no. 1

Num. of question	1. Dimension – the skill to inform about the learning results of a child.	Ø
1.	To use all available ways how to inform parents about the problems of their child – in relationship to their classmates.	3,12
8.	To inform parents tactfully if their child has problems with learning.	3,60
13.	To use all available ways how to inform parents about the behaviour of their child.	3,42
19.	To use all available ways how to inform parents about the feelings of their child at school.	3,27
24.	To use all available ways how to inform parents about the learning results of their child at school.	3,34

The skill to advise parents in the educational issues in family was evaluated as the second strongest skill by students. This was a dimension aimed at the counselling competence of a teacher.

Table no. 2

Num. of question	3. Dimension - to advise parents in the educational issues in the family	Ø
2.	To explain to parents how to strengthen the healthy self-confidence of a child.	3,17
6.	To suggest to parents how to solve specific problems of their child.	3,27
9.	To suggest to parents how to solve educational problems of their child.	3,24
21.	To explain to parents the consequences of unsuitable education in family.	2,92
22.	To explain to parents how they should influence the behaviour of their child in the best possible way.	3,21

The arithmetical mean was 3,16. It means that it was above the average value 2,97. Despite the fact that the arithmetical mean was above the middle of the scale, the obtained results reflect lower conviction of students about their own skills to manage counselling and communicative competence. We can state that students – future teachers do not perceive themselves as professionally competent in such activities which are aimed at counselling or consulting skills or at guiding parents in their educational acting. Communication with parents requires abilities and skills to communicate and explain. At the same time, they need to have theoretical knowledge about the ways of correction and improving.

The third strongest skill was the ability to explain how the school works as institution. This dimension was aimed at the self-efficasy of students to clarify how the school management and self-administration work and what sources of financing the school has.

Table no. 3

Num. of question	2. Dimension –the skill to explain the management of school as institution	Ø
5.	To explain to parents how the school council works.	2,80
12.	To explain to parents how the parental meeting works.	3,24
14.	To explain to parents what is done with money that is provided to school.	2,84
15.	To explain to parents the rules in the school canteen.	3,17
20.	To explain to parents how the parent council works.	2,95

The skill to explain to parents the work of school was evaluated with the average value 3,00 by the future students. This value is tightly above the average value of the whole questionnaire (2,97). Based on these results, we can say that the conviction of students about their skills in the given dimension is weak. Students say that they have average knowledge about the principles of work of the school management, school council and parent council and their legislative.

The skill to be transparent to parents was evaluated as the fourth one out of five examined dimensions in the cooperation of teachers and parents. This dimension was aimed at the competence of teachers to transmit the school reality to parents, to include them into the school life and to show them what is happening at school.

Table no. 4

Num. of question	4. Dimension – skill to be transparent to parents.	Ø
3.	To use all possible ways to present the results of pupils to their parents.	3,11
11.	To create enough possibilities at school so that parents can observe what they are interested in.	2,69
16.	To accept the presence of parents at the lesson whenever they want.	2,91
23.	To accept the presence of parents in the class even though it will disturb its atmosphere.	2,59

This dimension achieved the value of 2,82 what is below the average value of 2,97. We can say that students evaluate their own skills in this dimension as relatively weak. In our opinion, the obtained results suggest that future students could be disturbed by the interventions of parents into the teaching process. They may think that they threaten teacher`s competences. It is generally known that teachers do not like to have external observers at their lessons.

At the last fifth place finished the dimension „the skill to persuade parents to support the school“. By means of this dimension we examined the potential of future teachers to persuade parents so that they support the school – with their personal participation, in a material way, financially or with their specific skills related to their interests or profession.

Table no. 5

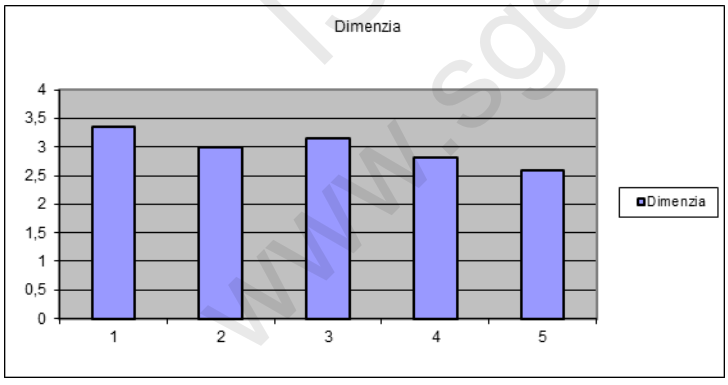
Num. of question	5. Dimension – the skill to persuade parents to support the school.	Ø
4.	To persuade parents so that they participate in events organised by school.	3,02
7.	To persuade parents to help with the organisation of events at school.	2,69
10.	To persuade parents to support school financially.	2,28
17.	To persuade parents to support school in a material way.	2,19
18.	To motivate parents to use their specific skills for the benefit of school	2,84

The skill to persuade parents to support the school was evaluated as the weakest one by students. It achieved the value of 2,60 what is below the average level of 2,97. We can say that students consider the activities whose aim is to get whatever support from the parents as the most difficult ones. The mentioned results suggest that students are aware of the difficulty to persuade parents. They also emphasize the fact that techniques of communication, word influence and persuasion represent a relatively problematic area for students.

DISCUSSION AND CONCLUSIONS

The competence of teachers to cooperate with parents is indisputably one of the most important competences in their professional profile. For this reason, we examined the self-efficasy of students – future teachers to cooperate with parents of pupils. As aforementioned, we administered the questionnaire to the teacher students who evaluated their own skills to cooperate with parents in five set dimensions.

Table no. 6



From the table no.6, it is evident that students perceive the skill to inform parents about the learning results of their child (dimension no.1) as their strongest skill. On the other side, their weakest competence was the skill to persuade parents to support the school (dimension no.5). They feel to be strongest in the role of an informer. Majerčíková et al. [5] confirm that this is the activity teachers most often do in their relationship to parents. Deliberate providing of information to parents is the key competence in the formation of an adequate relationship to parents. Our results suggest that students feel insecure in the role of an counsellor or consultant (dimension no.3). They are also not sure when they have to clarify the managent and work of school as institution (dimension no.2). They

do not feel skillful enough to be transparent to parents (dimension no.4) and to persuade them to support the school in different ways (dimension no.5). Therefore they feel better in the role of an informer because they can influence opinions, attitudes or behaviour of parents.

The arithmetical mean of the whole questionnaire was 2,97. Based on this data we can say that students do not have confidence in their own skills to cooperate with parents, i.e. they evaluate their own skills to cooperate with parents as inadequate ones. The research sample did not have such parametres so that we could generalise the results of our research. However, the obtained data provide certain prediction in the preparation of future teachers in the area of cooperation with parents. These findings lead us to the reflections on strengthening the preparation of future teachers in the area of cooperation with parents of pupils. They also emphasize the need for more thoroughful preparation of future teachers for the cooperation with the families of their pupils.

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TEACHING ENGLISH TO SOCIOLOGY STUDENTS THROUGH ROLE-PLAYING GAMES

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ABSTRACT

The article describes a role-playing game for sociology majors who study English as a foreign language. Drawing on the experience of American and Spanish authors we have developed a game that is instrumental in checking students' knowledge of sociological terminology, translation skills and factual material. The rules of the game are easy to master even for people who have never played board games and its mechanics can be easily adapted to fields other than sociology. Anecdotal evidence from students reveals that they were captivated by the role cards, playing fields, the unpredictable nature of events, and the atmosphere of competition and cooperation. It can be played both in small groups of three to five students, or large ones (ten to fifteen people), in which case participants are divided into teams. In the course of the game students learn such concepts as social stratification, vertical and horizontal intragenerational mobility, ascribed and achieved status, budgeting, and dealing with uncertainties of life. These features make it a robust teaching and assessment tool that furthers students' critical thinking skills, develops sociological imagination and raises students' motivation.

Keywords: role-playing games, English for special purposes, motivation, educational board games, sociology

INTRODUCTION

The use of games in foreign language teaching has been widely researched and acknowledged as an effective tool that raises students' motivation and furthers their communicative skills. Games promote more natural, goal-oriented communication among students. The choice to combine a board game with a role-playing game and elements of a trivia quiz is determined by the ability to incorporate the best from all these forms.

LITERATURE REVIEW

Role-playing games and board games have been widely used in the classroom environment for decades and their usefulness for teaching has been well researched and acknowledged[1], [2]. Simpson and Elias believe that challenging students to view the world through the eyes of fellow citizens with different characteristics enables students to master challenging concepts and issues while preserving their own identity[1]. This chimes in with the idea that students should be involved in solving real-life challenges,

ideally by immersing themselves into the actual working environment, which is essential in targeting discourse experience, especially for English for Special Purposes students[3]. While this is not always possible in the framework of university classes, simulation games may bridge the gap between endlessly re-encoding abstract rules and theoretical tenets in academic discourse and situational approach in the course of which students study *in situ*.

This acquires special relevance in the case of professional education, where the student gains not only factual knowledge, but also assumes a new identity. In the words of Maja Pivec,

"One might suggest that a medical student is "Playing at being a doctor". In the early stages of the of the educational process, and indeed before the process begins formally, this play has a large element of fantasy. This fantasy is not viewed negatively, as presumption of self-delusion, but rather positively, as high aspiration and worthy ambition. As the educational process proceeds, the medical student is increasingly asked to play the role of medical practitioner, and in that role-play knowledge and skill are both cultivated and tested. The role-play is thus used as a teaching method in medical education and as a method of assessment"[4].

While it is perfectly possible for students to play the game on their own (if there are no more than 5 of them), working in teams (of two or three people) is recommended for several reasons. As Benesh observes, the instructor will facilitate emotionally supportive collectivist action by having the students sit in a group[5]. Smaller groups can facilitate individual responsibility, since each person's contribution becomes more visible to the teacher, thus enabling him/her to identify difficulties[2]. In the context of foreign language learning, promoting peer interaction is particularly valuable because it compensates for the lack of authentic experience in both language input and output through creating real-life communication[6].

Using board games in education is nothing new under the sun. They have been used since 1906 when Maggie Lizzie Phillips famously created 'The Landlord's Game' with two sets of rules for her game: an anti-monopolist set in which all were rewarded when wealth was created, and a monopolist set in which the goal was to create monopolies and to crush opponents. Her dualistic approach was a teaching tool meant to demonstrate that the first set of rules was morally superior[7]. Teachers who use Monopoly-like games in the classroom cite positive student feedback overall, although no large-scale quantitative studies have been conducted to bear out these findings[8]. However, as these authors claim, it is "worthwhile to have students play an educational board game during class rather than have them surreptitiously play mindless games on their phones or otherwise fail to fully engage with a lecture"[8].

ELEMENTS OF THE GAME

In order to play the game the instructor, usually the teacher, prepares the following elements:

- The playing field
- A set or role cards depicting characters from different social classes

- Yellow “work” cards containing questions and tasks
- Blue “life” cards, representing chance events.
- Red “property” and achievement cards.
- Money cards (“Monopoly” money can be used)
- A die
- Chips or tokens to represent each player or team

The main feature of the game is the board or playing field, which resembles a circle or an oval divided into multicoloured squares (Figure 1).

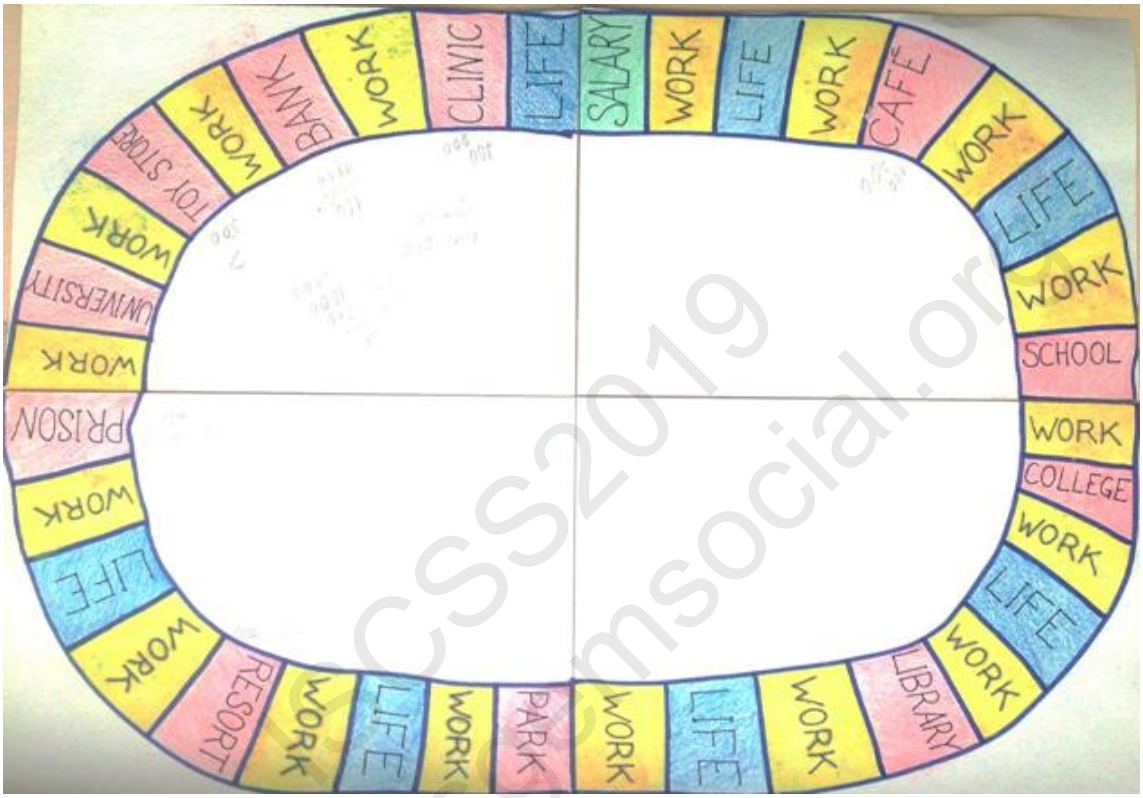

Figure 1. The game board or “the circle of life”

The “circle of life” as it is called is interspersed with squares of different colours, representing different kinds of events and locations the players encounter in the course of the game. The players choose chips or token characters (like small figurines) and move them clockwise passing as many squares as there are points on the die. The starting point is the square called “salary” marked with green. By far the most frequent field is “work”, coded with yellow or gold. It prompts the player to take a yellow card containing a question or task (described below). The blue “life” squares imply that the player should draw one of the blue “life” cards describing an event that happens to them (detailed description provided below). The red location fields represent properties which players can buy and at which something may happen to them (as outlined further on).

The role cards represent the different social classes and serve to illustrate the social structure of society. In order not to overcomplicate the game the following 5 classes have been selected:

- The bourgeoisie (Upper class)

- Middle class
- Working class
- Underclass

They each possess a number of ascribed characteristics: Age (all are adults), Gender (Male or Female), Assets (the money and property that come with a certain social status). If there are talented students in a group, they may agree to draw the cards themselves; otherwise the teacher may find images on the Internet and print them on the cards. Each of these cards possesses two characteristics: asset and salary (See Figure 2)

Figure 2. Sample role cards

The number of cards in the game depends on the number of students (or teams) participating in it. The teacher must also allow for social mobility: while at the start of the game there must be no more than 1 bourgeois, 2 middle class and 3 working class characters, as the game progresses some participants might move up or down the social ladder, accruing more assets as they do so. Once they have earned enough, they change their social class: the old card is removed and the new one is given. Conversely, once a character loses the necessary assets to maintain his/her status, they give up their old card and get a new one. This serves to illustrate the concept of social mobility and the concept of the American dream. At the feedback stage the students will have to opine whether it is easy or difficult for them to get on in life.

Apart from these three classes there are two underclass characters. The "homeless" person does not have any assets and may get only 100 roubles at the "work" square by doing an "odd job". He may also marry to maximize the family income. The criminal does not need any assets and does not work – but he may rob other characters if he chances to be on the same square with them. In that case he takes one salary from them. He may also rob a location (except for the park and the prison), in which case he casts a die and multiplies the points by 100. However, if there are two players on the "work" square or the location is occupied by another player, the criminal is caught, loses his money and goes to "prison". At the next turn he breaks out of it – without paying anything. Following the example of "Choices and Chances"[1], we have declared characters immortal.

The yellow "work" cards allow players to earn money based on their salary and achievements. However, the players lose money if they answer incorrectly (fail to do their job). They may contain one of the following tasks:

- multiple choice (e.g. The term "sociology was coined by a) Marx b) Weber c) Comte d) Durkheim)
- odd one out (e.g. One of the following is not a caste in India a) Brahmins b) Kshatriyas c) Vaishyas d) Shudras d) Dalits)
- define the term (e.g. hidden curriculum)
- find a suitable term for the definition (e.g. the process of renovating and improving a house or district so that it conforms to middle-class taste)
- answer the question (e.g. What are the causes of the Industrial Revolution?)
- translate a sentence from English into Russian
- translate a sentence from Russian into English

The blue "life" cards represent various events that happen in life. They have to be balanced, i.e. the number of "positive" events must equal the number of "negative" ones. The game master must ensure that there are enough "life" cards for them not to be recycled too often. Their function is to break the monotony of the game and simulate the chaotic or unexpected element in life. However, not all cards are applicable to all students. For example, a character who does not own a car cannot get a flat tire. In these cases, students must find a student for whom the card is appropriate, give the card to that student (the receiving student cannot refuse the card), and redraw. The student who received the card must also take his or her turn drawing a card[1]. Among the negative events happening to the players are:"Puncture"; "Fine";"You cheated!"; "Late for work";"Crisis"; "Revolution"; "Fire"; "Burglary"; "You're ill!"; "You're hungry!". Positive events include "Promotion"; "Win a lottery"; "Birthday"; "Windfall"; "You're on TV!"; "Inheritance"; "New Year"; "Inquiry"; "Concert"; "Second chance".

Red cards "Property and achievements" also serve an important function in the game. They symbolize getting on in life and are an important measure of the player's success. The game master must ensure that there are enough of them (one for each player). They each have their value, which is counted as money at the end of the game. Achievements include "Spouse", "Child", "Home", "Car", "Insurance", "Diploma", "Vocational qualification", "Credit". Location and properties are "Cafe", "School", "Clinic","Park", "Resort", "Library", "Prison", "Supermarket", "Toy store", "University", "College", "Bank".

HOW THE GAME IS PLAYED

The game incorporates both homework assignments and classroom activities. It is recommended to conduct the game at the end of the semester, since it must include a variety of theoretical questions based on the curriculum.

Stage I: Preparation

Prior to playing, the students are to write tasks and trivia questions based on the theoretical material that they have covered in the course of the semester. This stage is extremely important and demands careful supervision by the teacher. Each student is given a topic and is asked to write questions and tasks of all types. Depending on the number of students and topics each may have to compile from 7 to 10 cards. It is crucial

that the students, but not the teacher do this, as they will not be able to say later on in the game that the questions were too difficult. Besides, it adds to the objectivity of the teacher's assessment of the correction of the answer as there is always one more person in the room to corroborate the veracity of the statement. However, the teacher must read the questions and tasks very attentively in order to ascertain that the student's suggested answer is correct. It is best if students send their questions by e-mail and the teacher checks them, edits, if necessary, and then prints on coloured paper.

As for the other elements of the game: the "circle of life", the property and achievement cards, the life cards and the role cards, their preparation can be outsourced to the students, especially if there are some among them with artistic talents, on the proviso that the teacher checks their layout and purges any inconsistencies or mistakes from the final version. Obviously, if the students do not volunteer, they should be tasked only with writing the questions for "work" cards. That said, drawing a house or car for themselves is not a very taxing exercise and is actually fun to do.

Stage II Play

The teacher explains the rules and the goal of the game. In order to simplify this task he/she may say that the game is loosely based on Monopoly, the objective being the same – to earn money, buy property and ascend the social pyramid. He explains that there are 5 types or role cards – the upper, middle and working classes, the underclass (salary 100 roubles) and the criminal. He does not need to tell them about each of the "life" cards as they will read them as they draw them. However he has to tell them about the achievements and the opportunity to buy property. Indeed, the teacher often has to encourage students to "marry" and buy a house, a car or insurance, by pointing out the advantages of such actions. In order to motivate students even more, he may say that the winner will get the highest grade, since the simulation is arguably more effective when students believe their grades are at stake[9].

Having understood and agreed with the rules, the students sit down around the playing field and choose a chip (small figurine to represent their team on the playing field). Then they draw the role cards and the teacher gives them their assets. The bourgeois gets a home (1000 roubles), a car (500 roubles) and 500 roubles in cash. Middle-class characters get a home (costing 500 roubles) and 500 in cash. Working-class characters get 500 in cash and assume that they are renting their flats.

At this stage some students may complain that it is unfair that they have drawn a low-income card, while others have a higher income. In that case the teacher must explain that social inequality exists at birth as some people are born into rich and others into poor families. However, they may progress up the rungs and improve their social status through hard work. Furthermore, the bourgeois may also lose their status if they fail their business: the risks for them are higher than for the middle- or working class people.

The game starts with the bourgeoisie character casting the dice and making the first move. They move the chip on the corresponding square and perform the necessary action (e.g. earn money or buy a property or pay for the meal). Then the next player throws the dice and makes the move. The game takes about an hour to play, though the time is not limited – it can be more or less depending on the will of the participants.

Stage III After playing

At the end of the lesson the teacher asks students (or teams) to add up their assets and cash and calculate the amount of money they have. Based on this he awards them the first, second, third and fourth (or, possibly, fifth) place. Then they are rewarded with grades or additional points at the exam, in which case certificates may be bestowed upon students. These are to be prepared in advance with blank lines to write students' names.

CONCLUSION

The various aspects of the game empower the students to view society from the perspectives of various social classes using their own cultural capital to participate in the 'rat race' for the first prize. Students give overwhelmingly positive feedback to its emotional aspect: "The game is quite enjoyable to play and spurs only positive emotions"; "the game serves educational and entertaining purposes which makes it both fascinating and challenging" and its mechanics: "The card system of this game is flawless as well"; "The questions are well-balanced so that the number of both challenging and easy ones is equal".

Interestingly, students see it as mostly a means to evaluate their knowledge and skills: cf. "Apart from being entertaining and thrilling, it also has the element of competitiveness and requires certain knowledge that has to serve as the key to entering the pathway to victory"; "Due to the fact that the winner is defined by the number of points gathered and earned during the process of the game, the use and presence of cognitive abilities of players are assessed as the primary objective"; "It can easily be integrated into the process of studying and help teachers to assess the level of student's understanding of the material based on the number of their (his or her) correct answers".

The result of the game largely coinciding with results of tests conducted in various groups where the game has been played validates its usefulness and effectiveness as a teaching and testing tool. Interestingly, it was the academically more advanced students who chose to "marry" in the course of the game, "have children", and otherwise use the properties and achievements to back up their success. This may be due to their higher responsibility levels overall or higher confidence in life. However, this question requires further study to be solved. Providing opportunities both for classroom and for individual work, the game serves as a handy tool both for the revision and for assessment of students' knowledge, skills and competencies.

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TEACHING ESP FOR STUDENTS WITH DIVERSE LANGUAGE BACKGROUNDS IN NON-LINGUISTIC UNIVERSITY

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ABSTRACT

The present study is based on the fact that nowadays the sphere of education is constantly developing. The clear majority of universities all over the world tend to provide their students with higher education that will be recognised globally. There is a wide range of universities in Russia that follow this trend. Institutions of higher education are designed for students with diverse language backgrounds among them there are universities that focus on teaching students with a different ethnic and linguistic origin. RUDN University is the only university in Russia that educates students from around 150 countries. That is why it is necessary to identify strategies of teaching foreign languages for students who belong to various language groups.

Our research relies on the observation of students majoring in economics. The relevance of the topic is due to the fact that today economics is still one of the most prospective and sought-after fields of study in Russia. Therefore, our research is aimed at identifying the most common and efficient methods of teaching foreign languages to multicultural, international students and native speakers of the Russian language majoring in economics.

The purpose of the given research is to distinguish how the belonging to different language groups influences the choice of methods that are used by a lecturer during the education process. Special attention is paid to the analysis of activities that are used during the foreign language lessons for students majoring in economics such as rendering, translation, case studies, lessons with native speakers to identify the most useful and helpful means of teaching and learning of specialised language. Besides, the present article includes the results of the survey and comparative analysis conducted among the students learning economic English to identify which of these methods are more required in groups of multicultural students and in groups of native speakers.

The present research classifies the existing data and methods of teaching foreign languages for students majoring in economics and suggests methods that are frequently used in non-linguistic universities in groups of students with diverse language backgrounds.

Keywords: Multicultural student, language background, non-linguistic university, English for specific purposes.

INTRODUCTION

The sphere of education is changing all the time. Due to this fact it is necessary to be able to stay up to date with modern trends. Teaching methods and technologies vary in accordance with global requirements for the education standards. It is a well-established fact that today education is more affordable and diverse. Students have an opportunity to choose any university they like and not only in their native country. Now when geographic boundaries between countries are becoming more blurred amid the high mobility of people around the world, everyone has a chance to get the education abroad. As a result, the significant number of universities all over the world faces the challenge of teaching students with entirely different cultural and language backgrounds, and, what's more, to create the environment where each student feels free to express their opinion and share the ideas on a specific topic.

Naturally, teaching of multicultural students has its own sticking points that should be taken into consideration while working out an educational plan and choosing certain types of tasks that can be implemented in the classroom during the process of teaching professional English for student with different language background and different set of knowledge that is necessary for the successful mastering of the teaching material.

Peoples' Friendship University of Russia (RUDN University) is one of the most unique universities within the framework of the contemporary education system in the Russian Federation, not only thanks to the training of highly qualified Russian specialists, but also due to the fact that it is the only university in Russia with the largest number of international students. RUDN University educates students in various fields such as medicine, law, engineering, etc. In our research, we will consider students who major in Economics and study the language of speciality at the Economic Faculty of RUDN University as it is one of the most popular and in-demand directions of studies among international students.

MATERIALS AND METHODS

The present research is based on the analysis of the linguistic means used in teaching professional English to multicultural students majoring in economics in non-linguistic university. Among the most commonly used techniques, there are rendering, translation, case studies and lessons with native speakers. During the English for Specific Purposes' lessons, two groups of students were suggested to estimate the efficiency of these particular types of tasks.

PECULIARITIES OF TEACHING LANGUAGE OF ECONOMICS

Teaching language of economics is impossible without the study of the term 'discourse' in general and the term 'economic discourse' in particular. The discourse itself is one of the fundamental notions in linguistics that is why linguists all over the world are aimed

at providing the most accurate definition of the term ‘discourse’. It was studied by such linguists as N.D. Arutyunova, E.S. Kubryakova, Dijk and others.

According to Van Dijk, discourse is defined as a communicative act that takes part between a speaker and a listener or observer within a specified period of time [1]. Among the Russian scholars, the most popular definition was given by N.D. Arutyunova who defines it as ‘a textual unity together with its extralinguistic factors such as pragmatic, sociocultural, psycholinguistic and others’ [2]. In our research, we consider discourse as a dynamic phenomenon. The main aim of discourse is to produce a speech act (text) and guarantee its perception by a recipient.

As for economic discourse, we define it as a combination of speech acts in the sphere of economics as well as written and oral economic texts and articles that were created by professionals, non-professionals or journalists.

It is possible to distinguish several objectives of economic discourse that should be taken into consideration while teaching professional language to students majoring in economics:

1) distribution of information on the economic situation in a country or the world;
2) study of economic development directions;
3) coverage of economic events.

The language implemented in economic discourse is characterised by the full range of language tools and grammatical forms, economic vocabulary, specialised terms. This is due to the necessity to influence a recipient, deliver information and encourage action. In addition, economic discourse spurs the efficient, professional communication within the group of professionals and linguistic means used in a certain professional sphere correspond to the system of terms that are connected utilizing logical relations of subordination and collateral subordination [3].

The economy has a practical focus. The knowledge of the economy allows a person to make better decisions when buying goods, hiring employees, finding solutions in difficult life situations, answering a lot of questions (which professions are better paid, which ones have the lowest unemployment rate, etc.), as well as to understand how the economy functions both in the country and around the world.

Due to this fact it is necessary to make students familiar with economic discourse. That is why it is essential to single out some peculiarities of economic texts that can cause problems for non-linguistic students:

- the large volume of information in combination with complicated terms;
- lack of the consistent manner of presentation of information;
- extensive use of metaphors;
- prevalence of phraseological equivalents of words [4].

Besides these factors, it is necessary to remember that RUDN University is a multicultural institution of higher education with students from all over the world. Consequently, one more condition to the successful study of international and Russian students is the mastering of the English language itself and not only the economic discourse in particular. Thus, the adaptation of international students in the new

environment is closely connected with the formation of a sustainable system of relations on all levels of the pedagogical system.

IMPLICATIONS FOR TEACHING

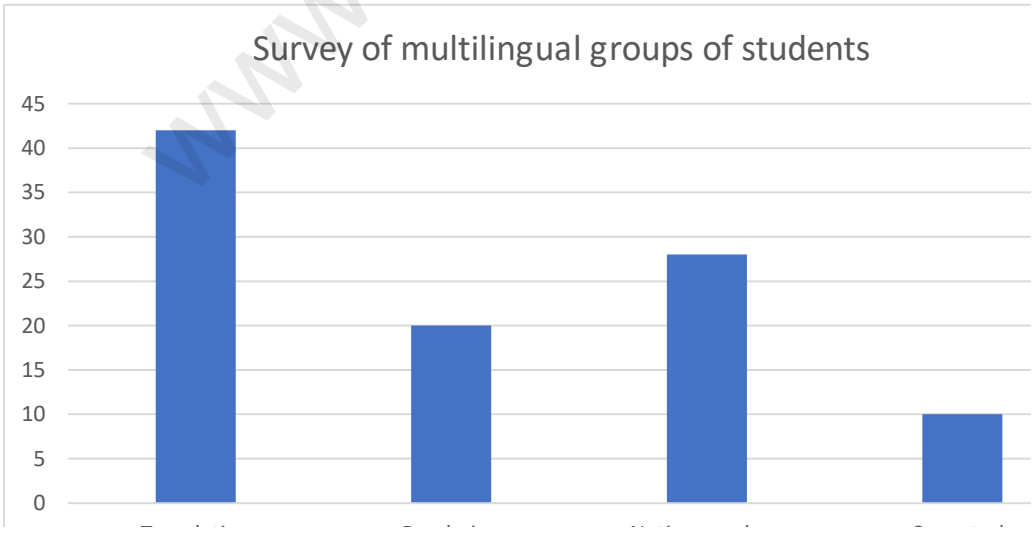
Despite the fact that RUDN University is a non-linguistic university, it provides students with English language lessons where they can not only become familiar with the language of their future profession but also to improve their knowledge of English in general in accordance with the programme of further professional education – "Translator".

As we have already mentioned, the lessons of professional language teaching are aimed at explaining the peculiar features of the professional language to multicultural students majoring in economics. During lessons, lecturers implement the following methods and techniques. Students have lessons with native speakers; also, they complete such tasks as rendering, translation and case studies.

We have asked nearly three hundred students majoring in economics who were divided into two groups (multicultural students and the native speakers of the Russian language) to identify how efficient these methods are for them to study economic discourse and understand its peculiar features that will be useful for them in the future while working with specialised economic text, documents and materials. These students were placed into two corresponding groups: multilingual and monolingual groups.

At first, it is necessary to point out that we define multicultural students as those who were born outside the Russian Federation or those whose parents belong to different nationalities and, thus, these students are bilingual.

According to the survey (pic.1), multicultural students identified translation as the most efficient way of learning the language of economics (42%) due to the fact that translation tasks help them to learn new specialised vocabulary in several languages at once. In addition, as those who speak two languages in their families, it is easier for such students to correlate two different notions in several languages. Besides, they are more flexible and able to switch between languages quicker.



(pic.1)

The second most efficient activity according to the opinion of multicultural students is lessons with native speakers (28%) as they are more open to the communication in the foreign languages and there are no problems for them to find a common language with people of diverse language backgrounds.

The third place is given to the rendering (20%). Rendering implies the study of authentic articles published in international newspapers and magazines (The Economist, The Guardian, etc.) and on various websites (bbc.com, investopedia.com). Popular economic articles fulfil all the basic functions required for teaching non-linguistic students such as informative, educational, entertaining and ideological. While reading an article, students learn common vocabulary used in the international community, general scientific terms and specialised terminology connected with their field of knowledge.

The consideration of authentic articles is of great value among students as they combine different styles and may contain (except for specialised terminology) colloquial words and phrases that can help to understand the culture of other nationalities; elements of the language game that explains how the words can be used in the language; phraseological units that can also help students to improve their knowledge of the language and develop their vocabulary.

After reading and working with the article, students need to express the main idea of the article with the help of certain clichés and according to a particular structure. It helps students to learn how to express their ideas briefly without going into some excessive details.

Finally, the fourth place was given to case studies (10%). A case study is a teaching and learning method designed to improve skills and experience in the following areas:

• identification, selection and resolution of problems;

• working with information – understanding the meaning of the details described in a situation;

• analysis and synthesis of information and arguments;

• working with assumptions and conclusions;

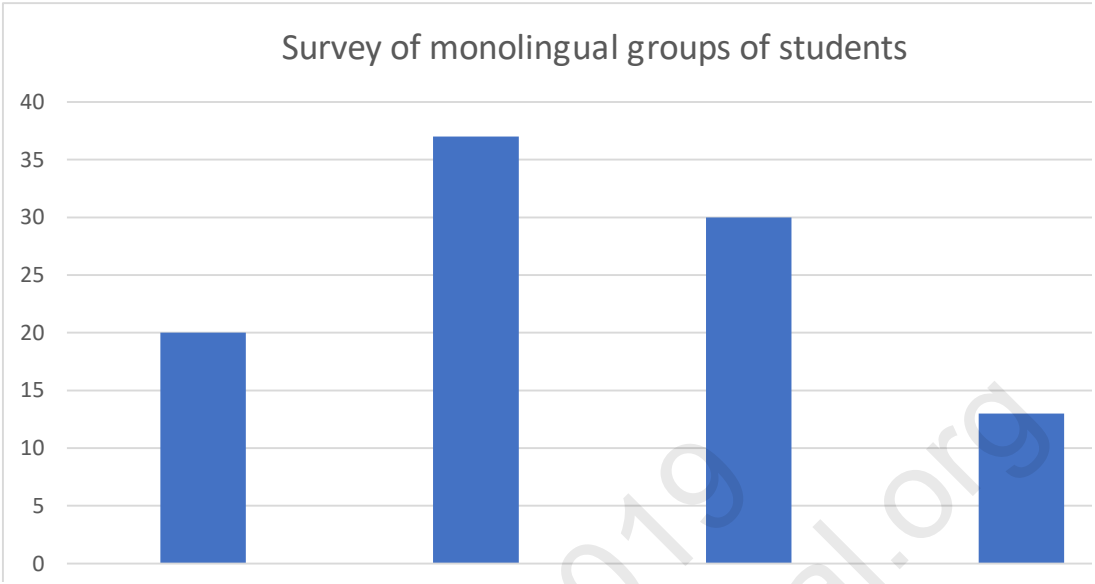
• evaluation of alternatives;

• making decisions;

• listening and understanding other people – development of teamwork skills.

The case study method is a good way to teach students to express their ideas, defend them and find solutions from difficult situations. As a rule, at the beginning of a discussion students are provided with the background information on a certain company such as the time when it was established, what is the purpose of this company, what products it produces. Then students get a problem that this company faces, and their task is to conduct a meeting where they can introduce their ideas on how to solve these issues.

As for the students who are the native speakers of the Russian language, the survey (pic. 2) pointed out several differences.



They identified rendering as the most efficient way of learning the language of economics (37%).

The second most popular activity among students is lessons with native speakers (30%). At the beginning of these lessons, it is quite difficult for Russian students to communicate with a native speaker as in the majority of cases they are focused on the improvement of oral communication skills. It can be caused by several reasons:

1) it is hard to overcome the language barrier;
2) students are afraid to misunderstand the task;
3) students are afraid of using the wrong term or word.

However, soon they understand that the primary goal of a native speaker is to help students to overcome these difficulties and to learn how to communicate on the professional topics and how to react if you misunderstood some information. What's more, a native speaker helps students deepen their knowledge of the language and at the same time get rid of the uncertainty and fear of communicating with native speakers.

One of the significant advantages of lessons with native speakers is unavailability to use your native language because the lecturer will not understand it. Thus, when studying with a native speaker, the habit of expressing your thoughts only in English is formed. In order to express the idea, students need to think and find the means how to achieve their goals: to paraphrase, to choose synonyms, to give the explanation. A lecturer from an English-speaking country is not only a native speaker but also a bearer of the culture of his/her country. It is the best way to learn how things work in another business culture.

In the classroom, the lecturer uses such authentic textbooks as Business Benchmark, The Business, English for Business Studies, etc. Training takes place on units from the selected textbook. The structure of a unit and its problems and issues are explained in

English. Also, the lecturer at his/her own discretion can provide additional material in the form of discussions on various actual topics.

The third place is given to the translation tasks (20%). During translation lessons, students practice translating specialised text from Russian into English and vice versa. It is also considered to be a useful task for students both Russian and foreign ones as it helps them to improve their level of the language. The purpose of the translation is to find an equivalent relationship between the source and translated text (for both texts to contain the same meaning).

They learn how to combine words wisely, what grammatical constructions it is better to use in this particular case, what phraseological units exist in the language. In addition, it is an excellent way to develop the vocabulary and to acquire the sense of the language.

In order to provide an adequate translation, students need to follow three basic requirements to the translation of specialised texts:

- the text of the translation should transmit the content of the original text as thoroughly as possible, which, first of all, makes it impossible to omit the words or even parts of the text as it can cause misrepresentation of information. Besides, it is impossible to add further information that was not in the text from the very beginning as it can also cause misunderstanding, or it can mislead the recipient of the translated text;

- the text of the translation must correspond to the norms of the target language, since their violation, at least, creates obstacles for the perception of information;

- the text of the translation should be comparable with the original in its own volume, which ensures that the stylistic effect is similar in terms of conciseness or unfolding of the expression, as well as the correlation of the time spent on extracting information from the text.

These criteria are observed when checking the translations of specialised texts made by students majoring in economics.

This task turned out to be the most difficult for non-linguistic students; however, it is most actively used in training the students majoring in economics and business sciences abroad.

The fourth place was given to case studies (13%). This task is the most complicated one for both multicultural students and for native speakers of the Russian language as for bachelor students, it is quite difficult to find out the solution to business situation, However, the reality is that students just need some time to understand the principles of this task and, eventually, it turns into one of their favourite activities.

CONCLUSION

Summing up, we can say that popularization of study abroad has a definite tendency and opens a lot of attractive prospects for students. However, non-linguistic students face specific problems in the learning process. In our research, we have analysed methods and tasks used during the lessons of the English language for multicultural students and native speakers of the Russian language majoring in economics in Peoples' Friendship University of Russia. According to the survey, we found out that there are several differences between the activities that prefer students who have diverse language

backgrounds. For the native speakers of the Russian language, the most efficient activities in teaching non-linguistic students were rendering and lessons with native speakers. For multicultural students, these are translation and lessons with native speakers. That is why, it is essential to consider the origin of students while planning the process of learning, as it is necessary to understand which training plan is required for foreigners, which aspects should be emphasized, what aspects require careful consideration and increased attention from both students and lecturers.

The practical value of the study is determined by the fact that the results obtained can find application in teaching courses in lexicology, statistics, international communication, as well as in teaching English at the economic faculties of universities and in the preparation of translators as exemplified by RUDN University.

ACKNOWLEDGEMENTS

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TEACHING TRANSLATION IN TERTIARY EDUCATION: STUDENTS' PERCEPTION AND MOTIVATION

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ABSTRACT

A translator is a mediator between a recipient and an addressant. Such incumbency demands on the translator to be sensitive to all peculiarities of the source texts. Undoubtedly, dealing with translation one needs to elaborate special skills, which are taught in special establishments and on a special program "Translator in a sphere of professional communication". Most students understand professional translational activity unclear and tend to catch this field of activity rapidly. However, translation is due to the complex nature and lifelong process. In this paper, the research area is aimed to analyze the understanding of Russian students' concept of professional translation from the point of view of their future job. Respondents: medical translators (N- 38) and general translators (N – 34) are students at the universities. They completed a specially developed survey expressing their opinion on the accuracy of professional translation and improving professionally oriented skills. To accomplish the research statistical techniques were applied: graphical charts and tables were used to assess the correlation between obtained variables; a descriptive study through frequency analysis was carried out to analyze and classify respondents' feedback.

Keywords: translation, professional development, translator, foreign language, medicine.

INTRODUCTION

The cultural flow of different nations was possible due to the distribution of written translations [11]. In the investigation the authors regarded translation as a complex speech activity, which is determined by the presence of a subject, a product, a result, a unit, means and ways of its realization [1, p. 286].

It is the products of speech activity are translated: books, articles, documents, since the translation is built up reading and writing [10]. A product of writing is to transfer a message, and due to its complexity in the fact has no self-final aim that makes sense while expressing obtained information [6]. Translation is one of the activities that should not be underestimated. Its results and process make the content of a source text more comprehensible for a translator and if he is a doctor the translation helps to develop professional competencies [2].

One can say that written translation is due to peculiarities of thinking, memory and probabilistic projection of a translator [4, p. 275]. Nevertheless, simple knowledge of a foreign language is not enough to perform a professional translation, because such a complex speech activity demands special translational language proficiency [7], [12]. The aim of this analysis is to determine what students understand under a concept of professionally oriented translation and how they consider it personally. Critical thinking is the main focus of the paper as well as awareness of the student's self as a future specialist. We aimed to answer the following questions: does students' comprehension of translation coincide with that taken by scholars? Do students think that professional translator's skills can be elaborated during a foreign language class?

WHAT IS TRANSLATION?

Analysis of language education literature disclosed a wide range of viewpoints and inconsistency of a concept of translation and its essence among scholars. According to L.S. Barhudarov "translation is a process of speech work of transformation from one language into another one saving its composition and context [1]. Another scholar A. Chesterman understands translation as the culture of the given source language in a certain period of time [3]. In addition Basil Hatin, J. Munday define written translation as 1) a process of transference of written text from a foreign language into a native one completed by a translator in a specific sociocultural aspect; 2) written work obtained from the results of the process and functioning in the sociocultural context of native language; 3) cognitive, visual, linguistic and cultural phenomenon [5].

A definition of translation by V. N. Komissarov is noteworthy to mention: "Task of translation is to provide such a kind of interlingual communication where the translated text could be an adequate communicative substitution of a source one" [6, p.122]. Many scholars attempted to regard the translator's activity from the point of view of a number of competences to elaborate.

A.D. Shveizer regards translator's competency as the ability of a particular complete comprehension of a source text, where experience and professionalism dominate [12, p.43]. V. N. Komissarov writes about four competences: technical, text-formatting, and personal identities as components of a professional translator's competency [6, p.143-144]. L.K. Latishev isolates basic and pragmaticc competencies. The investigator understands the translator's competency as an aggregation of knowledge, skills and abilities, which are instrumental in the successful accomplishing of his professional tasks [8]. Another scholar N. N. Gavrilenko underlines the importance of professional education and knowledge obtained by a student while studying translation: "knowledge of a basic qualification course can and must be used while training a translator of scientific-technical texts" [4, p.274-284].

It is noteworthy that the works devoted to the problem of future translators training (D. Robinson, N. N. Gavrilenko, B. Lycja, M.Mizab & et al) regarded the approach of professionally oriented translation as a sociocultural aspect.

Additionally, the researchers: V.N. Komissarov, A.T. Pedersen studied the problem of professional competency from the point of view of translation teaching. These investigations helped to accumulate and analyze scientific studies.

Classical scholars L. K. Latyshev, L. S. Barhudarov, A. D. Shveizer succeeded in developing written theory of translation suitable to describe the adjacent translation process and phenomenon regardless of genre-stylistic belonging to a certain translated matter. This seems to be the most objective and production approach.

METHODS

The objective of the paper is to assess students' understanding of the concern of translation, to find out whether students have the translator's skills to be developed in the foreign language class.

The starting point of research is to analyze both theoretical and empirical data obtained. The theoretical methods are as follows: assessment and generalization of publications of Russian scholars (L.S. Barhudarov, L.K. Latyshev, V. N. Komissarov, N.N. Gavrilenko,), and foreign scholars (A.D. Shveizer, D. Robinson, B. Hatin & Munday J., A. Chesterman) and others.

The empirical methods have consisted of students observation during classes; analysis of their progress; survey; comparative data assessing.

Quantitative data were collected by analyzing of viewpoints obtained from the questioning of 72 participants (38 students, future medical translators from Ryazan State Medical University, 34 students from Kolomna State Social Humanities University).

A specially developed survey was aimed at accurate gathering and processing data obtained. The respondents asked to express their viewpoints in details and most precisely. Criteria are grouped into three sections and presented in table 1.

Data were collected from a big amount of detailed answers concerning the definition of professionally written translation and approaches to develop these skills inside educational establishments. The surveys' questions were as follows: Does students' comprehension of translation coincide with that taken by scholars? Does training written translation comply with students' task-oriented requirements?

To accomplish the research we used statistical techniques: a descriptive study through frequency analysis (classification and assessment of students' answers), a graphical chart was used to determine the correlation between variables.

Table 1. Survey. Translation Viewpoints.

Divisions	The questions
A notion of translation	What is your understanding of Professionally written translation?
Awareness of the motives to develop professional translator's skills	Do you think you should develop professionally written translation for a successful career?
Identification the connection between professional written translator's skills and learning a foreign language	What skills to your mind, should be elaborated in a written translator in your foreign language class?

FINDINGS AND RESULTS

Firstly, the analysis of the set of data was conducted. To understand, what students mean by the concept of professionally written translation [9], they were allowed to formulate their answers in their own manner and in a freeway. The students' responses were grouped according to the descriptors distinguishing PWT.

Out of 72 respondents:

- 15, 4% of rated students (11) associate professional translation with "specialized education". " To become a professional translator one should have a specialized education" ;
- 48, 1 % of rated students (35) used the word "terminology" with regard to professionally written translation. "A specialist should be a master in a special terminology the area he works in".
- 8% (6) of rated students associate professionally written translation with awareness of culture and traditions of a source language. "Besides professional knowledge, a translator should know and understand traditions, culture and customs of the language which he translates from";
- 20, 3% of rated answers (14) consider that professionally written translation means the ability to express ideas in both languages. "ability to express one's thoughts perfectly both in a native language and in a foreign one is very important";
- 7, 1% of rated responses (5) associated professionally written translation with personal qualities of a specialist. To be a professionally written translator means " to be patient and careful and to be organized";
- 1, 1 % (1) respondents did not give any suggestions.

The grouped data were depicted in figure 1.

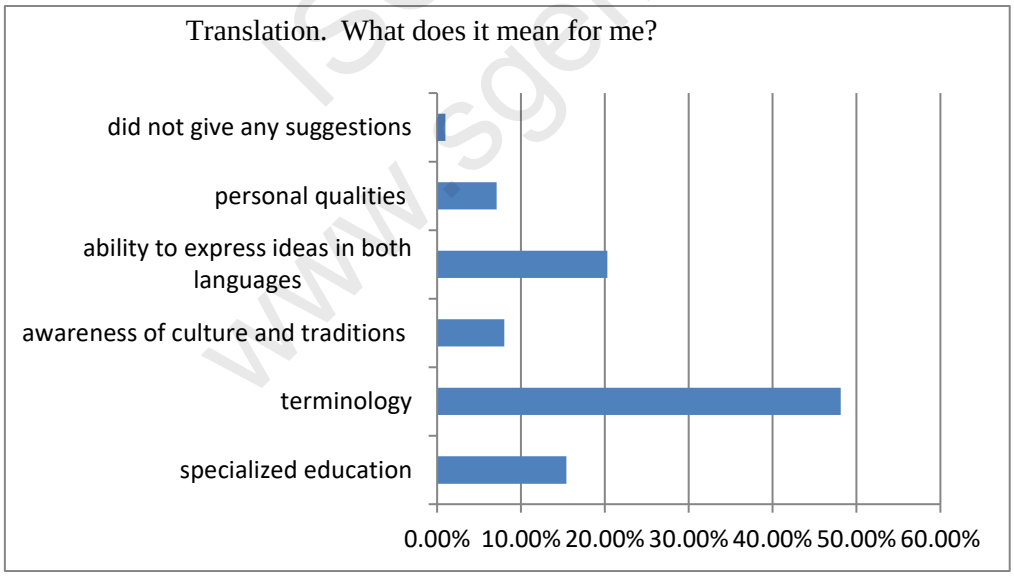

Figure 1. Respondents' feedback analysis

The second stage was devoted to the analysis of respondents' answers according to their requirement and motivation to elaborate PWT.

- 65% of rated students (46) are motivated to elaborate skills in written translation. The respondents consider that to become a professional translator it is not enough to be fluent in a foreign language. “A professional translator should not only know the foreign language perfectly but also know the terminology, know its specifications and be aware of the culture and traditions”;
- 30% of rated students (22) are interested in elaborating written translation, especially medical translation is very important as it may save one’s life (translation of medical documents).” will help me to exchange my experience with other specialists of my specialty all over the world”;
- 5% of rated students (4) are not sure if skills in written translation will be necessary for their career development. Example of the answer: “I don’t know whether written translation will be needed for my future career” (figure2).

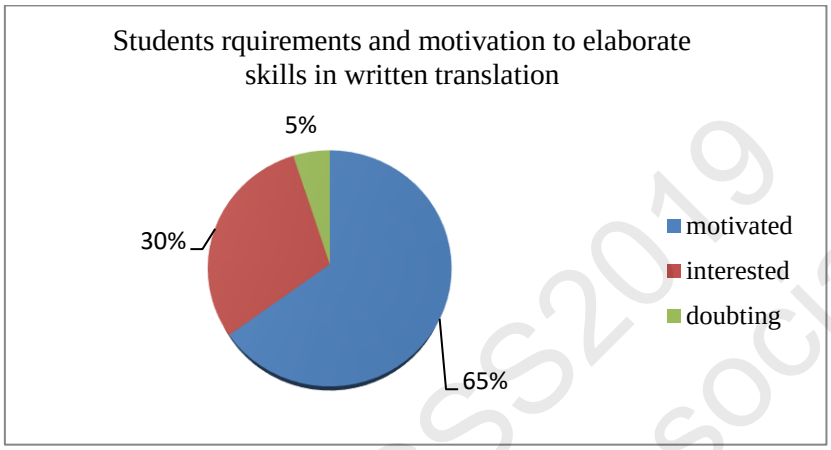

Figure 2. Respondents’ requirements assessment to skills elaboration.

The third stage was devoted to identification of the effective ways of written translation skills elaboration and formulation students’ comprehension of the connections between written translation skills development and learning a foreign language. Depending on the students’ acceptance of the written translation development as a part of foreign language program the responses obtained were classified into two groups.

Out of 72 respondents:

82 % of rated answers (59) connect written translation skills elaboration with learning a foreign language along with communicating to native speakers: “Translation allows experiencing different cultures, practices, and traditions”. “While translating scientific papers I always discover many new things”;

18% of rated answers (13) consider that a good translator is mediator between two different cultures that is why he is responsible for the accuracy of translated text: “to my mind it is a very complex matter to become a good translator that is why I study a foreign language in this program along with medicine”.

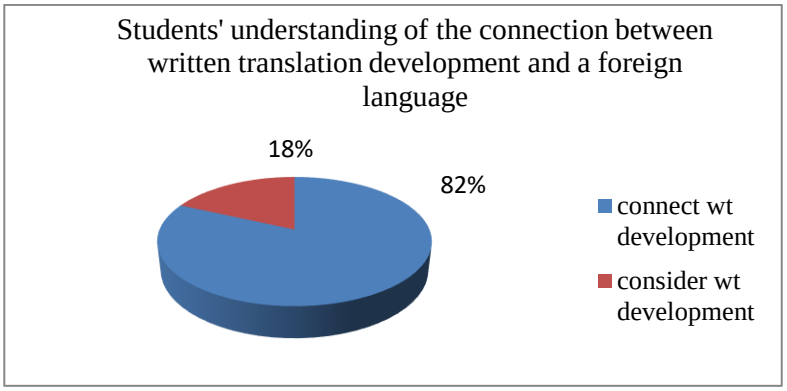

Figure 3. The analysis of respondents' attitude

When interpreting the obtained data we discovered that students' understanding of translation is similar to those accepted by scholars. The obtained data are in the table 2.

Table 2. Correlation of respondents' and scholars' understanding of dealing with translation

Fragments of scholars definitions	Respondents' understanding
"Translation as a culture of the given source language in a certain period of time" - *A. Chesterman*	"Know and understand the traditions, culture, and customs of the language which he translates from"
"Ability of a particular complete comprehension of a source text, where experience and professionalism dominate" - *A.D. Shveizer* "Task of translation is to provide such a kind of interlingual communication where the translated text could be an adequate communicative substitution of a source one" - *V. N. Komissarov*	"Ability to express one's thoughts perfectly both in a native language"
"Written translation is due to peculiarities of thinking, memory and probabilistic projection of a translator" - *I. S. Barhudarov*	"To be patient and careful"
Knowledge of a basic qualification course can and must be used while training a translator of scientific-technical texts" - *N. N. Gavrilenko*	"To be a master in a special terminology the area he works in" "One should have a specialized education"

CONCLUSION

As it is known, practical translational activity needs to be constant self-development: every new text for a translator is a stimulus to experience a new matter, get acquainted with the latest development trend and achievements to that professional sphere which the original text belongs to; besides the available materials both in foreign and Russian

discourse need to be compared. It is crucial for the way of translation style being approximate to a source text-style. Gradual elaboration of curriculum program sections, training of discourse specification in a source language and in a native language, training of searching technics of necessary referral information, foreign equivalents, translation editing is planned. Skills to adequate words selection and gradual implementation of translational strategy due to multiple linguistic and extra-linguistic factors are planned. For this purpose skills of special translation should be elaborated in a combination with the subject of field acquisition.

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TECHNO SCIENCE AND EDUCATION TRENDS IN THE CONTEMPORARY CONTEXT OF NEOLIBERAL RATIONALITY OF IMPROVEMENT. RESEARCHING AND TEACHING: HUMANITIES IN NEED.

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ABSTRACT

The article considers the interrelation between technoscience and humanity in the contemporary university environment. Postmodern is seen as a communicative context and fundamental property of technology development. This problem is urgent because we always need some existential form of thinking, to understand what we are performing. In other words, technological and science exaltation should always "kept cold", by examining, observing, thinking, and acting in consideration of this analysis. The authors point out the significance of teaching the Humanist conception for new engineers and provide the analysis of theoretical and practical aspects. Lyotard, Levi-Strauss, Derrida, Montaigne works act as a methodological base of the research. In practice, it is given the description of French and Russian universities experience in the process of "human sciences" formation. The article concludes that "Human" is not natural, but a cultural process, that has to be protected, and can be studied, questioned. Life and technics should not be simply opposed but linked to the same essential problem: what do we have to do? How do we have to live? And only "we" - in our personal investigations, connected with our friend, our families, our relatives - have the answer. This answer cannot be written somewhere. From the engineer to the firm worker, from the student to the teacher, from the child to the adult, everyone has to create it, and for that, we first have to feel it.

Keywords: interdisciplinary approach, humanities in engineering studies, global cultural, ethical normalization processes.

INTRODUCTION

Postmodern is obviously to be seen under different perspectives according to cultures on planet Earth. If we follow the initial idea from Jean-François Lyotard, "postmodern" describes the contemporary idea of "end of meta-narratives" [11]. Lyotard's report had a huge impact in the United States of America and everywhere in the world, for example in Africa with post-colonial studies. In Russia, the expression would temporarily describe the "end" of one kind of Marxism in the XXth century (Marxism

is, according to Lyotard, one of the meta-narratives that used to give one *telos,* one orientation, to humans). This period could be named "post-sovietism", or "post-USSR". The problem should be seriously taken into consideration, beginning by a first question: has Marxism been realized in the Soviet Union? The Soviet Union, was it the realization of communism's ideal? The answer is not as simple as it is often believed. It is not possible in this text to do, go further in these researches.

According to Lyotard's postmodern definition, if there are not any meta-narratives nowadays, it does not mean that ideologies do not exist anymore. On the contrary, something like a "new metaphysics" is appearing from the end of the 70s, gathering the new imperatives of time "performativity" (*"performativité"*).

This hypothesis, almost forty years later, seems to be fully verified: even if some scientists, politicians, ideologists (and some "philosophers") often claim the "end of metaphysics" as good news, in reality in this empty place, they often by themselves replace another "new" metaphysics. Indeed most of the researchers in human sciences nowadays diagnose that the new prophets of improvement and enhancement (and all the pretended new "ethics" that are linked to them: bioethics, ethics of the care, of the health), hide a "new metaphysics", that is nothing more than the return of the old "metaphysics of development", already analyzed by Lyotard and many other researchers in the 70's. It means the metaphysics of *new imperatives management of time acceleration and improvement.*

One of the best and deepest critics of the ideology of "linear progress" is certainly due to anthropology. Claude Lévi-Strauss (who on the one hand, as a structuralist, was theoretically inspired by Roman Jakobson, and on the other hand studied in practice many different cultures and human way of living in the world, as Indian of Amazonia) demonstrated that the "linearity" of development is a non-sense [5]. We cannot scientifically affirm and prove that there are "some culture more civilized than some other". Observing today these aspects, we are not sure that what is called "progress" is true progress: earning time generates some new psychic suffering and affective disorders: stress, depression, suicides. Psychoanalysts, psychiatrists, sociologists, historians, take an interest in this serious issue. In France, there are a lot of studies and documentaries about this problem, from Souffrance en France / La banalisation de l'injustice sociale (Seuil, 1998) written by the psychoanalyst Christophe Dejours, to Le culte de la performance [4] or La Société du malaise [2] by the sociologist Alain Ehrenberg, and many others. In the Essay about time and constitution of the contemporary self [7], we demonstrated how these new sufferings are generated by new performativity imperatives. The problem of depression is sometimes named "burn out" in Anglo-American culture. According to the Centers for Disease Control and Prevention, between 1999 and 2014, the rate of suicides in the USA has increased by 24%. Many researchers, as Robert D. Putman from the University of Harvard, have studied how this phenomenon is linked to new work conditions in the Society of performativity. Cf. New York Times and Liberation, April 24, 2016.

So, better than "postmodernism", which is a common and overused expression nowadays, we propose to name these modern times the period of the hegemony of "neoliberal rationality of improvement". Concerning the definition of the "neoliberal rationality of improvement", there is also a lot of literature. Our starting point is the unavoidable text by the sociologist Pierre Bourdieu, "L'essence du néolibéralisme"

[13]. This ideology implies the belief in "infinite prosperity", whose limits and critics are now perfectly well known. Remember Bourdieu: neoliberalism is a "program of destruction of collectives structures", that is to say of all the public places thank to which a better future for everyone is possible, where new progress intolerance, friendship and sharing, where new rights, new liberties, new kind of solidarities can be invented [14]

Therefore, it is probably in this context, and anticipating these questions in a technological environment, which were created from the 70's the Universities of Technology, some new special universities in France, at the same time universities and engineer schools, inspired by the American University of Penn in Philadelphia. These universities tried to go further than the usual vulgar separation between techno-sciences and humanist tradition.

THEORETICAL ASPECTS

The particular conception connecting engineering teaching and Humanity is linked to French thought in this period (the 70's), who elaborated fundamental new ideas concerning Humanities. Jacques Derrida writes one of them, in the famous book *The University Without Condition* [10]. According to him, University is to be seen as the only true place in the worldwide (and cyber) space, which *"might be in advance not just cosmopolitan, but universal, extending beyond worldwide citizenship and the nation-state in general"* [10]. The condition (without condition) of that relies in one part on the tradition of Humanities, and on the invention of the *"new Humanities".* Humanities are funded on the critical mind. It means the principle and the unconditional right, in the Public space (*Öffentlichkeit*, said Kant during the Enlightenment of the XVIIIth century), *to say (or not) publicly*. This Humanist principle, coming from a literary tradition, is at the same time the principle of *"critical resistance*" against all the powers of dogmatist appropriation, writes Derrida: ideological, financial, technical, religious [10]. That is why the critical mind should always be protected, everywhere and every time in this world. Researching and teaching Humanities have no border, no cultural boundaries.

We nowadays account four Universities of Technology: in France, Compiègne (1972), Belfort-Montbéliard (1985), Troyes (1994), and in China, Shanghaï (2006). These universities were actually the first in France to introduce in engineering studies a department dedicated to "Humanities", considering in principle that engineering, whatever will be the speciality chosen by students, should not be reduced to the only learning of technological and specific knowledge.

What is exactly the significance of teaching the Humanist conception for new engineers? How was it achieved in France?

Engineers, as in the Humanist conception from Montaigne for example, have to be also formed in humanist and general knowledge. Contemporary engineers can no longer conceive new technologies without taking into account multiple parameters coming from complexity, starting from the environment and living together. It could also be summarized in the famous sentence from Rabelais:

«Science sans conscience n'est que ruine de l'âme» ("Science without conscience is but the ruin of the soul").

It means that we always need some existential form of thinking, to understand *what we are performing*. In other words, technological and science exaltation should always *"kept cold"*, by examining, observing, thinking, and acting in consideration of this analysis: in fact, *to form an autonomous way of thinking and living*, indispensable for a better living together and for life on Earth.

PRACTICAL ASPECTS

In practice, every student should have not only a specialised techno-scientifical formation but also a formation in "human sciences". It means that, even if the formation is for future engineers, the "spirit" of the Universities of Technology is - *university*: in addition to core subjects, the students have the possibility to choose some others, in the discipline they like, and compose their own course. Moreover, every student has to make not only his final engineering project (6 months), but also one technician internship (6 months), and one as a worker (1 month). Human sciences and work experiences are interesting for giving practical experiences, and for asking and formulating ethical (philosophical) questions, in order to refine the critical (scientific and creative) mind of students. That is why are taught in these universities: not only foreign language, but also history (for example history of technics), sociology (for example, concerning the link between new technologies and societies), anthropology, ethnology, ethology, psychoanalysis, and philosophy, literature, art... This interdisciplinary is caused by social networking and digitalizing as the main paradigm in contemporary philosophy of science and education.

The course lasts one semester, and usually, the student has to pass a written exam and present an assessment on his own research, in consultation with his teacher. From this experience, we understand how technical performance and knowledge are connected, how keeping an open mind can enlarge creativity, and also that engineers (and more generally researchers, including philosophers) should not be "autistically" disconnected from reality (the consequences, sometimes catastrophic, of their inventions), but *artistically and ethically opened* to one more general reflexion about fundamental problems: *why, how, in which purposes?*.

UNIVERSITIES AND HUMANITIES NOWADAYS, PROBLEMS AND QUESTIONS

As everybody knows, the lack of money in a public institution is a global problem nowadays, and this sort of burden seems to touch every country in the world. In some states, the problems are even more serious. For example in the United States of America, since the so-called "financial crisis" of 2008, States give less money to public school [3]. Even if the economy is growing fast, budget attributed to education decreases. Why this? A paradoxical situation in the richest country in the world is that many teachers have to cumulate other jobs, as restaurateurs, to support their needs. It seems it is not without link with spectacular violence in these countries [12]. The cases of mass shootings in high schools are one of the most dramatic and spectacular symptoms of the social malaise, as the latest news on the 18 May 2018 showed once again. This worrying problem is certainly linked to the question of "affective disorder", called "burn out". France is also hit by the phenomenon of depression, the current new law of selecting students for entrance in universities is entirely rejected by teachers and

students, and it encounters massive demonstrations. If the law passes, surely the social malaise will further worsen. Now, Humanities and fundamental research are precisely the first disciplines impacted. (In a way, the crisis that crossed the University of Belfort-Montbéliard at the beginning of the 2000s might be one of the signs of this coming context.)

Finally, we must carefully use "Humanist concepts", because "humanity" is certainly not a concept. In addition, if we want to fix it in a set of rules and ideas, it can easily become a new ideology. "Human" is not natural, but a cultural process, that has to be protected, and can be studied, questioned, but not fixed as definitive dogmas.

CONCLUSION

In these, few lines have presented some facts and considerations about teaching Humanities in engineering studies: why and how, and according to a personal experience of French former engineer student and doctor of philosophy. These reflections are obviously not exhaustive and should be pursued and studied in-depth. The question that we would remind is what about Russia? Are these ideals, this kind of institutional organization, and these problems shared?

We can only now give some thoughts and feelings, due to our experience, in Russian and French institutions. The discussions during some conferences in Russia tend to go in this direction. At first glance, this "humanist and scientific" way to teach seems to be shared in this country. It is also not anecdotic that for Dostoyevsky, The coat (Шинель), by Gogol, was the model and the origin of Russian "realist and humanitarian" literature. And it is an interesting fact too, that this kind of reflexions was exposed by Edward Snowden when he was in Moscow, in July 2017, the 5th, during the conversation with the musician of electronic music, Jean-Michel Jarre [8] (These reflections have to be taken seriously. In this dialogue, it is about resistance. This natural, courageous and necessary resistance is in the centre of creation, as said Gilles Deleuze. [9]. That is why – the model of art and literature is in the principle of new Humanities, and why we need Humanities.

"The artist and the writer […] are working without rules in order to formulate the rules of what will have been done", wrote Lyotard [11].

It is at the same time an aesthetical and ethical question, which escape from global cultural and ethical normalization processes. Even if it pretends to be in a "liberal", "libertarian" or "democratic" way, humanity cannot be reduced to one statement, one speech, or any abstract norms and set of propositions. We always feel it when we teach in university and school, whatever the countries are. The question is *esthetical*, an artist trying to *"name an Unnameable"* (as said Samuel Beckett), and *ethical*, philosopher trying to "find" the unpresentable sense of life (like in Wittgenstein) - what ancient Greeks called an *ethos*.

Life and technics should not be simply opposed but linked to the same essential problem: *what do we have to do? How do we have to live?* And only "we" - in our personal investigations, connected with our friend, our families, our relatives - have the answer [6]. This answer cannot be written somewhere. From the engineer to the firm worker, from the student to the teacher, from the child to the adult, everyone has to create it, and for that, we first have to *feel it*. Humanities have to be protected from any

normative or ideological process. It is their first and fundamental rights. Like artistic creation, ethics, as a free, personal and singular construction of sense, is also coming from the "animal part" of humanity - feelings, sensations, intuitions, a kind of *prescience*; and not only from pure rationality and intellect. Scientists, engineers, and researchers, philosophers, politicians should never forget it and rather respect it.

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THE IMPORTANCE OF DEVELOPING HEALTH LITERACY IN UNDERGRADUATE TEACHER TRAINING IN THE CZECH REPUBLIC

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ABSTRACT

The present paper focuses on the importance of developing health literacy among future teachers, i.e. students of teacher training courses, who can in the framework of ISCED 0 to ISCED 3 induce a positive approach to their health and lifestyle and at the same time increase the level of health literacy among the upcoming generation in the Czech Republic. The requirement to develop health literacy among the young generation is based on the fact that 60% of the current adult population in the Czech Republic shows low to problematic level of health literacy. National health promotion programmes based on the concept of the World Health Organization aim to improve the situation and, inter alia, increase the level of health literacy among Czech citizens. One of the strategic areas as defined by these documents is the area of education. This paper analyses the study plans of four selected faculties of education in the CR where future teachers are trained by means of the Educational propaedeutic module and Teacher qualification module with an emphasis on disciplines that develop the level of health literacy among future teachers. These disciplines are present in the teacher training plans of all four faculties, but are based on different concepts (particularly with regard to the number and nature of the disciplines and their inclusion among mandatory courses, core elective courses and optional courses). Given the current level of health literacy among the population and the potential of developing health literacy in students during school attendance, it would be desirable to strengthen the portfolio of disciplines in relation to health literacy.

Keywords: health literacy, undergraduate education, teachers

INTRODUCTION AND THEORETICAL BACKGROUND

The issue of health, health promotion and health education is part of a cross-sectoral approach of a multidisciplinary nature. It is also the focus of a number of scientific discussions, studies and research efforts from various perspectives and involving many different target groups. In the present paper, focus is on the implementation of health promotion with an emphasis on the development of health literacy among future teachers who have a potential to increase the level of health literacy of the upcoming generation.

Health literacy is a relatively new concept of health promotion. According to the World Health Organization, health literacy is defined as "*the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health"* [3]. Holčík, Káňová & Prudil [15, p. 60] state: *"Health literacy is the ability to adopt adequate decisions in relation to health in the context of everyday life – at home, within the society, in the workplace, in healthcare facilities, in shops, in politics. It is an important method increasing the effect of people on their own health and strengthening their ability to gain and use information and accept responsibility"*.

The level of health literacy corresponds with the level of health status of individuals and the society. Kickbusch, Pelikan, Apfel & Tsouros [6] state that health literacy is one of the key health factors and is a more important health status predictor than economic security, education, or profession. At the same time they state that: *"Although people are motivated to adhere to personal responsibility for their own health and apply the principles of an adequate lifestyle and effective use of the healthcare system, it is becoming increasingly difficult for them to understand all information and be able to assess and apply it. This paradox has resulted in a health literacy crisis in Europe and beyond."* [6, p. 1]

The Czech Republic defines the idea of health promotion and development of health literacy among Czech citizens in strategic and conceptual documents that reflect the documents of the World Health Organization (WHO), specifically Health 21, Health 2020, and subsequent action plans, particularly the *Development of health literacy for 2015-2020. Action Plan No. 12* is an implementation tool of *Health 2020* in the Czech Republic and basic document for the *National plan for the development of health literacy*. The justification of the need for the development of health literacy states that "*health literacy is one of the important factors that affect both the level and distribution of the health status of the population, and the effectiveness, efficiency and quality of healthcare and the results and impact of healthcare activities. Health literacy is an indispensable instrument and feature of a healthy society"* [13].

The document defines six basic areas that became the cornerstones of the preparation of both partial projects and the overall health literacy action plan. These include:

- *Strategy for continuing development of health literacy* (preparation of the strategic document National plan for the development of health literacy),
- *Information* (quality and availability, health literacy portal),
- ***Care and education*** (schools, educational facilities, lifelong learning, educational staff),
- *Research and assessment* (internationally comparable methodology, HIA, EIA, SIA),
- *Media* (credibility and quality of information, education of journalists),
- *Community projects* (e.g. Healthy city, Health promoting school, Health promoting enterprise, Health promoting hospital, Examples of good practice).[13, pp. 1-2].

For each priority area a strategy is developed that defines how the objective should be achieved by means of a project. One of the projects focusing on the area of care and

education is "Continuing teacher education at all levels of education" under the auspices of MEYS. The description of the measure states the following: "*In the context of introducing the concept of health literacy in care and education at all levels, the priority is to organize regular courses and seminars on health literacy, call for projects...*"; the justification of the measure states: *"The concept of health literacy is relatively new in the Czech Republic and its content must be communicated to teachers at all levels in order for them to communicate their knowledge to children, pupils, and students. This will increase health literacy of the young generation for them to be able to use the knowledge in adulthood, which should lead to a decrease in expenditure on healthcare, improved prevention, and a decrease in the prevalence of preventable diseases".* The timeframe of this project is 2017–2020 [13, p. 15]. It is therefore possible to assume that in the near future the term "health literacy" will be implemented in crucial conceptual, strategic and curricular documents under the auspices of MEYS (currently the term is not included in the curricular documents).

One of the reasons for producing this document were the results of the Health literacy study conducted at the turn of 2014/2015, which was implemented by the National Institute of Public Health and funded by WHO and the Ministry of Health of the CR and was part of an international European research study. Health literacy was investigated in the context of healthcare, disease prevention and health promotion, and focused on the acquisition and application of health-relevant behaviour (availability of health information, understanding of health-relevant information, assessment of health-relevant information, application or use of health-relevant information). The results suggested that "overall health literacy has decreased compared with the average of eight EU countries." Moreover, "more than 19% of the Czech population older than 15 years (i.e. almost every fifth citizen of the CR in this age category) show signs of inadequate health literacy and more than 40% are in the category of problematic health literacy. This means that almost 60% of the population show signs of insufficient health literacy, which is almost double compared with Dutch respondents [7]. An analysis of individual areas shows that "Czech respondents are relatively knowledgeable about the system of healthcare services but show worse results when it comes to acquiring information about disease prevention. The lowest score in the health promotion dimension is a very negative finding as it reflects the inability to understand recommendations concerning health promoting activities and the inability to follow these recommendations" [7]. Kickbusch, Pelikan, Apfel & Tsouros warn that a research study conducted in eight European countries showed that half of all adults had inadequate knowledge and skills relating to health literacy [6, p. 7]. Sorensen, Pelikan, Röthlin, Ganahl, Slonska, Dovle, Fullam, Kondilis, Agrafiotis & Uiters state that in a European research study a total of 12% of respondents showed insufficient health literacy and 47% had limited (insufficient or problematic) health literacy. The distribution of the levels varied significantly across countries (29 to 62%). It was observed that the factors negatively affecting the level of health literacy included financial deprivation, low social status, low level of education, and higher age (old age) [14].

The above suggests that the third priority in developing health literacy is care and education and emphasises links with the Czech educational system.

Health literacy is consistently developed in future teachers who prepare for teaching Health education in the context of ISCED 2 (cf. Framework educational programme for

elementary education). Professional training of Health education teachers is in detailed analysed by [5].

In order to ensure adequate acquisition of educational competences in undergraduate training of future teachers, it is necessary to include in the study plans of joint modules the disciplines leading to the achievement of the objective of elementary education as defined in the Framework educational programme for elementary education: *"teach students to actively develop and protect their physical, mental and social health, and be accountable"* [1].

Fialová, Flemr, Marádová & Mužík [2] and Marádová [8] believe that all future teachers should take courses relating to the development of health literacy in the general teacher training courses, i.e. the Educational propaedeutic module and the Teacher qualification module (terminology adopted from the Faculty of Education, Palacký University). This is supported by the fact that in lower secondary education learners should take Health education, but in elementary schools this subject is often taught by unqualified teachers [4]. Therefore, each teacher should be qualified in this area. Fialová et al. [2] and Marádová [8] support the idea of strengthening educational and didactic erudition in the field in all teacher training course graduates (irrespective of their field of study). It can therefore be stated that the issue must be considered in a broader context in order for each teacher to feel responsible for the health of his/her students and to be able to increase students' responsibility for their own health and protection of their own health and health of others. Another precondition is their ability to participate in school based health promotion projects that often involve multiple educational fields and areas.

OBJECTIVES

The objective of the paper is to analyse the study plans of undergraduate teacher training in the so-called joint modules in the Bachelor's degree (Educational propaedeutic module) and follow-up Master's degree (Teacher qualification module) with a focus on including study disciplines aimed at the development of health literacy in future teachers (irrespective of their field of study).

METHODS AND RESEARCH SAMPLE

Regarding the objective of the study, the document analysis method was selected (the analysis covered the study plans of undergraduate teacher training in the so-called joint modules). The analysis focused on whether the study plans included study disciplines that support the development of health literacy among future teachers. Attention was on whether these disciplines were mandatory (i.e. must be taken by every student of teacher training), core elective, or optional (taken only by students who included these disciplines in their study plans).

The analysis included four faculties of education from four universities in the CR (Faculty of Education, Palacký University Olomouc [11]; Faculty of Education, Masaryk University [10]; Faculty of Education, Charles University, Prague [9], and Faculty of Education, University of West Bohemia, Plzeň [12]). These are faculties of

education that train (according to existing accreditation) future Health education teachers (in the CR 6 of the total of 9 faculties of education train future Health education teachers).

RESULTS AND DISCUSSION

The analysis of the study plans in undergraduate Bachelor's and Master's teacher training courses suggests that the study plans of all four selected faculties of education in the CR include study disciplines that more or less develop health literacy among future teachers (see Table 1).

The results show that these disciplines are classified as mandatory only at the Faculty of Education, Palacký University Olomouc, which in the Educational propaedeutic module in the Bachelor's degree programme of Specialization in Education [11] has general mandatory disciplines Somatic and physiological characteristics of the child and school hygiene, and First aid, and an educational mandatory discipline Prevention of risk behaviour. The follow-up Master's programme Teacher training for elementary schools and Teacher training for secondary schools in the Teacher qualification module [11] has a core elective discipline Health literacy. The study plans of the remaining three faculties of education offers disciplines in relation to the development of health literacy in the form of core elective or optional courses, which means that not all graduates take these courses and encounter the issue of health literacy and health promotion in their undergraduate training. As a result, their competence to achieve the objectives of elementary education *"teach students to actively develop and protect their physical, mental and social health, and be accountable"* [1] may be compromised.

Marádová [8] refers to a systematic increase in health literacy among all teachers, which should become an integral part of study programmes aimed at education. The author states that if this is accomplished and if schools have qualified Health education teachers surrounded by a team of teaching (and non-teaching) staff motivated for health promotion, it can be anticipated that the outcome of their coordinated action will be a health literate citizen. In 2013, Urbánková and Reissmannová emphasised in their research that there is insufficient awareness among university students about primary prevention and primary care concerning the most fundamental matters [15]. It is therefore desirable to extend the portfolio of teacher training disciplines leading to an increase in health literacy among future teachers for them to be able to increase the level of health literacy of the upcoming generation of young people.

Table 1. *Overview of disciplines in relation to health literacy in teacher training study plans in four faculties of education in the CR*

University / Faculty of Education	**Bachelor's**	**Follow-up Master's**
Pedagogická fakulta	Somatic and physiological characteristics of the child and school hygiene **(M)**	Health literacy (CE)
	First aid **(M)**	
	Prevention of risk behaviour **(M)**	
	Health promotion in personal life (O)	Prevention of chronic non-communicable diseases and the old age syndrome (O)
	First aid with elements of experiential education (O)	
	Developmental biology of the child (O)	Health literacy for teachers (CE)
	Premedical first aid (O)	Prevention of risk behaviour (CE)
	Education towards a healthy lifestyle (CE)	Healthy school (CE)
	Biology of the child and health education (CE)	Partnership and parenthood education (O)

Note: M = mandatory discipline; CE = core elective discipline; O = optional discipline

CONCLUSION

Health literacy is one of the essential prerequisites for the promotion of health and an optimum lifestyle, and supports elimination or a decrease in the prevalence of lifestyle diseases (so-called chronic non-communicable epidemics), which are still the most frequent cause of death in civilized countries, including the Czech Republic. In the Czech Republic, the level of health literacy among the adult population has been identified as inadequate; and therefore, in a number of strategic documents issued by the WHO the primary objective is to increase the level of health literacy. One of the target areas of a potential intervention is the area of education. For this reason it is desirable to train future teachers so that they are able to develop health literacy in their students, i.e. the upcoming generation.

The analysis of the study plans of Bachelor's and follow-up teacher training programmes at four faculties of education in the CR revealed that the study plans

contain disciplines related to health literacy, but they are not always mandatory but mostly core elective or optional.

A question is whether the existing disciplines in the joint modules are sufficient in terms of content, extent and didactic aspects and whether future teachers have adequate competences in the required extent. This could be supported by additional research studies aimed at health literacy among teacher training students (future teachers) as well as existing teachers.

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THE IMPORTANCE OF STRETCHING EXERCISES IN ADULT`S PHYSICAL ACTIVITIES

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ABSTRACT

This paper aims to evaluate the effects that Stretching exercise may have upon Adult`s Physical Fitness and overall Well-Being. The research was oriented in two directions. The first step was an inquiry aiming to reveal the effects that participants perceive in both Physical and Psychological areas after practicing Stretching exercises. Revealed benefits were: Well-being, prevention and control of Joint and Lumbar Pains, somatic and psychic Relaxation, Body Pattern, Introspection, Presence, Sense of ease, Control of the body, etc. The second step was an Experiment conducted on a sample of 40 adults, included in a program of maintenance Gymnastics, over a period of 6 months. The Control Group practiced Aerobics, 3 times a week, and the Experiment Group took a combined program, with two Aerobics and one Stretching lesson per week, Stretching virtually representing the Independent Variable. Both groups were tested at the beginning and at the end of the experiment for a number of 6 parameters related to Physical Fitness. The results showed statistically significant higher progress in favor of the Experiment Group on 5 indicators, with better improving in Balance (Flamingo), Coordination (Matorin), Mobility and Suppleness (Sit and Reach), and even Strength (Push-ups and Trunk extensions). At the 6-th parameter, Vital Capacity, both groups improved their results, and the difference between the groups was not statistically significant. Considering the findings, we can conclude that Stretching brings a lot of benefices for both Physical and Psychological area, so it must become a regular part of the Fitness Programs for Adults.

Keywords: Stretching, Physical Activities, Adults;

INTRODUCTION

The evolution of contemporary human society is marked by technological breakthrough and informational explosion. Today's man has more and more facilities that make his everyday social and professional activity easier (automation and cybernetics, cars, elevators, escalators, etc.) and also offers many pleasant and comfortable leisure opportunities (television, internet, mobile phones, tablets, etc.). Unfortunately, it is becoming increasingly obvious that relieving work and increasing the degree of comfort in everyday life is not bringing health benefits to the population. All the facilities and opportunities of modernity push the contemporary man into an increasingly sedentary lifestyle where physical activity is drastically diminished or often completely missing. The intensive work program, permanent competition, stress and the material-centred

lifestyle are overwhelming and predispose modern man to neglecting the fact that the human body needs physical activity for its proper functioning. Lack of physical activity is often combined with other harmful factors such as stress, smoking and unhealthy eating habits. The consequence is reflected in a wide range of morbid manifestations, of which articular pain, poor posture, ankylosis, reduced articular mobility are more and more prevalent among the sedentary adult population.

In this context appears an increasingly stronger need to design exercise programs that propose viable solutions to prevent and improve these types of failures. Along with muscle toning exercises and cardiovascular resistance development, a great benefit for the smooth functioning of the human body is the stretching exercise, which mainly aims developing joint mobility and muscle elasticity, but they also have other important objectives for optimizing the psycho-motor potential of the individual.

The need for stretching the muscles and relieving tensions in the joints is manifested instinctively in both humans and animals. Probably, from ancient times, the observation of this aspect has triggered the idea behind the development of an exercise system based on stretching. The origins of modern physical exercise programs known in the Western world as Stretching are in Yoga - the ancient Indian art of Body and Mind control, more precisely in its "physical" branch - Hatha Yoga. Putting aside the philosophical aspects of Yoga that did not match their mental structure, North Americans and Europeans extracted from yoga the Poses and the linking movements, establishing a concept of exercise with a wide addressability: from Athletes and Dancers up to ordinary people, confronted with the shortcomings associated with the modern lifestyle we previously mentioned.

Stretching programs do not resemble traditional physical training based on dynamic muscular contraction, but are rather, after Tobias and Sullivan [1 p.7], a way to decipher the complex functioning of the human body and to combat imbalances and tensions accumulated in body, as a result of a life spent in "improper posture, poor diet and stress".

Stretching brings a wide range of benefits to practitioners, beginning with improving muscle flexibility and joint mobility, but not limited to that. According to Damian [2 p.10] , stretching exercises "improves the flexibility of tissues, increases the ability to learn or perform various movements, reduces the risk of locomotors trauma and leads to a higher level of awareness of one's own body". Due to its particularity of execution (slow and controlled movements, attention to detail, maintaining very precise poses), stretching favours focus and mental control over the positions and movements of the body and its segments. At the same time, by linking movements to the rhythm of breathing and by learning specific breathing techniques, it favours the oxygenation of the tissues and revitalizes the body.

The popularity of stretching programs has been increasing in recent years in our country, but they have not yet been studied in all aspects, so we considered it appropriate to launch a series of investigations about their effectiveness.

PURPOSE

The purpose of this study was to evaluate the effects that stretching programs may have upon Adult`s Physical Fitness and general state of Well-being.

HYPOTHESIS

We started from the assumption that stretching exercises bring important benefits upon both Physical and Psychological areas of the practitioners.

METHOD

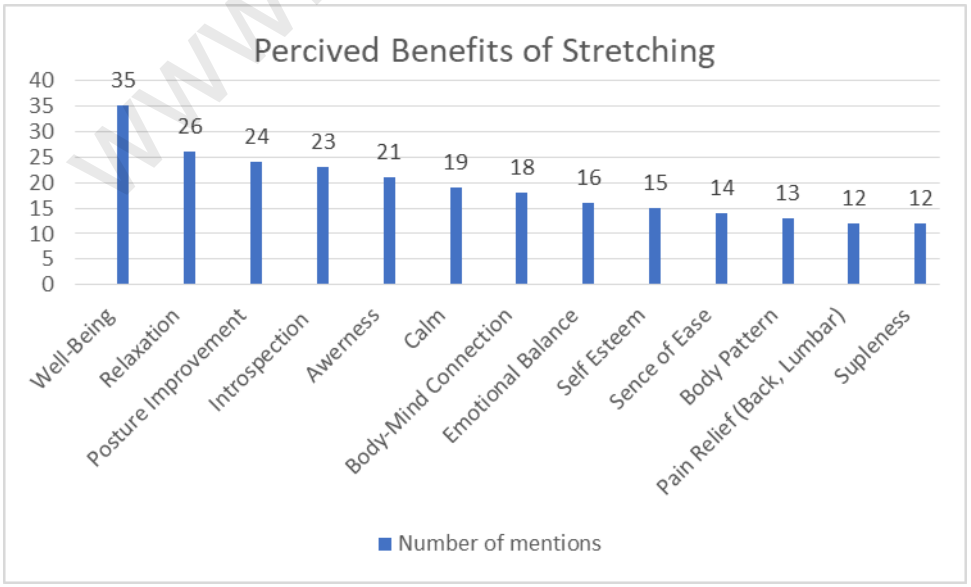
The work was structured on two parts. First one was an inquiry, aiming to reveal the effects that participants perceive on both physical and mental area after attending stretching programs.

The second part was an experiment conducted on a sample of 40 adults, practitioners of maintenance Gymnastics, over a period of 6 months, at the Gym of "Carol Davila" University of Medicine and Pharmacy. The Control Group practiced Aerobics, 3 times a week, and the Experiment Group took a combined program, with two Aerobics and one Stretching lesson per week, Stretching virtually representing the Independent Variable. Both groups were tested at the beginning and at the end of the experiment for a number of 6 parameters related to Physical Fitness.

INQUIRY

The participants at the study were asked after three mounts of practice what benefits they feel stretching has broth to them. It resulted that the perceived benefits of Stretching cover a wide range of items, referring both to the mind, the body and also to their connection. (Chart 1).

Chart 1. The Perceived Benefits of Stretching



The most frequent answer was referring to a state of Well-Being, with 35 mentions, followed by Relaxation (26 mentions). Posture Improvement (24 mentions) and Introspection (23 mentions) comes at close range. Calm was mentioned 19 times, Body-Mind Connection 18 times, Emotional Balance got 16 answers. Self-Esteem appeared in 15 answers, Sense of Ease in 14 answers, Body Pattern Improvement was mentioned 13 times. Finally, Pain-Relief at the Back and Lumbar areas and Suppleness received 12 mentions each.

EXPERIMENT

The parameters considered for the experimental part of the study were: Balance, Coordination, Flexibility, Upper Body Strength, Lumbar Strength and Vital Capacity.

Tests:

- ***Balance*** - **Flamingo Test** (modified) - maintaining the balance for 60 seconds, standing on one foot, barefooted, with the other leg extended sideways. We recorded the number of imbalances resulting in touching the ground with the free leg;
- ***Coordination*** - **Matorin Test**, consisting in a rotation jump, as large as possible, around the longitudinal axis of the body; the measurement was made in degrees, using a compass. Both sides (left/right) were registered and the average was made.
- ***Flexibility*** - **Sit-and-Reach Test**, bending the trunk forward from sitting with strait legs, barefoot, at one end of the gymnastic bench, soles rested flat on the bench support; the measurement started from the end of the bench, 15 cm before the soles of the feet.
- ***Upper Body Strength*** - **Push-ups**, from incline position, hands resting on a 60 cm high support; we registered the number of correct repetitions in 30 seconds;
- ***Lumbar Strength*** - **Trunk extensions**, from lying with the belly on a gym ball, with the feet against the wall, hands behind the head; we registered the number of correct repetitions in 30 seconds;
- ***Vital capacity*** **– Spirometer Test.**

RESULTS

The results of the Initial Test showed that the two Groups, Control and Experimental are relatively homogeneous in relation to the considered parameters of the Motor Potential. The differences between the average results of the two groups at the Initial Test were small, lower than 1 unit at 4 of the 6 parameters. At the other two parameters, Coordination and Vital Capacity the averages are still quite close, considering that those results are numbers of 3 and 4 figures.

The results of the experiment are summarised in Table 1

Table 1. Average results at Initial and Final Tests

	Control		Experiment	
Test	**Initial**	**Final**	**Initial**	**Final**
Push-ups	12,4	13,85	12,15	14,65
Trunk-Ext	16,05	17,1	16,65	18,2
Sit-Reach	25,05	26,85	24,45	28,85
Matorin	303,25	320,75	308,25	334,5
Balance	5,35	3,85	5,85	2,8
Vital Cap	3545	3614,25	3577,5	3680

At the Final Test both Control and Experimental Group improved their results at all studied parameters. Table 2 presents the average progress registered at the end of the Experiment.

Table 2. Average progress at Final Test

	Control		**Experiment**	
Test	**Reps**	**%**	**Reps**	**%**
Push-ups	**1,45**	**11,7**	**2,5**	**20,57**
Trunk-Ext	**1,05**	**6,54**	**1,55**	**9,3**
Sit-Reach	**1,8**	**7,18**	**4,4**	**17,99**
Matorin	**17,5**	**5,68**	**26,25**	**8,51**
Balance	**1,5**	**28**	**3**	**51,28**
Vital Cap	**69,25**	**1,9**	**102,5**	**2,8**

Considering the progress in absolute terms (number of repetitions), the higher progress seems to be at Vital Capacity and Matorin Test, for both Experimental and Control Group, while the other parameters look like having insignificant and quasi equal progress. Nevertheless, the more accurate way to judge the progress is by percent from the initial result. In this light, we can see that the most important progress was registered for both Groups in Balance (51,28% at the Experiment Group and 28% at Control Group). The second best progress appears at Push-ups (20,57% at Experiment Group and 11,7% at Control Group), followed by Sit-and-Reach (17,99% at the Experiment Group and 7,18% at the Control Group. At all parameters, the progress of the Experimental Group is higher compared to the Control Group.

In Table 3 we show the difference between the percentages of progress registered at the Experimental and Control Groups.

Table 3. Progress Difference between Experimental and Control Groups

Parameter	Push-ups	Trunk-Extens	Sit-Reach	Matorin	Balance	Vital Capacity
Progress Difference (Experiment – Control)	**8,87 %**	**2,76 %**	**10,81 %**	**2,83%**	**23,28 %**	**0,9 %**

DISCUSSIONS

In order to determine the statistical significance of the differences between the average results of the two groups at the Final Test, we used the **Student t Test**.

The results showed **statistically significant differences** between the two groups **in favour of the Experiment Group** at the following parameters: Push-ups, Trunk-Extensions, Sit-and-Reach, Matorin, Balance (Table 4, 5, 6, 7, 8).

Table 4**.** Student t Test for Push-ups

t-Test: Two-Sample Assuming Unequal Variances		
Push-ups		
	Control	*Experiment*
Mean	13,85	14,65
Variance	1,5026	1,397
Observations	20	20
Hypothes. Mean Diff.	0	
df	38	
t Stat	-2,1009	
P(T<=t) one-tail	0,021169	
t Critical one-tail	1,685954	
P(T<=t) two-tail	**0,042338**	
t Critical two-tail	2,024394	

Table 5. Student t Test for Trunk-Extension

t-Test: Two-Sample Assuming Unequal Variances		
Tunk-Extension		
	Control	*Experiment*
Mean	17,1	18,2
Variance	3,778947	2,063158
Observations	20	20
Hypothes. Mean Diff.	0	
df	35	
t Stat	-2,03527	
P(T<=t) one-tail	0,024725	
t Critical one-tail	1,689572	
P(T<=t) two-tail	0,049451	
t Critical two-tail	2,030108	

Table 6. Student t Test for Sit-Reach

t-Test: Two-Sample Assuming Unequal Variances		
Sit-Reach		
	Control	*Experiment*
Mean	26,85	28,85
Variance	9,6078	8,2394
Observations	20	20
Hypothes. Mean Diff.	0	
df	38	
t Stat	-2,1171	
P(T<=t) one-tail	0,020424	
t Critical one-tail	1,6859	
P(T<=t) two-tail	**0,040848**	
t Critical two-tail	2,024394	

Table 7. Student t Test for Matorin

t-Test: Two-Sample Assuming Unequal Variances		
Matorin		
	Control	*Experiment*
Mean	320,75	334,5
Variance	400,723	181,315
Observations	20	20
Hypothes. Mean Diff.	0	
df	38	
t Stat	-2,5488	
P(T<=t) one-tail	0,007822	
t Critical one-tail	1,69236	
P(T<=t) two-tail	**0,015644**	
t Critical two-tail	2,034515	

Table 8. Student t Test for Balance

t-Test: Two-Sample Assuming Unequal Variances		
Balance		
	Control	*Experiment*
Mean	3,85	2,85
Variance	0,765789	0,871053
Observations	20	20
Hypothes. Mean Diff.	0	
df	38	
t Stat	3,495518	
P(T<=t) one-tail	0,00061	
t Critical one-tail	1,685954	
P(T<=t) two-tail	**0,00122**	
t Critical two-tail	2,024394	

Table 9. Student t Test for Vital Capacity

t-Test: Two-Sample Assuming Unequal Variances		
Vital Capacity		
	Control	*Experiment*
Mean	3615,25	3680
Variance	311350,7	222437,7
Observations	20	20
Hypothes. Mean Diff.	0	
df	38	
t Stat	-0,40245	
P(T<=t) one-tail	0,344834	
t Critical one-tail	1,687094	
P(T<=t) two-tail	**1,687094**	
t Critical two-tail	2,026192	

The bigger difference was registered at Balance Test, where we found a 23,28% higher progress for the Experiment Group (Table 3 and 8) and at Sit-and-Reach, with 10,81% progress difference (Table 3 and 6). This was somehow expected, considering that Balance and Flexibility are widely recognised as two of the main targets of Stretching exercises.

The other parameters where the Experimental Group showed better progress than Control Group where the Push-ups (8,87% higher – Table 3 and 4), Matorin (2,83 % higher – Table 3 and 7) and Trunk-extensions (2,76% higher – Table 3 and 5).

The sixth parameter, Vital Capacity also showed better progress for the Experiment Group (0,9% higher – Table 3 and 9), but the difference was not statistically significant.

CONCLUSION

From the preliminary Inquiry we learned that participants perceive numerous benefits broth by Stretching to both Physical, Mental and Emotional areas, the state of Well-Being and Relaxation standing in top of the list.

Considering the Experiment findings, we can underline that from 6 investigated parameters, the Experiment Group showed significantly higher progress in 5 cases, while for the sixth parameter the difference was also in favour of the Experiment group, but not statistically significant.

In conclusion, we can state that the efficiency of Stretching in optimizing the Motor Potential of adults is considerable, and therefore we strongly recommend the inclusion of Stretching exercises in the Sports Programs designed for Adults.

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THE INFLUENCE OF STUDENTS' BEHAVIOUR ON THE QUALITY OF TEACHING IN ROMANIAN UNIVERSITIES

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ABSTRACT

In this paper are emphasized the achievements and academic decision of a student who has a belief in his / her ability that may be over or underestimated. The behavior and attitude of most students is more or less contrary to academic integrity standards. This is also the case in large universities, where elite students are no exception.

In this context, it is analized the effect of optimal decisions regarding a student and its dynamic evolution, the positive influence of committed course participants ("peer effect"), the assessment of academic reputation and an evaluation system that rewards the relative position in a class . A higher perception of personal ability boosts the academic content and the optimal effort, even if the effect on the obtained grade is ambiguous (it increases only when the positive effect of the greater effort overcomes the negative effect of the higher academic load). While accomplishment is maximized when the student has a belief in its personal abilities, the grade can reach its maximum in the presence of perceptive biases. It is also shown that exposure to hardworking classmates operates as a substitute for self-effort, which increases both the academic performance and succes achieved by a student, but does not affect the level of effort chosen.

It is possible that as the student gains more confidence in his abilities, he decides to focus his efforts on improving his performance in the easier course at the expense of lower grades (even failing) in the course that is more difficult for him.

Keywords: student, teacher, relationship, behaviour, education

INTRODUCTION

The semantic extension of the concept of management has created a wealth of ways for humanities, expanding the field of education. The manager is the person exercising functions under management objectives, tasks, powers and responsibilities of the office he holds. Managers have a well-defined social status, which provides a range of rights and obligations, which distinguishes them from other categories of professionals. classroom management is a challenge for both beginning teachers who are in their early career, but also for experienced teachers as educational context can change. Teachers need to adapt to the realities of each group of students, to the changes of the organizational culture of the school/class relations and interactions or educational crises that may arise in the classroom or the school climate, to the changes in society and to the progress of the school.[1] The concept of classroom management can be interpreted as a restatement of the teaching - learning process achieved in the classroom, in the context of the new psychosocial realities of the youth. Both teachers and students can

improve the process, can rediscover the pleasure of teaching, and students can find sense in the classroom learning and learning motivation. classroom management is the process by which teachers and schools create and maintain an appropriate behavior of students in classroom settings. The purpose of implementing classroom management strategies is to enhance prosocial behavior and increase student academic engagement [4]. Effective classroom management principles work across almost all subject areas and grade levels. In the social system of education teachers should relate to those we educate, establish cooperative relationships with students and their parents and other education stakeholders in the community. They not only educate in class, but, by every business relationship with students and parents, develop a work of growth and development, management/coordination and streamlining. Teachers work with human individualities in the field of mental training. Hence the need for maximum responsibility of all social actors involved in the educational process including teachers and also students.

THE FACTORS THAT DETERMINE STUDENT BEHAVIOUR

University students, emerging from the end of adolescence and entering young adulthood, constitute an important risk group for a variety of risky behaviors. A majority of the young people begin living away from their families to continue their higher education, during which period they decide on certain aspects of their lifestyle. In the course of choosing this lifestyle, sociodemographic features, family structure, relationship with family members and living environment mayaffect their predisposition to risky behaviors.

Young people learn more about sexuality during their sexual maturation period; therefore, the reproductive and sexual lives of university students become more active when compared to those of high school students. It was found that almost 4 of 5 university students have knowledge about sexually transmitted infections (STIs). [10]According to our results; male students reported more unsafe sexual behaviors than female students (37.5% versus 9.2%). Representative researches on the reproductive and sexual behaviors of youth have not yet been conducted in Romania; therefore, it is not possible to compare these results with the larger picture for youth in this country. According to the results of a study conducted in eight universities in Romania, almost half of the students reported not using any contraceptive method during their first sexual intercourse. In another study among university students in Romania, the ratio of condom use during the most recent sexual intercourse was 30.0% among those who reported having sexual experiences. [8] These results indicate that risky sexual behaviors are frequent among young people. Although these studies do not reflect the ratio of risky behaviors of university students in Romania, they clearly show that sexual activities occupy much of young people's daily lives and thus there is an observed increase in problems such as lack of condom use and unsafe sex. According to our study, 32.5% of the male and 21.5% of the female students use tobacco. Between 1990 and 2000, the overall prevalence of smoking rose from 30% to 35% among male students, and from 28% to 33% among female students in 13 European countries. In Romania, the prevalence of smoking among young people rapidly increased during the period of their higher education, as also observed in other countries around the world.[2-3]

There is no clear definition or cut-off point for drinking in Romania. Therefore, the results of our research should be evaluated carefully. According to our results, drinking was reported by 40% of the students. But, a independent study conducted showed that 75.4% of all students consumed alcoholic drinks. On the other hand, studies conducted in Western countries showed that drinking is much more common than in our results. Thus, d'Alessio et al. found that the estimated percentage of drinking among university students in Italy was 82.9%. [10]Barber and Fairclough showed that drinking was reported by 71% of dental students and 75% of law students in Great Britain. The rate of drinking among young people in the United States is also much higher than for Romanian youth. This difference may be attributed in part to the influence of cultural belief systems in eastern and western societies. Traditional family life, and Islamic beliefs and values are probably important factors that affect alcohol consumption in young people in Romania.25 The prevalence of drug use in Romania is also lower than in other European countries and the United States.

On the other hand, the studies showed that drug use has been recently increasing among youth in Romania. In our study, the term "drug" encompassed any kind of drug, and this classification might have made it hard to compare our results with other studies. Prevalence studies on drug use show that social inequalities affect drug use and different epidemiologic patterns exist for different types of drugs in Romania. Socioeconomically disadvantaged youth prefer marijuana, whereas economically advantaged youth prefer ecstasy. Because of the limited rate of drug use among our responders, it is difficult to analyze these data in terms of each type of drug used in this study. Factors affecting some of the risky behaviors investigated in the study were assessed by logistic model analysis. In accordance with previous findings in the literature, variables such as gender were found to be among those affecting the dependent variables in some of the four logistic models in the study.

Nevertheless, models that were developed during the study indicated "Relationship with Mother", "Relationship with Father", "Frequency of Hanging out with Friends" and " Place of Residency"as variables having profound effects on risky behaviors. In our study, students who defined their relationship with their mothers as "bad" reported more unsafe sex, tobacco use and drinking than their counterparts. Similarly, students who defined their relationship with their fathers as "bad" reported more unsafe sex, tobacco use, drinking and drug use than their counterparts. Young people who feel distant from or who cannot get along with their family are more at risk, and this finding is in accordance with other previous studies. Huebner and Howell found that interaction between parental monitoring and parent– adolescent communication are more a function of adolescent disclosure than of actual parental knowledge. communication problems and inappropriate parental guidance could have resulted in this finding. When the relationship with the mother is considered according to gender, it appears that female students have more problems with their mothers when compared to male students [5]. Although students have more troubles in their relations with their fathers when compared to their mothers, a difference between genders was not shown. The frequency of hanging out with friends is quite high among youth who live alone or with their friends, whereas the frequency is lower for those living with their family. Young people enjoy being together; however, as the frequency of hanging out with friends increases, risky behaviors also tend to increase. Although the students' joint activities were not assessed, it is apparent that the students are deeply influenced by each other. Numerous

studies have shown that peer pressure has a significant effect on risky behaviors during adolescence. Some aspects of adolescent leisure, such as family or conventional activities, act as protective factors against problematic behaviors, while peer-oriented activities or commercial types of leisure contribute to greater risk for risky behaviors. [7]One's living environment is another influential factor on risky behaviors. In our research population, 40% of the students were living with their families. After leaving their families and their hometown, freshmen prefer to live in the dormitories. during their first year, they make new friends at the university, and thereafter decide on their living arrangements during the remaining period of their higher education. Residence in a dormitory may be considered an indicator of low economical status. Unsafe sex behavior was found to be less common among boarding students than students who live with their family. Likewise, prevalences of tobacco, alcohol and drug use were all reported as lower by boarding students than students living with their families. This difference may reflect the more strict regulations in dormitories, or it may be that students with a lower socioeconomical status or having a conservative and modest lifestyle are more likely to live in dormitories than other students. The findings indicate that young people who live alone have different lifestyles than those living in dormitories. Our study also shows that all risky behaviors are more common among males. According to the results, unsafe sex, tobacco use and drinking were more common among male than female students. Other studies have also revealed that gender is one of the main determinants of risky behaviors. It is thought that this difference occurs because of the established social gender roles in our society. despite the fact that risky behaviors, which may have short- and long-term effects on the health of young people usually begin in the early years of university education and their prevalence tends to increase in later years. In other words, prevalence of smoking and unsafe sex increases in conjunction with the academic year. Even though no significant difference in the prevalence of alcohol or drug use was found between the academic years studied here, importance should be attached to both of the behaviors for the students in both years. Sociodemographic status of the young people is one of the most important factor affecting their life style and behaviors. In this study, sociodemographic status of the students was examined in three categories: place of residency, educational level of mother and of father. These variables are also the determinants of economic indicators. Educational level of father is not found significant in all analyses, but educational level of the mother is found significant for drinking and unsafe sex. On the other hand, place of residency is found a risk factor in all models. In this study, lifestyle is found as the most important determinant factor among all sociodemographic status for risky behaviors. This study indicates that young people need comfortable living environments. Young people are expected to be engaged in health-promoting activities rather than risky behaviors during their university years, during which they usually live away from home and spend more time with, and are influenced more by, their friends. Therefore, universities are one of the most important educational institutions with an opportunity to guide the lives of young people.

There are some limitations to our study, the most important being the disproportion in the ratio of male to female students in our sample versus that in the university. Male students were found to be engaged in risky behaviors more than females. The higher participation of male students in the study contributed to a clearer demonstration of the factors that affect risky behaviors. Secondly, the study questionnaires were applied under observation during class. This may have compelled some students to respond

nontruthfully, especially to the questions on drug use and unsafe sex behavior. Thirdly, the researchers avoided giving detailed answer selections for certain questions in order to elicit the most accurate responses possible on a variety of topics. As a result, the information obtained was limited on some topics, whereas some variables could not be used for certain sections of the analysis. The numbers of participants are different for the evaluation of risky behaviors because students who failed to respond to every question were excluded from the analysis. This could be assessed as another limiting factor in evaluation of the results of this study. Fourthly, this study has the limitation of the methodology of descriptive studies.

Helping students understand better in the classroom is one of the primary concerns of every teacher. Teachers need to motivate students how to learn. According to Phil Schlecty (1994), students who understand the lesson tend to be more engaged and show different characteristics such as they are attracted to do work, persist in the work despite challenges and obstacles, and take visible delight in accomplishing their work. In developing students' understanding to learn important concepts, teacher may use a variety of teaching strategies that would work best for her/his students. According to Raymond Wlodkowski and Margery Ginsberg (1995), research has shown no teaching strategy that will consistently engage all learners. The key is helping students relate lesson content to their own backgrounds which would include students' prior knowledge in understanding new concepts. due recognition should be given to the fact that interest, according to Saucier (1989:167) directly or indirectly contributes to all learning. Yet, it appears that many teachers apparently still need to accept this fundamental principle. Teachers should mind the chief component of interest in the classroom. It is a means of forming lasting effort in attaining the skills needed for life. Furthermore teachers need to vary teaching styles and techniques so as not to cause boredom to the students in the classroom. Seeking greater insight into how children learn from the way teachers discuss and handle the lesson in the classroom and teach students the life skills they need, could be one of the greatest achievements in the teaching process.[9]

Teachers must recognize the diversity and complexity in the classroom, be it the ethnicity, gender, culture, language abilities and interests. Getting students to work and learn in class is largely influenced in all these areas. classroom diversity exists not only among students and their peers but may be also exacerbated by language and cultural differences between teachers and students.

The teachers, being the focal figure in education, must be competent and knowledgeable in order to impart the knowledge they could give to their students. Good teaching is a very personal manner. Effective teaching is concerned with the student as a person and with his general development. The teacher must recognize individual differences among his/her students and adjust instructions that best suit to the learners. It is always a fact that as educators, we play varied and vital roles in the classroom. Teachers are considered the light in the classroom. We are entrusted with so many responsibilities that range from the very simple to most complex and very challenging jobs. Everyday we encounter them as part of the work or mission that we are in. It is very necessary that we need to understand the need to be motivated in doing our work well, so as to have motivated learners in the classroom. When students are motivated, then learning will easily take place. However, motivating students to learn requires a very challenging role

on the part of the teacher. It requires a variety of teaching styles or techniques just to capture students' interests. Above all, the teacher must himself come into possession of adequate knowledge of the objectives and standards of the curriculum, skills in teaching, interests, appreciation and ideals. He needs to exert effort to lead children or students into a life that is large, full, stimulating and satisfying. Some students seem naturally enthusiastic about learning, but many need or expect their instructors or teachers to inspire, challenge or stimulate them. "Effective learning in the classroom depends on the teacher's ability to maintain the interest that brought students to the course in the first place (Erickson, 1978). Not all students are motivated by the same values, needs, desires and wants. Some students are motivated by the approval of others or by overcoming challenges.

CONCLUSIONS

Overall we can conclude that, from the students' perspective, the way their teachers behave acts as a model and has some kind of influence on their own behavior in 95% of the cases. Students by-and-large prefer a democratic to an authoritarian or indifferent teaching style, although there are relative differences in the students' preferences for the latter two styles depending on whether they are following a science-oriented curriculum or a humanity one. Students' behaviors change, by their own admission, depending a great deal on their relationship with teachers, an aspect that we find very important to notice, particularly in conjunction with the fact that those aspects of the teachers' behavior that students would change are to a large extent communicative.

The role of the teaching staff in shaping the personality of the students is very high. Regardless of the role that the teachers have in school, they can influence decisively, depending on the direction in which they guide the personality of the students. In support of the findings of our research we mention relevant contributions of famous researchers. based on studies undertaken considers that in the schools environment, development and support in development is due to resources of the following type: interpersonal (the quality of interactions), emotional (encouragement) cognitive (field objectives in results) behavioral (control) and instrumental (help with school tasks). In all of these resources the teacher is involved. Teachers can create positive dynamics in the classroom by using educational strategies based on sound pedagogical research that combines adequate levels of dominance and cooperation and an awareness of the needs of the students. Marzano, Marzano and Picketing found that the quality of teacher-student relationships is the keystone for all other aspects of classroom management. They described effective teacher-student relationships as having nothing to do with the teacher's personality or even whether the students view the teacher as a friend. Rather, the most effective teacherstudent relationships are characterized by specific teacher behaviors: exhibiting appropriate levels of dominance; exhibiting appropriate levels of cooperation; and being aware of highneeds students (Marzano, R. J., Marzano, J. S., & Pickering, d. J.2003:pp.6-13) [6]. Teachers play various roles in a typical classroom, but surely one of the most important is that of a classroom manager. Effective teaching and learning cannot take place in a poorly managed classroom. If students are disorderly and disrespectful, and no apparent rules and procedures guide behavior, chaos becomes the norm. In these situations, both teachers and students suffer. Teachers struggle to teach, and students most likely learn much less than they should. In contrast, well-managed

classrooms provide an environment in which teaching and learning can flourish. But a well-managed classroom doesn't just appear out of nowhere. It takes a good deal of effort to create and the person who is most responsible for creating it is the teacher.

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THE INFLUENCE OF ERGONOMIC CULTURE ON THE LABOR FUNCTIONS OF FUTURE TEACHERS OF MODERN SCHOOL

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ABSTRACT

This paper substantiates the relevance of the influence of ergonomic culture on the labor functions of future teachers of modern school and the author's developments in the implementation of the labor functions of future teachers in modern school. The problem of teacher participation in creating a safe and comfortable educational environment of a modern school is considered. The mechanism of the influence of the ergonomic culture of students of the psychological and pedagogical university on the labor functions of future teachers of modern school is analyzed. The need for the formation of ergonomic culture of future teachers is identified. The components of ergonomic culture are grounded: ergonomic knowledge, skills, thinking and focus, the concepts of ergonomic knowledge, ergonomic thinking, ergonomic orientation are differentiated. The mechanism of the influence of the ergonomic culture of the teacher on his/her labor functions and their fulfillment depending on the teacher's ergonomic culture are proved. The components of the ergonomic culture of future teachers are presented: ergonomic knowledge, skills, thinking and focus.

Keywords: ergonomics, pedagogical ergonomics, ergonomic culture of a teacher, labor functions.

INTRODUCTION

The widespread informatization of the educational space of modern schools dictates a growing need to master the knowledge and skills to create conditions that would strengthen the health of schoolchildren and teachers of modern schools, create safe conditions for schoolchildren, and ensure the life and health of schoolchildren and teachers. However, subject to the fact that this knowledge is based precisely on ergonomics, it can be said plainly that providing an effective, comfortable and health-friendly educational environment in a modern school largely depends on the ergonomic culture of each teacher [1]. At present, the problem of creating a comfortable, safe educational environment of a modern school taking into account ergonomic knowledge is a rare subject of research in the Russian Federation with only some ergonomic aspects highlighted. In our opinion, one of the reasons for the current situation is found in the lack of training of future teachers of the modern school for ergonomic knowledge, therefore, the lack of formation of ergonomic culture in future teachers. Thus, there is a need to identify the influence of ergonomic culture on the work functions of future teachers of a modern school in providing a comfortable and safe educational environment of a modern school [2].

METHODS

The professional standard of the teacher offers a description of the labor functions in the form of a functional map by type of professional activity of the teacher. The list of labor functions and skills a teacher must perform in a modern school, taking into account ergonomic knowledge, is extensive. In this regard, the problem of the lack of studying pedagogical ergonomics as a subject in the preparation of university students — future school teachers — is growing more urgent. The problem of creating a comfortable and safe educational environment of a modern school that is specially organized and adapted for learning activities can be solved only by identifying the influence of ergonomic culture on the labor functions of future teachers of modern school, which certainly updates the qualitatively new setting of modern educational policy.

The need to study the influence of ergonomic culture on the labor functions of future teachers of modern school is determined by contradictions:

- between the expectations of schoolchildren and teachers to study in a comfortable and safe educational environment and standards imposed, on the one hand, and the current state of schools unable to provide comfortable, safe and convenient learning environment, on the other;

- between the social need of the society in providing the school with a comfortable and safe educational environment and the demand for ergonomic knowledge that improves the quality of education, comfort and safety of the educational environment, and the difficulties the teachers face with in organizing a comfortable learning environment and workplace due to the lack of ergonomic knowledge and skills in such teachers and an immature ergonomic culture.

The object of the research is the ergonomic culture of students of the psychological and pedagogical universities. The subject of the research is the mechanisms of the influence of ergonomic culture on the labor functions of future teachers of modern school. The hypothesis of the study: the relationship of basic training and the active use of ergonomic knowledge by students of the university, presumably, actualizes their need for continuous ergonomic self-improvement as one of the indicators of human culture. Implementation of the practice of mastering ergonomic knowledge and skills by a university student to create a comfortable educational environment will make ergonomic education at the same time the leading prerequisite for the formation of an ergonomic culture for a future teacher. In this regard, there is a need to clarify the essence of the phenomenon of "Ergonomic teacher culture", which is an integral part of the professional and pedagogical culture of the teacher of the modern school and determine the components of the influence of ergonomic culture on the labor functions of future teachers.

The conceptual idea of our work should substantiate that such components of the ergonomic culture of future teachers as ergonomic knowledge, skills, thinking and focus, are the leading mechanism of influence of ergonomic culture on the labor functions of future teachers of modern school. If the future teacher has an ergonomic culture, then he/she will be able to implement proper organization and strict observance of ergonomic requirements (interior design, teacher's and student's workplaces, training facilities, thermal comfort, furniture, lighting, space planning, class schedule, etc.) in modern school to:

- the fulfillment of his/her professional tasks in a comfortable and safe educational environment, both in the school and in the teacher's workplace;

- the functioning of the school and classrooms in terms of compliance with ergonomic requirements for process and educational equipment, and preservation of health.

RESULTS

The methodological basis of the fundamentals of safety, ergonomics and psychology of mental labor is presented in the scientific works by A.A. Krylov, E.A. Klimov, B.F. Lomov, V.S. Merlin, V.M. Munipov, V.D. Parondzhanov, K.K. Platonov, and A.A. Radugin. Problems of development of the labor functions of school teachers are considered by such scholars as: A.N. Leontiev, V.A. Druzhinin and others. Some ergonomic aspects are presented in the works by such modern authors as: A.A. Belov, E.V. Voronina, R.S. Gershunskaia, V.P. Zinchenko, A.A. Kriulin and others. Physiological and ergonomic factors of schoolchildren performance are presented in the works by N.V. Alishev, M.V. Antropova, A.S. Egorov, V.I. Rozhdestvenskaia. However, there are unheeded issues of the formation of ergonomic knowledge and skills of future teachers as an important component of ergonomic culture as well as components of the influence of ergonomic culture on the labor functions of future teachers of modern school [3,4,5].

The formation of the ergonomic culture of the personality of the future teacher of the modern school requires effective pedagogical guidance and skill. The study of the problem of improving the ergonomic culture of the subjects of the educational process (teacher and student) has intensified in recent decades abroad. Foreign teachers consider the concept of ergonomic culture with the possibility of their use in school. L.A. Sidorchuk from Ukraine understands the ergonomic culture of the teacher to mean the integration of the personality traits of the teacher. Such a teacher is able to interact in the "man - technology - environment" system. The ergonomic culture of the teacher prepares his/her students for a creative way of life, both in a modern technological society, and modern pedagogical activity. Ia. Gedrovits from Latvia explains the concept of ergonomic culture of a teacher through the labor culture of computer users. This culture includes the full ergonomic fit of the computerized workplace and the entire working educational environment. A modern school teacher understands the need for ergonomic knowledge and therefore complies with the relevant ergonomic requirements and recommended prescriptions and rules on labor protection in the learning process. The Russian practice of the education system practically neglects studying the concept of ergonomic culture.

In terms of an active search in achieving a high level of mental performance, teachers and schoolchildren acquire special importance for the teacher: ergonomic knowledge, ability to use subject knowledge as a means of ergonomic learning and student development to create a comfortable and safe educational environment, ways of organizing learning activities and ergonomic teacher culture.

We are convinced that the successful solution of these problems primarily depends on how the students understand the features of pedagogical ergonomics and the role of the ergonomic culture of the teacher's personality in it. There is also no doubt that the formation of the ergonomic culture of schoolchildren can take place only if there is an

ergonomic culture among the teachers, which means that the future teachers should be trained accordingly.

Teacher's ergonomic culture is understood to mean the totality of ergonomic knowledge and skills that ensure the creation and use of a comfortable and safe educational environment and the workplace of a modern school teacher. Since the "teacher - school student - educational environment - teaching tool" ergonomic system is a component of pedagogical ergonomics, it can be concluded that the ergonomic culture consists of a teacher's culture, a student's culture, a culture of the educational environment, and a culture of teaching aids that direct the activity of the teacher to create an effective, comfortable and safe learning process.

The important components of the labor functions of future teachers within the framework of the ergonomic aspect are the compliance with the sanitary and hygienic, physiological, psychophysical, anthropometric and psychological characteristics of the human body in the context of creating a comfortable and safe educational environment of the modern school. The ergonomic characteristics listed above should be implemented with regard to the main focuses. Spatial focus shows where the teacher carries out his/her labor activity (workplace, zone). Time focus takes into account the teacher's labor movements, his/her work and rest regime (performance, fatigue, etc.). Informational focus shows where and how the teacher conducts the search, analysis, information processing (sense organs, symbols, signs, sounds, etc.).

In terms of the total technologization of the educational environment and the gradual formation of an ergonomic personality culture, we can speak about the emergence of an "ergonomic human" with his/her requirements of safety, comfort, optimization of activities, and increase in the efficiency of intellectual work. Considering the problem of the rise and formation of ergonomic culture, in terms of the need to bring training of future teachers in line with ergonomic requirements, it should be noted the importance of solving ergonomic tasks of improving the educational process. Only in this case, it is possible to provide a comfortable and safe educational environment in a modern school. Thus, an increase in the efficiency and quality of education, personal development and preservation of the health of participants in the educational process is achieved.

DISCUSSION

The labor activity of a modern school teacher is carried out under a complex interaction of a multitude of ergonomic factors. In this regard, one of the conditions for the teacher's successful professional activity is the ability to ergonomic activities, mastering ergonomic knowledge and skills, and transferring ergonomic skills to schoolchildren in order to increase the efficiency, safety and comfort of the learning process. Immature ergonomic culture among teachers and students leads to a significant mismatch between the goals and results of educational activities. Its consequences are the decrease in efficiency, safety and comfort of the educational process, the considerable expenditure of human, technical, intellectual resources, lack of ergonomic knowledge and skills, whose carriers should be teachers and schoolchildren of modern school.

This is confirmed by the results of our study of the level of ergonomic training of students of 44.03.02. "Psychological and pedagogical education" branch of FSBEI HE "Udmurt State University" in Votkinsk, conducted in the 2017-2018 school year. Thus, a group of students answered the questions of the test about ergonomics and its role and

place in the education system. The experiment involved 40 first-year extra-mural students with shortened periods of study. As a result, only 10% of students answered that they were familiar with the concept of ergonomics and had an idea about the use of ergonomics, and only 5% said that they had heard about the use of ergonomics in the education system. Such a low awareness of ergonomics and its role and place in the education system allows us to make an assumption about the unwillingness to perform labor functions, according to the teacher's professional standard. Answering an open question of "How should a culture of healthy and safe lifestyle be formed among students?", 65% of students indicated the subject "Physical Culture and Sport", 35% - "Life Safety". Thus, it is likely that only 14 people find the formation of a culture of healthy and safe lifestyle reflected in the ergonomic component, since the study of the basic fundamentals of ergonomics is one of the sections of the study of the subject "Life Safety" and, most often, the section of ergonomics by students in the university is studied independently. This makes the intellectual activity of the future teacher limited in the field of ergonomic education.

The results of the study showed that school training does not provide the necessary level of ergonomic component in the education system for the future teacher. Therefore, future teachers need special training at the university to obtain ergonomic knowledge that will ensure the performance of labor functions, according to the teacher's professional standard. The modern Russian system of higher education does not intent the formation of the ergonomic culture of the teacher's personality as an object of purposeful education. In the future, in their professional activities, the teacher is unable to apply ergonomic knowledge and skills, which cuts down the content and forms of work of the teacher in modern schools, reduces the level of satisfaction with the teaching profession. Only a teacher with a high level of an ergonomic culture can form it in his/her schoolchildren at present. In general, the lack of an ergonomic culture in a future teacher of modern school negatively affects the performance of his/her labor functions.

To solve this problem, the branch of FSBEI HE "Udmurt State University" in Votkinsk included the subject "Ergonomics of Education" in the curriculum for fourth-year students of 44.03.02. "Psychological and Pedagogical Education". The program of "Ergonomics of Education" is part of the professional cycle of the variable part of the component subjects for choosing the Bachelor's basic educational program (B3.V.07.01). As a result of mastering the subject, the student develops the following competencies: OK-1 - masters the culture of thinking, is able to summarize, analyze, perceive information, set goals and choose ways to achieve it (OK-1); PK-7 - is ready to ensure the protection of life and health of students in the educational process and extracurricular activities (PK-7). The total scope of the subject is 2 credits, 72 hours. The assessment of the quality of the subject includes the ongoing monitoring of progress, intermediate qualification of students.

According to the results of the course "Ergonomics of Education", a retest was conducted about knowledge of ergonomics and its role and place in the education system. The same but already the fourth-year students took part in the experiment, total 38 people. As a result, 100% of students answered that they are familiar with the concept of ergonomics and have an idea about its use in the education system. Such a high level of awareness of ergonomics and its role and place in the education system suggests that there are formed ergonomic knowledge and skills, the readiness of

students to perform work functions, according to the teacher's professional standard. Answering an open question of "How should a culture of healthy and safe lifestyle be formed among students?", 100% of students indicated the subject "Ergonomics of Education" together with such subjects as "Physical Culture and Sports", "Life Safety" etc. Thus, the presence of elements of ergonomic culture such as ergonomic knowledge, skills, thinking and focus indicate a willingness to shape the teacher's ergonomic culture.

CONCLUSION

During the formation of an ergonomic culture the teacher has effective control over the level of formation of ergonomic knowledge, skills, thinking, focus, and other components of ergonomic culture. In our opinion, the future teacher will have an ergonomic culture formed if during the learning process various types of controls are regularly carried out, for example, testing, ergonomic knowledge and skills assessments. The educational activities of the future teacher should be organized in such a way as to timely identify and eliminate gaps in knowledge. The learning process should be active, contributing to the self-improvement of ergonomically significant labor functions, according to the teacher's professional standard. Thus, we have substantiated the relevance of the study of the influence of ergonomic culture on the labor functions of future teachers of the modern school. Analysis of the professional standard of the teacher showed the need for the formation of a teacher's ergonomic culture. The teacher's ergonomic culture shall be understand to mean the totality of ergonomic knowledge and skills that ensure the creation and use of a comfortable educational environment and the workplace of a modern school teacher. The study of the problem of influencing the ergonomic culture on the teacher's labor functions has shown that the teacher's ergonomic culture contributes to the improvement and full performance of the teacher's labor functions and has a significant impact on the problem of teacher's participation in creating and implementing a safe and comfortable educational environment of the modern school and shaping the ergonomic culture of schoolchildren.

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THE INFLUENCE OF TECHNICAL TRAINING THROUGH MEANS SPECIFIC TO FOOTBALL GAME IN HIGH SCHOOL

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ABSTRACT

In this study we have approached football issues during Physical Education high-school classes by using means of technical training specific to football game. The research has been made during one school year, at "Technologic Auto" High School Craiova, on 26 subjects. The subjects were school-boys in the 10th grade, divided into two numerically equal groups (control and experiment) who were applied several technical routes. In order to emphasize the efficiency of the means used and results obtained we applied two tests, at the beginning of the research (initial test) and at the end of it (final test).

The tests consisted in two technical routes, against the clock as well as in collecting some anthropometric indices regarding students' motor qualities.

The hypotheses: 1. The efficiency of physical education in high-school classes can increase through the use of technical means specific to football game and may lead to an improvement in students' motor abilities (speed and endurance). 2. The methods used for this research were observation, experiment and the statistical-mathematical method.

Conclusions: Concerning the motor tests, there are significant differences between the averages of final testing for the two groups, proving that the specific structures applied to subjects were highly efficient and the progress recorded was the result of both the training and the physical development of the subjects. Concerning the two tests related to technical complexes, the differences regarding results are significant, proving that the specific structures applied to the experimental group during the training process were much more efficient than the training programs of the control group.

Somatic evaluation highlights that the subjects have normally developed in height (according to their age), as the difference between the averages of the two measurements were insignificant, so the experiment little influenced the somatic dimensions recorded.

Keywords: football, technical training, physical education.

INTRODUCTION

The importance of technique in football game is given by the fact that it needs a reduced energy consumption which leads to an increased stamina, a physiological efficiency [1] and a more rapid psychical recovery knowing that the nerve cell recovers 7 times slower than the muscle cell [2].

Starting from the aim of the technical training, i.e. to create for the player the opportunity of efficiently use his functional potential during the competitions [3], we considered that the technique learnt by the football player has to be adequate from the biomechanical and physiological point of view [4]; it has maximal utility, a flexible character and is characterized by a lot of imagination and creativity and all these represent the concrete modality of player's expression.

The qualitative value of technical training depends on the general and specific driving qualities [5]. There is a positive interference between them, especially through speed and stamina, whereas force influences negatively the technical act whenever the proportion and the means used surpass the specific requirements of game dynamics [6].

This relationship of interdependence between the physical training and the technical one, can be seen during the adversity situations, whenever there is no time or space left, as well as in the case of a superior dynamics of the game. In these situations, the driving qualities and the effort capacity of the players are essential for the expression of the technical act at competitive level; the efficiency of the driving performance is the result of the symbiosis between a perfect technique and an optimal level of developing the driving qualities [7]. Technique should not be learnt separately, the technical element should not be repeated stereotypical because this would lead to rigid patterns maladjusted to the variety of the game; technique should be learnt in conditions similar to those of the game, during global didactic actions [8], this way the student can receive the information related to the elements defining the driving aspects and especially related to the aim of the training.

The aim of research is to emphasize the efficiency and importance of exercises for technical training, specific to football game, during the physical education class.

The hypothesis of research: The efficiency of physical education in secondary school classes can increase through the use of technical means specific to football game and may lead to an improvement in students' driving values, stamina and force *as well as the somatic indicators*. The introduction of exercises for technical training during the physical education classes and their execution in various conditions contribute to the improvement of those skills specific to football technique.

MATERIAL AND METHOD

The research lasted for one school year, at Automotive High school in Craiova, on 26 school boys in the 10th grade; they were divided into two equally numeric groups (control and experiment). The classes were held according to the syllabus.

The research consisted in several technical routes [9,10,11,12], applied only to the experiment group. The classes complied with curricula and were led by the form teacher who acted according to our instructions. We have to mention that for the experiment

group the classes had the last positions in the timetable so that they had 10 extra minutes.

For the control group, the activity was normal. In order to emphasize the means used and the results obtained, we applied two tests, at the beginning of the research (initial test) and at the end of it (final test).

For the 26 students we recorded indicators for:

- 6 driving parameters: 1500 m-resistance running, 800 m-resistance running, 50m-speed running, 30m-speed running, vertical high jump, long jump;
- 4 technical parameters for the two technical-tactical complexes and for maintaining the ball in the air for both legs;
- 3 somatic parameters.

Technical-tactical complex no. 1: the player starts in front of the first out of five fences, situated at 1m distance between them, executing a self-pass under it and then, from sprinting, he bypasses it from the right. After having the possession of the ball, the player passes laterally on the left of the coach who is at 4-5m distance from him and in an angle of about 45^0; after that the player moves rapidly and with a high frequency over a 4m-ladder and then he receives the ball from the coach.

There is a lead of the balloon on a relatively small distance up to the first jail, and then go into the lead of the ball between 7 balls situated 2 m apart.

After the last round, the player will have to pass through a fence (1.5 m width and 70 height) located 5 m from the last pillar to a teammate at a distance of 1 m behind the fence, which will retransmit the ball from a single touch to the performer.

The pass will be resent also through the fence. The player takes over the ball land repeats the same exercise but in the opposite sense where, after the last cone, he passes again through the fence to another teammate who repasses the ball. The exercise is done against the clock and will be repeated 4 times.

The players will be penalized with 1 second for each touch of the cone or of the ball to the fence. The exercise was done 2 times and the most favourable timing was recorded (see Figure 1).

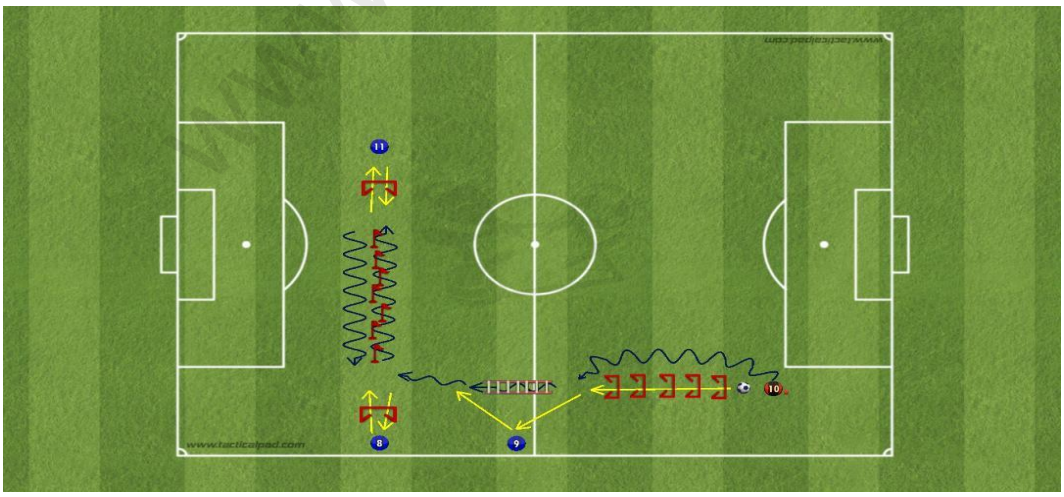

Figure 1. Technical and tactical complex no.1

Technical and tactical complex no2: The player leaves the front of the first one of the 5, located at a distance of 1m between them, executing a self-care under them, and then bypasses them on the right side. After entering the ball, he will move the left side of the coach at a distance of 4-5 m from the coach and at an angle of about 45^0, and then execute a quick and high pass over a ladder with the length 4m, then receiving the ball from the coach.

There is a lead of the balloon for a relatively small distance up to the first jail, then drives the ball among 3 cones situated in a straight line, 2m distance between them.

After the third cone, he passes the ball laterally right through a fence (1.5m wide, 70cm high) situated at 4.5 m and an angle of 45^0 from the cone to a teammate who repasses the ball to a future position.

This takes over the ball land drives it among other 3 cones, 2m distance between them, then passes laterally left through a fence to a teammate who repasses the ball to a future position. He drives the ball on a 5m-distance then he shoots to goal from a distance of 11m.

The ball has to exceed the goal line through the air. The exercise is done against the clock; the players are penalized one second for each touch of the cone or the fence. Also, the players are penalized with one second if the ball does not exceed the goal line through the air (see Figure 2).

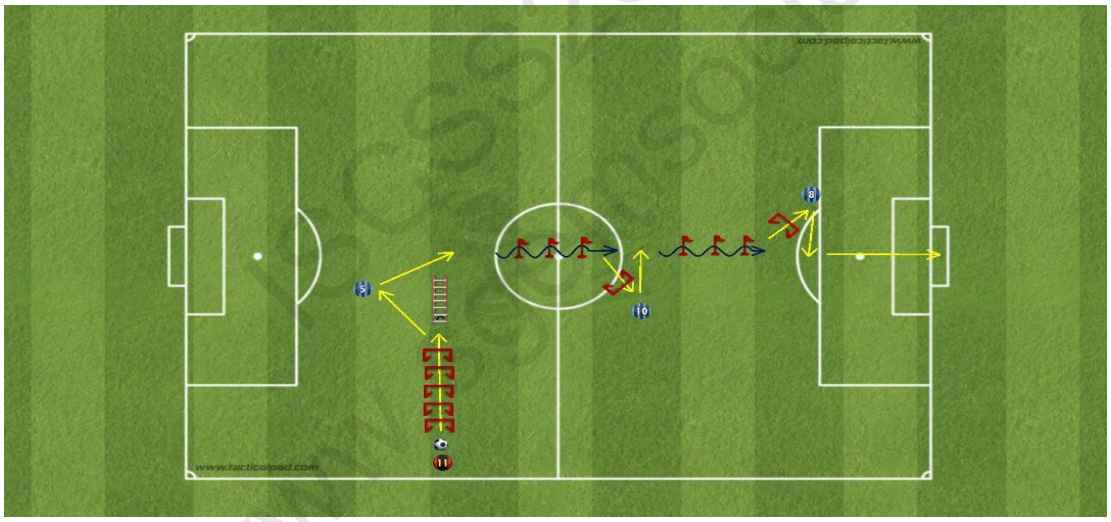

Figure 2. Technical and tactical complex no. 2

DISCUSSIONS

During the physical education classes, the intensity of effort depended greatly on the students' level of training, on their knowledge and driving skills, according to the aims of each stage of research. Thus, the guidance of the effort parameters was made so that, by using students' intensity and effort, every aim of the research should be reached.

Taking into account the fact that the activity was performed in conditions of fatigue, oriented towards learning some technical and tactical components, it is an efficient means for ensuring a high level of functional capacity [13].

We increased the volume of effort at the level of experiment group by gradually introducing some elements specific to basic technique, at the same time with the gradual

increase in intensity; this fact represented a main factor in the improvement of students' effort capacity, thus influencing the physical and technical attitude of players in the field.

During the research, the verbal methods were combined with the demonstrative ones and with the exercise, according to the theme and aim of each lesson and they had a greater proportion than in everyday practice in order for the subjects to be aware of their performance.

The introduction of technical exercises, executed with a large number of repetitions in physical education classes, based on an elaborated planning with rationalized and standardized means, contributed largely to the development of effort capacity of the experiment group, as well as to the level of technical skills.

For the initial tests, the comparative analysis of the indicators attesting the psycho-driving development, proves that both groups are characterized by a large homogeneity ($p>0,05$) for every tested parameter.

For the final tests regarding the indices of the driving parameters tested for qualities speed, force and resistance, we can note the superiority of the experiment group for all the 6 parameters; the differences in the final test are significant in all cases (see table 1), an aspect that gives the football players a major advantage during a football game where speed and flow prevail.

The difference % for both resistance tests greater than those for speed tests (see table 1) proves once more that resistance unlike speed is not genetically conditioned [14] because it can be developed efficiently by specific physical exercises at any age. The significant differences between the averages of the two groups prove that the specific structures applied to the experiment group during the training process were much more efficient than the training program of the control group.

Concerning the indicators of force, we may notice a difference in % larger than in the case of speed and this proves once again that force is a driving quality that can be improved a lot in a short time at any age [15].

Regarding the progress achieved in the two technical and tactical complexes, as well as to the two balloon drives to keep the ball in the air, we can notice that the results of the experiment group are better thatn those of the control group, the differences between them, in the final test, are significant: $p<0,01$ (table 2).

Significant differences between the averages of the two groups demonstrate that the specific structures applied to the experimental group within the training process were much higher than the control group training programs.

Regarding the anthropometric parameters, for size and weight (table 3), for both groups, the somatic evaluations show that the students recorded a relatively small increase but normal for this segment of age. The differences between the averages of the two groups are not significant ($p>0,05$); the experiment influenced a bit the somatic dimensions and the growth is natural for this segment of age.

The somatic evaluation for the trial of vital capacity proves a significant increase in the experiment group ($p<0,01$), a fact that is explained through a larger volume and an increased intensity during the classes.

This aspect is proved by the much better results obtained in the second part of school championship where the school representative team lost only one game in contrast with the first part of the championship when they lost 4 games.

Table 1 The results of the two groups for the driving challenges (n=26)

No	Challenge	Group	Initial test	Final test	Difference % between final tests	p
1.	Resistance running 1500 m (min)	E	5,25	4,50	12,95%	p < 0,01
		C	5,28	5,17		
2.	Resistance running 800 m (min)	E	3,30	2,58	19,37%	p < 0,01
		C	3,38	3,20		
3.	Speed running 50 m **(sec)**	E	8,1	7,5	8,53%	p < 0,01
		C	8,3	8,2		
4.	Speed running 30 m **(sec)**	E	4,5	4,2	6,66%	p < 0,01
		C	4,6	4,5		
5	Long jump (m)	E	1,77	2,10	16,02%	p < 0,01
		C	1,75	1,81		
6	Vertical high jump (m)	E	35,5	41,9	15,01%	p < 0,01
		C	34,4	36,4		

Table 2 The results of the two groups for the technical challenges (n=26)

No	Challenge	Group	Initial test	Final test	Difference % between final tests	p
1.	Technical complex 1 (sec)	E	15,42	12,85	12,99%	p < 0,01
		C	15,82	14,78		
2.	Technical complex 2 (sec)	E	38,57	32,69	15,89%	p < 0,01
		C	39,78	38,87		
3.	Keeping the ball in the air with the foot up and down nr. ex.	E	15,3	21,6	46,93%	p < 0,01
		C	14,5	15,9		
4.	Keeping the ball in the air with the clumsy foot nr. ex	E	7,8	15,9	35,84%	p < 0,01
		C	6,7	9,9		

Table 3 Table results of anthropometric indices of the two groups (n = 26)

No	Challenge	Group	Initial test	Final test	Difference % between final tests	p
1.	Height (cm)	E	168,4	169,8	1,43%	p > 0,05
		C	167,2	167,4		
2.	Weight (kg)	E	70,1	71,2	1,52%	p > 0,05
		C	72,4	72,3		
3.	Vital Capacity (ml)	E	4050	4380	8,14%	p < 0,01
		C	4000	4050		

CONCLUSIONS

By examining the superior results of the experiment group against the control group we may conclude that they validate the accuracy of the training methodology used in students' training.

The superiority and the significant differences of the results, favourable to the experiment group in the driving trials lead to the conclusion that they are the result of using an increasing volume, intensity and complexity of exercises and technical programs during classes; they had a huge and complex influence on the development of driving qualities as well as of driving skills specific to football game.

By the certainty of the efficiency of the applied technical means, confirmed by the results obtained in the final tests, we can say that this method led to the transfer to the improvement of the motor quality indices the speed, strength and force.

The gradual insertion, during the physical education class, of some elements specific to basic technique in football contributes to the improvement of the class by stimulating students' interest in the lesson and their desire for movement and competition.

The intensity of the body's request, by introducing a number of technical exercises into the physical education lesson, the intensity of the effort made in the competition, as well as the number of repetitions and the duration of the breaks, contributed to the improvement of the speed and strength characteristics of the motoring qualities. The attitude and behaviour during the official games was improved and the cooperation between students helped the understanding of the principle that competition, engagement are defining for each player.

The technical procedures specific to football game, executed (repeated) during the physical education classes formed to the participants an active and conscious attitude, cultivating their interest and attachment towards school and sport.

The procedures used in this research formed to the students an active attitude during the physical education classes through the cognitive element, thus contributing to an increase in the density and intensity of classes.

The outstanding results obtained by the school representative team in the second part of the school championship are the result of using the exercises with technical features during the physical education classes; these had a positive effect regarding the players' attitude in official competitions.

The obtained indicators, for both technical and tactical complexes, emphasize a significant progress for the experiment group and this was caused by the dynamic, volume and intensity of effort according to the complexity of selected means, an aspect that supported the efficiency of the program.

The significant differences in progress regarding the speed challenges were the result of rapid successions of technical exercises, in conditions of adversity, an aspect that implies rapid reactions and emulation in conditions of adversity specific to football game.

Also, in relation to the four resistance and force trials, the differences between averages were significant and this proves that the specific structures applied to subjects had an adequate efficiency.

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THE MAIN TENETS OF THE 'PRINCIPLED ECLECTICISM' APPROACH TO TEACHING, OR HOW TO BREEZE THROUGH THE CELTA COURSE

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ABSTRACT

The paper focuses on some of the main tenets of the principled eclecticism approach implemented within the CELTA course – a course for adult learners who wish to receive a certificate proving that they can teach adult speakers of languages other than English. As a former CELTA trainee and a graduate of the course, the author sees her goal as threefold. First, to provide some theoretical knowledge of teaching methods within the paradigm of principled or selective eclecticism – an approach that makes use of the best of all the other approaches to teaching English, with the communicative one playing a more prominent role than the rest. Second, the author seeks to provide some 'tricks of the trade' – tips and advice from a personal perspective with a view to helping prospective CELTA trainees to avoid some of the potential pitfalls and to overcome initial reservations and inhibitions, which frequently plague them before subscribing to the course. Ultimately, the author hopes to help all language instructors to become not only better at teaching, but also at learning.

A number of methods have been utilized to achieve the aims and objectives of the research: the meta-analysis methodology was used when evaluating the efficacy of the main approaches to teaching English; non-involved observation of both learners and teachers was applied during the author's teaching practice on the CELTA course; cross-cultural and interlingual analyses were adhered to when comparing Russians' and native speakers' expectations with regard to the best teacher attributes.

In accordance with the above aims and objectives, the paper is divided into several parts. In the introduction (1), some general background as to what inspired the author to write the present paper is outlined. The planning section (2) minutely describes the essential components to any workable and efficient plan. The main sections and subsections of the plan are reviewed, with helpful tips on how to make the plan work almost in any situation. In the 'activities and their types' section (3), the main classifications of activities are provided, including fluency and accuracy, controlled, guided, semi-free and free, the main conclusion being that the 'task is more important than the text' – an FLT mantra, worth remembering. In the 'approaches to language teaching and learning' section (4), the main approaches and paradigms of teaching are highlighted. It is emphasized that contemporary CELTA courses and trainers opt for the so-called principled eclecticism – an informed combination of the most sensible and workable tenets from all the existing approaches.

The 'teacher' (5) section explores some of the personal and professional qualities any efficient teacher should have. A selective list of 'a-good-teacher' attributes is provided,

based on the interview conducted with Russian learners of English. In the 'learners' section (6), the main types of learners are discussed, with the emphasis on primary representational systems – sensory channels unconsciously used by learners in order to perceive, process, store and retrieve information. Finally, the 'discussion and conclusion' section (7) summarizes some of the aspects raised in the paper, evaluates their significance and gives further tips to prospective CELTA trainees.

Keywords: CELTA, pedagogy, FLT, lesson planning

1. INTRODUCTION

According to S. Thornbury, 'learning a second language is like moving to a new town – it takes time to establish connections and turn acquaintances into friends. And what is the difference between an acquaintance and a friend? Well, we may forget an acquaintance, but we can never forget a friend' [8, p. 20]. It will hardly be an exaggeration to say that many proficient teachers of English who intend to upgrade their teaching skills put subscribing to a CELTA course top of their priority list, although many have reservations and are hampered by numerous considerations, among which time, finances, the tight working schedules and parental duties are cited as the most frequent reasons for postponing and/or delaying the course. That said, all modern FLT employers wish to see the CELTA course on their employees' résumés, insofar as this is considered an achievement nearly automatically involving a higher pay and a more prestigious status granted by the employer.

2. PLANNING

In accordance with the current FLT paradigm, the cornerstone of good planning is variety, which can be **extrinsic** and **intrinsic**. Extrinsic variety deals with language systems (receptive skills) and language skills (productive skills), which should ideally be practiced by the teacher on an intermittent and regular basis. That is to say, it won't do to focus on reading day in, day out, just because this aspect has been well acquired by the teacher and learners feel familiar with it. Intrinsic variety presupposes variety within the plan itself, i.e. its components and procedures. Activities, materials, interaction patterns, the amount of teacher talk, etc. should vary, and what is crucial is that this variation should be more or less regular, so that learners feel comfortable and so that their affective filter is lowered. That said, occasionally a teacher may throw in an unexpected technique or an activity that learners have not encountered before. In this case, it is a must to do a demonstration to make sure that learners are aware of what is expected of them.

Beforehand, when planning a lesson, a teacher should take into account class description (the level, the coursebook, the size and its composition), time-table fit and the assumptions about learners and their current knowledge (or its lack). To enable a teacher to do this, a class profile should be made, which gives individual students' strengths and weaknesses and describes the class as a whole. The next thing to do is to think of the aim(s) and objective(s). The terms being synonymous, novice teachers rarely know the difference between the two: aims are stated in *input* terms, what the *teacher* intends to do; objectives (*aka* achievement aims) are stated in *output* terms, what the *students* are expected to achieve. The aims are typically divided into three

types: **main (achievement aim), subsidiary** and **personal** [5]. Typically, different language is used when formulating these types of aims. The typical formulae for the achievement aim are as follows: *by the end of the lesson, learners are able to use present perfect to describe their past achievements* or *by the end of the lesson learners can communicate confidently and share their ideas about global warming using the relevant vocabulary items*. Subsidiary aims are aims of specific activities that work toward advancing the main aim of the lesson. Some of the language used for these aims is: *presenting and giving controlled practice of.., , giving (or to give) students greater understanding of … vocabulary, providing with.., teaching…, improving/raising the morale of the group through appropriate cooperative interaction, to sensitize students to uses of (pitch and intonation), to problematize learning, to establish the context of …, to set the theme by introducing…, to contextualize lexis on*…, etc. Personal aims comprise any aspect of a teacher's performance he/she wishes to improve: cf. *to overcome initial shyness and self-consciousness when meeting a new class; to reduce teacher talking time; to memorize students' names; to use the board effectively*, etc.

An efficient plan also comprises the following subsections: activities, aids, procedures, interaction pattern, time, alternative (contingency) activities, anticipated problems and their possible solutions.

Although a good trainee should follow the plan, a plan is a general framework, not a straight-jacket, so don't plough on with your plan regardless or follow it slavishly [2]. Since much of what happens in the classroom depends not only on the teacher, but also on the learners, if an unexpected turn of events takes place, such as tardy learners or a hitch with technology, a teacher should be flexible enough to adapt the plan on the go without disrupting the general procedure or straying from the main aim too far. If you are parlously losing time, cancel the semi-free or the free activity at the end of the lesson. This is more permissible than cancelling out the accuracy activity if the latter is the focus of the lesson, for example, when a new grammar rule is presented to learners.

3. ACTIVITIES AND THEIR TYPES

'Activity' is an umbrella term used with reference to exercises, tasks, games, role-plays, surveys, etc., depending on the lesson goal, the stage of the lesson, its main focus and the learner. Remember that the task is always more important than the text: 'a boring text can be made interesting through a stimulating task, but a boring task can 'kill' a potentially interesting text' [9, p. 145]. M. Lewis and J. Hill emphasize the playful nature of most tasks if they are to appeal to learners: 'In some ways, as soon as the language is dissected, like the rabbit which is dissected in the laboratory, it is dead. While the biology teacher can justify dissecting one rabbit, it is important to remember that most children would rather play with rabbits than dissect them' [4, p. 36]. P. Ur, however, cautions against being fixed on fun activities: 'students may be active, attentive, using English, enjoying the lesson, etc. but not learning very much if they are spending their time on 'fun' tasks which are far too easy for them. On the other hand, they may learn a lot from doing things which are not enjoyable or not communicative' [9, p. 287]. M. Lewis and J. Hill come up with the word 'usefun' with reference to activities, which means that fun is admissible if and only if it is useful fun [4].

There are numerous classifications of activities; however, all of them can be subsumed under the classification which takes into account the degree of learners' (in)dependence

in doing an activity. All activities, accordingly, can be divided into **controlled** (the teacher decides on the language and controls it: e.g. multiple-choice, gap-filling, copying from the board, reordering jumbled sentences, etc.), **guided** (the teacher decides on the language areas to be practiced, but gives students freedom in the choice of words), **free** (arguably, the most creative and the least restricted type of activity, with the focus on speaking and writing). In the last type of activity, the teacher takes a facilitating role, acting as a mediator, a supplier of motivation and materials.

The degree of learners' freedom in performing an activity correlates with the focus on **accuracy** and/or **fluency**. Accuracy activities are aimed at giving controlled practice of an aspect of language system (phonology, grammar, lexis or style) and comprise such traditional exercises as matching, gap-filling, multiple-choice [6]. These exercises are known as decision-making tasks and can be ranked from the least (left) to the most (right) cognitively demanding [9]: identifying, selecting, matching, gap-filling, multiple choice, sorting, ranking and sequencing.

Whereas accuracy activities are about precision, fluency activities are about automization and inhibition-free usage of language for communicative purposes. Typically, fluency activities follow accuracy activities, although it depends on learners' levels: with upper-intermediate and advanced students fluency activities may precede accuracy activities, with the rider that during the fluency stage the teacher diagnoses knowledge gaps that are going to be filled during the later, accuracy stage.

Activities are also categorized according to whether they raise energy levels or are aimed at relaxing overexcited learners. **Relaxing** activities typically ask the learner to remain seated and to reflect on a particular topic, using his/her imagination: cf. *If I were a season, I'd be…because, If I were a colour, I'd be…because, If I were an animal, I'd be…because*, etc. Sometimes, if tempers run high and learners seem to have 'ants in their pants', the so-called paper conversation may be suggested, when learners ask each other questions and answer them, the slip of paper going round, so that each learner has a chance to write and read at least twice. **Energy-raising** activities involve learners' physical relocation, such as finding a partner activity, when learners are randomly given the beginning and end of statements (proverbs and maxims) and they are to find a partner with the paper match through mingling.

The main principle of freer activities is that they should exploit **cognitive** and **affective depth**: the more decisions the learner makes about words and structures, the greater the degree of cognitive processing, and hence the greater the likelihood of retention in memory. The affective component presupposes a high degree of individualization, self-expression and evaluation of denotata that admit of multiple interpretation. Such topics as death penalty, corporal punishment or abortion are likely to provoke learners' affective response and evaluation. The teacher may use provocative statements or play devil's advocate, setting the ball rolling with a comment like this: *A friend of mine believes that death penalty is the optimal way of punishing young offenders, as this would discourage their peers from doing the wrong thing, and, frankly, I share this opinion.* Mind you that the teacher does not necessarily have to share the opinion s/he voices. The point is to make learners disagree, to provoke their reaction and ultimately to make them speak.

To sum up this subsection, remember that the main objective of any activity is efficient learning, not spectacular teaching!

4. APPROACHES TO LANGUAGE TEACHING AND LEARNING

Although the word combination 'communicative approach' is an almost automatic association of language instructors when they hear the word CELTA, in fact, most CELTA and DELTA trainers as well as the relevant publications admit that the paradigm they choose within the contemporary approach to teaching foreign languages is the so-called principled eclecticism, which means that the best from most approaches is absorbed and implemented in teaching English.

Regardless of the approach, all lessons should incorporate the fluency component: if the focus of the lesson is fluency per se, then up to 25 minutes out of a 45-minute lesson can be devoted to fluency; in an accuracy-focused lesson, at least 5 minutes should be allocated to a fluency activity, typically toward the end of the class.

Presentation, Practice, Production (PPP) – a confidence-building methodology, based on the chalk-and-talk approach, with a lot of teacher talking time (TTT) and frequently a teacher-oriented focus, with the teacher-whole class being the most typical interaction type.

Lexical approach is based on the premise that you cannot communicate without words, though you can communicate without grammar. However, given that 'mental lexicon is not so much a dictionary as a phrase book' [7, p. 114], not only words, but longer chunks of language are the primary focus within this approach: collocations, idioms and set expressions are top of the priority list. The communicative approach focuses on fluency and authentic materials.

Being the most traditional and classical one, the **grammar-translation approach** has come in for some criticism in recent years for overrelying on accuracy, rules, learning lists of words by heart and subsequently reciting them by rote.

The **total-physical response** approach is mostly applicable to children. It encourages comprehension, is tolerant of the prolonged silent period, when learners are not required to produce language, it focuses on exposure to language, grammatical structures and vocabulary are given priority. Young learners are required to carry out commands and instructions, thereby showing their understanding of what is being inputted.

The **guided-discovery** approach encourages learners to figure out rules for themselves by studying a text which contains the target structure.

The **content** and **language integrated learning** presupposes learning another subject in the target language. This approach is implemented in some private or prestigious state schools, where most subjects, typically with the exception of the mother-tongue and Literature, are taught in English. This approach runs into some difficulties, one of the most notorious being the dearth of subject teachers who are proficient in English.

The **communicative approach**, which has been touted so much during the last 20 or so years, is based on two premises: with fluency being the primary focus (1), authentic texts and authentic-like activities (2) are given preference to. In accordance with these premises, no text which has been doctored for whatever reason is admissible; minimal correction and the teacher's low-key role are *de rigueur*. Enjoying some popularity at the beginning of this century, the approach has been found wanting in preparing learners for international exams, such as CAE, CPE, TOEFL, etc., where it is virtually impossible to get high scores if accuracy is compromised. Learners who have been

exposed to the communicative approach can typically be recognized by their lack of inhibition in communicating in English and, unfortunately, but their error-prone performance: their speech, whether written or oral, typically bristles with grammatical inaccuracies.

There are other approaches to FLT; however, for lack of space, the current exposition has been selective.

5. TEACHER

According to M. Lewis and J. Hill, 'bad teachers are disorganized, good teachers are organized, but very good teachers are half organized, and have the techniques at their disposal to develop a small amount of material in ways which respond to the students' particular needs or mood' [4, p. 54]. When evaluating learners' performance, a teacher should remember to suspend judgement and to use appropriate language. Remember that praise is one of the most powerful incentives, conducive to confidence and creativity, whereas criticism, especially personal or unconstructive, is the most powerful demotivator and inhibitor of optimal performance. While evaluating performance, instead of the classic *It was good, but..* formula, opt for the *It was great, and…* formula or use the 'sandwich technique': first, acknowledge strong points, then, using the conjunction 'and', softly or tangentially mention 'points that could have been done differently' and then wrap it all up with another injection of praise.

A survey conducted among Russian learners of English has revealed that a good teacher should do or be the following: uses short, personalized explanations, instills confidence, (at least occasionally) negotiates part of what he/she is going to teach with students, listens in unobtrusively, does not do much overt correction, does not rebuke or criticize on a regular basis, does not put individual students in the spotlight, uses a judicious blend of accuracy and fluency activities, avoids censorious comments and deprecatory remarks, pitches lessons to the majority, offers non-deterring criticism, is non-judgmental, is empathetic and respectful, is capable of taking on a different persona, devises tasks which tie in with real world needs, is not inimical to minority cultures, etc.

Although the above list is incomplete and to a certain extent culture-specific, it gives a flavour of what most learners expect from an efficient teacher and shows that the traditional jug-and-mug approach, according to which knowledge is poured from one receptacle into an empty one, is not the optimal one in the modern world of teaching and learning English. According to P. Ur [9], there are basically three kinds of teacher: **the explainer**, **the involver** and **the enabler**. Arguably, a language instructor raised within the modern paradigm of teaching and learning English, should aspire to become the third type, a teacher who automatically integrates the rest of the types, and differs from the first two in being confident enough to delegate some of his/her responsibility and control over what happens in the classroom to learners. Arguably, the most optimal role adopted by a teacher is that of a catalyst, who is not afraid to assume a low-key role during fluency activities, circulating unobtrusively and helping learners out when help is welcome and due.

Much has been written on a teacher's non-verbal behaviour during a lesson, including kinesics and proxemics. A teacher's posture, for example, has been much debated, with some suggesting a standing upfront position; others recommend circulating, while still

others believe that a stationary, seated position is optimal. As is frequently the case with teaching, no definitive advice can be given in this respect, since much depends on the seating arrangement, the class size, the type of the lesson and/or its stage. A seated posture is generally recommended with a small class and classroom, while a sizable class, 20+ learners in a big room, calls for a standing position for acoustic and psychological reasons, such as attention spread. Pacing the floor, though, is probably the least recommended strategy: it distracts learners' from what is being said and not infrequently lulls them to sleep, due to the teacher's pendulum-like movements.

6. LEARNERS

Just like the communicative approach, the approach of principled eclecticism is learner-oriented, therefore, before compiling a curriculum, it is crucial to find out as much as you possibly can about your potential or actual learner. There are basically two aspects you need to clarify before plunging into teaching: **learner needs** (motivation) and **the primary representational systems** your learners give preference to.

Learner needs are typically subdivided into **personal**, **learning** and **professional** needs. Just like a teacher's personal aim, a learner's personal aim is highly individual and is not necessarily directly connected with his professional needs in English. Praise, security and attachment to a group are frequently cited by learners as their personal needs. Learning needs may comprise better accuracy, more fluency, better knowledge of particular lexis (idioms or colocations, or words of a particular thematic field). Professional needs are more pragmatic and may include the following: getting a higher pay, more respect from colleagues, a possible tenure, the need to upgrade qualifications, etc.

The abbreviation VAKOG is a shorthand for visual, auditory, kinesthetic, olfactory and gustatory representational systems, engaged in the perception, processing and retrieval of information [1]. Language is primarily learned through the activation of the first three systems – visual, auditory and kinesthetic. The other two are rarely or only marginally made use of by humans for various biological reasons (these systems play a more prominent part in the animal world). If a person is visual, he/she memorizes information by seeing pictures or by seeing words on the printed page, they also have trouble remembering verbal instructions. If a person is primarily auditory, they are easily distracted by noise, may think using external dialogue and best learn by listening. A kinesthetic type of person responds to physical rewards and touch, memorizes things through doing or engaging with physical objects. These three systems get reflected in the language style a person makes use of and are then called 'predicates'. A teacher can recognize a learner's dominant representational system by listening out for recurring sensory words (primarily metaphors). To communicate most efficiently, a teacher is advised to use words from the same representational system as his/her learners. In other words, it is crucial in the course of a single lesson to try to appeal to all the three types of learners interchangeably, so that no one is left out. However, if you know that your group of learners are all homogenous, e.g. visual, it is possible to exploit only one representational system: Cf.

visual learners: *picture, light, focus, perspective, outlook, flash, snapshot, colour, diagram, bird's eye view, beyond a shadow of a doubt, to catch a glimpse of smth., to get a scope on, horse of a different colour, naked eye, sight for sore eyes,* etc. When

the visual mode predominates, most of the words and expressions a person uses revolve around visual images, such as colour, texture, intensity, visual effects.

auditory learners: *hear, music, overtone, rattle, rings the bell, tempo, blabbermouth, to give an account of, keynote speaker, purrs like a kitten, to tell the truth, tongue-tied, tuned in/tined out, to voice an opinion, within hearing distance*, etc. An individual will use a lot of metaphors whose underlying basis is the concrete experience dealing with sounds or speech organs that produce these sounds [3].

kinesthetic learner: *rough, smooth, slippery, touchy, heavy, prickly, moving, striking, a tug of war, chip off the old block, come to grips with, to pull strings, to pull smb.'s leg, to grasp the meaning, to get hold of the wrong end of the stick, hand in hand, a heated argument, to lick into shape,* etc. The cognitive metaphors used by an individual are based on the concrete bodily experience of touching things, moving, or experiencing some emotions caused by external stimuli, such as cold, heat, etc.

7. DISCUSSION AND CONCLUSION

The present exposition has been of necessity selective and not all-embracing. As a former graduate of the CELTA course, I have sought to share some ideas absorbed from the relevant outlets as well as from my personal teaching experience, both during the course and the subsequent teaching practice in my alma mater. The main principles, tenets, techniques, theory and practical tips have been dwelt upon in detail with a view to helping trainees to overcome reservations and inhibitions, and avoid some of the potential pitfalls.

Although at first glance it may seem that the amount of information digested in order not to make a dog's breakfast of your teaching practice is enormous, in reality the painstaking attention to details, without, of course, losing the whole picture, is what, in my opinion, key to a successful performance on a CELTA course. Absorb all the details your trainers tell you, keep in mind all the tips you have read in this article and lay your hands on at least some of the books mentioned in the reference section. Flexibility and teaching in a culture-neutral way are other ways of ensuring a high-standard performance. What this entails is that although the teacher should be very sensitive to potential cross-cultural divergences, it is good to remember that we are all (more or less) the same, i.e. comparable cognitive and affective process and mechanisms make us humans, therefore being psychologically attuned to your particular group will ensure rapport, which is key to a harmonious teacher-class interaction, on which much of teaching and learning is built.

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MUSIC EDUCATION IN CURRICULAR DOCUMENTS OF GENERAL SECONDARY SCHOOLS IN THE CZECH REPUBLIC, SLOVAKIA AND POLAND

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ABSTRACT

This paper presents a study looking at the music education at general secondary schools in Czech Republic, Slovakia and Poland. The principal research problem the study aims to focus on, or draw attention to, is the necessity and benefits of the music education as a part of general education at upper secondary level. It presents a content analysis of selected curricular documents: the Framework Education Programme for General High Schools (*Rámcový vzdělávací program pro gymnázia*), the State Education Programme for General High Schools in Slovakia, ISCED 3A – complete general secondary education (*Štátny vzdelávací program pre gymnáziá v Slovenskej republike, ISCED 3A – úplné stredné všeobecné vzdelávanie*) and Program basis for general lyceum (*Podstawa programowa dla lyceum ogólnokształcące*).

The main aim of the research survey was to analyse selected Czech, Slovakian and Polish curricular documents and to identify the fundamental terms of educational conception in connection to a given issues (educational areas, key attributions, sectional subjects and expected outcomes) and farther more to evaluate the problematics of the musical education and to compare its representation in current Czech, Slovakian and Polish curricular documents for High School Education. We offer you a comparative study, focused on High school music education, by mapping its current form, comparing the nuances, finding the inspiration in musical concepts of the chosen countries.

Keywords: musical education, music teacher, General High School, curricular document

INTRODUCTION

Music education was, is, and will be a topical subject, as it largely reflects the level of cultural development of a society. The matter of music education is currently dealt with from various perspectives, e.g. music education curriculum in pre-primary, primary and secondary education, changes and the history of music education, theoretical bases of music education, the concept of music education in a European context, didactics of music education, pre-graduate preparation of music education teachers, the role of teachers and the attitudes of pupils in musical education, etc. This matter can also be dealt with within various scientific disciplines (pedagogy, psychology, music aesthetics, multicultural education, sociology, etc.).

For a number of students, music education at general secondary schools is realistically the last possibility of systematic education in this area, and thus the last possibility to gain a positive attitude towards music and cultivation of musical taste. We can assume that the quality of music education at general secondary schools, or the lack thereof, will not only influence the efforts of previous pre-primary and primary teachers in this field, but also the student's future need for contact with music.

This paper presents a comparative study focused on secondary school music education in the Czech Republic, Slovakia and Poland, primarily in terms of comparative pedagogy and didactics of music education. The need to emphasize the importance of secondary school music education has led us to map its form, compare differences and find inspiration in its approach in selected countries.

Objectives and methodology

The main research objective was to conduct a comparative study on the current approach to music education at general secondary schools in the Czech Republic, Slovakia and Poland. This paper presents a theoretical content analysis of selected curricular documents, which is the basis for the subsequent empirical research. The design of the research itself consists of three consecutive phases which differ both in the nature of the research activities and in the research methods used. The empirical research is conceived in the comparative study in accordance with G. Z. F. Bereday [1].

The first - preparatory phase focuses on penetrating the current state of the issue at hand through research of theoretical and empirical work related to the issue. We also carried out a theoretical content analysis of selected curricular documents, which was the basis for a provisional comparison – a preliminary comparison of the issue in selected countries. The preparatory phase was concluded with the formulation of research questions for the following implementation phase – empirical research.

In the second phase of the research we conducted a questionnaire survey. The final form of the research tool, which was an electronic questionnaire of our own design created in three versions - Czech, Slovak and Polish, was subject to more than half a year of piloting, which included numerous modifications. The questionnaire survey was conducted at Czech and Slovak gymnasiums and Polish lyceums, and it was completed by statistical processing. Analysis of the data led to a comparison and interpretation of the results. In the questionnaire survey we dealt with the implemented music education curriculum, also noting the "language of practice" (i.e. the language commonly used by teachers).

The final – evaluatory phase of the research consists of a summary of the results of the research, discussion, conclusions and suggestions of future developments.

Here I refer to the presented results of the empirical part of the research *Music Education and ways of completing it at general secondary schools in the Czech Republic, Poland and Slovakia* [2], and getting acquainted with the research *Music education and possible ways of its completion at non-specialized high schools in the Czech Republic, Poland and Slovakia* [3].

In the following text we will deal with a comparative study, especially in its first phase, which represents theoretical content analysis. We should note that the summarized findings of only this part of the research are briefly presented in this paper.

The research sample of the first phase of the research were selected curricular documents, theoretical papers and comparative studies related to the issue at hand. Research of domestic and foreign studies has made it possible to assess an appropriate conceptual understanding of the issue (the music education curriculum designed and implemented), and the subsequent identification of methods (research methods and research tools) through which the problem can be investigated empirically. The following partial objectives were defined for theoretical content analysis:

- To analyze selected Czech, Slovak and Polish curricular documents and to identify the key concepts of the educational approach in relation to the issue addressed (educational areas, key competencies, cross-cutting themes and expected outputs).
- To evaluate the issue of music education and compare its representation in currently valid curricular documents at the higher secondary level in the Czech Republic, Slovakia and Poland.

Selected aspects of music education in curricular documents for general secondary schools in the Czech Republic, Slovakia and Poland

The implementation of education in the Czech Republic is determined by Framework Education Programs, in the Slovak Republic education is conducted in accordance with State Education Programs, and in Poland education is conducted on the basis of the Core Curriculum. These are state-level curricular documents. In terms of the content and definition of the issue at hand, in general higher secondary education we use the following curricular documents for analyses: Framework Educational Program for Gymnasiums – *Rámcový vzdělávací program pro gymnázia* (hereinafter RVP G) [11], State Education Program for Gymnasiums in the Slovak Republic ISCED 3A – Full-time general secondary education – *Štátny vzdelávací program pre gymnázia v Slovenskej republike ISCED 3A – úplné stredné všeobecné vzdelávanie* (hereinafter ŠVP ISCED 3A) [12], and Core Curriculum for General Secondary School – *Podstawa programowa dla liceum ogólnokształcące* (hereinafter PP LO) [7]. The following conspectus contains a comparison of selected aspects of music education across selected curricular documents.

Key competencies

The position of music education at gymnasiums in the Czech Republic is changing. Some schools are not introducing the “Music Education” subject at all. Music education takes place within the “Arts and Culture” educational area (RVP G contains eight educational areas). Arts and Culture includes a Music field and Art field, and education integrating the topic of Artistic creation and communication, which is common to both disciplines. In many cases, both music and art are taught under the common title "Aesthetic Education", while they are compulsory subjects. Each student selects one, which they continue to study. There are also cases where music education is not included at all, although RVP G imposes its inclusion.

The RVP G highlights the development of six key competencies (learning competencies, problem solving competencies, communicative, social and personal competencies, civic and entrepreneurial competencies) that students have acquired in basic education. The RVP G also describes the required level of acquiring key competencies, which represents the desirable state to be achieved (or approached) by

students on the basis of their potential and possibilities, and the further development of which should become a lifelong process.[1]

In association with the issue at hand, we find a significant specificity in the defined key competencies of the Slovak curriculum. ŠVP ISCED 3A establishes the development of the "competence to perceive and understand culture and to express oneself through instruments of culture". Although Czech curricular documents have enriched the objectives of education with key competencies, they are still formulated without proper reasoning different from the 2006 European Reference Framework. This can also be explained by the fact that the establishment and implementation of Czech curricular documents preceded the definition of the European Reference Framework in the case of primary education, and came shortly after it in the case of gymnasium education [5].

A comparative analysis was carried out in 2011 [4], the aim of which was to determine how key competencies are incorporated into the curricula of countries in which this issue is given significant attention, and which may provide inspiration for the Czech Republic. The authors selected specific curricular documents from England, Ireland, New Zealand, Finland and Slovakia. Based on this analysis, we can say that competencies related to cultural awareness and expression are expressed only in the Slovak curriculum, as they contain the competence to perceive and understand culture and express oneself through cultural instruments. "*It is not found in any of the other curricula analyzed, although cultural awareness and expression is part of the European Reference Framework of Key Competences for Lifelong Learning*" [4].

In the RVP G we find only a marginal indication of appropriate knowledge, skills, attitudes and values corresponding to this key competence, partly in the framework of defining civic competence: "making decisions and acting so as not to endanger and harm nature and the environment or culture, and expanding ones knowledge and understanding of cultural and spiritual values, co-creating and protecting them" and communicative competencies: "*effectively using available means of communication, verbal and nonverbal, with regard to the situation and participants in the communication*" [11].

The Slovak curriculum is different. The inspiration of the 8th key competence of the European Reference Framework "Cultural awareness and expression" is obvious. As mentioned above, ŠVP ISCED 3A establishes the development of the competence "to perceive and understand culture and to express oneself through instruments of culture", characterizing it further. In the document [12], the following is required of students:

- *To be able to express oneself at a higher degree of artistic literacy through the means of arts and music.*
- *To be able to recognize artistic types and styles and use their main means of expression.*
- *To recognize the importance of art and cultural communication in one's life and in the life of society as a whole.*

[1] Key competences are knowledge, skills, abilities, attitudes and values that are important for the personal development of an individual, his active participation in society and future life. Their selection and conception is based on the requirements for gymnasium education. Key competences are developed into separate areas in the RVP G, particularly for their better understanding, but in practice they should blend and complement each other [11].

- *To value and respect art and cultural historical traditions.*
- *To know the rules of social contact (etiquette).*
- *To behave in a sophisticated manner appropriate to given circumstances, situations.*
- *To be tolerant and empathetic towards the expressions of other cultures.*

However, Professor Irena Medňanská [6] draws attention to the fact that there is no aesthetic-artistic aspect in this definition. She speaks of insufficient development of aesthetic-artistic aspects within education, specifically mentioning the development of creativity and space for self-realization of students through art, developing the artistic abilities of students and the experiential area, thus lacking an aesthetic-artistic competence. "*Although the results of pedagogical research confirm that art education and music education are conducive to the successful development of a student in exact subjects, we see that these educational methods are perceived merely as a means of achieving this goal. We see a reduction in time allocated to art subjects in various levels of education*" [6]. This author's opinion is far from unique. For example, Turek [8] pointed to this fact much earlier: *"Due to insufficient time, one-hour subjects do not develop, or only slightly develop, the given competence, and usually do not result in long-lasting knowledge."* Other mediated effects of performing artistic activities with children or students, such as the development of emotionality, memory, imagination, combinational abilities, the crossover into social relations, including the prevention of negative social phenomena, etc., are evident.

Regarding the definition of key competency levels and their assessment, the authors of the comparative analysis have stated that the state education programs of the selected countries did not contain a definition of key competency levels, and they also did not find information regarding the assessment of key competencies [4]. In this context, there is apparent absence of a systematic approach to the issue by school executive authorities in Czech Republic.

There is no concept of key competences in Polish PP LO. Given the pertinence of selected countries to European educational policy, the term competence also came into the educational environment, state and school curriculum documents. In this educational universe, it is necessary to expect not only professional art, but most importantly art that affects the whole population, cultivates it, and teaches it to perceive and experience emotionally [6]. Perhaps we can at least hope that educational policy makers will consider innovative proposals defining a key competency with cultural, artistic and aesthetic aspects in framework education plans as an important part of education in pursuit of the comprehensive development of youth.

Time allocation

As mentioned above, music education along with art education in Czech gymnasiums is included in the "Arts and Culture" educational area. Students choose one of these subjects to study in the first and second year of a four-year study plan, or the fifth and sixth-year of an eight-year gymnasium study plan, with a weekly time allocation of 2 hours. At some grammar schools, music and art are taught as one subject – Aesthetic Education.

The Framework Education Plan (RUP) determines a 1 hour time allocation for individual educational areas (fields) in the RVP G. The RUP defines the overall

minimum and maximum time allocation[2] for individual educational areas in a four-year gymnasium curriculum. It must offer students the educational content of music and arts (through subjects, modules, etc.) so that they can choose and learn the educational content defined in at least one of the fields in the full extent. Whether and in which of these years other educational fields will be included, what time will be allocated to them and how they will be implemented is established by the school education program.[3]

ŠVP ISCED 3A also refers to the Framework Education Plan (RUP) – a document defining the time allocation of subjects in the ŠVP. Pursuant to the Education Act, the time allocation is only defined for the entire level of education. The RUP defines the number of available (optional) hours that the school specifies in its School Education Program, and it must ensure that all available hours specified in the relevant RUP are used. For the 1st – 4th years of gymnasium education, 4 hours per week are allocated to the educational area "Arts and Culture". Establishing the time allocation for individual years (and subjects) is therefore further in the school's competence, as is the inclusion of the curriculum in individual years.

Music education is largely limited in the Polish general education lyceum (LO). Music education is taught within the subject *Wiedza o kulturze*. The subject "Wiedza o kulturze" (Art Education) has a weekly time allocation of only one hour in LO and is taught only in the first year of study [10]. There is also an extended range of subjects – i.e. *zakres rozszerzony* (extended range), which allows students to choose subjects offered on this level of study. In the extended range, the LO offers the subject *historia muzyki*. LO students who are offered the subject "Historia muzyki" can take the exit exam in this subject, but the inclusion of this course in the offer of graduation subjects is in the direct competence of the school's principal [9].

Music education and the maturity exam

In the Czech Republic

- Music education in subjects – *Music Education*, *Aesthetics*
- It is possible to take the maturity exam in Music Education if it is included in the offer of exit exam subjects by the school principal
- The examination is uniform
- The content (uniform topics) of the exam is not specified
- Evaluation criteria are not specified

In the Slovak Republic

- Music education as a part of subjects – *Umenie a kultúra*, *Estetika* and *Muzikál*,
- It is possible to take the maturity exam in Umenie a kultura, Estetika and Muzikál
- The test has a clearly defined form

[2] The minimum weekly time allocation for each year is 27 hours, and the maximum is 35 hours (according to the Education Act). The total compulsory weekly time allocation in the 1st – 4th year is 132 hours per student. This time allocation is guaranteed by the state. The school can set a maximum time allocation of up to 140 hours per week, while hours beyond the mandatory time allocation are not covered by the state [11].

[3] The school education program is issued by the principal of the school (school facility) and must comply with the relevant RVP.

- Subjects have a specific maturity exam content
- Evaluation criteria are not specified

In Poland

- There is music education as a subject – *Historia muzyki*
- It is possible to take the maturity exam in Historia muzyki (the student must take it in the "extended range"), if the school principal includes it in the offer of graduation subjects
- The test has a clearly defined form
- The test has a clearly defined content
- Evaluation is based on a sophisticated system of clear criteria

CONCLUSION

In our opinion, the most important perspective in the Czech Republic is tertiary and further education of teachers teaching music education or subjects where music education is at least part of the content, so that they can approach the complete prescribed educational content as defined by curricular documents for the subject in a qualified manner. The demands in terms of education (expected outcomes, cross-cutting themes, acquisition of key competencies) described in binding state level curricular documents are quite high on one side. On the other hand, the education system offers teachers a great deal of freedom in preparing and conducting the teaching process (such as the creation of ŠVPs). It thus also places great responsibility on them to fulfill the high demands of binding documents. Due to the small hourly allocation of music education in the curriculum and a number of problems, it is crucial that qualified educators teach music education in schools. In order to combine the knowledge that students should acquire over 2 years of education, with practical training of musical skills and orientation of students on the music scene, it is necessary for the teacher of the field to understand and be able to draw up a curriculum for the whole year (or both years) in advance, in which individual components are interconnected. In increasingly frequent cases where multiple fields are merged, such as the merging of music and art into one subject, the teacher is often an expert on only a part of the subject taught.

The Polish schooling system, which is on the verge of major reforms, has already planned its perspectives for the coming years. Polish Minister Anna Zalewská states that the main reason for changes in the Polish schooling system is the state of the schools according to their principals. In the current state, secondary schools are too short and essentially only serve as preparation for graduation exams. It is therefore necessary to extend primary schooling to 8 years, general secondary school to 4 years, and technical secondary school to 5 years. In practice, changes began to be introduced in September last year and raised a wave of criticism from a number of experts. The changes also concern the curriculum of general education lycea, and at this point it is expected that the consultation process will begin and modifications will be made.

The main mission of secondary general education is still preparation for university studies, despite all the almost constantly ongoing changes. At present, the universality of teaching in these types of schools is appreciated. Students can choose from a wide range of optional subjects throughout their studies. Emphasis is placed on interdisciplinary cooperation, continuity and interconnection of individual learning

contents, while profiling some subjects may often mean a complete overshadowing of others. In other words, students of general secondary schools do not have to take music education in music education subjects if they prefer to study a different subject. Schools therefore only offer limited professional preparation for further artistic or music pedagogy education.

It would be appropriate to continue in future research, especially in monitoring key competencies in curricula in the issue of undergraduate preparation of future secondary school music education teachers and further education of pedagogical staff, the use of ICT in secondary school music education, etc. There is also a possibility of in-depth qualitative research - another topic for research are interviews with music education teachers or other in-depth studies that would further specify the experience of teaching music education.

In conclusion, we should point out that we consider it necessary to draw attention to the important role of music education in the education system and its irreplaceable role in shaping the personality of youth - their value system and taste - by all means available. It is also very important to present all examples of successful teaching practice.

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THE PHILOSOPHICAL POSTNONCLASSICAL INTERPRETATION OF THE CONCEPT "EDUCATION" IN THE FANTASY ABOUT HARRY POTTER BY J.K. ROWLING

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ABSTRACT

The paper deals with important shifts in the postnonclassical paradigm of the education. The author underlines the necessity of the compliance of the modern system of education to the requirements of the society (consider, generation Z and Alpha). New technologies of ICT, multidisciplinary researches and magic methods of teaching should be effectively applied in classroom and extracurricular work of students. The author analyses the main reasons of the popularity of the sequel of Harry Potter by J.K. Rowling from the educational point. Observing the language and images of the educational concept in Harry Potter's series, the author suggests studying the educational concept in the levels: global (education as a universal term), special (the series of Harry Potter are based on the British system of education) and particular (J.K. Rowling shows the process of education in her magic school in her own individual style, using different author's methods). The questions of the possibility of the application of the methods used in Harry Potter's series are discussed in the article to follow the study motivation of students.

Keywords: postnonclassical paradigm of education, children's fantasy about Harry Potter, generation Z and Alpha, the concept EDUCATION

INTRODUCTION

This article is devoted to the question of interpretation of the postnonclassical paradigm of the education. Recently the world has gone through several qualitative changes. The society, science, culture and education have entered the posnonclasssical paradigm, i.e. the new era in the technological sphere (consider, nano- and micro-nano levels), as well as new requirements to the specialists to work with such technologies. The teaching principles, still reflecting the classical paradigm, should undergo significant changes in the whole sphere of education.

Our research considers the process of the conceptualization of the education and its representation in the literary text. The object of the analysis is the concept EDUCATION which has been of social and cultural value throughout centuries. We study the ways this concept is refracted in the fantasy by J.K. Rowling. The books about Harry Potter are of great demand in the modern society. They influence the mentality of different ages (especially teens: from 7 to 16 years).

MAIN ISSUES

The term EDUCATION was rethought by neohumanists (Gerder [4], Pestalozzi [6], Schlegel [8], Gegel [3]) as the core categorical definition for all Social Humanities. Even today the form of our thinking is based on the basis of the term EDUCATION.

The philosophy of modern education requires new approaches to the methods which will help to master some conceptual problems (consider, the compliance of the teaching programs to the social professional demand).

The tasks of education (as well as economics and politics) should not be given by force, vice versa, it should be formed in the natural and historical way. Education itself, together with its aims and forms, is the social demand of the society.

These days are full of many philosophical questions, consider the combination of the philosophy and the survival problems of mankind in the sphere of education is one of the global questions of the scientific society. It is viewed to be actual in every country of the modern world.

Consider, Russian education is suffering these days because of the lack of the unite strategy for modernization. “Russian educational system is being in the crisis now: we rejected the Soviet educational system, but we haven’t built the new one yet. The inner misunderstanding in the domains of ethnics, language, economics, society has appeared. It can lead to the conflicts of the system of values and the teaching norms” [5].

The necessity to base the educational strategy and logics has become quite urgent. Let us look at “the idea of education” on the whole to consider the aims of education. The results are supposed to help in the construction of the model of principles and methods to reach the aims of the education of the postnonclassical paradigm.

The education is discussed to be lasting and regular in its core, presenting one of the main categories of Social Humanities. P.G. Schedrovitsky claims the necessity of the initial philosophical and methodological analyses of the classical definitions together with the temporary socio-cultural situation [7].

Despite the regularity and lasting of education, it should be mentioned that education has the idea of completeness in its basis. This completeness is a kind of the unreached ideal and value with the depth in the thinking. Consider, J.K. Rowling has written not one, but the sequel of the educational fantasy series about Harry Potter, i.e. her character is also eager to continue learning and making his mastership perfect. Consider, in the seventh book [9] at the end of this story, J.K. Rowling has initially made an inheritance lifelong learning. Nineteen years have passed but the process of education in Potter’s family hasn’t stopped. The five Potters (Harry, his wife Ginny and their three children) are going to the new school year in Hogwarts. Waving to his son, Harry felt himself a first year student again.

Several peculiarities of the postnonclassical conceptions of pedagogics should be mentioned [Fig. 1]. All of the them show the strengthened component of the informal side of education. It is corresponded with the individual existence-oriented values of the postnonclassical paradigm of the whole society. These approaches are working out the following information methods by means of what the pedagogical process is fulfilled.

Taking into account humanitarian education, it can be defined as the form of understanding of the world and culture, the formation of the image of a person, who

sees himself being a part of this culture. The real humanitarian education is a living one that gives and opens the private sense; it demands the cultural and educational space on the relation level "teacher-student" where an educated person is nor the sum of competence but a sum of a person in himself [1].

The postnonclassical idea of education combines classical and non-classical approaches which is a kind of reborn to the idea of the antique paidei (Greek school), the basis of which is the return to the thinking and human measure of education. Modern education is modernizing hermeneutic and humanitarian foundations of education. It will result in the existentialist educational phenomena.

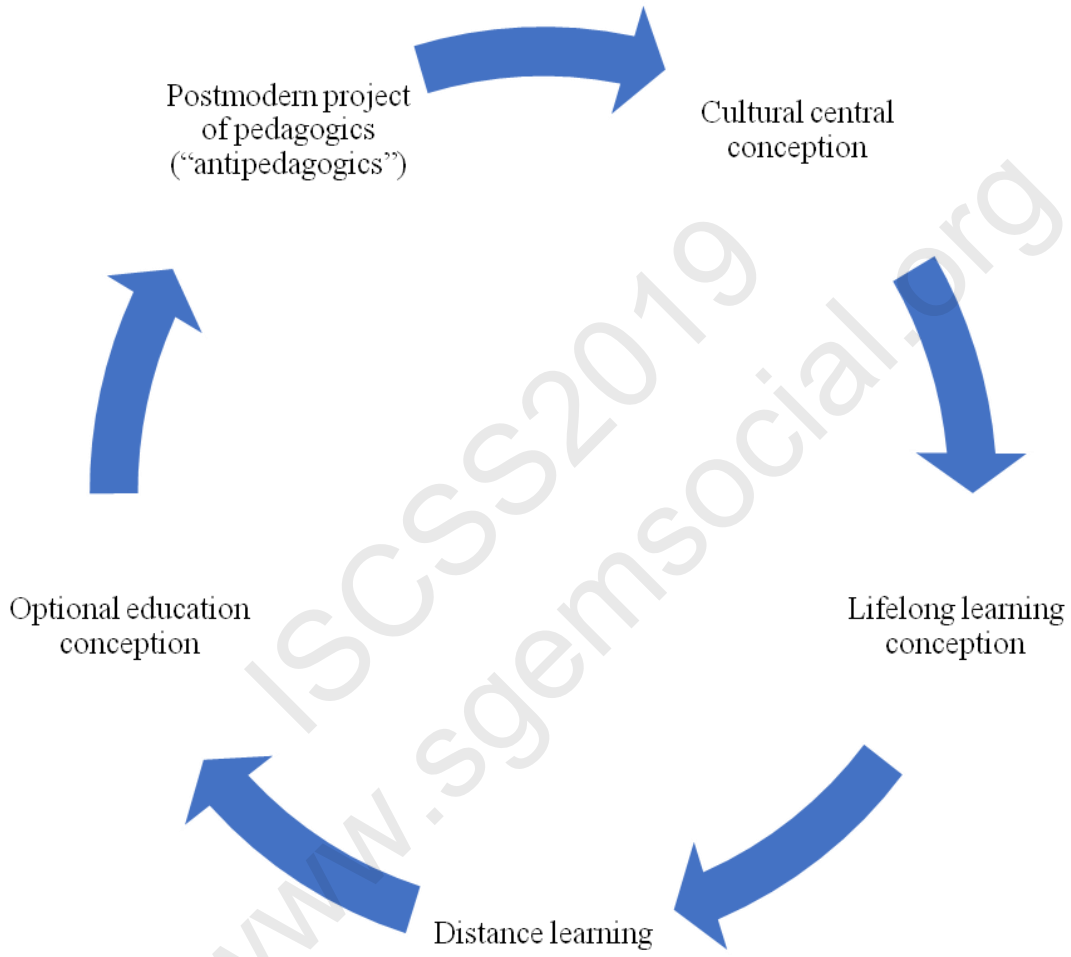

Fig. 1 Characteristics of postnonclassical conception of education

The model of education in this case is being built in relevance with the postnonclassical paradigm. This paradigm has its own type of generation.

The society has been developing several generations [Fig. 2] [10]. Some of them have already gone but the more recent and important are two – generation Z and Alpha. There are several classifications being done by social psychologists. Consider, MarkMcCrindle's one which is viewing generations according to categories.

Fig. 2 Main types of generations classification made by Mark McCrindle [10].

Generation Z is for people born from 2000-2005. They are so-called “screen children”. They prefer communicating by the Internet. They are not interested in studies by traditional methods. They are needed to be surprised and involved by some unusual and magic things. They will adapt in the globalization of education easier than their senior mates.

Generation Alpha is for people born 2010-2015. They are fusion competentists [2]. They are studying the alphabet on iPads. They will be studying the whole life. They will live longer and will have families later. But they are the people who will develop the artificial intellect. We will never know what other wonders and magic things can appear with the help of the Alphas.

Taking into consideration the characteristics of these generations it should be focused the level of the preparation of the teachers, their will to self-development.

Previously, it was the general type of schooling – common and state. Today the situation is different [Fig. 3].

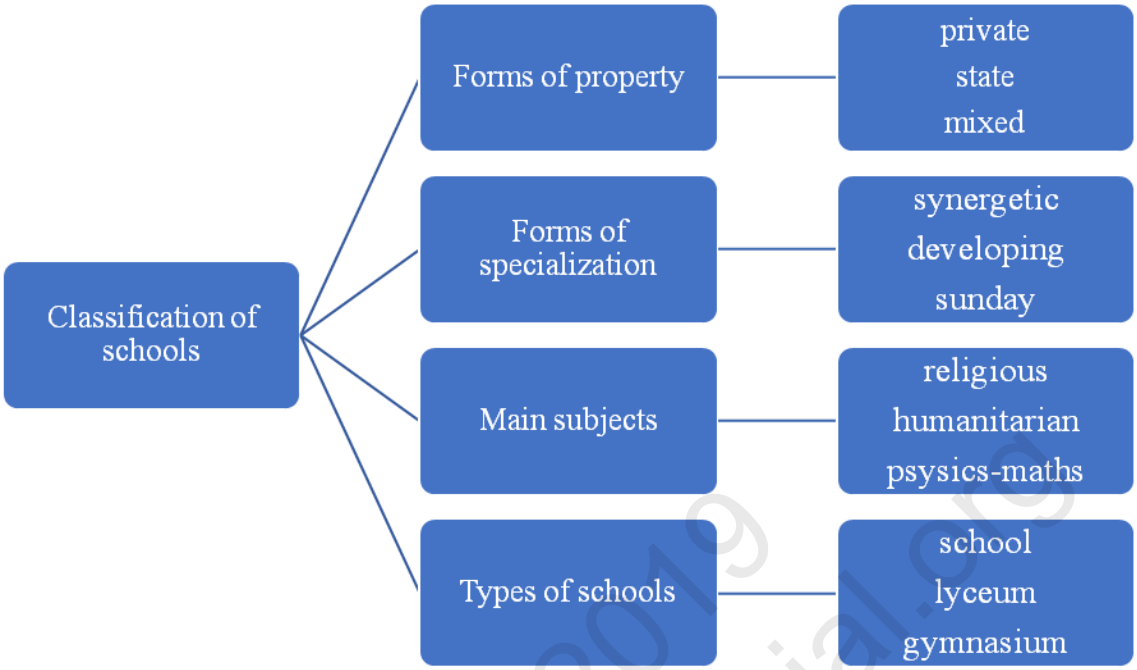

Fig. 3 Classification of schools

New educational era needs multi integrated subjects (consider, biochemistry, translinguistics). The required specialists will be called intellectuals. They will need Information Technology, Foreign Languages, abilities to work with the information.

Modern authors are trying to describe all future technologies in education in different genres. J.K. Rowling has suggested the magic methods of education in the series of Harry Potter. She offers the mixture of educational principles from the world of Muggles (people) and Non-Muggles (wizards), consider the names of subjects: the Flying Lesson (the analogy of Physical Education), the Portion Lesson (the analogy of Chemistry and Science), the Transfiguration Lesson (the analogy of Physics), the Lesson of the defence of Dark Forces (the analogy of Art, Handicraft and Music), the History of Magic (the analogy of History and Social Studies). Her books are demanded by different ages and generations.

The fantasy concept EDUCATION in Harry Potter's series is viewed in our research on three main levels:

- Global (concept EDUCATION is the universal, cultural and human one)
- Special (it is viewed on the national level, consider, the English system of education)
- Particular (it is the author's individual style; how J.K. Rowling has managed to create her own educational world, which has a great success among readers).

CONCLUSION

Summarizing the whole context of the postnonclassical paradigm of education, it is clear that the development of new technologies demands the development of a person himself. It is the first question for modern education to be solved, especially in the sphere of methodology.

At this point, the ideas of literature can be used to consider the originality and the uniqueness of methods. Adding some special ideas into the traditional methods can increase the motivation for studying of new generations (consider, using multimodal dictionaries of phytonyms on Botany lessons or adding History of Magic in ordinary textbooks). Such integration will lead to a successful migration in the widespread sphere of professional activity and to an adequate reaction to all changes and shifts (consider, changing roles or integrating from one sphere to another).

"The information era needs to save knowledge as money on a credit card. In order to have a possibility to take them when needed" [1]. We can only add that your card won't be accepted in two cases: when it is empty or when it has non-converted currency.

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THE PROBLEM OF ADVERSE EFFECTS OF ONCOLOGICAL TREATMENT IN CHILDREN

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ABSTRACT

Goal: The goal of this research project was to find with what kind of adverse effects parents most often deal with in their children who are undergoing oncological treatment, and whether these adverse effects affect bio-psycho-social needs of the children.

Method: 130 parents of children undergoing oncological treatment partook in this research, using a nonstandardized questionnaire that was handed out to them at the Clinic of Child Hematology and Oncology of 2nd Medical School of Charles University (LF UK), University Hospital Motol (FN Motol), and at the Clinic of Child Oncology at the University Hospital in Brno. The questionnaire was also circulated electronically through our foundation fund and parents' association. The questionnaire survey was conducted between January and March 2016.

Results: The survey showed that adverse effects of oncological treatment significantly affected the needs and life of both the children and their parents, but the results also showed that nurses in most cases tried to prevent such complications. We learned that parents perceived not only their children's physical complications during the treatment, but also the psychological ones such as mood changes, behavior changes, depressions, etc. that are often overlooked.

Conclusion: Adverse effects of oncological treatment seriously complicate the life of an ill child and that of his/her parents too. It is up to the nurses to try and prevent such complications, eliminate them, and mentally support both the child and his/her parents. During treatment nurses should always treat such children with a lot of empathy, but professionally, too. The survey results showed that we should continue to deal with the problem of adverse effects of oncological treatment in children and study it in greater detail.

Keywords: child oncology, treatment, adverse effects, needs of children, nursing care

INTRODUCTION

Oncological disease in children are among the most serious and life-threatening diseases [1]. Every year there are 300-500 cases of oncologically diagnosed children in the Czech Republic [2, p. 9]. Long-term hospitalization, separation from the family, examination methods, and oncological treatment influence the preferences and satisfying the needs of the children. Child patients are very often exposed to stress

mainly due to chemotherapy and its adverse effects [3, p. 59-66]. Adverse effects of oncological treatment in children present a big problem for nursing care, and often make a child's life more unpleasant than the oncological disease itself [4]. It is important for nurses caring for oncologically ill children to know about such treatment complications, and to prevent them if possible [5].

Goal: To find with what kind of adverse effects parents most often deal with in their children who were undergoing oncological treatment, and whether these adverse effected affect bio-psycho-social needs of the children.

METHODS

Characteristics of the set

The target group of respondents was formed by parents of oncologically ill patients. A total of 130 middle-aged parents, most of them were married and had high school education. The only criterion for choosing the parents was their consent to partake in the survey. This project involved parents of children who were undergoing treatment at that time, but also parents whose children had completed treatment by that time. A total of 80 printed questionnaires were handed out to parents of oncologically treated children, and that at the Clinic of Child Hematology and Oncology of 2nd Medical School of Charles University (LF UK), University Hospital Motol (FN Motol), and at the Clinic of Child Oncology at the University Hospital in Brno. 45 out of those 80 questionnaires were filled out and returned, making the return rate 56.25%. The questionnaire was also circulated in electronic form via social media and email. This electronic questionnaire was filled out by 89 respondents, and it was not necessary to single out any. All together we worked with 130 questionnaires.

Data Collection Method

The survey was conducted in the form of quantitatice research, particularly as a survey using nonstandardized anonymous questionnaire in both paper and electronic form. The printed form was chosen for parents with children in medical centers, electronic for parents with children in home environment (via foundations, associations and closed groups on social networks). The questionnaire contained informative questions focused on getting information about both the parents and children, and on adverse effects of oncological treatment and their perception by the parents. The questionnaire contained both closed (only one possible answer) and open questions.

Organization of Research

The survey at the Clinic of Child Hematology and Oncology of 2nd Medical School of Charles University (LF UK), University Hospital Motol (FN Motol) was conducted between January and March 2016, and was approved by the management of Motol hospital. Once approved, the questionnaires were handed out by a game therapist. The survey at the Clinic of Child Oncology at the University Hospital in Brno was conducted in March 2016, and was also approved by the hospital management. The electronic form of survey took place in February and March 2016, the link to the electronic forms being circulated among the parents of oncologically treated children via the Chance for Oncostudents Foundation (on social networks), and via closed group "Hematology-oncology Motol Children – Parents" on a social network, subsequently

the link to the electronic forms was circulated via the Chance Olomouc Association on a social network, and finally by the ONKA parents' association.

Data Processing

Processing of all the data was carried out in Microsoft Word 2013 and Microsoft Excel 2013. Open questions were processed via the method of coding.

RESULTS

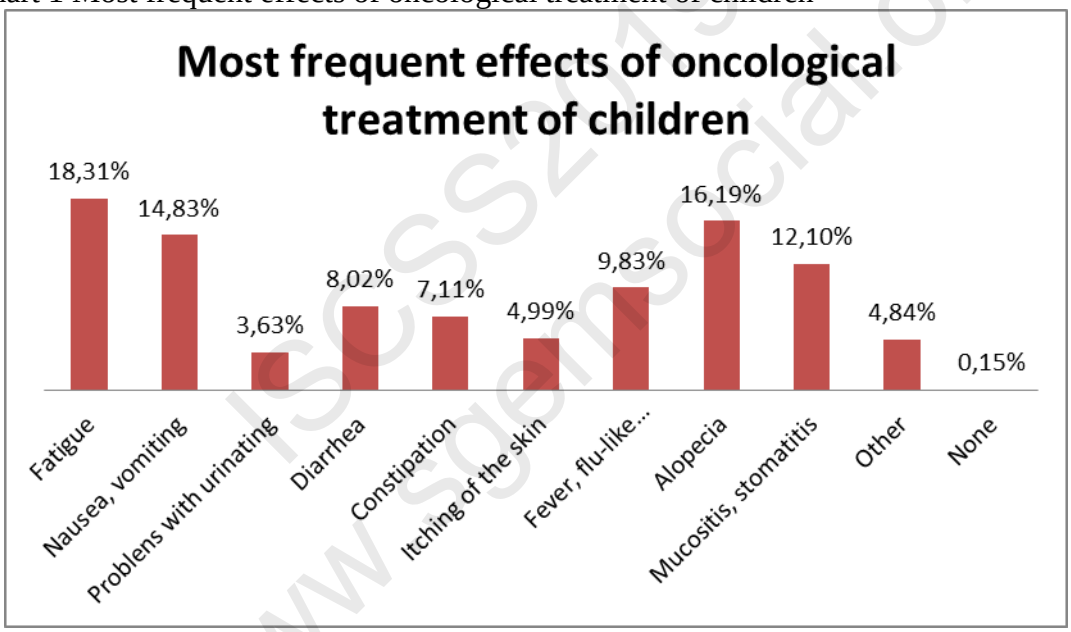
The first part of the research results was focused on the most frequent adverse effects of oncological treatment relating to biological needs that parents of oncologically ill patients need to deal with. There were more possible answers to this question, making the total number of answers 661. The results shown in Table 1 and Chart 1 showed that most parents (121) have to deal with their child's fatigue. Another large group of parents (107) had to deal with their child's alopecia (temporary hair loss). The third most frequently represented adverse effect were nausea and vomiting, reported by 98 parents during their child's treatment. 80 parents reported mucositis and stomatitis as adverse effects. Fevers and flu symptoms were reported by 65 parents, 53 reported diarhoea, and 47 reported constipation in their child during treatment, 33 parents reported itching, parents reported urination problems, and 1 parent reported no adverse effects in their child during treatment. The question also included the "Other" option where the parents could report any other adverse effects than offered by the other answers. This "Other" group, which was used by 32 parents, contained the following adverse effects:

- Mood changes (4x)
- Lack of appetite (3x)
- Pneumonia (3x)
- Sepsis (2x)
- Severe osteoporosis (2x)
- Difficulties with gross and fine motor skills (2x)
- Walking problems (2x)
- Compromised immunity (2x)
- Hogwarts, burning in the buttocks and genitals area, high liver test results
- Psychic problems, skin peeling, herpes zoster, stroke, bone necrosis, diabetes
- Hurting legs, weariness, lack of appetite vs. bulimia while on corticoids
- Backache, toothache, upper and lower limbs pain, headache
- Constipation, broken vertebra, paleness, saggy eyes, depressions
- Pain in the limbs, toes, toothache, inflamed scratch
- Rotten teeth, disability, self regret, tachycardia, hypotension
- Chronic eye inflammation, malnutrition, sepsis, introduction of PEG
- Bad or depressing mood, does not feel like playing, mood changes
- Skin ulcers all over the body, water in the lungs, chronic cough, dyspnoea
- While on Vincristine – congested bowels, worse movement, loss of speech or the ability to write or calculate
- Problems with blood pressure, collapsing, polyneuropathy

Table 1 Most frequent adverse effects of oncological treatment of child

Adverse effects	**Absolute frequency**	**Relative frequency**
Fatigue	121	18.31%
Nausea, vomiting	98	14.83%
Problems with urinating	24	3.63%
Diarrhea	53	8.02%
Constipation	47	7.11%
Itching of the skin	33	4.99%
Fever, flu-like symptoms	65	9.83%
Alopecia (temporary hair loss)	107	16.19%
Mucositis, stomatitis (inflammatory changes to the mucous membrane in the oral cavity)	80	12.10%
Other	32	4.84%
None	1	0.15%
Total	**661**	**100.00%**

Chart 1 Most frequent effects of oncological treatment of children



The area of psychic needs was examined too in order to find whether the parents thought that adverse effects of oncological treatment affected the mental condition of their child. The results showed that 118 parents (90.77%) thought that adverse effects of the treatment affected the mental condition of their child, while 4 parents (3.08%) thought they did not. The remaining 8 parents (6.15%) stated that they did not know. Besides that parents mentioned specific deficient needs such as mood changes, depressions, behavioral changes, and no will to play games.

The last area to be examined was social area of needs. This area was supposed to find whether the parents thought that adverse effects of the treatment affected the child's social life. The results showed that 110 parents (84.61%) thought that adverse effects of the treatment affected the child's social life. 14 parents (10.77%) think that they do not. 6 parents (4.62%) do not know. Most of the children, despite their difficult condition,

want to meet with their friends, with similarly ill children, and play games and go about their favorite activities.

DISCUSSION

Data analysis connected to the question what kind of adverse effects they had to deal with in their children who were undergoing oncological treatment showed that the parents had to deal with all kinds of adverse effects, the most frequent ones being fatigue, alopecia, nausea, vomiting, mucositis, stomatitis, fever and flu symptoms. Some parents also mentioned adverse effects not manifesting on the children's physical but mental condition, such as mood changes, behavioral changes, depressions, or unwillingness to play games. Data analysis connected to the questions whether adverse effects of oncological treatment affected biological needs of the children showed that they did affect them a lot. The results warned that treatment-related complications negatively affected the need to eat, as most parents mentioned that there was a change of appetite in their children (92.31%), and problems to swallow food (53.08%). 98 parents also mentioned that their children suffered with nausea or vomiting, which is also a significant factor, visible in the change of dietary needs. Also the need to sleep and rest is affected a lot since children feel excessive fatigue during treatment (85.38%), which may be caused by cancer or treatment related complications. Adverse is also the change of the need of physical activities, which might be caused by tingling or numbness of the limbs or other body parts, as reported by 56 parents (43.08%). The results also showed that treatment related complications had a negative effect on the need not to feel pain because for example pain in their child's oral cavity and in the throat is perceived by 85 parents (65.38%). Based on the results, the need for toileting is negatively affected too, as 53 parents mentioned that their children had diarrhea while undergoing treatment, while 47 mentioned constipation. Ikeda et al. (2006, p. 231) states in his international research that there were changes in 92.6% of oncologically treated children connected to adverse effects of the therapy, 66.7% out of which experienced 5 and more complications in this area, and 14.8% of the children even had experience with nine and more adverse effects at the same time. Ikeda et al. (2006, p. 232) describes the most frequent complications in the area of need to eat – nausea, lack of appetite, vomiting, changes in taste, mucositis, changes in the perception f smells, constipation, increased appetite, less intake of fluids, difficulties to swallow, and changes in their food preferences [6]. Řádková (2014) used in her bachelor's work the method of qualitative survey, namely interviews with children with an oncological disease, complemented by the parents. She found that in most children (five out of six interviewed) there were changes in their diet, particularly changes in taste and selection of foods. Based on the results of her survey the need for rest and sleep, interrupted at night by disturbing elements such as sounds of infusion dispensers, nurses' laughter, other children's crying, etc. She also found that most children (5 out of 6 interviewed) suffered from diarrhea, and then three of them also from constipation. While comparing the results, we can say that we found the same thing – biological needs of children undergoing oncological treatment are significantly affected by complications. The effects of treatment are most notably visible on the change of the need for eating, and subsequently in the change of the need for sleep and rest, the need not to suffer from pain, the need for toileting, and the need for physical activities. Data analysis connected to the questions whether adverse effects of oncological treatment affected mental needs

of the children showed that the children's mental condition was minimally affected by counter-cancer therapy. Even during treatment, most children were interested in playing games and going about their favorite activities. At the same time they wanted to meet with their healthy friends (80.77%), and with children with a similar disease (68.46%). Most oncologically ill children continue developing their personalities and intellects despite the demanding treatment, which must be considered as very positive. The results showed that only a small part of the children suffered from mood changes, depressions, behavioral changes, and unwillingness to play games [7]. Řádková (2014) found that experiencing and perceiving demanding oncological treatment by hospitalized children is rather positive. During the interview four out of six children mentioned the positives they perceived during hospitalization, for example the arrival of a hospital clown, decoration and colorfulness of the rooms, equipment of the playroom, and the support from the staff from the moment of hospitalization on. While comparing the results of the given goal we can say that we arrived at similar conclusions – that counter-cancer therapy and the resulting complications cause changes in the children's mental needs only slightly, and in a very small percentage of the children. Most children perceive hospitalization and treatment positively. They are interested in playing games and doing their favorite activities, and also in staying in touch with their friends. Data analysis connected to the questions whether adverse effects of oncological treatment affected social needs of the children showed that the need for social interaction is preserved regardless of the demanding treatment and related complications, or only slightly modified. Despite their illness, most children want to meet with their friends and children with a similar disease, play games and do their favorite activities. At the same time it transpired that most children (66.92%) study during the treatment, which means that oncological treatment and its adverse effects do not have a significant influence on a child's education, except for children who cannot study while undergoing treatment. We ca say that most children continue to develop their skills and are socially included in society, which is a positive finding [7]. In her work, Řádková (2014) found that that in more than a half of the interviewed children there was no negative change in their relationships with friends or schoolmates, and four out of six children stated that they had found new friends while hospitalized. When we compare the results of the given goal, we can say that we found the same thing – that social needs of the children undergoing oncological treatment are only minimally affected, for example compared to their biological needs. Despite the demanding treatment they are interested in staying in touch with friends or even making new friends [7].

As mentioned above, adverse effects of oncological treatment have a significant impact on the children's biological needs, especially the need to eat, sleep, rest, have no pain, toileting, and physical activity. Based on the above we can assume that life of oncologically ill patients is mostly affected in terms of their physiological needs as the treatment impacts mostly their biological needs, while the children's psychosocial needs are much less affected. Based on these findings we consider it important to focus on a child's (not only oncologically ill one) biological needs while undergoing treatment, but not to forget their psychosocial needs either, as we must view these needs (including spiritual needs) in a complex way, and take into account the fact that they interact with one another. As mentioned by Filová and Sikorová (2015) in their overview study, foreign authors dealing with the problem of bio-psycho-socio-spiritual needs always examined this problem separately, not in a complex way [8].

CONCLUSION

This research study deals with the problem of adverse effects of oncological treatment in children. Monitoring a child's condition, timely recognition of complications and adequate action are necessary parts of nurses' work caring for oncologicall ill children. The research survey was conducted using a nonstandardized questionnaire for parents of oncologically ill children. The results showed that the children mostly had problems in the area of biological needs, on which we should focus while caring for them. Even though we found that psychosocial needs are not changed as much as the biological ones, it is necessary to view all the needs in a complex way with regard to their mutual interaction (together with spiritual needs).

ACKNOWLEDGEMENTS

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THE RESULTS OF A READING COMPREHENSION SURVEY AMONG HUNGARIAN SECONDARY SCHOOL STUDENTS IN SLOVAKIA

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ABSTRACT

In my paper I present the aims, the methods and a part of the results of my survey evaluating the reading comprehension competencies of Hungarian secondary school students in Slovakia. The main purpose of the survey was to map the level of secondary school students' reading comprehension skills to be familiar with the domains which need further improvement in our school education. Participants of the survey were first-year students and final-year students studying in three different school types (secondary grammar school, secondary technical school, and vocational school). The students filled in a questionnaire and a reading comprehension test. The questionnaire involved questions to find out basic information about the learners: e.g. gender, place of residence and questions to reveal possible factors influencing the participants' reading comprehension competencies: e.g. the language usage at home, reading habits, etc. The test consisted of three texts with items and it was based on the tasks of PISA 2009. We chose the PISA-survey because we have information about the 15-years old students' reading comprehension skills from official PISA-reports in Slovakia. In this way we can compare if there is any difference in the level of reading comprehension skills of 15-years old learners and students of different types of secondary schools. In this paper I show a segment of the survey by presenting the results of 167 students from four secondary technical schools in connection to one of the test's non-continuous texts (a product information) and its four tasks. To answer correctly the four items students needed to use all three thinking aspects of reading comprehension: to access and retrieve, to integrate and interpret and to reflect and evaluate. The results showed us that to find explicit information from the text was easier for the students than to express their own opinion about the text. In the future we plan to use our results to develop students' reading comprehension competencies in school education.

Keywords: reading comprehension competencies, Hungarian language, minority

1 INTRODUCTION

The appropriate level of development of reading comprehension skills is essential for people not only during school time, but also in everyday life, as we read and interpret different texts on a daily basis. Since the PISA results have been known, there has been a growing publicity around the world for the importance of developing students' literacy skills and for researching students' reading comprehension difficulties. There are many

who have already studied the mother tongue literacy skills of Hungarian students, but research mostly focuses on measuring the performance of Hungarian students in Hungary ([1]), and we have less information on the native language comprehension abilities of Hungarian students beyond the borders. There is no nationwide survey in Slovakia either which could provide an overall picture of the native language comprehension skills of Hungarian students at different levels of school education. Through the results of Ildikó Vančo's survey ([2], [3]) and the results of PISA surveys ([4], [5], [6], [7], [8]) we have information about the reading comprehension skills of 15-year-old students in Slovakia, but in the official Slovak PISA analyzes, the performance of Slovak and Hungarian students is analyzed together, and they do not differentiate the results of students of different nationalities. In order to improve the literacy skills of Hungarian students in Slovakia, it is necessary to know the areas that cause the difficulties. The aim of my research is to reveal the current picture of the level of native literacy competence of Hungarian secondary school students in Slovakia in order to find out what areas are in need of development. Another goal is to find out to what extent the reading comprehension skills change as the age and the number of years spent in education increases.

2 METHODOLOGY

In the research I studied the reading comprehension skills of Hungarian secondary school students in Slovakia. In Slovakia, the Hungarian minority is the most populous minority community in the country. According to the 2011 census data, the country had a population of 5,397,036 permanent residents, of whom 458,467 (8.5%) declared themselves Hungarian. The target group of the research were students entering and finishing secondary school education, a total of 648 students were tested, 328 first-graders and 320 final year students to find out if there was a difference between the students' reading comprehension skills at the stage of starting secondary school and at the stage of preparing for the graduation exam. In trade schools, education lasts up to three years, while in secondary vocational and grammar schools it lasts four years. As a result, in the sample, final year students were represented by third-year students from trade schools, while from secondary vocational schools and grammar schools fourth-graders were represented. The number of schools participating in the research was determined by the number of Hungarian-speaking secondary schools in the given districts, which means that from districts with a higher number of Hungarian-speaking secondary schools more than one school participated in the survey. The number of informants was given by the maximum number of students in each school year. In the course of the doctoral programme there was no possibility of a repeat survey during the research. The field research tool was a reading comprehension test compiled by me and supplemented by a sociological questionnaire. Data on the general characteristics of the students were obtained by means of a sociological questionnaire, which included not only basic data on students (e.g. gender or place of residence) but also questions on possible factors influencing the literacy skills of the informants, such as students' language use, their reading habits, or the parents' qualifications. The test was compiled from the published tasks of the 2009 PISA survey, as the results of PISA testing provide information on the comprehension competence of the 15-year-old, which data is the starting point for the

evaluation of the data I have received. The test contains three texts, and there are four related tasks for each text. One of the three texts is a continuous text (a novel piece) and two are non-continuous texts (a newspaper article with graphs and a store guide). An important aspect in selecting the texts was that students could complete the test along with a questionnaire during a lesson (45 minutes). To successfully accomplish these tasks, students have to use each of the three different comprehension thinking operations: access and retrieval, interpretation and integration, and reflection and evaluation. The tasks were of two types: closed-ended multiple-choice ones and open-ended questions which required an explanation. In this study, I present the results of 167 secondary school students on reading comprehension tests: data on 85 first-graders and 82 fourth-graders in connection with the questions of the store guide.

3 THE RESULTS

During the research, the students filled out a questionnaire and a reading comprehension test. First, I summarize the data from the questionnaire, then I present the results of the students' reading comprehension test.

3.1 Results of the sociological questionnaire

From the results of the sociological questionnaire we found out that the majority of students have been socialized in Hungarian. Most of them, in a narrow family circle (115N - 68.9%) used only Hungarian language, and about a third of them socialized in two languages. 51 (30.5%) of the students use both, Hungarian and Slovak in a narrow family circle. According to data obtained from the sample, not more but one student reportedly used only Slovak in a family environment (0.6%). Data on the use of language in a broader family (with relatives) further reinforces the dominance of Hungarian language use, with 151 (90.4%) of respondents indicating that they speak Hungarian with everyone. The rest of the students (16N - 9.6%) speak only with one family member (e.g. grandmother, grandfather) in Hungarian. The informants do not use Slovak exclusively in communicating with relatives. In the questionnaire we asked about the language of communication used with friends. According to the data, 87 of the students (52.1%) speak Hungarian with all their friends, while with some (smaller or bigger) part of the group of friends 47.3% (79 students) use Slovak language. In other words, while the Hungarian language usage is dominant in family circle, some of the informants, outside of their family circle, actively use both, Hungarian and Slovak in everyday communication.

In addition to the basic data, we asked about the students' grades from the Hungarian language and literature subject, the level of education of their parents and the students' reading habits. 35 (21%) of the respondents got a 1 as evaluation mark, 39 (23.3%) got a 2, 72 (43.1%) got a 3, 18 (10.8%) got a 4 from the above mentioned subject, respectively, one student (0.6%) got a 5 as a grade. Two students (1.2%) did not give an answer to this question.

We learned from the students' parents' education that:

- 45 (26.9%) mothers and 54 (32.3%) fathers did not graduate from secondary schools

- 107 (64%) mothers and 95 (56.9%) fathers passed the maturity exam

- 15 (9%) mothers and 11 (6.6%) fathers have graduated from universities.

It is characteristic for the students' reading habits that the majority of them read blogs, social networking sites, and news portals for 1-2 hours per day. 72 (43.1%) students have chosen this option. They are followed by a group of textbook readers with 43 (25.7%) students. Only 22 (13.2%) of the students read literary works from their own volition.

3. 2 Analysing the student´s answers

Question 1 related to the notice: *What is the purpose of this notice?* Of the four options the correct answer is C *(to warn people about the biscuits)*. In order to successfully answer this question, students had to apply the thinking processes of interpretation and integration. Question 2: *What is the name of the company that made the biscuits?* This question was open-ended and called for explicit information in the text from respondents. The answers in which the students described Fine Foods Ltd as the manufacturer of the biscuits were correct. Students used access and retrieval thinking processes to answer the question.

Next, third question was: *What would you do if you had bought these biscuits? Why would you do this? Use information from the text to support your answer.*

Respondents had to give a short answer to this question, describing what they would have done if they had bought the product. Their answers were not only to be given, but also to be justified, which means, respondents had to reflect and evaluate. Therefore, the right answers are the solutions in which the respondent refers to one of the informations in the text e.g. the customer may inquire at the given phone number, or return the product at the place of purchase, or if he is not allergic to nuts, the warning is not for him, so he can eat the biscuit. Below are some of the correct solutions:

"I would eat it. Because I'm not allergic to peanuts. ”

"I would have taken it back, because the entire price is refunded."

"I would take it back, because that is what you should do according to the store’s notice.

"I would have consumed it, because I'm not allergic to peanuts."

Among the respondents were also students, who did not correctly interpret the purpose and meaning of the notice. Some examples of the wrong answers are given below.

"I wouldn't have eaten it, because I'm on a paleo diet, I don't eat biscuits + they were expired if I understand correctly."

"I probably wouldn't have eaten it, because it was expired in February."

"I'd like to eat it, as I spent money on it, I love it, and it's expiring date is close."

"I'd eat it all like a cow, because I have such a digestive system that it doesn't care what it gets."

As the examples show, some responses were irrelevant to the subject matter, and also contained incorrect information.

Question 4: *Why does the notice include "Best before" dates?* The right answer to this question was made by those, who answered that the given dates specify which products may contain nuts. The majority of students could not answer this question correctly. Those, who answered the question correctly gave the following answers:

"Products that expire at those dates contain peanuts and it is not listed anywhere."

"Because we can find out if it's the product we have bought."

"Because biscuits, that expire at the dates mentioned above, contain nuts."

In contrast to these answers, the other students did not correctly interpret the question and presumably the students immediately, after seeing the *preserves its quality* dates, wrote in their answers, that the dates indicate the date of consumption. This statement would be true, if we asked about the expiration dates of the biscuit, but that was not the case, as the aim of the dates in the notice had to be explained. In addition to these types of answers, the vast majority of students have provided different types of irrelevant or incorrect information:

"The product, with the wrong label, was produced twice, so they expire at different dates."

"For people to know how long this biscuit will be in the store."

"Because they don't know that shorter ads are more effective."

"Because these biscuits were expired, when the notice was released."

3. 3 Presenting the partial results

3.5% of the first year vocational secondary school students in the sample correctly answered each question in the test text. Three-quarters of the students (a ratio of 38.8%: 37.6%) answered three or two questions correctly. 14.1% of the participants could only solve one test question correctly. 5.6% of students could not answer even one question correctly.

Table 1: Percentage of first-grade vocational secondary school students answering correctly broken down by schools

First-graders					
Number of students	**4 correct answers**	**3 correct answers**	**2 correct answers**	**1 correct answer**	**0 correct answers**
Mostová (20N)	0	5 (25%)	9 (45%)	3 (15%)	3 (15%)
Senec (29N)	3 (10,3%)	17 (58,6%)	5 (17,2%)	3 (10,3%)	1 (3,4%)
Komárno (17N)	0	3 (17,6%)	9 (52,9%)	5 (29,4%)	0
Rimavská Sobota (19N)	0	8 (42,1%)	9 (47,4%)	1 (5,3%)	1 (5,3%)
In total (85N)	**3 (3,5%)**	**33 (38,8%)**	**32 (37,6%)**	**12 (14,1%)**	**5 (5,6%)**

Only 9.7% of the 82 final year vocational secondary school students correctly answered each of the four test questions. More than one third of the students (39%) were able to answer three questions correctly. Approximately one quarter (25.6%) of the respondents gave the correct answer to two questions. 14.6% of respondents answered only one question correctly. 11% of the students could not answer the questions correctly.

Table 2: Percentage of final year vocational secondary school students answering correctly broken down by schools

Fourth-graders					
Number of students	**4 correct answers**	**3 correct answers**	**2 correct answers**	**1 correct answer**	**0 correct answers**
Mostová (28N)	2 (7,1%)	8 (28,6%)	8 (28,6%)	3 (107%)	7 (25%)
Senec (24N)	1 (4,2%)	14 (58,3%)	8 (33,3%)	1 (4,2%)	0
Komárno (18N)	2 (11,1%)	3 (16,7%)	4 (22,2%)	8 (44,4%)	1 (5,6%)
Rimavská Sobota (12N)	3 (25%)	7 (58,3%)	1 (8,3%)	0	1 (8,3%)
In total (82N)	**8 (9,7%)**	**32 (39%)**	**21 (25,6%)**	**12 (14,6%)**	**9 (11%)**

3.3.1 Analyzing the result outcome of vocational school students by the answers given to non-continuous test text and according to the usage of reading comprehension operations

On average, the majority of students from Senec gave correct answers to the test questions. The access and retrieval operation was used correctly by almost all of the first year vocational secondary school students (92.9%). In the case of closed-ended multiple-choice questions, the operation of interpretation and integration was applied correctly by three quarters of the students (76.5%), but only 3.5% of the students were able to form their own opinion on the open-ended question. About half of the students (47%) reflected correctly on the given text.

Table 3: Number of first-grade vocational secondary school students correctly responding to each test question

First-graders					
Number of students	**1. interpreta-tion and integration**	**2. access and retrieval**	**3. reflection and evaluation**	**4. interpreta-tion and integration**	**Average**
Mostová (20N)	12 (60%)	17 (85%)	7 (35%)	0	**9 (45%)**
Senec (29N)	25 (86,2%)	28 (96,5%)	20 (69%)	3 (10,3%)	**19 (65,5%)**
Komárno (17N)	12 (70,6%)	16 (94,1%)	4 (23,5%)	0	**8 (47%)**
Rimavská Sobota (19N)	16 (84,2%)	18 (94,7%)	9 (47,4%)	0	**10,7 (56,6%)**
In total (85N)	**65 (76,5%)**	**79 (92,9%)**	**40 (47%)**	**3 (3,5%)**	

Fourth-grade vocational secondary school students used the simplest reading comprehension operation the most (86.6%) correctly. The first closed-ended multiple-choice question was answered correctly by three quarters of students (76.8%). Almost half of the students (48.8%) were able to formulate their own opinion correctly on the

given text, while the text-based implicit information was only found by 11% of the participants in the survey.

Table 4: Number of final year vocational secondary school students answering correctly to each text question

Fourth-graders					
Number of students	**1. interpreta-tion and integration**	**2. access and retrieval**	**3. reflection and evaluation**	**4. interpreta-tion and integration**	**Average**
Mostová (28N)	18 (64,3%)	21 (75%)	10 (35,7%)	3 (10,7%)	**13 (46,4%)**
Senec (24N)	24 (100%)	23 (95,8%)	15 (62,5%)	1 (4,2%)	**15,7 (65,6%)**
Komárno (18N)	10 (55,6%)	16 (88,9%)	5 (27,8%)	2 (11,1%)	**8,2 (45,8%)**
Rimavská Sobota (12N)	11 (91,7%)	11 (91,7%)	10 (83,3%)	3 (25%)	**8,7 (72,9%)**
In total (82N)	**63 (76,8%)**	**71 (86,6%)**	**40 (48,8%)**	**9 (11%)**	

4 CONCLUSION

In this study, I presented the reading comprehension results of 167 first and fourth year vocational secondary school students in relation to questions of a non-continuous text. I have also analyzed how the students involved in the research have performed using different thinking comprehension operations. In order to answer non-continuous text questions, all three reading comprehension operations were needed: access and retrieval, interpretation and integration, and reflection and evaluation. Most students used the access and retrieval operation correctly, while the biggest problem was to express their own opinion in relation to the read text. Overall, based on the results, we can state that the first and final year students do not acquire sufficient native language reading comprehension skills during their secondary school education, and the reading comprehension results of secondary school students are almost on the same level as the PISA results of primary school students. Therefore, education should place particular emphasis on developing students' reading comprehension skills in a targeted way, not only within the Hungarian language and literature subject, but also in other subjects, as the appropriate level of native language comprehension skills is the foundation of a successful everyday life.

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SELF-EFFICIENCY IN COOPERATION WITH THE GROUP

- A WAY TO LIFE AND PROFESSIONAL SUCCESS

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ABSTRACT

Effectiveness in cooperation with a group is a kind of special social competences that should be educated from an early age. The high level of self-efficacy in cooperation with the group not only allows the individual to get involved in the tasks longer and work harder to achieve the set goals [1], but also allows to notice the opportunities that can contribute to success.

People with a high sense of self-efficacy in cooperation with a group are more ready to take on new challenges, flexible, engaged, persistent, motivated in the implementation of tasks, easier to cope with difficult situations, provide themselves with positive tips and support for action, create successful scenarios [2].

In the context of positive effects created by the sense of self-efficacy in cooperation with the group, it seems purposeful to strengthen the students' faith in their own effectiveness, which increases motivation to act, achieve, reduces stress in the face of difficulties and at the same time allows to treat possible failures not as a result of small abilities or possibilities, but as a result of too little effort put into the task.

The aim of the study was to determine what is the sense of self-efficacy in cooperation with a group of surveyed third grade elementary school students. The research was conducted in the first half of 2018 in several Polish primary schools. The research used the diagnostic survey method and the survey and interview techniques. 156 primary school grades 1-3 students participated in the study. The study used a self-efficacy questionnaire in collaboration with the group and a questionnaire to assess group work and data was obtained on how children assess their own effectiveness in cooperating with the group that they are aware of their participation in the group's work results[1]. Efforts were made to establish how students assess their own commitment, work contribution to the task and group efficiency, how they perceive their own roles in the team, themselves in relation to others, what they think about sharing resources (knowledge, experience, ideas), how they evaluate activity planning and time management and how they determine the difficulty of the task. Obtained research results allowed to determine what is the assessment of students' own effectiveness in cooperation with the group and what factors influence it. Particularly important were: awareness of one's own actions and its importance in working with a group, awareness of one's own resources, assessment of the

[1] Research tools were developed on the basis of proprietary research tools developed by Izabella Maria Łukasik for researching students and were adapted to research students in early school education- Łukasik I.M., Poczucie własnej skuteczności we współpracy z grupą. Eksperyment pedagogiczny w przestrzeni akademickiej. Lublin: Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej, 2013.

effectiveness of one's own involvement, team work input, assessment of the effectiveness of other group members, assessment of oneself in relation to others, feedback, positive emotions and class atmosphere school.

The research problem seems to be important from the point of view of shaping social competences and achieving school and future life and professional success. It is important for the student to perceive himself as an effective person in cooperating with others, in managing science, aspirations, in achieving achievements and perceiving the group as effective. This affects the child's self-efficacy and his own effectiveness in cooperation with the group. The research results show what factors are significant in building a sense of self-efficacy in cooperation with a group of Polish children. The results were used to formulate postulates for pedagogical practice. Examples of ways to develop children's own effectiveness in cooperation with the group were also used by the surveyed teachers.

Key words: self-efficacy, self-efficacy, group work, safety climate, cooperation, teacher, student, early school education

INTRODUCTION

Self-efficacy in cooperation with a group means such an assessment of their abilities and capabilities, which allows them to successfully complete group tasks and constitutes a set of beliefs about themselves in relation to other group members. This is very important from the point of view of achieving goals. The belief in self-efficacy affects: the amount of effort put by students in learning, directing their own development, seeking others, new learning strategies, and perseverance in the face of new challenges. A sense of self-efficacy, understood as a belief in the ability to mobilize motivation, cognitive resources and courses of action needed to meet specific situational requirements [3] determines the change in the individual's behavior and the effectiveness of actions taken [4]. A person convinced of their own effectiveness can run personal resources to deal with difficulties, and the possibilities at their disposal are appropriate and sufficient to cope with the challenge.

A sense of self-efficacy, among others affects the satisfaction from work [5], optimism [6], which in turn increases ease of communication, willingness to help, creativity and perseverance. It also gives hope, which in turn translates into efficiency in creating and implementing a plan [7]. A generalized sense of self-efficacy affects life satisfaction [8]. Belief in effectiveness has an impact on psychosocial processes and remains in a significant relationship with cognitive, motivational, affective and selection processes.

People with a high sense of self-efficacy: they set difficult goals to achieve and are strongly committed to achieving them, they cope with the difficult situation more easily, as shown by studies in the group of pedagogy students aged 20-29 [9], they attribute their failures to insufficient efforts, instead of small abilities[10], they don't give in to negative thinking and focus on difficulties, treat them as a challenge [11].

Building students' self-efficacy is therefore very important from the point of view of building a community of learners and eliminating school failures.

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The conviction of one's own effectiveness comes about through experience, thanks to faith in one's own strength, developmental motivation and perseverance in action [12]. If a student has a lot of positive experiences in planning methods and strategies necessary to achieve goals, it is likely that he will be more motivated, which will translate into pragmatics of action and increase his faith in his own abilities. Therefore, success and achievement stimulate an increase in self-efficacy, while failure reduces it. Other factors that build a sense of self-efficacy are: the effects of other students' activities that can be motivating; verbal persuasion (e.g. praise from the teacher, appreciation of our efforts); level of emotional arousal (e.g. a calm and calm person becomes convinced that his effectiveness is high).In the school class, factors affecting the sense of self-efficacy are also, among others, awareness of the importance of own and group involvement and work input in undertaken actions, assessment of own actions, reflection in action and over action, feedback, positive emotions, acceptance and trust climate, high self-efficacy of the teacher.

Due to the positive effects of a sense of self-efficacy, it seems purposeful to strengthen students' faith in their own effectiveness, which increases motivation to act, to achieve, to search for effective learning strategies, which reduces stress in the face of difficulties and at the same time allows to treat possible failures not as a result of small ability or opportunity, but as a result of too little effort put into the task. This allows the student to act according to the principle: if I try harder, get more involved, I will be more persistent - I will achieve success and overcome the difficulty.

Research results indicate [13] that a sense of self-efficacy is correlated with a sense of team effectiveness, if a student highly appreciates the group he works with, probably the group's effectiveness may strengthen his belief in his own effectiveness in working with a team. The sense of self-efficacy of a student is also dependent on the sense of self-efficacy of teachers.

The low self-efficacy of the teacher makes the students are not properly motivated and they lack perseverance. This is the opposite reaction, because the poor progress of students strengthens the teacher's belief in low self-efficacy. Teachers with a high sense of self-efficacy are less critical of students' mistakes, motivate them to act and persevere, work harder with difficult students, more often introduce new strategies because they are not afraid of failures, apply the principle of differentiation of requirements depending on the educational needs of students.

Despite the importance of self-efficacy in education, unfortunately, in the developed standards and learning outcomes there is still no room for assessing one's own actions, commitment, effort or expressing feelings and emotions. The more important it is to pay attention to this important aspect of education.

METHODOLOGY

In the research undertaken, attempts were made to determine the level of self-efficacy of the surveyed students in cooperation with the group. The sense of self-efficacy in cooperation with the group can be related to the perception of the role played by the individual in the team, whose activity is assessed by the individual all the time.

In the questionnaires for testing the sense of self-efficacy in cooperation with the group and questionnaires for assessing group work using questions, they tried to get an answer,

how third grade students of the primary school assess their own effectiveness in cooperation with the group, i.e. what they think about the contribution of their own work and other members groups in completing the task and obtaining the expected result.

Students had, among others assess their own commitment and other group members in the implementation of the task, group efficiency, their own roles performed in the team (activities undertaken while working on solving the problem in the group) and themselves in relations with others. They were to indicate what they think about sharing resources (knowledge, experience, ideas), how they evaluate activity planning and time management, and how they determine the difficulty of the task.Finding ways to ensure that students working in a group are properly motivated, feel responsible for completing tasks, while engaging in their implementation, are convinced of their own effectiveness and believed that it can be increased in cooperation with the group, it is a real challenge for education, for an effective teacher. In the studies undertaken, using the questionnaire to test self-efficacy, attempts were made to determine how the surveyed teachers assess their own effectiveness and what methods they use to develop students' self-efficacy.

A SENSE OF SELF-EFFICACY IN COOPERATION WITH THE GROUP - RESEARCH RESULTS

Self-efficacy is influenced by many elements: commitment, perseverance in task performance, group efficiency, self-assessment in relation to others, awareness of one's resources, task difficulty.

Commitment is decided, among others willingness to put in effort and affect learning. Most of the surveyed children (130) assessed their commitment to perform the task in the group highly. In this situation, the regulation process does not reveal the need to search for new strategies or modification of behavior styles, because students believe that they have fulfilled their role. The groups perform tasks satisfactorily, so the great commitment and the effect of working together increases the sense of self-efficacy of children in cooperation with the group. Most students are convinced of their own significant role in the team and are involved in the task for individual reasons, such as a sense of well-done task, desire to succeed and eliminate failures, and for reasons related to group joint achievements.
The surveyed students get more involved when they have knowledge about the task, when the group is assessed as effective and its members are active and do not withdraw from the task.

The respondents indicated that working in a group enables the observation of the effectiveness of other children, allows looking at the issue from different perspectives, better understand the problem, exchange information, learn new ways / strategies of action that can be used in other situations, observe how others experience the task. Students were able to point out specific achievements in working with a group: motivating others in activities, suggesting solutions, planning activities and controlling time to perform activities, gathering the necessary materials, searching for information and taking care of the aesthetics of works, modeling on others and using their ideas in appropriate situations. The respondents indicated that working in a group enables the observation of the effectiveness of other children, allows looking at the issue from different perspectives, better understand the problem, exchange information, learn new ways / strategies of action that can be used in other situations, observe how others experience the task.

Some students (26 people) were aware of the importance of the effort put into the task and its effects in achieving the intended goal. Students notice that greater joint effort is conducive to faster work completion and success. The research results confirmed that some of the surveyed students (39) can be consistent and persistent in completing the task. Despite the difficulties encountered, students do not give up their actions or return to interrupted activities to complete the task successfully. They are students who are aware of their capabilities.

Most children (108) like to take on new challenges. requiring from them multilateral activity, creative thinking, searching, experimenting, testing their capabilities. This group can also be described as resistant to stress. Although some respondents declared caution in taking action, they are not afraid to take risks, getting more involved and believing in success.

The research results confirmed that the effectiveness of other group members, their commitment and effort, affect the behavior and commitment of other group members. Some students (26) indicated that their commitment to the task depends on the commitment of their peers, their skills and willingness to win, according to the principle that if others can cope with the sentence and try, they too. The students said (45) that group work is disturbed by conflicts, tensions and lack of results.

Self-efficacy in cooperation with a group means in practice the ability to effectively interact and assume various roles in a team. In working with the group, the students assumed various task-oriented roles: engaging in task performance, providing and searching for information, giving ideas for solutions, seeking reconciliation, striving for joint decisions, arrangements.

What proves the effectiveness of students in cooperation with the group and affects the work on the task are various types of resources: knowledge; experience, skills. responsibility, sensitivity to the needs of others, perseverance in carrying out the task and strength. The belief in coping with the challenge further increases the student's self-efficacy, if he attaches these achievements to his own resources and positively assesses them.

According to the surveyed students, sharing knowledge, ideas, finding solutions, listening carefully, encouraging work together, and eliminating conflicts brings the expected results. Over half of the students (88) willingly share their resources: suggests, gives ideas, cites relevant actions or situations.Over half of the surveyed students (69) feel effective and have a need for self-presentation on the forum. Some students (36) are less involved in joint work because they feel that they have fewer resources than others or the situation exceeds their capabilities. These students do not want to be exposed to negative assessment, stress, ridicule and exclusion from subsequent joint work and often give up on their own activity. They take the challenge when they think they have the competence to do so.

Important for the effectiveness of the action is its proper planning and control over time. Most of the surveyed students (134) also emphasized that each activity should be planned, spread out individual activities in time, control the time to complete the task in order to be able to consistently, quickly and efficiently achieve the expected result. Some of the studied children (28) said that they have the following skills:

The assessment of the difficulty of the task was to shape the belief that it is worth putting more effort to achieve a common goal and make changes when behavior is ineffective. Depending on the difficulty of the task, students are involved in different ways. This is related to the belief that I have sufficient resources to solve the task or not. The more they are, the higher faith in their abilities. The complicated task, as declared by the surveyed children, reduces perseverance, i.e. the desire to face difficulties.However, completing a task with a group increases self-efficacy. Students noticed that the effectiveness of group work varies depending on the level of difficulty of the tasks to be carried out. In most cases, the efficiency is high and has a direct impact on the work of individual team members and the success of the group as a whole and at the same time constitutes individual success.

WAYS TO DEVELOP CHILDREN'S OWN EFFECTIVENESS

The sense of self-efficacy, an active way of functioning, lack of social anxiety and courage, motivation to act are significantly determined by the ways of social functioning.

Finding a way for people working in task forces to be motivated, feel responsible for the tasks, engage in their implementation and believe in increasing their own effectiveness in working with a group is an educational challenge.

The research results have shown that the sense of self-efficacy of children should be built and strengthened so that they can achieve success not only at school, but in the future life and professional success.

This can be done, among others by: - developing children's awareness of their own role in the group in achieving the expected results; - teaching responsibility; - raising awareness of one's own work input and the degree of commitment to the final result and the possible preparation of a recovery plan; - teaching perseverance; - modeling - increasing team efficiency; - feedback; - releasing positive emotions (recognition, appreciation from the teacher, referring to children's earlier successes and their possibilities); - a climate of trust and security in the classroom.

It is important to enable students to speak about their own activities and those of the group, about the emotions that accompany children when working together on the task, about the factors that support and hinder the team's work. The statements of the surveyed students confirmed that they rarely have such a possibility.

Meanwhile, these should be activities summarizing work with the group. Every child should be able to comment on the forum in an atmosphere of safety and respect. Teachers' efforts to teach children effective cooperation in a climate of trust enabling effective functioning and self-efficacy assessment seem necessary here.

Developing social skills in students that affect their self-efficacy in collaboration with the group should include, among others teaching: - effective communication, the art of negotiation [14]; - active listening, asking responsible questions and formulating empathic statements to others [15]; - self-control [16]; - recognizing and expressing emotions and feelings and responding to them [17]; - coping with stress and anxiety [18]; - dealing with rejection or exclusion [19]; - setting and achieving goals [20]; - solving everyday problems and trying out potential solutions in a consistent manner [21]; - focus attention, which in children is associated with competences and prosocial behavior and

can reduce the level of negative mood [22]; -cooperation and group problem solving (including creative problem solving) to achieve a goal acceptable to everyone [23], - perseverance in task implementation and commitment to its implementation [24]; - competitive skills (learning various coping strategies) result and response to winning and losing [25]; - assertiveness to deal with problems with peers [26]; - asking for help - an important coping strategy in the situation of seeking information or emotional support enabling the reduction of anxiety, anger, fear, emotional regulation [27]; - helping others, which is an important protective factor (strength) and favors engaging in prosocial activities now and in the future [28]; - self-presentation [29].

Research results have shown that it is necessary to build and strengthen children's self-efficacy especially by: - developing students' awareness of their own effectiveness; assessment of own work input and degree of involvement in the final result of the group's work; - making use of experience resulting from mastering certain skills; - remembering effective strategies; - modeling experience ; - feedback; - releasing positive emotions, analyzing feelings, working on self-presentation. It is advisable to strengthen the sense of self-efficacy of students by rewarding, praising, appreciating their efforts, commitment, effort, informing them of effective coping with difficult situations. It is equally important to learn how to deal with problems and to develop skills to solve difficulties and problems encountered during the implementation of tasks.

It should be emphasized that the creative organization of group activities should also include: flexible procedures for managing and implementing change, innovation, using the strengths of group members, focusing students on strategic goals and tasks.

CONCLUSION

The question of how to influence the building of students' sense of effectiveness should be a source of in-depth reflection and actions aimed at the effectiveness of education and achieving success in various areas of social functioning.

Research results have shown that most children have a high sense of self-efficacy in collaborating with a group and assesses such elements as their own commitment, effort, work input, their own team roles, their own resources, and high-level group performance. It may seem that since students think that they fulfill their roles well when working with a group, there is no need for them to search for new strategies of action or behavior modification.

in the meantime, one should encourage reflection on action and action, reflection on the contribution of students' work in cooperation with the group, which should be changed so that the results are even better and that they feel more effective. The declared self-efficacy in cooperation with the group may be the result of high self-esteem of children caused by awareness of resources, achievements and positive assessment of their capabilities.

It should be emphasized that in the studied classes, students rarely have the opportunity to evaluate their own group activities and expressions, feelings and emotions after working together. However, you should work on children's awareness in this area to show how important are: effective communication, mutual respect, motivating, using common resources, responsibility, perseverance, commitment to increase your own effectiveness in cooperation with the group and self-efficacy. A significant proportion of students have

a low sense of self-efficacy in cooperation with the group, resulting from low self-esteem of their own resources, fear of ridicule, humiliation, negative assessment, exclusion from subsequent joint work. The assessment of the group's effectiveness also revealed that a positive assessment of the group's effectiveness is important for a higher sense of students' self-efficacy. Increasing the sense of self-efficacy of children in cooperation with the group by the teacher can contribute to increasing the ability to cope with difficulties and stress. It turned out that the self-efficacy of the surveyed students is influenced by: result orientation, gratification in the form of recognition, praise, reward of the teacher, as well as the efforts of others in achieving goals, positive results of own and group work.

Considering the above, finding ways to ensure that students working with the group are properly motivated, feel responsible for the tasks, engage in their implementation, are convinced of their own effectiveness is a real challenge for an effective teacher. His work style and sense of self-efficacy are an important stimulus for student effectiveness. To do this, the teacher must be aware of his own effectiveness and strengthen this process by continuing education and using his knowledge and experience to create educational situations that support students in building their awareness and self-efficacy. It is advisable to continue the research and determine what level of self-efficacy the studied early childhood education teachers have.

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THE SKILLS OF THE FUTURE: HIGH SCHOOL AND UNIVERSITY PERCEPTION VS. LABOR MARKET

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ABSTRACT

Purpose - The aim of this paper is to investigate the match between the students' skills in high school, the skills to be acquired in tertiary education and the relevance of these skills on the labor market.

Design/Methodology/Approach – Quantitative methods: questionnaires. The questionnaires were applied in two different regions from Romania: the most developed and one of the most deprived. A 5 Likert scale was used for investigating their perceived skills (5 means the best). For the actual skills, the respondents had to choose their level between beginner, advanced or expert.

Findings – The results are gender sensitive, but the place of origin has a low influence. The best skills for girls are reading fluently and understanding a text and the best skills for boys are solving a Math problem independently and understanding a logical reasoning.

Practical implications – The study presents which are the most important skills in the senior year in high school in the students' opinion, as well as the match between their perceived skills and the skills required on the labor market.

Originality/Value – A Granger causality was found between the different levels of skills. The study offers an insight on Romanian students' perceptions on their skills.

Limitations – The questionnaires were distributed only in the richest and in the poorest part from Romania. Future research should be made including other regions.

Keywords: perceived skills in high school, perceived skills in university, perceived skills on the labor market

JEL Classification: I21 Analysis of Education

J24 Human Capital; Skills; Occupational Choice; Labor Productivity

INTRODUCTION

Once upon a time, knowing more than others in different areas was a comparative advantage, but that time is over now, then it came a time when knowing almost anything in a very narrowed area was a comparative advantage, but not anymore. Because anything we could know Google knows better, Google can manage knowledge and information better than us. Now it comes a time when both humans and artificial intelligence (AI) acquire basic skills, like literacy and numeracy, as well as fundamental understanding and learning, of course, not at the same pace and not in equal shares. Life, if I may say so, is simple for AI when they need new skills, when they are

outdated, a new better version appears, in a optimal time. But not for humans, because, as the combined results of PISA, PIRLS, TIMMS and PIAAC tests prove, in most cases, a low achiever student becomes a low achiever adult. Many interesting and creative scenarios regarding the future skills for the future jobs were made, but a clear vision on the future skills the future generations should acquire was not reached yet. But, no doubt, the time to clearly state the future skills will come. In a wider sense, *the skill* is what a person can do in a proven way. Skills classifications according to different organizations are presented in Table 1:

Table 1. Skills classifications according to different organizations

	Basic / Fundamental / Cognitive Skills	**Transferable / Transversal, Non Cognitive Skills**	**Technical / Vocational skills**	**Social / Personal Skills**	**Specific / Systemic skills**
World Economic Forum [10]	cognitive flexibility, mathematical reasoning, ICT Literacy	creativity, content skills, active learning, oral expression	equipment maintenance and repair	coordinating with others, emotional intelligence, negotiation	decision-making, systems analysis
Australian Education Authority [6]	literacy and numeracy skills, digital and financial literacy	adaptability, perseverance, resilience, curiosity, responsiveness, experimentation and initiative	new media literacy, design mindset, cross-cultural competency	communication, teamwork, relationship management, organizational awareness, social / cultural awareness	the ability to interpret data analysis and to apply findings, skills for adding value
European Commission [11]	literacy, numeracy, foreign languages, science and digital skills	the ability to learn, to think critically, to take initiative	vocational skills	critical and self-critical abilities, teamwork, interpersonal skills	capacity to apply knowledge in practice, research skills
International Labor Organization [5]	literacy, numeracy	learning to learn, communication	technical and vocational skills	honesty, integrity, work ethically	balancing equity and freedom, autonomy and community
OECD [7]	literacy,	non-cognitive	technical	perseverance, self-esteem	empathy, sociability,

	numeracy	skills	skills	and sociability	teamwork
UNESCO [12]	literacy, numeracy	problem-solving	technical and vocational skills	soft skills	creating new value, reconciling tensions
World Bank [14]	literacy, numeracy analysis, problem solving, communication skills	analysis, problem solving and communication skills	technical skills	behavioral skills, discipline and work effort	self-control, self-efficacy, responsibility

Source: Author's table based on different organizations classifications

The three transferable skills with the largest increase in demand over the past three years were digital literacy (up by 212%), critical thinking (up by 158%) and creativity (up by 65%) (Payton and Knight, 2018) [8]. According OECD, adolescence can now be seen as a time not just of vulnerability, but of opportunity for developing a sense of responsibility.

Future-ready students will need both broad and specialized knowledge. Students will need to apply their knowledge in unknown and evolving circumstances. For this, they will need a broad range of skills, including cognitive and meta-cognitive skills (e.g. critical thinking, creative thinking, learning to learn and self-regulation), social and emotional skills (e.g. empathy, self-efficacy and collaboration) and practical and physical skills (e.g. using new information and communication technology devices).

In most of the countries, the future skills are not known nor researched and there is no available or official information regarding the policy concerning the future skills. The tertiary education is provided on what students wish to study and on the current or past academic courses and not based on the labor market needs and trends (Bejaković and Mrnjavac, 2014) [1]. A systemic mismatch between education and labor market is developed because of the fact that the mismatch between the two emerges endogenously (Ghaffarzadegan at al., 2017) [4]. According PISA 2015 results, Romanian share of low achievers in all three subjects is almost twice as the EU average, while the share of top performing students is the lowest of EU [13].

During 2018, as member of a national project on future jobs, our project team presented "The Guide of the Jobs of the Future" in more than 30 high schools in different regions of Romania. Each time, one of the main issues of the debates was which are the necessary skills for the jobs of tomorrow, as well as for the jobs of today and, at the end of the project, 11 skills were found common for all the high schools. Based on these skills, a questionnaire was made and administrated in 6 high schools, four in Bucharest, a region with the GDP per capita as almost same level as EU and 2 in Vaslui county, one of the most disadvantaged regions in EU. 600 questionnaires were distributed to

students in the senior year in high schools in February 2019, 503 were fully completed, a return rate of 83.83%.

The aim of this paper is to investigate the correlation between the perceived level and the actual level of the accumulation of the 11 skills during high school, as well as the match between their skills, the expected skills to be acquired in tertiary education and the projection of the relevance of these skills for the labor market.

A 5 Likert scale was used for the investigated perceived skills (5 being the best). For the actual skills, the respondents had to choose their level between beginner, advanced or expert.

The sample consists in 268 boys and 235 girls, in senior year at 18 or 19 years old. In Vaslui, there was a general high school and a vocational high school, while in Bucharest there were a general high school, a vocational high school, a technical college and a Baptist high school.

THE FINDINGS

For the first skill - *a relevant knowledge in the areas one is interested in* - the average value is 2.9, with a slightley difference (0.1) in favor of girls, higher in Vaslui (3.3) compared to Bucharest (2.8). All the high schools in Bucharest scored under 3, while the ones in Vaslui scored over 3, which means the students in Vaslui perceived that the knowledge they got in high school is more valuable compared to their coleagues in Bucharest. The students expect to get more and deeper knowledge during their tertiary education (4.1), again with a slightley difference in favor of girls and the same slightley difference in favor of the students from Bucharest. Apart from the high school in Bucharest, all the other scored above 4 on their expectations regarding the knowledge they expect from tertiary education. The students are confident that, on the labor market, the relevant knowledge in specific areas are requested (4.18 - the second highest), once more slightley higher for girls and for the students from Vaslui, with high scores for all high schools apart from the one in Bucharest. Relevant knowledge in the areas one is interested in was considered as a cognitive fundamental skill.

The second skill - *applying what they know in different contexts* - is perceived as the lowest of the perceived skills they aquired in high school and, in the same time, the highest required on the labor market, with great expectations from tertiary education. The students from Vaslui and the boys considered they could apply their knowledge more than the students from Bucharest and the girls, while the later ones are more convinced of the importance of the second skill. Among the considered high schools, the vocational one from Bucharest had the best score (2.96) and the technical colledge the lowest score (2.46), which is a bit concerning for the transferability of the skills in technical college. Applying what they know in diferent contexts was considered a transferable skill.

The will to continue to learn is a valuable skill for a future adult of this century, the mean was 3.3 for high school, girls being more confident (3.4), no difference for the two cities, the Baptist high school and the vocational one in Vaslui scoring over mean. However, this skill was considered as not so important for the labor market and with modest expectations for tertiary education, as well as for all considered categories. The will to continue to learn was considered a personal skill.

Being an independent learner, an intrapersonal skill, according to Care and Luo (2016) [3], was found as being an important skill (3.5), a bit higher for girls (3.6), the same value for the two cities, the two high schools from Vaslui scoring the highest value (for the vocational high school) and the lowest value. This skill was considered of great importance for the labor market, with great expectations for tertiary education, with high scores for all categories, apart from the high school in Bucharest, that were below 4.

Communication in all forms is considered both a personal socio skill and a non cognitive tranferable skill, according to Brunello and Schlotter (2011) [2]. It got the second highest value, even more important for the students from Vaslui and the boys, with the greatest value for the Baptist high school, not only among all high schools, but also from all skills. This skill is seen as the most important for the labor market, the most important in the girls' opinions, the best valued skill for the students from the Baptist and the vocational high school in Bucharest. The students have similar expectations regarding aquiring this skill in high school and in tertiary education.

From all communication forms, *communication in a foreign language* is very important for studying and, particulary, for studying abroad, as well as for working abroad. This skill had the highest score at the high school level, which was equal to university level, but, surprisingly, was not seen of the same importance for labor market. The boys valued this skill significantly more in high school, more at university level, but less on the labor market comparing to girls. This skill counted more for the students in Vaslui in high school and more for the ones in Bucharest on the labor market level. This skill seemed to be of the greatest importance for the students of the Baptist high school.

The values for *team work skills* grew from high school level to labor market level, more important for girls at all levels, with the high school from Vaslui scoring high at the first and the last level and the Baptist high school at the university level. Team work skills are in the same time transferable and socio skills, as well as system skills.

Logical reasoning is in the same time a fundamental and a transferable skill. The respondents considered this skill as of medium importance at all levels, the girls more than the boys and the students from Bucharest more than the ones in Vaslui at the two upper levels. The highest values were for the vocational high school in Vaslui, for the vocational high school in Bucharest and for the technical college at the corresponding three levels.

Problem solving, considered a transferable and a system skill, was seen of great importance for the labor market, girls valued this skills more than boys at all levels, the students from the high school in Vaslui had the greatest expectation to aquire this skill in tertiary education and the ones from the high school in Bucharest considered it a major skill at the labor market level.

The adaptation skills, as part of the system ones, had medium values at the two first levels, more important for girls than for boys, with highest expectations at labor market level for the students of the technical college, who scored above 4 out of 5.

ICT skills, seen as technical skills, had low scores at high school level and the lowest scores at the upper two levels. The boys considered the ICT skills more important at the high school and the university level comparing to the girls and the students from Bucharest considered ICT skills less important comparing to the ones in Vaslui. ICT

skills were more important for the students in the Baptist high school, for those in the high school in Vaslui and for those in the vocational high school in Bucharest at the three levels respectively.

Table 2. The low achievers and the top achievers for the actual skills

	Total		boys		girls	
	Low achievers %	Top achievers %	Low achievers %	Top achievers %	Low achievers %	Top achievers %
IV.1. To read a text fluently and acurately	10	55	12	47	6	64
IV.2. To understand a text	8	48	10	42	6	52
IV.3. To make a public presentation	27	22	32	22	22	23
IV.4. To express personal opinions	13	41	17	42	9	43
IV.5. To solve Math problems independently	36	21	37	24	35	17
IV.6. To understand a logical reasoning	14	38	16	42	11	36
IV.7. To draw or paint	51	18	58	16	44	21
IV.8. To sing or to play music	69	11	72	13	66	11
IV.9. To do moderate physical exercises	28	32	25	39	30	23
IV.10. To repair things	48	14	36	20	61	8
IV.11. To make hand made objects	56	14	60	4	51	17
IV.12. To be an active blogger	66	12	65	12	66	12

Source: Author's table based on respondents' answers

When doing practical things, for example, drawing or painting, singing or playing music, making hand made objects, the share of low achievers is more than 50%. For top achievers, the results are mixed, the share of students who can fluently read a text at expert level is 55%, but only 48% of the respondents are able to understand a text at the same level. The share of students who can understand a logical reasoning at top level is 38%, but only 21% are able to solve Math problems independenly. While 41% of the respondents are able to express their opinion, only 22% can make a public presentation. These findings are consistent with the most recent PISA results.

Granger Causality was applied between the three levels of the perceived abilities. There is a Granger causality between the perceived abilities in high school and in university (probability: 0.02), the perceived abilities in high school and on the labor market (probability: 0.004) and the perceived abilities in university and on the labor market (probability: 0.0002). There is a mismatch between the perceived abilities at all three levels and the required abilities on the labor market, according to Tamaș (2016) [9].

CONCLUSIONS

The results are gender sensitive, the girls scored higher for the following skills: *relevant knowledge in relevant areas, the will to continue to learn, being an independent learner, team work, adaptation, understanding a logical reasoning,* while the boys scored higher for the following skills: *applying what they know in different contexts, communication in all forms, communication in a foreign language, problem solving and ICT skills. A relevant knowledge in the area one is interested in, team work, problem solving and ICT skills* are the most important skills for the students in the general high school, *applying what they know in different contexts, the will to continue to learn and being an independent learner* are the most important skills for the students in the vocational high school, *communication in all forms and in a foreign language* are the most important skills for the students in the Baptist school and *the logical reasoning and the adaptation* are the most important skills for the students in the technical college. Place of origin has a low influence, in 4 out of 11 skills the values are similar, in 4 skills the students from Vaslui got higher values comparing to their coleagues from Bucharest. Regarding their actual skills, the largest differences for top achievers are for *reading fluently and understanding a text*, where the boys' performances are 70% and 80% of the girls' performances and for *solving a Math problem independently and understanding a logical reasoning,* where the girls' performances are 70% and 85% of the boys' performances.

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THE USE OF ACTIVE TEACHING METHODS AMONG PUPILS WITH LEARNING DISABILITIES IN PRACTICAL SCHOOLS

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ABSTRACT

The objective of the present paper is to introduce selected active teaching methods (ATMs) used among pupils with intellectual disability in two-year practical schools. In this qualitative research study, the authors used selected ATMs in the teaching process (by means of observation and audio-visual recording). The methods were used in a specific subject to build on, develop and deepen the current learning content. The following ATMs were used: discussion; heuristic teaching method; situational and role-play method, and didactic game. Then the findings were analysed using the contrast and comparison approach. They were discussed in terms of practical recommendations – including both selected ATMs and their applicability among the target group of pupils, and possible modifications. An indisputable advantage of the use of ATMs is pupils' active and motivated approach to assignments. On the other hand, the authors consider the application of these methods difficult in terms of time consuming preparation and practical limitations in the use among learners with impaired cognitive development.

Keywords: active teaching methods, pupil with intellectual disability, practical school

INTRODUCTION

The use of ATMs in the teaching process is becoming more popular both among teachers and the professional public. Right after the teacher defines the teaching objectives, it is time for determining appropriate teaching methods and forms to achieve these objectives. The method selected should raise the learners' interest and engagement and provide the necessary preconditions for effective achievement of the educational objectives. ATMs used in the educational process mean deliberate application of strategies, techniques and educational procedures, the objective of which is to achieve educational objectives based on pupils' learning work and activity.

Emphasis is on raising pupils' interest (motivation) in relevant topics, supporting their thinking and identifying possible solutions to specific problems or tasks [1].

In the context of the applicability and suitability of ATMs in teaching pupils with moderate intellectual disability or mild intellectual disability combined with another disability in practical schools, the authors believe it is necessary to change the paradigm

in terms of shifting from the monological teaching method to a more active approach that encourages pupils' cooperation with the teacher and peers. Depending on their individual capabilities, pupils may take an active part in solving various problems and tasks, ideally with an overlap in everyday life [2]. Appropriate activities in the teaching as well as the practical component of education may develop pupils' key competences depending on their capabilities that may help them adapt to changing environments, facilitate lifelong learning, and strengthen social integration [3].

THEORETICAL BACKGROUND

ATMs refer to specific activities through which the teacher develops pupils' level of education and their acquisition of new knowledge and skills. The primary objective is to transform passive pupils (listeners) into active learning participants who learn much more through direct experience compared with traditional single-sided frontal teaching methods [2]. ATMs support the teacher's new ideas and approaches and encourage pupils' activity, independence, and creativity. Emphasis is on pupils' independent work and their cooperation with the teacher, which leads to their increased participation in lessons [1].

Currently, there are more systems of ATM classification. The cause is the diversity of the teaching process itself [4]. For example Lerner [5] classifies ATMs according to the nature of knowledge acquisition and according to the type of teacher activity as follows: information-receptive method, reproductive method, problem statement method, heuristic method, and research method. These methods are further classified as reproductive or productive according to whether the pupil is a passive recipient of information and knowledge or whether information and knowledge is acquired by means of an active approach and creativity. In the selection of a specific ATM, Kotrba and Lacina [2] consider a total of twelve perspectives, e.g. preparation intensity; duration; materials and content; complexity of the method in delivery; purpose and aim; specific requirements for students, etc. For research purposes, many authors use the classification by Maňák and Švec [1], who classify ATMs as follows: discussion-based; heuristic; situational; role-play and didactic game.

The discussion method is an interactive form of communication between the teacher and the pupils, in which the participants exchange their opinions according to their knowledge and state arguments to support their views. The aim is to find possible solutions to a specific problem [1]. Pupils not only express their opinions but also listen to their classmates' ideas. The method is a good tool to teach pupils to communicate; they improve their knowledge and they learn to defend their viewpoints and opinions and to respond promptly [6].

The heuristic (problem) method focuses on acquiring new knowledge through solving various problem tasks and problem situations using one's own mental activity and other pupils' activity [6]. The heuristic method uses the natural human process of exploration, cognition and discovery, which requires pupils to use higher mental operations, e.g. analysis, synthesis, understanding of contexts and correlations, and creative thinking. As a result, pupils can develop a habit of creative acquisition of knowledge, and learn both theoretical and empirical knowledge. New knowledge is better memorized and easily applicable [1].

The principle of the **situational method** is to search for procedures leading to a solution to a specific situation or problem case presented to pupils. In the process of resolving, pupils learn to manage practical problems in a thoughtful way [2]. A specific situation/theme (sometimes referred to as "case study") is presented to pupils usually by means of a television record, film, using short drama, etc. [1]. A prerequisite for the application of this type of ATM is pupils' ability to manage basic mental operations, capability of independent work, and possession of knowledge relevant to the topic. The situation is then solved in subsequent stages. First, the theme is defined in line with the educational objectives. After that, pupils learn about the materials that they need to resolve the situation (various documents, audio-visual demonstrations, etc.) This is followed by an introduction, setting of objectives, and provision of other necessary instructions. After that, pupils define possible causes of the problem and suggest measures to address the situation. The aim is to develop alternative solutions and to determine preventive measures to prevent the situation from reoccurring. This is followed by a discussion and selection of an optimum alternative that could be put to practice [2], [6].

Role-play methods include social learning in the form of various model situations in which pupils act [1]. Problem solving is performed by means of role-play (simulation). This is based on pupils' direct experience as they "learn much more when they play a role compared with being external observers and passive recipients" [2, p. 147]. In the process of simulation the role-play method is combined with problem solving, especially by presenting a specific pattern of behaviour as well as real life situations (or a combination of both). Despite this direct experience through one's own behaviour and perception, pupils might achieve a higher degree of learning acquisition and clarification of interpersonal relationships [1].

Didactic games activate pupils and develop their thinking and cognitive functions. They are based on solving problem situations. These games should be used by each creative teacher in a suitable way so that pupils do not notice that learning takes place at the same time [6]. Didactic games need not take place only in the classroom, but also in the gym, playground or in nature. As every game, didactic game has rules and requires the teacher's control and final evaluation. The advantages of including a didactic game such as ATM is the stimulating nature as it raises interest and involvement of pupils in activities, stimulates their creativity, spontaneity, cooperation and competition, and makes them use various knowledge and skills as well as life experiences [7]. When using games in classes, the teacher should make sure that educational objectives do not get lost as a result of excessive freedom. On the other hand, games should not be overly controlled.

Two-year practical schools provide secondary education to learners with moderate intellectual disability or mild intellectual disability combined with another health impairment that makes it impossible for them to be educated in a different type of secondary school. This type of education extends general compulsory education, the focus of which is on the acquisition of basic occupational skills, habits and procedures required for occupational life of individuals with health disability. Education in two-year practical schools is delivered on a daily basis. Emphasis is placed especially on the development of a positive attitude to work, communication skills, education towards a healthy lifestyle, achieving maximum independence, and strengthening social integration. Regarding learners' special educational needs, it is advisable to adapt

education in order to respect both individual peculiarities and abilities and limitations of pupils in terms of mental, physical and social circumstances. The objective of these schools is to teach real-life knowledge and provide a basis for lifelong learning [3].

Pupils with intellectual disability educated in two-year practical schools do not form a homogeneous group that could be characterized in a general and exhaustive way. Every individual is an independent entity with distinctive personality features. However, the majority of them show common features, whose individual modification depends on the degree of intellectual disability, other associated impairments, on whether all components of the individual's psyche are affected in the same way, or whether some mental functions or mental development are impaired more [8]. Authors [9],[10] provide for possible determinants affecting individuals with intellectual disability in various forms (different intensity and variability) as well as the educational process: increased dependence on the carer; personal immaturity or infantilism; suggestibility and rigidity of behaviour; limited adaptability to social and school requirements; anxious and neurasthenic sensibility; imbalance between aspiration and performance; increased need for satisfaction and safety; hyperactivity or hypoactivity; emotional excitability and impulsiveness; deficiencies in personal identification and in the development of the self; delayed psychosexual development; disruption of visuomotor skills and overall locomotor coordination; disruption of interpersonal relationships and communication; reduced mechanical and logical memory; emotionally rather than cognitively motivated learning process; sticking to details; limited comparative ability; volatile and short-term attention; slower comprehension; difficult orientation in a usual environment; distorted self-evaluation; preference of a known environment and stereotypes.

METHODOLOGY

The present qualitative research study reflects on the use of selected ATMs in teaching pupils with intellectual disability in two-year practical schools. In the academic year of 2018/2019, the authors regularly included ATMs in teaching. This was a class with six pupils aged 19 to 24 years. The aim of the research was to describe each ATM, including a description of implementation and any specificities (modifications, limitations, etc.) For these purposes the authors used the ATM classification by Maňák and Švec [1]. The selection and preparation of ATMs was subject to predetermined criteria based on the following: 1. Specific subject and learning content; 2. Selection of discussion/heuristic/situational/role-play/didactic ATM; 3. Technical requirements (HW and SW) associated with ATM use and possibilities of the classroom; 4. Specificities of the group of children and their special educational needs (see below).

The findings observed in classes by means of participant observation (both researchers in class, one as the teacher, the other as the researcher) and audio-video recording were analysed using the method of contrasts and comparisons [11] and are discussed below.

RESULTS

In this section the authors present the results of the research. ATMs (Table 1-5) used in classes and provided with a reflection.

Table 1 ATM – Discussion

Subject: Family education
Current learning content: Sex education
Type of ATM: Discussion
Educational objective: Being aware of the responsibility for sex education and the consequences of risk sexual behaviour
Description of ATM delivery: In previous classes pupils saw the film Juno (2007), which tells a story of a sixteen-year-old schoolgirl who got accidentally pregnant. The class started by a short reflection in a circle – retelling the plot (who was there and what happened). Then the teacher repeated the key issues of the film: sexual intercourse; pregnancy; abortion; adoption; upbringing; help by friends and parents; father of the child. The pupils were asked to say how these issues were addressed in the film and what they thought. The teacher encouraged a discussion by the following questions: "What would you do if you were Juno/Paulie?" "Who would you confide to?"
Teaching reflection: The following part was a teacher moderated discussion. Some pupils agreed that this would never happen to them because they avoid these practices. They were reluctant to discuss the other issues. Two girls said that they would confide to their mother. Compared with previous discussions, the pupils were more encouraged but did not develop the discussion.

Table 2 ATM – Heuristic

Subject: Family education
Current learning content: Plant care
Type of ATM: Heuristic – problem solving
Educational objective: Understanding natural principles and using natural history knowledge for environmental purposes.
Description of ATM delivery: The class was presented with a withered flower in a flowerpot. The pupils' task was to decide whether it was still possible to save the flower.
Teaching reflection: Following a discussion, in which the teacher did not interfere, the pupils concluded it was possible to save the flower by adding water. One of them used water from an electric kettle available in the room but the water was still hot. By doing this the flower was condemned to death.

Table 3 ATM – Situational

Subject: Civics
Current learning content: Solving problem situations
Type of ATM: Situational method
Educational objective: Identification of inappropriate and risk behaviour
Description of ATM delivery: The pupils were presented with a story. *"Jitka travelled by tram. She was standing in the middle of the carriage and was holding on to a bar. There were many passengers in the tram. There was a boy on a seat and a girl behind him. The boy was scribbling on the seat in front of him, the girl was eating hamburger and vegetables were all over the floor. There was a man behind Jitka and touched her bottom. He smelled of an expensive perfume and was smiling. Next to Jitka there was a woman with a dog with no muzzle. The sun was shining outside and Jitka was looking forward to ice-cream promised by her mum. The man behind her asked Jitka to go out for a coffee."* The pupils were asked the following question: "*How would you react in Jitka's place?"*
Teaching reflection: The pupils were in a circle as the listened to the story. After the story finished there was a heated discussion about what is appropriate in a means of transport and what was wrong that the people in the story had done. The pupils suggested telling the driver about eating, scribbling, dog without a muzzle. These people should be fined. However, nobody thought about the obvious sexual harassment by an unknown person (man) towards Jitka. They only suggested that Jitka should call her mum and apologize that she would be late. Or apologize to the man that she did not have time today and give him her phone number.

Table 4 ATM – Role-play

Subject: Czech language and literature
Current learning content: Job interview
Type of ATM: Role-play method
Educational objective: Ability of appropriate self-presentation
Description of ATM delivery: Role-play, model situations – appropriate and inappropriate behaviour during a job interview. Before the activity, the pupils saw a short demonstration of etiquette related to this objective. Then they were asked to simulate both desirable and undesirable behaviour.
Teaching reflection: The pupils were encouraged to simulate behaviour several times. Some of them refused and said that they did not know what to say or do. The whole scene was interrupted several times. It was difficult for pupils to improvise when they were in the role of a job applicant and employer. During their improvisation, several times they were shown some scenes from a video to get some ideas.

Table 5 ATM – Didactic game

Subject: Family education
Current learning content: House maintenance and housework
Type of ATM: Didactic game – mind map
Educational objective: Development of knowledge in the area of household duties
Description of ATM delivery: Using an interactive whiteboard, pupils were presented with a house layout using real colour photographs. The house was in the centre and was surrounded by other parts of the house: kitchen, staircase; living room; bedroom; bathroom; entrance hall. The pupils were asked to come up with as many duties as possible associated with cleaning or maintenance of each location.
Teaching reflection: Pupils generally like this type of ATM and therefore it is frequently used in classes. This activity does not require too much time, is based on quick brainstorming concerning the objective, which is easily replaceable. The visual display using photographs was selected deliberately with respect to some pupils in the class, who have difficulty reading. All pupils approached this game in an active way. It was possible to observe differences in their performance (response speed, knowledge of the issue, vocabulary, personal experience). Regarding the fact that this was a group non-competitive activity, the teacher controlled the course of the activity by calling out pupils and providing assessment.

INTERPRETATION AND RECOMMENDATION FOR PRACTICE

The following five ATM forms were gradually used in researching the group of pupils with intellectual disability: discussion; heuristic; situational; role-play, and didactic game. Despite certain pitfalls, the authors consider all approaches useful and necessary. At present, the most frequently applied method is the **didactic game**. Didactic games are used to induce a creative atmosphere full of joy, humour, and positive emotional experiences. The authors also revealed that the pupils preferred short games in one place without having to move to a larger place, and preferred a smaller number of players. They appreciated games with simple rules, simple game plans and material resources. Also, the didactic effectiveness of these games is the highest, e.g. dominoes, pairs, crosswords, card games (e.g. "Five cucumbers"). Consistently with authors [5], games and game activities can be used to resolve simple as well as complex learning tasks because games act as a strong motivational stimulus that mobilizes pupils' cognitive potential.

Discussion based ATMs are also regularly included in classes and pupils are used to this type of ATM. The course of a discussion not only affects pupils' individual communication abilities and cognitive level, but especially the topic as such. It is important whether pupils have enough information (knowledge) about the issue in question, personal or mediated experience with and relationship to the issue. It is necessary to provide pupils with an opportunity to express themselves using the preferred means of communication.

As far as the **heuristic (problem) ATM** is concerned, pupils' previous knowledge and experience gain importance in relation to the overall result (solving a problem). If pupils do not have sufficient knowledge and/or are unable to use adequate problem solving strategies as a result of a lack of experience or a significant decrease in cognitive functions, they often fail. It is important for these pupils to have some knowledge and be able to relate their knowledge to their own experience and the problem in question [1]. Even a failure (in this case watering a withered flower with hot water) is considered a valuable experience in the context of learning. Using the trial and error type of learning (if desirable and appropriate) with subsequent correction and fixation of an appropriate strategy is considered a very valuable resource for children with intellectual disability in dealing with various problem situations and tasks in everyday life.

In the context of sexual abuse, persons with intellectual disability are a risk group [9]. Despite the fact that sexual abuse had been addressed in previous classes and is included in the curricular documents [3], the pupils were unable to identify it using the **situational ATM**. The reason might be a lack of knowledge (definition of what is or is not sexual harassment). In this case the pupils were supposed to analyse several themes/problems at once and suggest possible solutions. When the teacher repeated the story and discussed the issues with the pupils in a gradual and free manner (scribbling in the tram carriage/food falling on the floor/dog without a lead/strange man touches a girl's bottom) and asked what is allowed and what is not, the pupils gave correct answers. The use of situational ATMs in teaching pupils with intellectual disability is very important because they are taught to solve specific situations.

At the beginning, the use of **role-play ATM** appeared to be problematic. The pupils were not so much experienced in using this ATM. As far as taking roles is concerned, pupils with mild and moderate intellectual disability are able to achieve the level of simulation (i.e. represent themselves in a certain situation/environment) [12]. For the whole process of role-play it is important that pupils have certain knowledge and experience concerning this ATM. An effective way for pupils to maintain attention and theme in their role was the teacher entering the role (either as an employer or job applicant) and using questions to encourage dialogue. An important part of both situational and role-play ATM is a subsequent reflection including methodological recommendations concerning appropriate strategies and solutions or preventive measures [2].

CONCLUSION

It is apparent that in teaching a selected group of pupils with intellectual disability in practical schools, the preparation and implementation of ATMs is very specific – both in terms of ATMs, learning content, group of learners, and especially pupils themselves. In addition to the requirement of an individualized approach to each pupil (possibilities and limitations) and perception of pupils' current psychological state and class climate, the authors believe that the following aspects are necessary: a) the teacher must formulate thoughts (including instructions) in a clear, comprehensible and simple manner; b) the teacher's language should not include overly abstract concepts, foreign words and abbreviations; c) it appears desirable to support information and instructions by specific examples, didactic aids, illustrations, videos, etc.; d) means of non-verbal communication should be used (prosodic speech factor, mimics, gestures, etc.); e) if

necessary all means of total communication should be used including ACC; f) suggestible questions should not be asked; g) short periods should be used for ATMs (regarding pupils' decreased and varying deliberate attention); h) ATMs should be followed by relaxing activities; i) pupils should always be provided with sufficient time for reply; j) multiple problem tasks should be resolved gradually; k) it is not always necessary to require responses from and involvement of all pupils, pupils also learn by being part of the educational process; l) specific and unconventional ATMs should be introduced with caution (role-play; using interactive whiteboard, brainstorming, etc.) in order for pupils to perceive these ATMs as a regular part of teaching; m) failure in terms of a different expectation of the effect of ATM is positive and can be used by the teacher to modify ATMs in the target group in the future.

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TO STUDY AND TO WORK ABROAD OR AT HOME? THAT IS THE QUESTION!

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ABSTRACT

Purpose - The aim of this paper is to identify the most wanted universities and future jobs for Romanian students and to analyze the rationality of studying and working abroad or at home.

Design/Methodology/Approach – Quantitative methods: questionnaires. 600 questionnaires were administrated in the most developed and one of the most deprived region from Romania. The cluster method was used to reveal the main reasons to study and to work abroad or at home.

Findings – The main reasons to study and to work abroad are better wages and a better society and the main reasons to study and to work at home are a higher level of comfort, as well as being close to their families and friends. Most of the respondents would like to work abroad, even if they prefer first to finish their studies at home.

Practical implications – A match between the chosen university and the future job in three areas: Medicine, IT and Business was found.

Originality/Value –The study offers an insight on Romanian students' perceptions in rationality of study and work abroad or at home. 71% of the students who would like to study abroad would like to work abroad and only 35% of those who would like to study at home would like to work at home too.

Limitations – The questionnaires were administrated only in the richest and in the poorest part of Romania. Future research should be conducted including other regions.

Keywords: education, labor market, study and work at home, study and work abroad

JEL Classification: I21 Analysis of Education

J21 Labor Force and Employment, Size and Structure

INTRODUCTION

This is the second part of a wider study on the mismatch between skills, education and labor market. The aim of this paper is to investigate the areas of the projective jobs in the students' perceptions, if they want to study and to work abroad or at home and the reason why.

A brief review of the theories regarding the matching between the education and the labor market:

- Human Capital Theory - Schultz (1961) [11]; Becker (1964) [2] - The productivity has a greater impact on wages compared to education. Therefore, if two workers have the same productivity, they will have the same wages, regardless to their education.
- The Job Competition Theory - Thurow (1975) [15] - Earnings are associated with job characteristics and not with the individual ones.
- The Assignment Theory - Sattinger (1993) [10] - There is a problem in allocating the proper worker to the proper job considering the job complexity.
- The Theory of Occupational Mobility - Sicherman and Galor (1990) [12] - Workers tend to choose the entry level with higher probability to promote, mo matter how low is the entry level.
- The Job Screening Model - Spence (1973) [13] - A person invest in his / hers own education hoping that the acquired level of education would differentiate him / her from the job applicants.
- The Matching Theory - Jovanovic (1979) [6] - The employees and the employers might agree on a sub-optimal job if there is a perpective of a better one.

Pholphirul (2017) [9] found that the vertical mismatches tend to be specific to the social sciences graduates, while the horizontal mismatches are specific to physical sciences graduates on the Thailand labor market. McGuiness (2003) [8] found out that skill mismatch is a more persisting phenomenon in the developing countries. According to Allen and Van der Velden (2001) [1], the most competent worker should be assigned to the most complex job and the least competent to the simplest job. The findings of a study conducted by Bradley and Nguyen (2004) [3] revealed that the quality of the education had a larger impact on girls in the school to work transition. Kogan and Unt (2005) [7] proved that young people are aware that, without higher education, the changes of success on the labor market are low. The trend now is to invest more in our education, according to De la Fuente and Ciccone (2003) [4], because our competencies have a significant impact on early stages of career (Heijke et al, 2003) [5].

600 questionnaires were distributed in six high schools, 4 from Bucharest, which is a developed region in EU and 2 from Vaslui county, which is one of the most deprived regions in EU. 504 questionnaires were completed, that is a 84% return rate. The sample consists of 268 boys and 235 girls (46.62%). The answers to the question “Which is the domain where would you like to work?” are presented in figure 1 and figure 2.

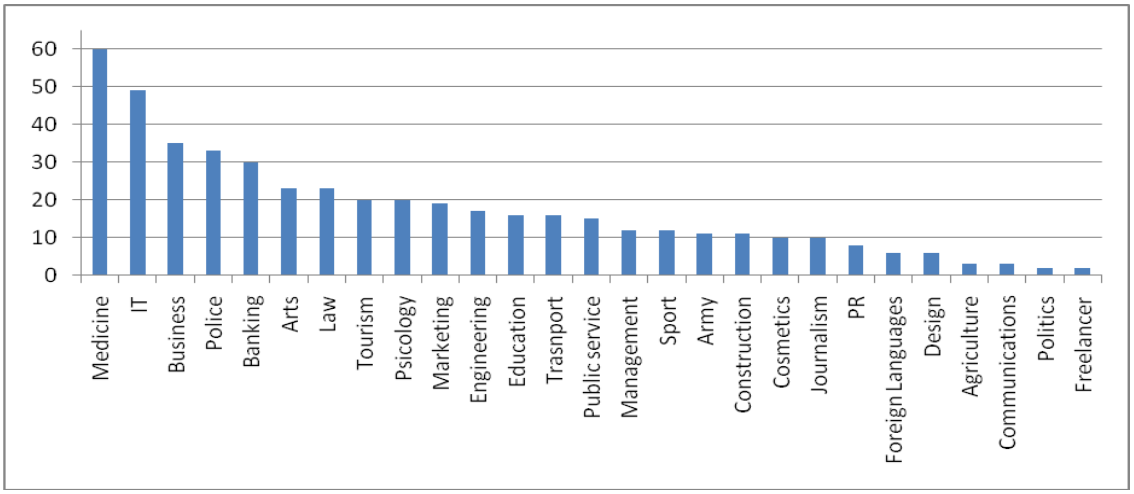

Figure 1: Projected work domains – the first choice

Source: Author's figure based on questionnaires

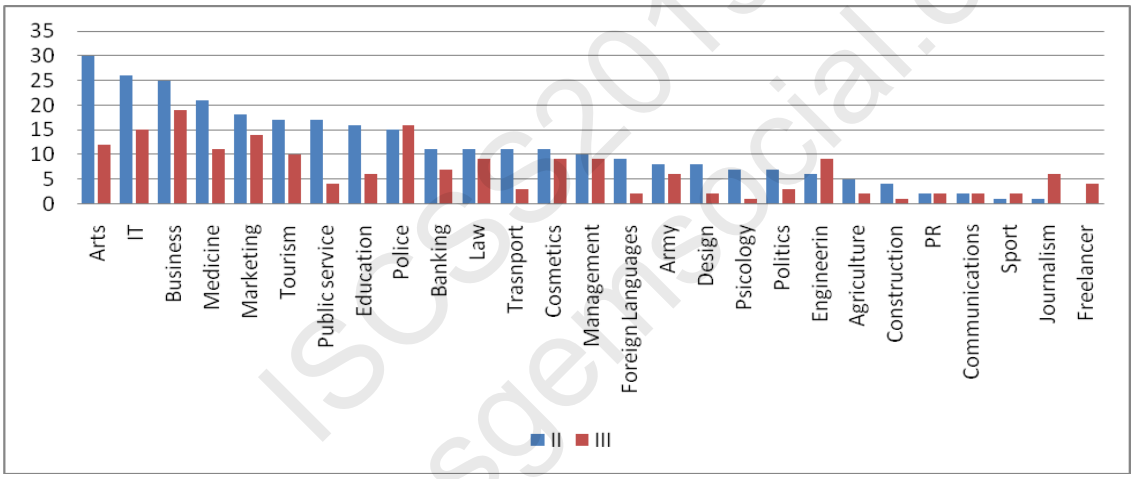

Figure 2: Projected work domain - the second choice and the third choice

Source: Author's figure based on questionnaires

At this question, there were 10 "no decision" in the first two choices, 32 of the respondents gave no answer to the first choice, 215 to the second choice and 312 to the third choice. The chosen work domains were convergent (related domains) in 134 cases, divergent (complete different domains) in 178 cases and, in 160 cases, the respondents fill in only the first choice. Surprisingly, almost one third (29.76%) were not sure yet on the University they would like to apply for, although the study was conducted in February, 7 out of 503 respondents intend to follow specific colleges and 2.77% of the respondents do not want to go to University. Several explanations could be considered: many Romanian Universities have a selection process based on the results of the high school National Tests and the University Fairs are usually in Spring. Just 2.7% of the respondents who wanted to go to University have a firm intention to study

abroad at the time the study was conducted, the preferred Universities were in UK, Holland, Denmark and Malta.

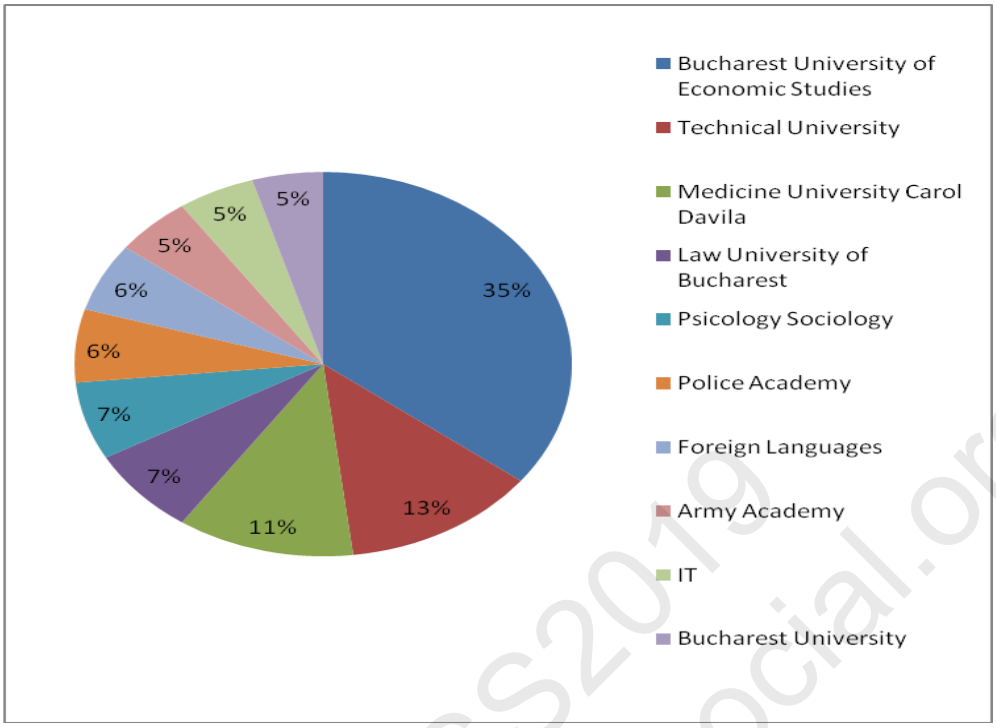

Figure 3: The most wanted Romanian Universities

Source: Author's figure based on questionnaires

Over a third of respondents are attracted by the Bucharest University of Economic Studies, the Bucharest Universities have more students who are not in their geographical areas, most of the students want to work in services. The future work area and the first choice for university match, because The Bucharest University of Economic Studies prepares work force for business, banking, IT, marketing, management, tourism. Medicine and IT also match, but not Education. For the second and the third choice, only 72 and 16 respectively responses were received with The Bucharest University of Economic Studies still in top. At the questions where do they want to study, abroad or at home and why, the respondents had to provide up to three reasons. Out of the 815 reasons, a quater (25.15%) were in favor of study abroad. The main reasons for study abroad were better universities and better society, followed by higher income and hopes of job opportunites after graduation and at a more extented personal development and foreign language improvement, as seen in figure 4.

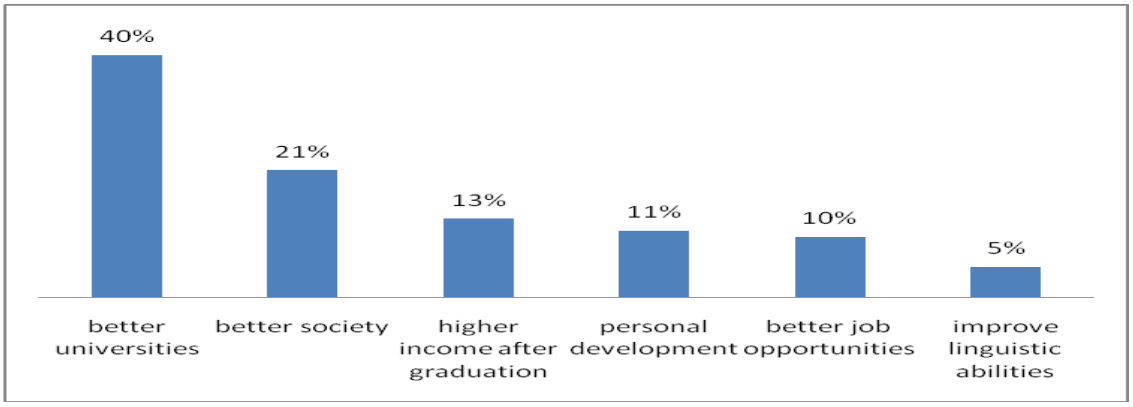

Figure 4: The main reasons for study abroad

Source: Author's figure based on questionnaires

The main reasons to study at home were to be close to family and the fact that there is more comfortably to study at home, as seen in figure 5.

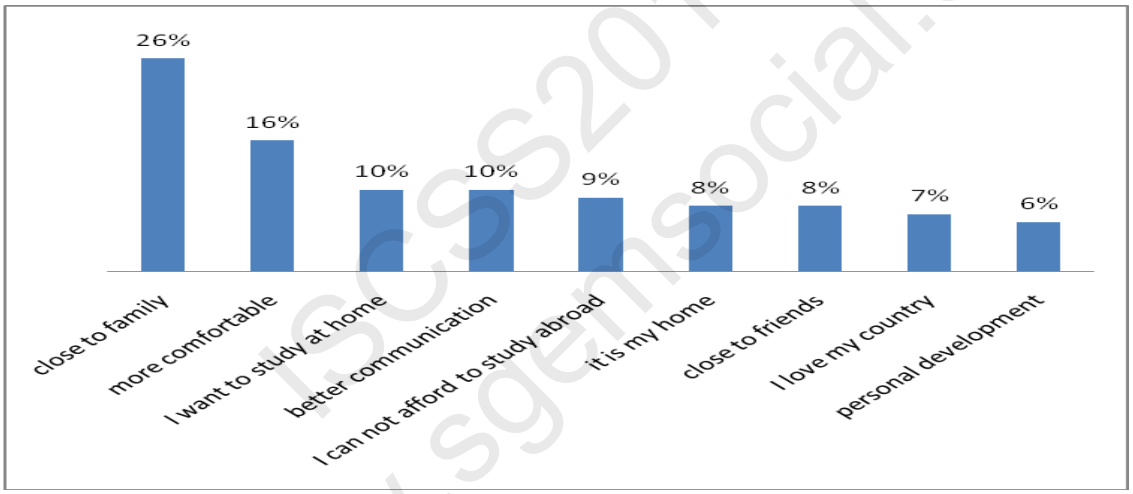

Figure 5: The main reasons for study at home

Source: Author's figure based on questionnaires

At the question where do they want to work, abroad or at home and why, the respondents had to provide up to three reasons. Out of the 698 answers, more than a half (53%) were in favor of work abroad, 37% in favor of work at home and the rest were not sure yet.

The main reasons for work abroad were a better society and higher wages, as seen in figure 6.

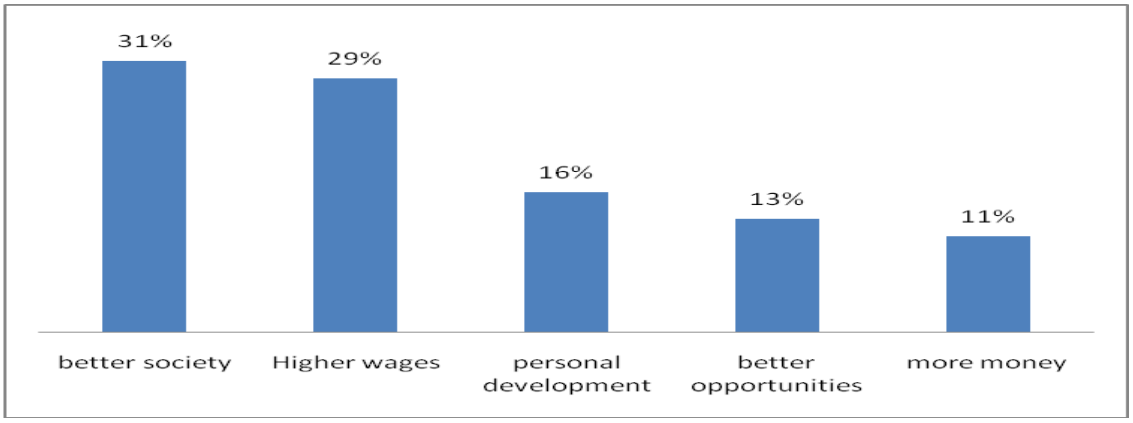

Figure 6: The main reasons for work abroad

Source: Author's figure based on questionnaires

The main reasons for work at home were to be close to family and love feelings for their country, as seen in figure 7.

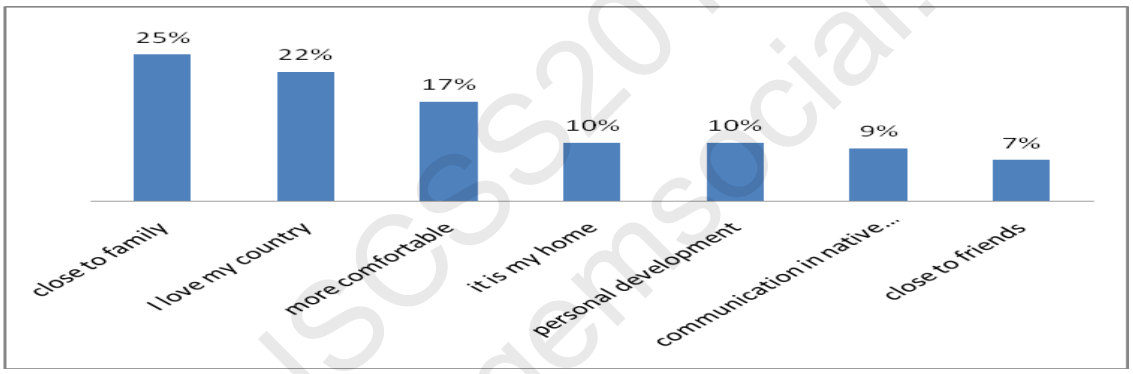

Figure 7: The main reasons for work at home

Source: Author's figure based on questionnaires

CONCLUSIONS

The university they would like to study and the domain they would like to work match for the top three domains: Medicine, IT and Technology and Business. A surprising finding is that almost one third of the students are not sure yet on the University they would like to apply for, although the study was conducted in February and the admission exam is in July. Another surprising finding is that not all of them, even though from the top high schools, would like to go to university: a small number of them intend to follow specific colleges and another small number intend to enter directly on the labor market without following another studies. Four in ten respondents would prefer to study abroad due to better universities. A better society, as well as higher wages, are among the main reasons to study abroad and to work abroad. To be close to family is the main reason to study at home, as well as to work at home, followed by the reason that studying at home and working at home is more comfortably

comparing to studying or working abroad. The reasons for studying abroad or studying at home are consistent with the findings of Tamaş (2014) [14]. Another interesting finding was that among the respondents who would like to study abroad, 71% would like to work abroad as well, while among the respondents who would like to study at home, only 35% would like to work at home too.

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TRANSFORMATION OF THE EDUCATIONAL PROCESS UNDER THE INFLUENCE OF INFORMATIVE AND EDUCATIVE CLUSTERS (OPEN ONLINE COURSES)1

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ABSTRACT

The article mainstreams the problems and prospects of transformation of the educational process, caused by the occurrence of informative and educative clusters (Open Online Courses).

The system of high academic education is currently on the verge of radical transformation. The main sources of such transformations are technology and globalization. Acceleration of innovative processes, in various sectors of the modern society, acts as the catalyst for the changes in the methods of acquiring and producing knowledge. The ICDE (International Council for Open and Distance Education) annual report clearly shows that the technological basis, of execution of the educational processes, will substantially change the whole education system (71% respondents) within the next 5 years. Hence, the modern technologies are changing the direction of development of higher academic education, towards remote and mobile access to educational services – creation of open online courses.

Within the scope of this article, the open online courses are analyzed as a new technological space, in which a wide range of educational programs, offered by universities as well as private non-professional teachers (coaches), are functioning. The progressive development of society generates new demands and requirements towards the educational process, which are satisfied by the large number of online courses, in social networks, by "practitioners".

Apart from that, the analysis of the labor market, using the synergetic approach, enabled us to identify the stimulating effect on the whole education system, and to identify two interconnected processes – occurrence of new forms of professionals (smm manager, copywriter etc.), as well as the transformation of existing focused specialties - development of Agile-masters.

So, the modern information and technological terms & conditions transform the educational process in the following manner:

- It is becoming necessary to apply such teaching techniques, which are aimed not at the mechanical transfer of knowledge, but are aimed at personal interaction with the student.
- The role of teachers "Practitioners" is growing, as a complimentary form for the "scientific environment of research instructors".

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- Individualization of the educational process.
- Creation of a fragmented platform for the provision of educational services.
- Unification of educational standards, departure from focused specialization in education, which provides for enhanced mobility of students in the labor market.

Changes in the economic and technological aspects of the modern world, have brought us to the formation of new information and educational clusters (open online courses), which in turn lead to the transformation of the educational process – transfer and acquisition of knowledge and crafting of skills and capacities needed under contemporary conditions, methods of communication among the participants of the educational process, as well as the occurrence of new positions.

Keywords: High education, open online courses, information and communication technologies, distance education information society.

INTRODUCTION

Nowadays, our society pass through a fast transition to a new technological stage that actualizes the qualitative changes in all areas of society life. And moreover, it is about the educational process of the individual, the development of human capital as a system-forming element of the new reality. A modern individual is a person with different social and intellectual needs, who needs different knowledge and an easy form to get them.

EDUCATIONAL CLUSTERS

Technology and globalization are modern catalysts for radical transformations in the educational process. The request of modern society shifts the vector of development of the educational process towards flexibility and practical orientation. Nowadays, society has wide access to the information, that is a huge array of different knowledge, information and data, and the aspect of filtering it is important. The subject of information is the person who becomes the object of the impact of information attacks. The accumulation of the technological basis led to a change in the society mental structure:

- increasing in quantitative and qualitative communications and interactions, by removing linguistic and cultural borders;

- increasing the quality and lifespan in the global space. According to the Life Expectancy Index (Life Expectancy Index), made up by the United Nations Development Programme (UNDP), the average age is 72 years. The top three countries with the highest indexes are: Hong Kong (84), Japan (83.9) and Switzerland (83.5) [1];

- the formation of a new concept of being is the emotional component (impressions and experiences) of the most important part of life, instead of “work for work”.:

The new concept of subjectivity became possible by the mobility of learning and the availability of their application. That is why there is an increase in the impact of technology on basic processes in society life, including education and the formation (training) of the individual:

1. knowledge transfer;

2. fixation and application of acquired skills.

In the conditions of information scaling, development of technologies and the labor market changes, the new forms of education develop. These are informational and educational clusters (open online courses).

Informational and educational clusters show us a new technological space in which a wide variation of training programs provided by universities and private, non-professional teachers which are called coachers. The emergence of this method of educational process is largely due to the modification of the labor market. On the one hand, the globalization process allowed the migration of skilled workers, and on the other hand, technologies became the platform for the emergence of new professions and specializations (SMM-manager, IT-manager, copywriter, Agile-master, etc.).

The occurrence of the world labor market creates an increasing competition between workers and even countries in general. The main competences of an employee are not only being a leading expert in his field, but also to have a lot of flexibility and creativity, the ability to work in many different cultural and technological environments. That is why, system thinking becomes the main trend of the time. There is a request for high-speed education, which, on the one hand, prepares a specialist to do a certain range of tasks, and on the other hand, creates opportunities for the development of learning pattern for the whole life that allows staff to develop in fast changing environment.

The permanent development of such "super professional" competencies (system thinking) is now more available to realize through different online courses connected to "private-professional" activities.

A huge variation of coaches enters the education market rapidly. In this case, we are speaking about giving classes about self-development of the individual, transition to teleworking, and sharing experience. Usually these classes don't last for a long time: maybe weeks or a month. But in modern conditions they are super popular.

Besides that, after analyzing vacancies on famous sites, it became obvious that specialists with experience and providing "references to already completed projects" are in greater demand, and that means that the value of traditional academic education can fall because it is unable to provide both learning and application of the knowledge.

According to the largest international employment agency Michael Page, the leading positions in the rating of the most popular professions in the world are given to the "software developer" (24 world states need it), next there's a "electronics engineers" (19 countries) and nurses (18 countries) [2] .

Most of the professions are going through the transition to an online platform which is kind of a digitization process, which contributes to the development of different online courses. Statistics on this method of education is meager. This is because of the undervaluation of the official structures. Anyway, using a simple sample on the Google search platform "number of online courses in Instagram" we get the results of 6 800 000, excluding even the most detailed error, the number is still impressive, more than 1 000 000 online courses.

In this case, the quality of the provided services is not analyzed, only the number of conducted courses is taken into account. Online coaches create a special interactive and

educational environment in which communicative chats and fast presentation of educational information function.

The existing system of distance higher academic education is the transfer of the traditional form of education to the online form, without a serious transformation of the process and practices. Ubiquitous and accessible information is a catalyst for the development of new filtering skills which are well-formed search queries, which creates new specialists who, regardless of the subject area, can process large amounts of information in a short time and produce a holistic result that is ready for implementation and application.

Online course platforms, including social networks, YouTube, are unique knowledge and skill integrators that are fast capturing the global education market. The growth of databases, profiles of potential teachers - coaches: media personalities, specialists in certain areas, are increasingly effective vectors for the development of the education system towards individualization.

Higher academic education provided by educational institutions is under pressure from the Internet resources. The created distance of academic education platform Mass Open Online Courses (MOOC), which in 2018 covered about 900 universities around the world and trained about 101 million students, is digitizing the traditional form of the educational process without changing the content of the provided knowledge.

The teacher as a source of knowledge, in its classical sense, in a modern rapidly changing environment, does not compete with practicing coaches who are able to provide actual knowledge and applicable «here and now» skills, without the cost of drawing up the unchanged attributes of the classical educational process which are educational and methodical complexes.

The provision of quality information and skills becomes the ability of open global Internet sources, which obviously undermines the authority of the classical education system. As evidenced by the data of the annual report Class Central, the largest MOOC aggregator.

Compared to 2017 and 2016, the number of new students registered with the MEP fell by 3 million people [3]. In addition, by comparison, by the end of 2018, more than 900 universities belonging to the MOOC launched a total of 11,400 online courses, there were about 1,000 000 online courses by professionals and practitioners who are not members of the MOOC system, according to the official Internet service Google.

Courses of professional practitioners as a part of the information and education cluster form a new standard for student motivation, communication and collaboration. The absence of strict social boundaries, frames for the implementation of the educational process, form the principles of network culture which is the interaction between subjects on the basis of information sincerity, when each participant of the interaction process has information about another participant (Big Data). For example, the LinkedIn network allows you to assess and confirm that a person has certain competencies that often do not require confirmation of diplomas (the Internet reference for completed projects is enough). Network social interactions, as a standard of modernity, actualize the transformation of the essence of the traditional education system.

Besides that, crowdsourcing (Eng. Crowdsourcing, crowd - "crowd" and sourcing - "use of resources"), which is a social interaction of a different circle of people to solve the problem, can also be considered as a way to get experience and knowledge.

To sum up, all listed existing methods of online education, we get formed informational and educational clusters, which are a technological space with a wide choice of student programs from both universities and private professional practitioners.

TRANSFORMATION OF CLASSIC SCHOOL OF EDUCATION

The process of changing the social structure by removing status barriers to access to the educational process is a breakdown of the hierarchical type of education and the transition to network and cluster education. The classical education system is currently under pressure from both potential students (individualization) and from future employers (competent approach).

The individualization of the educational process implies a special approach to building the learning process which is the possibility of choosing the disciplines that the student needs. Participants in informational and educational clusters have a great variety of individualized educational products that matches modern social needs. And due to the availability of the provided courses, it allows them to get more and more listeners every time, which naturally causes an outflow from university programs.

And besides, a competent approach to education, puts the priority result of mastering the educational program not the presence of a diploma and the qualifications prescribed in it, but the profile of individual competencies and skills acquired and tested in practice by the student. A competent approach is a correlation of acquired and applicable skills. In the classical academic system of education there are hours for the practical activities of students, but often the implementation of the practice doesn't reflect the future work process [4]. At the same time, the participants of information and educational clusters have a large variety of individualized educational products that meet modern social needs.

It is obvious that the priority goal of higher academic education is the formation of a personality through a rather diverse education. During the four years of study at the baccalaureate, the student gets basic knowledge in different disciplines connected to his chosen specialization. Master's degree is the possibility of a deeper immersion in the details of the future profession. Anyway, in general, the whole process of higher academic education is rather far from the practical development of a future specialization by a student. And then there is a question: what place should an academic education take in the modern scaled educational space? And if the universities are not satisfied with the role of the basic teacher, then what changes need to be put into practice to get a leading role in the education market in the conditions of the development of informational and educational clusters?

To take into account the analysis of the existing educational space, it is assumed that the classical academic education system (including those provided remotely) must pass the following transformation:

- changing teaching methods and developing skills for working with large streams of diverse information in the conditions of its oversupply;

- the use of educational technologies, the purpose of which is interpersonal interaction with the student;

- attracting more teachers and practitioners as a complementary form for the “scientific environment of research teachers”.

- individualization of the educational process and the creation of a fragmented platform for the provision of educational services;

- unification of educational standards, a departure from a narrow specialization in education, contributing to an increase in the mobility of students in the labor market.

The orientation of classical educational institutions to modern demands of society and the labor market, actualizes the development of the educational system and the learning process. The vector of development towards receiving education "first-hand" stimulates the modification of educational standards and rules. Creating voluminous descriptive standards for disciplines often reduces the “helpfulness” and importance of the provided knowledge. Such prescribed standardization in the modern world is very unclaimed. Potential students, choosing a course, usually focus on the first few sentences in the description and well formed competencies and skills that can be gained by the end of the course. In this case, the experience of representatives of the cluster environment "practitioner-teachers" can be very useful. Visualization of the learning process and attracting students is used by them as marketing technologies for selling services. A classical higher academic school should move away from an understanding of its exclusiveness in the provision of quality educational services, and actively modify the system in general.

Seems that the application of these transformations will create a new competitive education system, focusing on the specific needs of society and the emerging reality.

CONCLUSIONS

In the field of education, the development of informational and educational clusters, as a new kind of “teachers”, becomes very popular. In the article the information and education clusters were considered as practice-oriented educational programs provided not by professional academic schools, but by practitioners and coaches. They strongly attract students to themselves, more flexibly and quickly respond to changing conditions and demands of society. The global labor market sets the demand for new types of competencies and skills of workers. Traditional education system that is actively applying information technologies in the educational process (e-learning), should change the whole approach to education, become more mobile, individualized and practice-oriented to preserve educational sovereignty and competitive advantage. Achieving these challenges of our time, the article proposed by developing an integrated approach to the transformation of the classical academic system, which consists of two principal directions. The first is the modernization of the educational process (the introduction of new teaching methods, the development of areas of study). The second is a change in the legislative base as a whole (monitoring the quality of the services provided by information and education clusters, harmonizing the standardization of educational programs, enabling higher academic schools - universities to independently and more mobilely form educational programs, which will also allow creating a research base in legislation University - development and testing of legislation). Thus,

the transformation of the educational process is the need for the development of an academic school in the context of the large-scale distribution of information and educational clusters.

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TRANSITION TO TRANSFORMATIONAL LEADERSHIP IN EDUCATION

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ABSTRACT

The article focuses on the applicability of transformational leadership in the educational field. It analyses the evolution of the concept and its relationship with transactional leadership, as well as a series of related concepts, such as charismatic leadership. The effects of transformational leadership on aspects with direct implications on the success of school institutions, such as the psychological well-being of the teaching staff, are considered. Given the role of the human resource in education, the influence of the leader's traits (personality traits, emotional intelligence) on the adoption of transformational practices is also discussed. In education, transformational leadership practices are mediated by the characteristics of the leader (e.g. experience, beliefs, and values), the local context and the particularities of the teaching staff (e.g. formal and informal teachers' education, educational policies, opinion of the local communities). The expected results in terms of new teaching practices or restructuring of the teaching process are also influenced by factors such as teachers' commitment and organizational culture.

Through its effects on the employees (e.g. professional development, efficiency gains, innovation stimulation), organizational climate (e.g. psychological security and well-being) and other leadership practices (e.g. augmentation of transactional leadership), the transformational leadership is of particular importance in the educational field.

Keywords: transformational leadership, education, efficiency of leadership practices

INTRODUCTION

Educational leadership is associated to the leader's assuming and supporting a set of personal and educational values, which are transposed in the objectives of the educational institution. The vision is also a component of the effective leadership, the persons holding management positions within educational institutions being expected to express their vision clearly and to elaborate a strategic plan in order to implement such vision.

On the other hand, a series of practical aspects, such as allocation of financial resources, the need to collaborate with local authorities, political interference, are factors which the leaders of the educational institutions should take into consideration and which have the potential to create discrepancies between the visionary rhetoric, extremely popular in the discourse of the educational leaders, and the reality in schools, experienced by teaching staff and beneficiaries of the educational process.

In this context, an analysis of educational leadership's characteristics has a high practical applicability, as it helps understanding the forms of leadership favoured by the leaders, with later implications on the functioning of the educational institutions and the implementation of educational strategies.

Starting from these considerations, this research aims to provide a contribution in understanding the effects of the leadership practices used in the educational system and it focuses especially on the concept of transformational leadership. Through its effects on the employees (e.g.: professional development, efficiency gains, innovation stimulation), organizational climate (e.g.: psychological security and well-being) and other leadership practices (e.g.: augmentation of transactional leadership), the transformational leadership is of particular importance in the educational field.

TRANSFORMATIONAL LEADERSHIP: FROM THE OPPOSITE OF TRANSACTIONAL LEADERSHIP TO THE FULL RANGE LEADERSHIP PARADIGM

The concept of transformational leadership was introduced by James MacGregor Burns in 1978, in a study dedicated to political leadership [1]. The studies on transformational leadership spread in the '90s. At present, the research focuses on the applicability of the concept in different fields, including the educational one, and also on the differences induced by some social and demographic variables (age, gender, position within the organization) in shaping the preferences toward certain forms of leadership (transformational, transactional, laissez-faire leadership) [2].

In its first stage of evolution as a concept, the transformational leadership was defined as the opposite of the transactional leadership, in which the dynamic of the relationships between the leader and their subordinates is defined as costs – benefits ratio or accomplishment of tasks – rewards ratio. Compared to traditional forms of leadership, transformational leadership is a participative, democratic process.

Transformational leadership triggers transformation of both employees and organizations, by increasing their efficiency and capacity to adapt to changes. The research conducted to this date have highlighted positive correlations between transformational or transformational-charismatic leadership and the level of performances within the organization [3].

The practices associated to the transformational leadership are also positively correlated with the psychological well-being of the subordinates. The explanations are multiple and range from direct effects, i.e. the positive role of the mentoring activities, to indirect effects, relating to the importance that the subordinates attach to their work, performed under the influence of their leader (e.g.: autonomy, purpose, feedback, variety of tasks) [4].

The four components of transformational leadership are [2]:

1. ***Idealized influence***: it indicates the extent to which the leader is trusted and respected by the team members and represents a model to them.

2. ***Inspirational motivation***: it highlights the extent to which the leader provides a vision and makes the others feel that their work is important.

3. ***Intellectual stimulation***: it indicates the extent to which the leaders encourage the members of the team to be creative, find new solutions, reconsider ideas and values.

4. ***Individual consideration***: it refers to the extent to which the leader is interested in the well-being and development of the team members.

Of the concepts relating to transformational leadership, the concept of charismatic leadership stands out. The traits of the charismatic leader are: self-esteem; vision; ability to articulate vision; strong convictions; unconventional behavior; agent of change; environmental and resource-related sensitivity [5]. Some authors have also discussed a potential negative, destructive effect of charisma, associated to egocentric leaders, who exploit to their own benefit the influence that they have acquired in relation to their followers; such practices, which are oriented on manipulating the subordinates instead of helping them to develop, were described as pseudo-transformational leadership [6].

The current works in the field of organizational psychology focus on the full-range leadership paradigm, which tackles transformational and transactional practices as complementary manifestations intended to augment and complement each other [7].

TRANSFORMATIONAL LEADERSHIP AND LEADER'S TRAITS

The research conducted over the past 30 years have investigated the relations existing between the Big Five personality factors and the components of the transformational leadership. Therefore, Agreeableness has been highlighted to be the strongest predictor of the transformational leadership [8]. This result may be explained by taking into consideration that Agreeableness is a social trait and a predictor of the quality of the group interactions, whereas, in its turn, leadership manifests itself in a social context. Extroversion and Openness to experience have also been positively correlated with transformational leadership. No correlations have been identified between the factors Consciousnesses and Neuroticism, on the one hand, and the components of the transformational leadership, on the other hand.

Transformational leadership and emotional intelligence have been popular concepts over the past three decades and the studies establishing the link between the two soon started to be published.

The first meta-analysis [9] regarding the potential correlations between the transformational leadership and the components of the emotional intelligence (self-control, self-consciousness, empathy and social skills) took account of the results of 1069 scientific materials published between 1872 and 2009. The study indicated that the connections between emotional intelligence and transformational leadership are not as strong as predicted; there are significant, but small or moderate, correlations between the dimensions of transformational leadership and emotional intelligence. Empathy is a component required in the development of the Inspirational motivation and Individual consideration, and the self-consciousness enables the leader to coin a good definition of the purpose and the significance of the activities, which also contributes to the development of the transformational leadership.

In conclusion, the emotional intelligence contributes to the development of a successful leadership. Nevertheless, research to date shows that stating the key role of the

emotional intelligence in the transformational leadership represents an overestimate of the correlation between the two sets of skills.

TRANSFORMATIONAL LEADERSHIP IN EDUCATION

With regard to the influence of various styles of educational leadership on the students' results, the conclusions of the studies to date have been different. Some authors [10] highlight a reduced impact of transformational leadership on the results of the students, while a study conducted in elementary schools in Great Britain [11] indicates that transformational leadership explains only a small part of the differences registered by the students in terms of literacy level and mathematical skills.

In order to clarify these aspects, a meta-analysis was carried out starting from 27 studies conducted between 1978 and 2006 [12], investigating the different impact of instructional and transformational leadership on the students' results. The study emphasized the fact that instructional leadership (based on the model of the manager as a "heroic figure" who assumes most responsibilities) has a higher positive impact on the results obtained by students than transformational leadership. This may be explained by the fact that the assessment of instructional leadership focuses on academic results, while success in transformational leadership is measured through social results, the quality of the relationship between leaders and teaching staff, which is not necessarily a predictor of students' results. Furthermore, a single study performed in 117 elementary schools in the U.S.A. [13] suggests that the practices used by transformational leaders have an indirect moderate-high impact on the results of the students, by the influence exercised in terms of teachers' satisfaction.

Another conclusion of the abovementioned meta-analysis was that, of all leadership practices used, the one with the highest effect on the students' results is promoting the professional growth of teaching staff and actual participation of the leader to these training programs alongside their colleagues; in addition, planning, coordination and assessment of teaching activities and curriculum as well as setting goals and expectations also have a moderate effect.

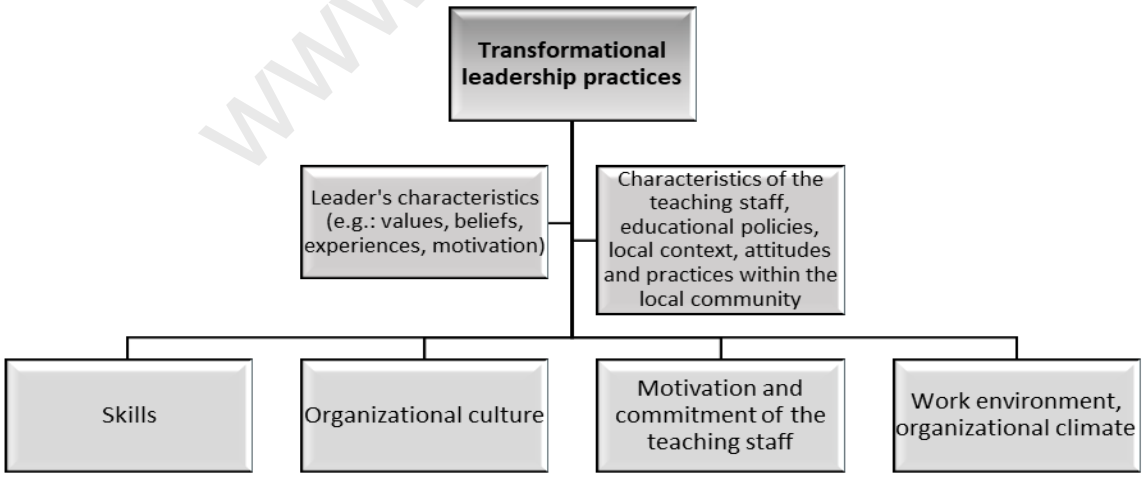

Fig. 1. Effects of transformational leadership in education

Given the different manner of operationalizing the concepts of instructional and transformational leadership operational, we may not interpret the results of the meta-analysis as an inefficiency of the transformational leadership. If, in the future researches, the effect of transformational leadership on the academic results of students will further turn out to be statistically significant yet indirect and/or reduced, one should take into consideration the fact that a successful educational process has also other components, in addition to the strictly academic results (e.g.: voluntary involvement of students in activities organized by schools, attachment and identification to the institution or, last but not least, the psychological well-being of students)[12].

The transformational leadership practices used in education are mediated by the traits of the leader (e.g. previous experience, beliefs, values), local context and characteristics of teaching staff (ex.: formal and informal training of teachers, educational policies, opinion of local community) – fig. 1. The results expected in terms of new pedagogical practices or initiatives toward restructuring the teaching process are also influenced by factors such as teachers' commitment and organizational culture.

CASE STUDY: LEADERSHIP PRACTICES OF EDUCATIONAL LEADERS IN ROMANIA

To highlight the preferences of the educational leaders with regard to leadership practices, a questionnaire-based survey was carried out between April and June 2018 [14]. The non-probabilistic sample included 118 respondents (table 1), leaders of educational institutions in pre-university (South-Muntenia development region) and university sector (five Romanian universities).

Table 1

Characteristics of the sample

Variable		Frequency	Percent
Gender	Male	34	28,8
	Female	84	71,2
Age	31 to 40 years	23	19,5
	41 to 50 years	67	56,8
	51 to 60 years	25	21,2
	Over 60 years	3	2,5
Type of education institution where they hold leadership positions	Pre-university education	85	72
	Higher education	33	28

The subjects filled in on-line the Multifactor Leadership Questionnaire (MLQ) Form 6S, previously used in educational leadership research [15]. The items were created to emphasize 7 leadership factors, respectively (table 2): idealized influence, inspirational motivation, intellectual stimulation, individual consideration, contingent reward, management-by-exception and laissez-faire leadership (a form of non-leadership, defined by a situation when the leader abandons his responsibilities and avoids making decisions).

Table 2

Multifactor Leadership Questionnaire Form 6S: Scales and factors

Scale	Factors	Items
Transformational leadership	Idealized influence	1, 8,15
	Inspirational motivation	2, 9, 16
	Intellectual stimulation	3, 10, 17
	Individual consideration	4, 11, 18
Transactional leadership	Contingent reward	5, 12, 19
	Management-by-exception	6, 13, 20
Laissez-faire leadership	Laissez-faire leadership	7, 14, 21

The analysis of the responses at the items of MLQ 6S highlights the fact that, in relation to the entire sample, the subjects had the tendency to concentrate their responses on the options ”Fairly often” and ”Frequently, if not always”, at items corresponding both to transformational leadership and transactional leadership (table 3).

There is a slightly different situation, in terms of the absence of a clear polarization of results on the options indicating high frequencies, in case of some items used to describe the laissez-faire leadership (e.g.: item 14). Nevertheless, one may observe that, in case of the laissez-faire leadership, the subjects also tended to focus more on the options ”Fairly often” and” Frequently, if not always” (item 21, item 7).

Table 3

Frequency of responses to the items of MLQ 6S

	Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
1. I make others feel good to be around me	0,0%	0,0%	3,4%	34,7%	61,9%
2. I express with a few simple words what we could and should do.	0,0%	0,8%	1,7%	39,0%	58,5%
3. I enable others to think about old problems in new ways.	0,0%	0,8%	5,1%	51,7%	42,4%
4. I help others develop themselves.	0,0%	0,0%	0,8%	22,9%	76,3%
5. I tell others what to do if they want to be rewarded for their work.	0,0%	1,7%	19,5%	33,9%	44,9%
6. I am satisfied when others meet agreed-upon standards.	0,0%	0,0%	4,2%	16,9%	78,8%
7. I am content to let others continue working in the same ways always.	3,4%	11,9%	29,7%	40,7%	14,4%
8. Others have complete faith in me.	0,0%	0,0%	6,8%	55,9%	37,3%
9. I provide appealing images about what we can do.	0,0%	0,8%	26,3%	40,7%	32,2%
10. I provide others with new ways of looking at puzzling things.	0,0%	0,8%	7,6%	45,8%	45,8%
11. I let others know how I think they are doing.	0,0%	2,5%	4,2%	41,5%	51,7%
12. I provide recognition/rewards when others reach their goals.	0,0%	0,8%	8,5%	38,1%	52,5%
13. As long as things are working, I do not try to change anything.	1,7%	0,8%	11,9%	41,5%	44,1%

14. Whatever others want to do is OK with me.	5,9%	18,6%	40,7%	32,2%	2,5%
15. Others are proud to be associated with me.	0,0%	1,7%	11,9%	67,8%	18,6%
16. I help others find meaning in their work.	0,0%	1,7%	7,6%	40,7%	50,0%
17. I get others to rethink ideas that they had never questioned before.	0,0%	4,2%	9,3%	50,8%	35,6%
18. I give personal attention to others who seem rejected.	0,0%	0,0%	4,2%	30,5%	65,3%
19. I call attention to what others can get for what they accomplish	0,0%	1,7%	10,2%	43,2%	44,9%
20. I tell others the standards they have to know to carry out their work.	0,0%	0,0%	3,4%	33,1%	63,6%
21. I ask no more of others than what is absolutely essential.	1,7%	12,7%	23,7%	34,7%	27,1%

The results of the research showed the educational leaders' possible orientation on practices falling under the full-range leadership paradigm and suggested the fact that the issues relating to educational leadership require a complex approach, which should go beyond the simple dichotomy between the transformational leadership and the transactional leadership [14].

CONCLUSION

The concept of transformational leadership is a popular one in the leadership literature, and it is tempting to present it as a solution for various deficiencies associated to the activities of the educational leaders. Its dimensions are oriented on stimulation, motivation and consideration of the team members and seem to provide solutions to consolidate a positive organizational climate in public schools. Within these institutions, the efforts of the leaders may come up against the restrictive action of some factors which operate at the system level, such as the low payment of teachers and their dissatisfaction towards the implementation of different educational policies.

It is indisputable that transformation leadership practices may provide added value in educational establishments; however, the results of the studies conducted to date have suggested that their importance should not be taken to the extreme.

The transition to a transformational leadership in education should not be understood as abandonment of previous practices, but as optimization of and addition to such practices. This conclusion is also indicated by the applied questionnaire, which shows the educational leaders' tendency to use, depending on the context, a varied range of leadership practices, including transactional and transformational ones.

In this context, it is desirable that the training of future educational leaders should focus not on replacement of some leadership practices with new ones, but on raising awareness in relation to their synergic effect and on finding some optimal formulas to combine them, in line with the characteristics of the local context, leaders' traits and traits of their team.

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UNIVERSITY TRAINING OF CIVICS TEACHER

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ABSTRACT

Nowadays, the Slovak education system is in the process of transformation, which is orientated on a total qualitative change including the organizational, content and didactic aspect. Teacher's personality, teaching activity and positive influence on the development of the pupil's personalities and key competencies are the prerequisites for the expected change.

To fulfil current social needs, it is necessary to pay more attention to the university teacher training. The paper is oriented on university preparation of Civics teacher in the conditions of Constantine the Philosopher University in Nitra in the Slovak Republic. Citizenship Education is a study program for students who become Civics teachers. During the studies, students are professionally profiled, including a complex of theoretical knowledge and practical pedagogical skills and abilities. The paper presents the specifics of the content and didactic part of the future teachers' study at the bachelor's and master's degree. After successful completion of the studies, graduates are qualified to teach the subject of Civics at lower and upper secondary education in the Slovak Republic.

Keywords: Citizenship Education, Civics, didactics, university training

INTRODUCTION

The subject of Civics is one of the most important part of the education system in the condition of the Slovak Republic. The subject is specific in terms of its focus and content, and reflects social, historical and cultural changes. Civics is created in order to help pupils to orientate themselves in social reality, as well as integrate them into various social relations. During the lessons of Civics, pupils learn to know themselves and other people, to understand themselves and others in the context of different life situations. The subject informs students about the activities of important political institutions, as well as the possibilities of engaging individuals in civic life. Civics develops the civic and legal awareness of pupils, civic responsibility and motivates pupils to participate actively in the life of a democratic society. The subject provides the basics of economic literacy and Civics teacher teaches students how to be successful in the labor market in the Slovak Republic and abroad. Civics teacher also teaches pupils the basics of philosophical thinking [4].

Future Civics teachers are prepared for 5 years at the Department of Philosophy, Faculty of Arts, Constantine the Philosopher University in Nitra in the Slovak Republic in the study program of Citizenship Education [1]. The bachelor study lasts 3 years and the master study lasts 2 years. Both degrees of study are completed by the state final examination.

STUDY PROGAM OF CITIZENSHIP EDUCATION

Citizenship Education is a study program belonging to the system of study fields of Academic Subjects Teaching. These study fields are traditionally connected to the social need to prepare teachers of theoretical general-education subjects in lower and upper secondary education in the Slovak Republic [9]. The content of education in the above mentioned study field is related to the definition of the professional profile of the graduate and includes a combination of a complex of theoretical knowledge and practical skills.

Identification of the study program of Citizenship Education from the aspect of objectives, content, position in the education system and its didactic level is not frequently studied and systematized in the Slovak theoretical environment. Citizenship Education fulfils the following objectives: social context, interaction-communication context, affective aspect in education. Citizenship Education is not only a study program oriented to the education but mainly to the accentuation of the term human, citizen and citizenship. An important part of the study program is interactions of individuals to themselves, to other people, to reality, to the world. We also consider the processual aspect of individual socialization, the acquisition and respect of fundamental moral values and principles to be an important component of the study.

Based on the correlation of objectives and the educational aspect of the study program of Citizenship Education, it is possible to identify two basic dimensions of the study program:

1. The cognitive dimension is a dimension in which the cognitive abilities of the pupil are developed. Another part of the cognitive dimension is the specification of the required basic knowledge in the areas of relations, rights and obligations, social life, economic life and civil life in a democratic society.
2. The axiological dimension forms a significant part of the expected results within the subject of Civics. The realization of the axiological dimension is very difficult due to the fact that is not so clear and concretised in comparison with the cognitive dimension. Assessing this dimension is more complicated from the point of view of the individual objectives and the achieved results.

CONTENT ASPECT OF STUDY PROGRAM OF CITIZENSHIP EDUCATION

Citizenship Education is a study program for students who become teachers of Civics at primary and secondary schools in the Slovak Republic [10]. Citizenship Education means that it is necessary to respect the existence of multiple disciplines and to understand Citizenship Education as a study program that is a result of the synthesis of contents of the chosen sciences. In the context of the above, it could be concluded that the study program of Citizenship Education is multidisciplinary and interdisciplinary.

Department of Philosophy, Faculty of Arts, Constantine the Philosopher University in Nitra, has created its own content aspect of the study program of Citizenship Education. The content aspect of the study program is designed on the basis of the pupil's competency needs, the needs of the subject of Civics at the primary and secondary schools and the requirements for undergraduate training. The content is conceived as a combination of acquirement of theoretical knowledge and training of the practical pedagogical skills and abilities of students.

The bachelor study is aimed at acquirement knowledge of history of philosophy, systematic philosophy and related social sciences - politics, economics, sociology, state and law, religious studies, ethics, aesthetics. Philosophical preparation of students, the future teachers of Civics, consists of the following disciplines: Ancient and Medieval Philosophy, Modern and Contemporary Philosophy, Slovak Philosophy, Ethics, Aesthetics, Logic, Philosophical Anthropology, Metaphysics. Political preparation of students, the future teachers of Civics, consists of the following disciplines: Basics of Political Science, Political and Constitutional System of the Slovak Republic, Political Theory. Sociological preparation of students, the future teachers of Civics, consists of the discipline of Basics of Sociology. Economical preparation of students, the future teachers of Civics, consists of the following disciplines: Basics of Economy, Market Economy and Marketing, Economy of the Slovak Republic and World Economy. Psychological preparation of students, the future teachers of Civics, consists of the following disciplines: Basics of Psychology and Ontogenetic Psychology.

The study program of Citizenship Education also includes the application aspect and the training of pedagogical skills in the bachelor study. Practical preparation of students, the future teachers of Civics, consists of the following disciplines: Didactics of Civic Education, Basics of Prosocial Skills, Interpretation of Non-Literary Texts, Professional Ethics of Civics Teacher, Project-Based Teaching and Presentation Skills, Religious Studies, Social Etiquette, Practical Aesthetics, IT in Teaching Civics, Bachelor Thesis Seminar and Teaching Practice as the most important application part of the bachelor study.

The master study gives students the opportunity to deepen and further develop their knowledge and practical skills. Acquired theoretical knowledge is extended by teaching practice at primary and secondary schools in the Slovak Republic. The preparation of the future teacher of Civics is completed by an independently elaborated diploma thesis and a state examination.

Theoretical knowledge is developed by the following disciplines: Current Issues in Sociology, Current Issues in Political Science, Theory of State and Low, Selected Issues in Sociology. The preparation of students, future teachers of Civics, also consists of the following synthesizing disciplines: Philosophy and Science, Philosophy and Ethics, Philosophy and Language, Philosophy and Religion, Art and Culture.

The application-practical aspect of undergraduate preparation of the future teacher of Civics is supported by the following disciplines*:* Current issues of education in Civics, Interpersonal skills of the Civics Teacher, Multicultural Education, Media education, Environmental Education, Logic Problems for secondary schools, International Relations. The subject of Master's thesis seminar is aimed at supporting the quality of preparation and writing of the diploma thesis. Teaching Practice is an important application part of master study of students, future teachers of Civics. During the

practice, students take part in the teaching process, observe the work of the teacher and then teach pupils the subject of Civics within 80 hours.

DIDACTICS OF CIVICS AS A PART OF PREPARING THE FUTURE TEACHER

Graduates of the study program of Citizenship Education are prepared to realise the teaching of the subject of Civics at the primary and secondary schools in the conditions of the Slovak Republic. Besides the content aspect of the study program, we consider the knowledge of requirements of the didactics of the study program of Citizenship Education and the parallel didactics of the subject of Civics as crucial. The result of university training is not only a teacher who teaches pupils the basics of individual social sciences, but also a teacher who presents the selected issues of the subject in order to teach pupils to reflect critically the social reality complexly. Currently, the requirements are not only concentrated on the educational field but also on the field of the creation and development of skills, abilities, dispositions, critical thinking and a separate creative approach to problem solving [5]. The mentioned requirements will be helpful to young people to understand reality, to become active in the labour market, to become active citizens, and to emphasize individual moral and human values.

Didactics of Citizenship Education is the basis of teacher focus studies. In the context of the general attitude to the university education in the condition of the Slovak Republic, which is based on the autonomy of individual schools, it could be concluded that there are applied differential approaches. Didactics of the study program of Citizenship Education realised in the Department of Philosophy, Faculty of Arts, Constantine the Philosopher University in Nitra is considered as one of the most important study disciplines in terms of pre-graduate training for a future teacher within the study field of Academic Subjects Teaching.

Didactic preparation in bachelor study

Didactics of Citizenship Education is a study discipline realized in the second year of the bachelor study of the study program of Citizenship Education. The scope of the study discipline is 2 hours of lectures and 2 hours of seminars weekly. The aim of the mentioned study discipline is to identify basic theoretical issues of didactics of Citizenship Education as a very important part of preparation of future teachers of Civics. Students of this study discipline understand the basic terminology, acquire basic knowledge of theoretical approaches oriented on the specificity of the process of didactic transformation in the subject of Civics, assessment and comparison of various methodological possibilities of teaching on lessons, as well as the dynamics of changes in the overall approach to the subject of Civics.

Study discipline of Didactics of Citizenship Education is based on the combination of theoretical content issues and practical training of basic pedagogical competitions.

Content aspect includes the following issues:
- The specifics of didactics of Citizenship Education,
- Analysis of the historical aspect of citizen education in history of Slovakia,
- Specifics of the subject of Civics, the current state of school education of the citizen,

- Objectives of education in the context of the subject of Civics,
- Teaching process, analysis of the basics of the teaching process
- Specifics of the teaching process of Civics, didactic principles,
- Teaching methods applied in the subject of Civics,
- Implementation of alternative teaching practices,
- Diagnostics, assessment and classification in the subject of Civics,
- Organizational forms of teaching in Civics. Lesson – the basic organizational form of teaching
- Didactic aids and their application in the subject of Civics, creating of complete preparation for the lesson,
- Pupil – important subject in the process of civic preparation,
- Personality of teacher of Civics.

The presentation of individual study and training of basic pedagogical skills includes the following issues:

- Characteristics of cross-curricular themes and educational areas,
- Analysis of individual historical stages of citizen education in history of Slovakia,
- Analysis of educational standards in Civics,
- Current proposals for solutions of the Slovak education system,
- Applying dialogue in teaching,
- Differentiation of the objectives of education and training in the context of the competence profile of the teacher of Civics,
- Framework learning plan, thematic educational plan,
- Classification of teaching methods and their analysis,
- Preparation and presenting examples on selected methods,
- Training of specific assessment and classification options in Civics,
- Lesson - monitored indicator of the quality of planning and designing teaching process,
- Preparation and presentation of the lesson,
- Textbook - basic didactic aid,
- Presentation and analysis of textbooks in Civics,
- Worksheet, creation of worksheets,
- Applying of didactic techniques in teaching of Civics,
- Pupil's competences in the context of Slovak education,
- Teacher competences,
- Beginning teacher and assessment.

With regard to the time subsidy, the study discipline of Didactics of Citizenship Education also includes the issue of didactics of the subject of Civics. We consider the interconnection of issue of didactics of the study program and the subject to be absolutely necessary.

Didactic preparation in master study

Current Issues of Education in Civics is a study discipline realized in the second year of the master study of the study program of Citizenship Education. The scope of the study discipline is 2 hours of lectures and 2 hours of seminars weekly. The aim of the mentioned study discipline is training practical pedagogical skills. The results of education are the following student abilities: the student interprets and analyses the

theoretical framework of didactics of Citizenship Education as a basis for pre-graduate preparation of study in a teacher study program; the student develops the knowledge in the field of techniques and methodological procedures supporting creativity, independence, activity; the student is able to apply theoretical preparation in the form of planning and creation of simulated models of lessons, reflecting the potential of changes in the subject of Civics from the content and didactic-transformation aspect; the student develops the ability to observe, assess and evaluate [6].

Content aspect includes the following issues:
- Citizenship participation as competence of a good citizen,
- Project teaching and possibilities of its applying in the subject of Civics,
- Critical thinking and its applying in the citizen preparation,
- The specificity and position of educational methods in the preparation of the future citizen,
- Experiential learning in the subject of Civics,
- Application of interdisciplinary relations and cross-curricular themes in the subject of Civics,
- Education standards in the subject of Civics,
- Methodical support for developing thinking, learning and abilities of pupil,
- Working with professional texts in the subject of Civics,
- Preparation for the lesson and its analysis
- Practical creation and presentation models of lessons,
- Applying methodological approaches to selected topics of the subject of Civics.

The development of practical pedagogical skills is realized in the seminars, where we use several tools for training and evaluation of the practical performance of students. Students create and implement a short-term pedagogical process in the form of complete models of lessons, which are processed by the content and methodically aspect. In terms of time, students mostly present professionally and methodically processed material focused on the implementation of the exposure part of the lesson of Civics at primary and secondary schools.

Practical training also includes the creation of a portfolio consisting of the following parts:
a) Written elaboration of the lesson model - ISCED 2, which includes exercises and activities. The student elaborate and deliver this part of portfolio in annex (in format ppt or pptx).
b) Written elaboration of the lesson model - ISCED 3, which includes exercises and activities. The student elaborate and deliver this part of portfolio in annex (in format ppt or pptx).
c) Evaluation of the performance of other students.
d) Elaboration of seminar thesis - students can choose topics that reflect current problems of content, methodical and formative character in the subject of Civics.

The issue of reflection is considered as very important in the didactic preparation of Civics teacher [11]. The quality of reflection is determined by several indicators: problem analysis and finding solutions, using assessment arguments, listening ability, empathy. The didactic preparation of Civics teacher also includes the didactic analysis of the subject content and the didactic analysis of the educational process. The didactic analysis of the subject content represents a thought activity of the Civics teacher, which

allows analysing the subject matter from the pedagogical aspect. The didactic analysis of the educational process is necessary for effective work with pupils [8].

CONCLUSION

University training of future Civics teachers is realised in the study program of Citizenship Education in the condition of Constantine the Philosopher University in Nitra in the Slovak Republic. Graduates are ready to teach the subject of Civics at the primary and secondary schools in Slovakia. Studies in the study program of Citizenship Education consists of two basic parts, content and didactic, which we analysed in the paper. These parts are based on the requirements of the integration model of Slovak education, which has 3 components - pupil, educational process and teacher [2], [7].

The quality training of Civics teacher is based on the development of professional competences [10]. Current requirements of the subject of Civics and training of future Civics teachers are concentrated on the field of education, as well as the creation and development of pupil´s skills and abilities that allow being an active citizen with an emphasis on individual moral and human values [3].

Permanent improvement of the preparation of Civics teachers is related to the development of the study program of Citizenship Education at the Department of Philosophy, Faculty of Arts, Constantine the Philosopher University in Nitra. Therefore, the Department of Philosophy is concentrated on the following issues: the multidisciplinary content, reflection of changes in theoretical approaches in the content of the study program, reflection and didactic analysis in training of Civics teacher.

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USING THE TEAM COMMUNICATION TOOL, SLACK, TO MANAGE LARGE-SCALE RESEARCH DATA COLLECTION

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ABSTRACT

In the 2017-18 school year, my department, the International Data Evaluation Center (IDEC), collected data on over 43,000 first grade students, from almost 3,000 schools across the United States for the Reading Recovery (RR) early literacy intervention. Managing this process is more than just making sure you have clean data. For example, every year we must keep track of all schools, districts and teachers that are participating. At the end of each school year we must run over 7,000 reports for RR stakeholders. We also need to be able to keep track of who has and has not paid for our services. So, over the years we've developed some tools to help us manage all of this. Some of these tools we're centralized on intranet sites available to all team members while other tools were small, ad-hoc, pieces of computer code. While all the IDEC staff could access and use the intranet sites, not all had the required knowledge to use the ad-hoc pieces of code. So, in December of 2017, we began experimenting with the team collaboration tool called Slack. Slack has a feature built into it called Slash Commands. In this paper we discuss how we've used Slash Commands to begin centralize all the various tools we use to manage the data collection process and how they have made complicated tasks that use to require computer code and technical knowledge as simple as issuing a command in a chat window.

Keywords: Data Collection, Slack, Reading Recovery, Literacy interventions

INTRODUCTION

Managing the data collection process for the literacy intervention Reading Recovery can be challenging. Data are entered, via web site, by thousands of people and it is no small effort to keep the data in our data system clean and reliable. Over the years, my team at the International Data Evaluation Center, located at The Ohio State University, have developed a set of tools to help manage all these various tasks. These tools tended to be developed on an "as needed" basis. The effect of this "as needed" process was that these tools tended to be de-centralized (not located in one place) and sometimes required technical expertise that not every member of our team possessed. This could make the training of new team members a little difficult as they had to know not only where a certain tool was located, but also had to know who the right person to ask to fix a problem.

This system of data management has worked over the 19 years, but we felt that this could be better. It should be possible to centralize our tools and make some of the complicated tasks that required special knowledge to be done by any member of our team. So, we decided to experiment with the team communication tool called Slack to see if it could help us with our challenges. But first, let's quickly examine some of the tasks that we have to perform.

DATA MANAGEMENT TASKS

In the 2017-18 school year, our data systems collected data on over 43,000 [1] 1st grade students (ages 6 to7) from almost 3,000 [1] schools in the United States. These student level data were entered by 4,792 [1] literacy educators. The type data management tasks my team must perform fall into four broad categories as shown in Table 1, data collection, registry, payments, and reporting. An example of a data collection task would be moving the data for a student from one school to another school. Sometimes teachers enter data for a student under the wrong school. Before the use of Slack, to fix this problem, a team member would have to work with a software engineer. Our engineer would have saved a small piece of computer code that they could run, as needed, to correct this issue.

A common registry task would be removing a duplicate school from our roster of schools. Once again, fixing this problem would have required the assistance of a software engineer and the Director. The software engineer would run some complex computer code that checks for several different scenarios and would apply one of several fixes. The Director would have analyzed the types of data effected and would determine what types of reports needed to be re-run.

A frequent payment task would have been recording a payment received from a school district. This payment would then enable data entry for those teachers in the school district. Our help desk staff could easily enter payments using an internal web site we call our Admin Web site.

Finally, an example of a reporting task would be the re-running of all year-end school reports for a school district after a mistake was corrected. Our help desk staff can re-run schools' reports by going to our internal reporting web site. But, before they can start re-running reports, they would have to write down a list of schools and look on our data web site to see if the schools provided either the English or Spanish or both versions of the Reading Recovery intervention. Based on the number schools and which interventions were present, our help desk staff would have to as many as 15 to 20 reports. Each report must be run individually using the report web site. Though the report web site does make running the reports easy, it could take up to 30 minutes to get all the reports in the queue which leaves room for error.

Table 1. Data management tasks

Task	Description
Data Collection	Managing data enter by web site users.
Registry	Managing rosters of schools, school districts, teachers, teacher leaders, and universities participating in Reading Recovery.

Payments	Managing payments made to our department for the use of our web site.
Reporting	Managing the production of annual reports that are sent to stakeholders.

So just from the four examples above we can begin to see that even though we have tools and processes in place to handle issues, they are not most elegant solutions. Some corrections require the assistance of a software engineer. Other fixes require you to go to different internal web sites. While re-running reports requires help desk staff to be able to run multiple types of reports for the different versions of the literacy intervention we support, which leaves ample room for mistakes to be made. So how might this be made easier? In the next few sections we will learn about Slack and what tools it offers to its users.

WHAT IS SLACK?

At its core, Slack is a communication tool for teams of people. It's marketed toward business teams, but it can used in any scenario where you have a group of people working together collaboratively. My team decided to adopt Slack because we are a remote team. My team has 5 people on it and we very rarely work in our office on The Ohio State University campus. As seen in Figure 1, my team essentially uses Slack to let each other know when we are online/offline and ask each other quick questions. For bigger, more difficult questions, we'll use video chat. In the next section, we introduce the Slash Command.

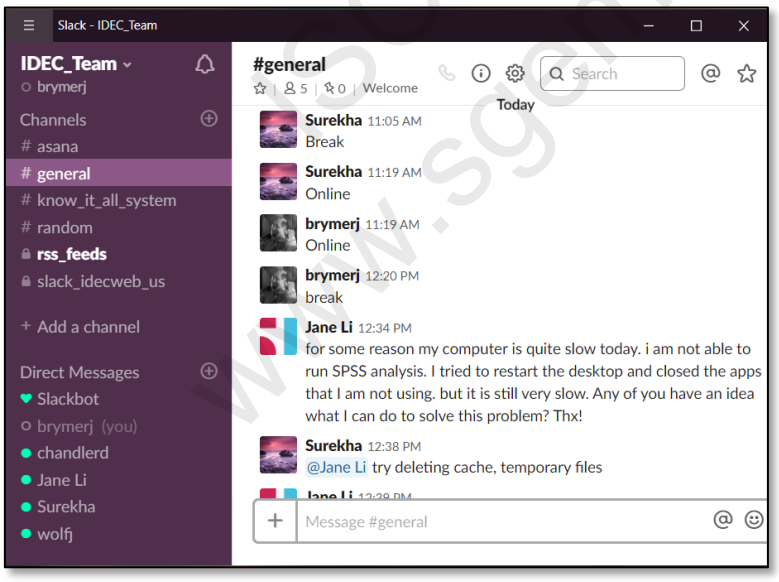

Figure 1. Slack chat window

WHAT IS A SLASH COMMAND?

Built into Slack is a feature called Slash Commands. Slash Commands are text, preceded by a /, that perform an action in Slack. For example, typing */remind me to call my mother tomorrow* will cause Slack to create a reminder, that is only shown to you, to call your mother to tomorrow. Figure 2 shows an example of the remind command being typed into the Slack chat box and the response returned from Slack. The command is shown at the top of the figure 2 and the response to the command is shown at the bottom.

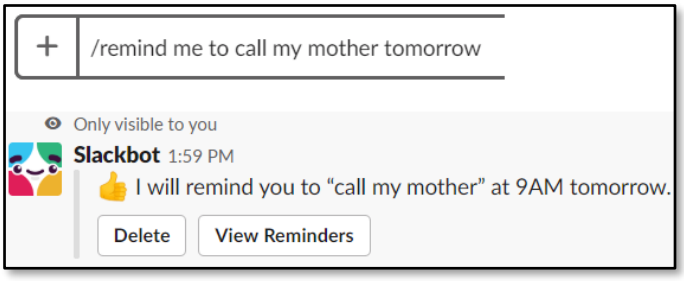

Figure 2. Example usage of the Slack "remind" Slash Command

Slack has many built-in commands, but these commands do not interact with anything outside of Slack. They can only control or effect features built into the Slack chat window. To control things outside of Slack you need to create your own Slash Commands. In the next section will we briefly explore how that is done.

CREATING CUSTOM SLASH COMMANDS

For the purposes of this paper, in-depth, step-by-step, instructions on creating Slash Commands are not given. Rather, it gives a brief overview of the process and description of the technologies involved. An in-depth tutorial can be found here, https://api.Slack.com/tutorials/your-first-slash-command. There are several steps involved to be able to create and use your own Slash Commands. Some of the steps you will perform using the Slack's developer web site and others you will perform by writing custom computer code.

The first step is to create a Slack App. You do this by going to Slack's developer web site at https://api.slack.com. The Slack App is the foundational piece of any custom programming that you want to do with Slack. Most importantly it creates a set of secret keys that you will use to validate incoming Slash Commands. The next step is to start defining your custom Slash Command on Slack's developer web site. Figure 3 shows the information you will provide when defining a command. The first parameter is the command itself. You'll type in your command along with the /. For example, if your command is *delete-student*, you would type in */delete-student*. The next parameter, Request URL, is a web address of a web service that will process the command and return a response. When a person types in your command, the command gets sent to this address along with special information provided by Slack. Ideally, you would return some sort of response that would be displayed in the Slack chat window. More information is given about this Request URL and web services later in the paper as this as this is where your custom computer code will be located. The next, optional, parameter is short description of what the command will do. This description will appear as people type the command into the chat window. The final, parameter is Usage Hint. This allows you to provide an

example of how the command should be used by providing an example of what parameters to pass along with the command. If filled out, Slack will display the hint to users as they type. The parameter is also optional. Now that your Slack App and Slash Command have been created on Slack's developer web site, let's know examine what happens after a command is typed in the chat box.

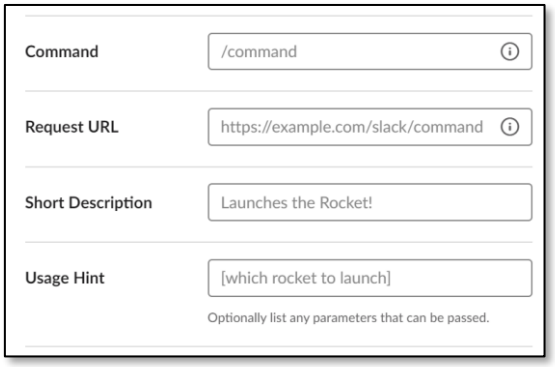

Figure 3. Slash Command Parameters

When you type a custom command in the chat window and hit the enter key, Slack looks up the command from database of commands you created in the previous step. Once the command is found, Slack sends the command, any text that was typed after the command and information about the command (like security information to validate that the command can be trusted) to the web service specified the command's URL Parameter. A web service is similar to a web site. You can contact the web service by typing in a URL, like https://www.website.com. But, instead of returning content that would be used to display web pages on a computer screen, web services are designed to return data that can be used by other computers. Your web service will accept the command payload from Slack, verify that it came from Slack, interpret the command and perform the action that should go along with the command. Once the action is complete, your web service will send back a response to Slack. Slack expects your response to be formatted in JSON (Java Script Object Notation) and follow certain rules. These rules tell Slack how to display your results. Figure 4 shows an example of a JSON response. The top part of the figure shows an example of JSON syntax that can be interpreted by Slack and the bottom part shows how it is rendered in Slack. You can read more about message formatting at https://api.Slack.com/messaging/composing.

Figure 4. Sample Slash Command JSON Response and how it looks in Slack

You can create your web service with any number of current programming environments. This includes, but not limited to Microsoft's ASP.Net, Node.js, Java, and Python. If a computer language can used to create web services and is able to return JSON formatted payloads, then it can be used to process custom Slash Commands. Now that we've given an overview of how to create a custom command, I would like to show an example of a command used to manage our data systems along with some history behind the command.

EXAMPLE COMMAND – REMOVING A DUPLICATED SCHOOL

Every now and then, a school will get duplicated in our registry system and needs to be fixed. This may sound simple, but there many little complications to be aware of when performing this task. In the past, this task could not be done by a single person. Correcting this duplication would start with our hep desk manager. She would first have to identify the duplicated schools in the system. She would then contact our software engineer and give him the ID numbers of the schools. He, in turn, would look up some information about each school. Based on this information, they both would decide which school to keep. Once that was decided, the software engineer would run some complex computer code to fix the school duplication. This part of the task would have taken about 15 minutes.

Next, she would have needed to come to the Director to determine if school reports needed to be re-run and. If the Director determined that reports had to be re-run he would have to figure out what type of school reports? There are different types of reports that need to be run if the school provided either the English, Spanish or both versions of the Reading Recovery intervention. This step took an additional 15 minutes.

Once it was determined which reports should be run, our help desk would go to our internal reporting web site and begin to re-run the reports one at a time. Depending on the number of reports to be re-run this could take anywhere from 15 to 30 minutes. In total, fixing a duplicated school in our data system required 3 people and up to 45 to 60 minutes to fix. It would also require the use of some ad-hoc computer code, one internal web site, and was prone to mistakes. This task was a prime candidate to turn into a Slack command.

Now, fixing a duplicated school takes about 30 second with use of a custom Slash Command. Once a duplicated building is identified, any member of our team can fix it by typing a command similar to"*/school-remove-duplicate 29965 59185*". The numbers following the command are the ID numbers of the duplicate buildings. The Slack command would then display some information back to the team member, as demonstrated in Figure 5.

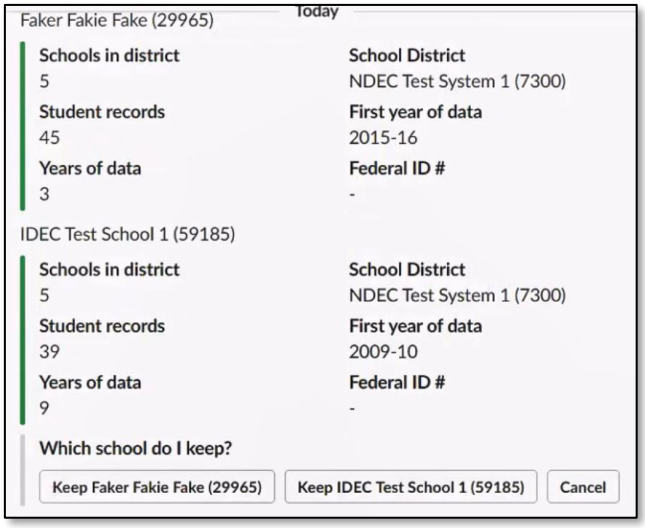

Figure 5. Interactive message from custom Slash Command.

The team member would use the information to decide which school to keep and click the appropriate button, as shown in the bottom of figure 5. The command then runs through a pre-programmed set of steps, as shown in the left-hand side of Figure 6, and displays results of the actions performed in Slack, as shown on the right-hand side of Figure 6.

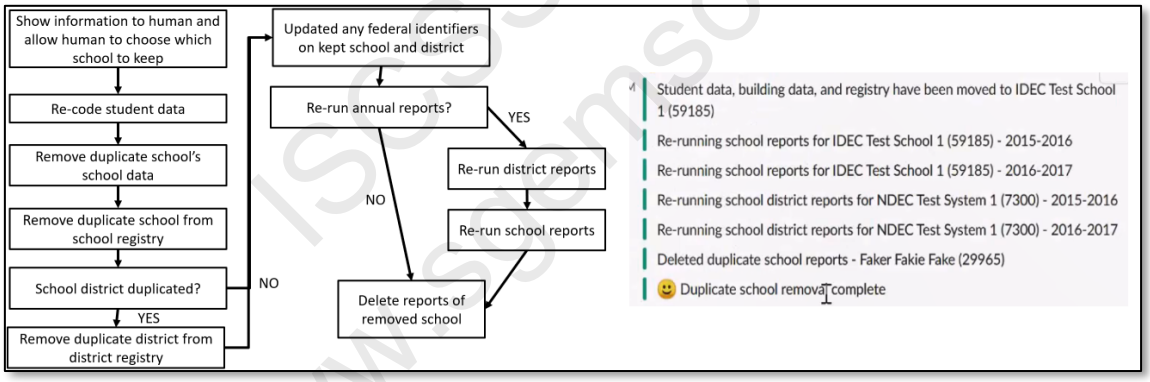

Figure 6. Duplicate school removal logic and results displayed in Slack

Not only is the Slack command significantly faster at fixing the issue, it is less prone to mistakes. So, let's review this experiment with custom Slash Commands.

CONCLUSIONS

Collecting data on tens-of-thousands students annually comes with many challenges. This includes doing many tasks to keep data clean and accurate, providing customer service to the thousands of teachers, and re-running reports as mistakes are corrected. Over the years we've developed tools and processes to manage all this, but the implementation of these have been done somewhat haphazardly. Tools are not located in one place, fixing some problems requires special skills or knowledge and might possibly involve more than one person's time. Developing custom Slack Slash Commands is our attempt to centralize our data tools into one place and make complicated tasks as simple as typing a command into

chat window. While we've had some initial success, we've had to keep in mind that the use of text commands to performs tasks is not something our whole team was initially comfortable with. It takes time to build trust in the commands and to work out issues that didn't exist in our older tools. But, as one our team members commented, "When they do work, I feel empowered that I can do things without having to bother other team members and tasks that could have taken 45 to 60 minutes to complete now can be done in less than a minute." Thus, the effect of using custom Slash Commands in large-scale research can be seen.

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VOCATIONAL TEACHERS' STANDPOINTS ON EDUCATIONAL INTERACTION

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ABSTRACT

It is assumed that the content of the broad concept of educational interaction consists of many related components and competences that determine the quality of vocational education and training. In order to understand the educational interaction, the vocational teachers' experience in communicating with modern students, their behaviors and insights better, the qualitative research was conducted. The research design was based on five group interviews with 48 vocational teachers from vocational education and training institutions in Lithuania. While selecting research participants for interviews the authors of the research paper tried to include a wide range of teaching experiences (different positions in the school, qualification categories, subjects, age, work experience, etc.). The data were collected using a semi-structured interview questionnaire. The axial data coding that distinguished the educational interaction phenomenon as research result – *preparation of a skilled worker for the labor market* was applied. The premises for this interaction, contexts, and operational strategies used, context-related factors and the consequences of the interaction have been distinguished.

Keywords: vocational teachers, educational interaction, axial coding.

INTRODUCTION

Interactivity has become more and more relevant in majority of social spheres. No wonder, that the concept of interaction has become a multifaceted concept and is perceived far more widely, not just as interaction between two or more people, but also between phenomena, objects, technology and the like [1; 2; 5; 7; 8]. Interaction is usually regarded as a major component of the whole education process. Educators concentrate their attention on the role of interaction as a crucial component of the education process. Even the pedagogical system itself can be considered as a form of interaction of the people participating in it: educators and schoolchildren, teachers and students. By 'interaction' educators usually define the process of the impact that objects or subjects make on each other, which on its turn generates their mutual communication. Interaction has a variety of functions in the educational process, such as facilitating program adaptation based on learner input, allowing various forms of participation and communication, and the development of meaningful learning [1; 8; 3]. Educational interaction depends on various environmental factors, which are created to various degrees by external factors. A learning environment is made up of an arrangement of teaching strategies and methods, learning materials, and media. The learning environment represents the current temporal, spatial, and social learning situation. It also includes the relevant cultural context. Such complexity of educational interaction provokes the following questions: How does

pedagogical interaction take place in modern professional training that is experiencing long-term reformation? What are the environmental factors that affect its change and in what direction? All these and similar issues are at the centre of interest to researchers of this study who systematically investigate the tendencies of the VET change in Lithuania. The authors of this paper try to reveal the research problem while disclosing it through the VET teachers approaches: revealing how the VET teachers perceive the essence of the pedagogical process, what experiences the VET teachers gain while dealing with modern vocational students, how the teachers feel while acting in the never-ending vocational education reform.

METHODOLOGY

Qualitative approach was used to expand understanding and to explore ways of teacher perception on educational interaction. The principle of criterion sampling was applied to the selection of VET institutions. While selecting research participants for interviews the authors of the research paper tried to include a wide range of teaching experiences. Before going to research visit to the VET educational institutions the researchers asked the school administrators to select vocational teachers groups while taking into account different positions in the school, qualification categories, subjects, age, work experience. The researchers met five groups of teachers. The size of the groups was from 8 to 14 members. The total amount of the research sample is 48 vocational pedagogues.

The semi-structured group interview members were presented the following questions: '*What do you think, is the essence of the pedagogical interaction? How has this interaction changed during the last decade? How did it affect Your activity?'* During the interview, these issues were refined and deepened. Open and axial coding as described by Corbin and Strauss [4] was used to analyze the presented data. In the open-coding phase, the interview transcripts were split into meaningful units, descriptive and analytical categories and concepts were generated. In the second axial coding phase, they were related to each other via a combination of inductive and deductive thinking [4]. The basic framework of generic relationships is understood to include categories related to (1) the phenomenon under study, (2) the conditions related to that phenomenon (context conditions, intervening or causal conditions), (3) the actions and interactional strategies directed at managing or handling the phenomenon and (4) the consequences of the actions/interactions related to the phenomenon. The open and axial coding enabled the researcher to get from the empirical level towards the theoretical level by fracturing the data, then conceptually grouping it into codes that then become the theory that explains what is happening in the data [6, p. 47].

RESULTS AND DISCUSSION

The basic parameters of educational interaction that were obtained from the interviews with vocational teachers are presented in Figure 1.

The activity of VET teachers is directed towards the preparation of a real specialist for the labour market *([...] the employer imagines that the pupil must come to work fully, 100% ready; he wants to get a prepared, ready for the work specialist, meeting his/her own personal criteria, R35).* A prepared qualified specialist for the labour market is the object of VET interaction. Vocational schools focus on the practical training of future skilled workers. In some professions, training is 'material': one needs to tap the

material, to touch the detail, feel it (... *one must be handed down so that you can practically do it automatically ..., R29).* However, it is not possible to prepare a good practitioner only practically without theory - theory and practice have to go together (... *We produce [...], for example, with our students [...].While producing something you will come across theory, R3).*

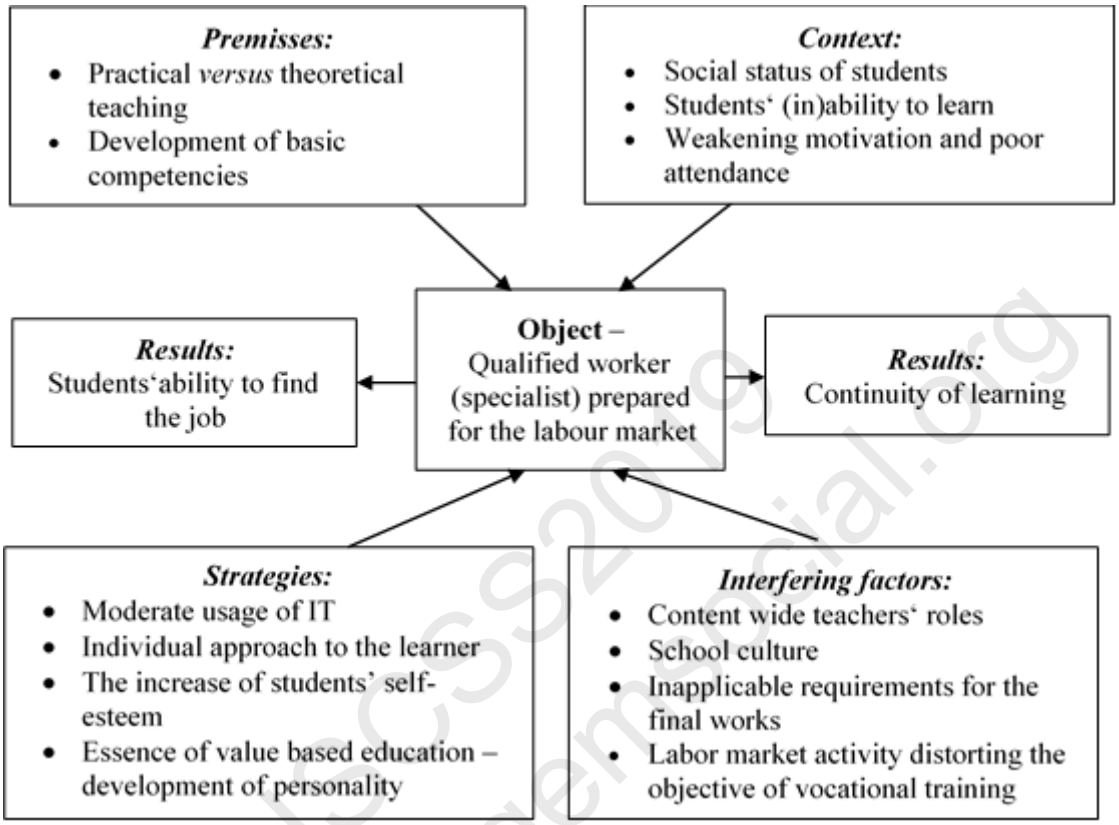

Figure 1.Parameters of educational interaction

Vocational educators have mastered a variety of techniques to link theoretical and practical teaching *(... I work on the principle that I give practical installation right away and see what problems the student has [...], and then dash to the board and explain the problem, what's wrong and why ..., R7*). Most vocational school students are not inclined to go deeper into theories, but life itself makes them do it *([...],when he starts practicing, he sees what he doesn't know, then he needs to read, R1).* Unfortunately, it is often too late - *in the third course, when one missed majority of things (R3*).

Teachers emphasize that young people alongside with specialty subjects need general competencies as well (*Young person also needs general competencies, much needed, R1*). In addition, a modern employer demands more and more diversity of knowledge and competencies. *(If I, coming to a new job, am able to perform more duties, I will have more clients and my earnings will be better, R28. The more you know, the more positive towards you is your employer. It may be the reason for the better salary, R33).*

The context in which educational interaction takes place is rather complicated due to the students' social situation. All of the vocational schools that took part in the research have students from social exclusion, incomplete, deprived families, orphans, the

disabled, and the condemned *(If 80% of the group have both parents, then that group is immediately visible - it is different. And where there are mark averages from 4 to 5, yes, that is 80-90% of parents divorced, R25).* These students, in particular, face financial problems (*I tell them [...] there will be practical driving; you will have to pay for fuel. If you do not have money today, you can bring it later. It is a problem, for them R48)*. Their attendance is poor, their motivation is low (*Students have no motive [...] R15); they find it harder to learn.* When working with such students, better results can be achieved when parents are interested in and helping teachers *(... if the family is helping, the parents are involved, then there is a completely different result, R15).* However, there are not many of such parents.

Unfavorable social and family environment influences pupils' ability to learn - pupils who are unable to continue their education in grades 11-12. (*Some of them will not be able to get the certificate of the general education, R43).* Very often, only a little bit of a curriculum is the only way to do it. The overall level of learning is decreasing. Teachers describe learners as illiterate, ignorant, riddled, inexplicable, the easiest way to go. It is difficult for them to read, understand the text (*Reading A4-size pages is difficult for them. Ten years ago, I had no problems in analyzing philosophical ethics with my students; I am now doing simple tasks. [...] My students say it is difficult, R47) I have already given up writing ..., R47*), finding the information (*I give the book, I say, look for information. They are not able to find that information, R15)* and even make the 'ready-made' *(... do not know how to make a 'ready-made'. They do not cheat; prefer to give a blank sheet ..., R15*). According to the research participants, such pupils make up about half of all learners.

It is recognized that pupils' motivation is decreasing, attendance is getting down, and the situation is getting worse every year (*They [the students] do not know what they want. They generally do not want anything, R1*). The teacher thinks this is a common trend across Europe (… *absence of motivation is probably from primary school. Parents did not motivate, general school did not motivate, and that non-motivation continues ... Here is the general trend, not the trend of one country, Europe ..., R27*).The unmotivated pupils are given the opposite example - the children of farmers, whose motivation is different (*The children of [...] farmers, whose parents get the European money, who bought the new technique. They can already work, R44*). There is also a difference in motivation for those who open their own company or want to start a business, retraining from the labor market (*They come for a short time, come motivated, know what they want, R43*). Learning motivation changes, especially when students are in practice, but the start is difficult. On the contrary, attendance is getting worse in 3rd course, especially if a student gets a job (*Not so bad at all, but attendance is decreasing, R43*).

The most promising strategy for working with vocational school students is individual approach to the learner. While teaching individually, the teachers used games and gaming elements, especially when working with disabled people *(... with children with intellectual disabilities [...] one has to work differently. Most effective are games... R41*), while presenting the new material, analogues and interlinks and examples are used *(Do you know what a stroke is? We know there are two-stroke engines and four-stroke engines ... Let's explain what the stroke is and link it to the engines, R47).* Some teachers work 'more specifically', others try to link the teaching material with business experience and show how practical - financial benefits can be obtained*([...] I combine*

with business because I myself have liked business R7...). Individual self-study assignments are more focused on motivated students (*They perfectly work on their own. They are reading, studying the material, clarifying what is not clear, comes to the tutorials to consult the teacher [...]Quite motivated students have applied to the computing programs this year ..., R24).* Teachers expressed the opinion that the individual learning is not very effective with the students who came with the labor market recommendations *(They are less fond of working independently; they want the teacher to teach everything. They are lazy to work with books, tasks, they just want to sit and listen, R5).*Teachers even try to meet the physiological needs of the students *(During the first lesson our learning is quieter because students are not quite physiologically awake. If you give an active method, everyone 'will die', R20).* Teachers' goal is the development of their students (*First of all, they look for it to improve, R20).* Teachers are proud to see the fruits of their work (*And if we succeed in doing something for the child to complete the education, it is our enormous achievement, R25).*

Information technologies (IT) are used quite moderately in VET. In almost all schools, curriculum materials (video, self-study, tests, tasks, etc.) are prepared on electronic platforms according to project activities. (*This way of learning is ideal for modern students. They don't need to write, they don't even need to read, there is a soundtrack. There are video insertions in the paragraphs that stop students of getting bored ..., R3)*. Information technologies are more commonly used by the teachers of basic and theoretical subjects, but not for practical tasks. They stick to the opinion that practical professional subjects should be taught more traditionally sticking to the principle of learning by doing and working. Moreover, the educators see a greater benefit of information technologies in monitoring learners' learning process (*It may be seen how much time a student has spent on a task solution, R3; how they react to evaluation, teacher's notes, R20)* and in virtual communication with their students *(Now it is a common practice - they have created a facebook group. It is instantly visible what they are doing R20).*Still some educators are not very positive about students' communication via social networks *(... what concerns social networking - I'm not personally very much for it. [..] If a student is allowed to facebook majority of time, then he/she will get addicted to it, no benefit at all from it. The students should be encouraged to use various sources of information, R9).* According to the survey participants opinion, interactive methods are not a panacea (*No need to load the students with technologies, R20),*they appreciate face to face communication with students *(One needs a good book, a real work here and right now, R20).*

The increasing of pupils' self-esteem is an equally important strategy for working with vocational school students. One of the ways to do it is to involve learners in international mobility projects. This is not only an additional initiative for them, but also a good self-confidence strengthening activity *(... those children who are going to practice in foreign countries have a lot of distrust [...] But when they come back, they come to thank for encouragement; R42).* Learners' self-esteem is enhanced by their own participation in the learning process and reaching a tangible, concrete result that they can be proud *of (… the major fun is when you are actively involved in the process [...] and can be proud of what has been done: "Wow, I did it. ", R35).*

The essence of value education is to develop personality *(This is the most important thing - to be a human being, only then a competent employee ..., R1).* It is not easy for

young people to have strong value system in the contradictory modern world, where you have to be able to choose. Teachers note that students appreciate the symbols of external power, financial status being not so important. However, their values are gradually changing: the most important values are now already family, security, freedom. In order to develop students' values the most important factor is the behavior of the teacher, even of the entire school teachers' team. *(If the students feel that you are enthusiastic about what you teach, they get infatuated, R25).* The most important thing is the teacher's personal belief in what he/she does teacher's personal example showing that *'it is not the money that creates a happy life' (R20)* is the most effective factor.

The interfering factors, that affect the pedagogical interaction, may be distributed into internal and external ones. Internal factors are the performance of teachers' roles and school culture. External factors are the activities of National Examinations Center (NEC), Labor market and potential employers. Vocational school teachers are not only educators, their role repertoire is very wide: they are educators, parents, best friends, and even bankers. Teachers not only know their students very well *(... vocational educators who work with those students, know their abilities, responsibilities, motivation, diligence ..., R42*), but also help their pupils materially, lend money when they run out of them *(... one student asked for a loan of 10 EUR. I gave him the money ..., R12*), develop their hygienic habits, help to manage their academic debts *(It is no secret that we try to handle their debts; we talk to teachers about how to deal with debts, R44).* Teachers' work is not measured in hours or workloads, it does not fit in the usual rhythm of the day *(... in the evenings, and in the weekends ... no difference ... when they have a problem, they ask for help and you come to rescue, R12).* The teachers work with their students' parents as well. Teachers acknowledge that this activity is difficult, harsh, but it is an integral part of their professional activity. Thus, teachers are not only concerned with the achievements of their students, but are also happy about their maturity *(... they have come to school immature, irresolute, not motivated, and in the 3rd course they seem to be different people, R25).*

Not only teaching and training, but also sincere care for the students forms a special culture of vocational schools *(Our culture is based on family communication, R35).* The modern vocational school performs not only an educational function but a social function as well. Some teachers think the latter is even more important. According to the teachers from the investigated schools, entering the vocational school the students come to a completely different space. Smaller schools do not even have bullying problems. Larger urban schools have very clear and very strict rules of conduct and attendance. Some schools take the initiative and develop special programs for students with disabilities *(We practically launched this program in Lithuania. Our purpose was the development of their life, personal, professional skills, social skills, R35).* The problem is that the integration of people with disabilities remains problematic at the end of school. In addition, the vocational schools in rural areas are the centers of social and cultural life.

The teachers revealed more negative attitudes towards the external factors: the activities of National Examinations Center (NEC) and Labor market, potential employers' behavior with the new specialists. Teachers are outraged by the inadequate requirements for vocational school students, presented during final school leaving examinations. According to teachers, methodological requirements are unreasonable and unrealistic *([...] we think that the content of exams is prepared by a 'university professor, flying in*

the clouds', who does not really know how the educational process is going on in vocational schools, what abilities the students have. Preparation for the technology school final exam is equated with professional bachelor work. It is much easier for a vocational school student to do a specific job than to write a thesis, prepare a presentation and defend itself R17; ... this is already a tragedy ..., R12). Teachers note that the level of vocational schools, secondary schools and lyceums is not the same; still the requirements are the same.

Qualification or retraining of individuals by EU labor market projects *'distorts the objective of the VET system'* (R35). The training organized by the Labor Market may have sincere aspirations for retraining those who are over 55 years of age, but not the younger ones or even the students. Though the participants, especially the students, are happy to choose Labour market activities, the schools have a number of problems. The students leaving for Labour market courses results in the misbalance of the school's internal order, the decrease in the motivation of the students –*'seeing that they can receive the same training in a shorter time and with a higher scholarship, they drop the school' (R35)*. Such results demonstrate that the state funds are inefficiently, irrationally used. There is also a clear lack of sequence in VET system: secondary education - vocational training - the qualification acquired.

Employers' behavior with vocational school students during the professional practice very often weakens the efforts made by teachers. It is not only difficult to find a place for practice, but also the students are unwilling to participate in practice because of the inappropriate behavior of employers *(there is no common understanding between the teachers and employers, although we (teachers) are very much trying to reach it, R4).* In Lithuania, it is common for an apprentice (student) to give unqualified works *(... at first the employers will see if the future cooks can work as cleaners ..., R2).*

In some cases some trainees do not want to go to practice without a salary *(...Motivated and gifted students will create an added value: will help with the tires, remove the wheels ... R21).* Teachers have provided some examples of positive employers' behavior as well, but, unfortunately, they were fewer. Hence, there is still a lack of attention, ethics and culture of human relations *(The students say that they are hurt by their employers…R7).*

The result of educational interaction is a successful employment of students. Teachers are delighted by the success of each student, whether he/she has created his/her own business (*Small business organizers work in shops, create businesses: the girl is engaged in floral realization, has several places of activity ..., R37),* or hired *(... we see our students working not only in the field of accounting; they work both in trade and in banks… R38).* Unfortunately, there are cases when the graduates from vocational schools do not always find work. It is related to structural unemployment problem (*I don't know why these 2 specialties are open. The [...] sector is too weak to recruit. R44).*

Another emerging tendency is the continuity of learning. After graduation from a vocational school, the graduates are enrolled in colleges or universities (*Those who are in business, according to statistics, all [...] go to part-time studies, R20*). Schools follow the career of their graduates - some of them are really impressive. However, it was noticed that a few years ago the learning continuity indicators were better. As the overall motivation of students and their ability to learn are reduced, the number of students, who continue their studies, decreases.

CONCLUSIONS

Vocational teachers perceive the essence of their educational activities as a fruitful preparing of competitive qualified specialists. A qualified specialist is characterized by the possession of professional (special) skills, as well as theoretical knowledge of the subject and general competencies that enable the better adaptation in a changing world. The greatest satisfaction for VET teachers is the successful employment of their students, the continuation of learning at a higher level, their personal maturity.

Teachers underline several problems appearing in the changing context of their work. They are: the growing number of students from unfavorable social environments, the weakening school attendance, motivation to learn, and the loss of ability to do it. By adapting themselves to the changing nature of students, VET teachers master other strategies of teaching: the individual work, value education, and the increasing self-esteem of students.

The VET school and teachers are changing themselves as well: teachers assume new educational roles, such as 'parents', 'best friends', 'bankers'. Vocational schools, especially in small towns, develop a sense of community, family, and play the role of 'rural enlightenment'. Teachers think that a major obstacle in this process is short-term European labour market projects. They weaken and even damage the prestige of vocational training. The incompetent behavior of most employers even strengthens the negative students' attitude towards the vocational education.

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WAYS OF PREPARING ENGINEERING STUDENTS TO INTERCULTURAL COMMUNICATION

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ABSTRACT

The article discusses the issue of developing intercultural competence in the process of teaching a foreign language to engineering students. The intercultural competence is a complex of knowledge, skills and personal characteristics that contribute to the choice of adequate solutions of communicative tasks and effective intercultural interaction. In the course of studying a foreign language, it is necessary for students to learn to perceive certain phenomena inherent for a different culture in comparison with comparable phenomena of the native culture as well as analyze communication failures in intercultural communication and, if possible, avoid or clarify them. The authors claim that the development of students' motivation for independent research of other cultures is more important than foreign culture knowledge. The authors conclude that the success of language training in preparing students for intercultural communication largely depends on the choice of teaching methods. The authors suggest their methods and propose to devise assignments based on the principles of consciousness and activity in teaching foreign languages. Some tasks that contribute to improving students' intercultural communicative competence are presented.

Keywords: engineering education; foreign language teaching; intercultural approach; the study of languages and cultures

INTRODUCTION

The intercultural competence of students of a non-linguistic university represents a complex of knowledge, skills and personal characteristics that contribute to the choice of adequate solutions of communicative tasks and effective intercultural interaction. The essential elements of intercultural competence, in our opinion, are knowledge of the cultural characteristics of the country of the target language; knowledge of the norms of verbal and non-verbal everyday behavior in the home country and in the country of the target language; knowledge of different behavior styles; awareness of ethnic stereotypes and taboos in intercultural communication. In the course of studying a foreign language, students need to learn to perceive certain phenomena inherent for a different culture in comparison with comparable phenomena of the native culture as well as analyze

communication failures in intercultural communication and, if possible, avoid or clarify them.

THE NOTION OF INTERCULTURAL COMPETENCE AND WAYS OF ITS DEVELOPMENT

The term "intercultural competence" is understood as "the highest level of knowledge of the methods of realizing intercultural communication between partners in interaction – representatives of different cultures and societies" [7]

Claire Kramsch in her work "Language and Culture" wrote "As long as culture acquisition only means the ability to momentarily see the world through the eyes of a native speaker or to occasionally behave in ways that conform to native speaker expectations, culture acquisition should be a desirable goal of language learning." [4, p. 33]. And our long-term teaching experience has corroborated the idea of co-studying language and culture. This principle is one of the fundamental ones in the teaching of foreign languages at any level [10]. Currently, there are a number of culturally-oriented approaches, the most wide-spread of which are linguistic-cultural [12], [6], [2], socio-cultural [10] and intercultural [2], [3], [9].

Despite the differences in these approaches, the conclusion reached by researchers is the same: to communicate successfully in a foreign language, it is not only necessary to be fluent with the language material, but also to have knowledge of specific concepts characteristic of a particular culture. In her works, S. Ter-Minasova has repeatedly emphasized that communicators frequently fail to realize they may have very different ideas about pertinent and inappropriate behavior, polite and impolite ways to communicate. Ethnocentrism, interpreted as "the tendency of a person to evaluate all life phenomena through the prism of the values of his or her ethnic group," is considered a reference [11].

At the same time, we note that it is not so much the knowledge about a foreign language culture that is important as the development of motivation for independent study of other cultures. While earlier special attention was paid to studying culture specific vocabulary of English-speaking countries (this is still in place, however), then in the context of globalization, with English being a lingua franca and used as a means of communication by representatives of various cultures, knowledge of cultural peculiarities of Britain and the United States only will not always guarantee effective communication. In recent years, countries whose cultures are fundamentally different from each other (for example, China, India, Arab countries) and from most English-speaking countries are gaining increasing influence in the scientific and industrial fields of communication. That is why it seems necessary to teach students to be sensitive to representatives of different cultures, to form the habit of preparing for business negotiations thorough preparations, familiarizing themselves with the strategies of correct behavior of a representative of a particular culture. Indeed, as noted by S. Ter-Minasova, "foreigners are easily forgiven for language mistakes; cultural mistakes are not forgiven to anyone, especially foreigners" [11].

In our opinion, the result of language training of students depends equally on the level of preparation and motivation of students, on the teacher's professionalism, on the

choice of teaching methods and on teaching materials, which are relevant to the training objectives. At the same time, the role of the teacher is given a special emphasis: the teacher does not only help students master all aspects of the language through the prism of a foreign culture, based on the materials of the textbook. Since each foreign language lesson is a meeting with a different culture, great attention should be paid to learning the world of a foreign language. As a foreign culture is a complex concept that can hardly be studied in its completeness, it is the responsibility of the teacher to select elements of the foreign culture that are necessary and sufficient for effective intercultural communication and to introduce these elements into the course of study in accordance with the content of the course textbook. Therefore, the teacher should conduct a thorough preliminary analysis of the course textbook, identifying potential difficulties and predicting possible errors. Using their professional experience, the teacher should choose the most significant from the vast amount of materials available, adapt them according to the students' language level and present it to students with the necessary comments, paying special attention to similarities and differences between their native and foreign cultures. In order to form the intercultural competence, the teacher needs to design special tasks that will stimulate students' interest in the material being studied.

This article is a logical continuation of the authors' work in the field of studying the theory and practice of teaching a foreign language in a technical college. [8].

From the point of view of a cross-cultural approach to teaching a foreign language, the following teaching methods are considered effective to develop communication skills: project method, heuristic and research methods, the method of problematic situations and problematic issues. In our opinion, the efficiency of these methods in teaching foreign languages to engineering students can be explained by the fact that one of the strengths of this category of students is their analytical mindset. Therefore, we consider it reasonable to design assignments based on the principles of consciousness and activity in teaching foreign languages. Thus, for example, instead of assigning memorization of speech clichés (that play a significant role in mastering oral speech), we suggest furnishing a lesson familiarizing students with the concept of "politeness" in a sociolinguistic sense, and with the Brown-Levinson theory of politeness [1]. Having an idea of politeness strategies, in particular positive and negative politeness, and, with the teacher illustrating the theory with examples, learning that the British linguistic culture is characterized by negative politeness strategies, students will be much more aware of English speech etiquette and may be able to predict behavior of their foreign culture speech partners.

Students might be invited to discuss the Anglo-EU Translation Guide (Table 1), taken from the book "Russian and English: Language, Culture, Communication" by T. Larina [5].

Table 1. Anglo-EU Translation Guide.

What the British say	What the British mean	What others understand
I hear what you say	I disagree and do not want to discuss it further	He accepts my point of view
With the greatest respect...	I think you are an idiot	He is listening to me
That's not bad	That's good	That's poor
That is a very brave proposal	You are insane	He thinks I have courage
Quite good	A bit disappointing	Quite good
I would suggest...	Do it or be prepared to justify yourself	Think about the idea, but do what you like
Oh, incidentally/by the way	The primary purpose of our discussion is…	That is not very important
I was a bit disappointed that	I am annoyed that	It doesn't really matter
Very interesting	That is clearly nonsense	They are impressed
I'll bear it in mind	I've forgotten it already	They will probably do it
I'm sure it's my fault	It's your fault	Why do they think it was their fault?
You must come for dinner	It's not an invitation, I'm just being polite	I will get an invitation soon
I almost agree	I don't agree at all	He's not far from agreement
I only have a few minor comments	Please re-write completely	He has found a few typos
Could we consider some other options	I don't like your idea	They have not yet decided

We suggest using the following types of tasks while working with the table:

- leave only the first column open and invite students to explain the meaning of each phrase from it, then compare their answer with the option suggested in the third column;
- ask students to predict what the British really meant, open the second column and discuss what they read;
- invite students to formulate the idea given in the second column independently, then discuss the differences;
- invite students to come up with a dialogue between representatives of British and non-British linguistic cultures, using the information obtained during the lesson;
- discuss possible situations of communicative failures in the process of communication with representatives of other cultures and ways to avoid these failures.

Exercises, such as those described above, are intended, among other things, to stimulate students' cognitive interest, and their motivation to acquaint themselves not only with the culture of English-speaking countries, but also with other foreign-speaking cultures. The examples taken from authentic speech help illustrate the propensity for the allegorical manner of speech of the British, which is often difficult to understand not only for Russians, but also for representatives of many other cultures.

In foreign language classes, students can be offered a variety of culture-oriented activities: for example, to conduct a virtual tour of one of the cities of the world, to present the results of researching a cultural phenomenon in the form of an oral report, to prepare a quiz or quest, etc. These activities broaden the horizons and curiosity of students, form and develop the general cultural competency of students, and foster respect for representatives of various ethnic groups in the world.

An interesting methodical find is the preparation of associative maps. At the SIETAR international congress in Finland in 1994, colleagues from the Norwegian Center for Intercultural Communication presented a cultural map of Europe reflecting the perceptions of these countries, based on stereotypes of cultural ideas inherent to Norwegians. Taking this idea as a basis, we offer students to compile various associative maps of the world: cultural, culinary, sports, sightseeing and famous personalities. Such tasks are aimed not only at expanding students' horizons, but also at students' analysis of their own ideas about the world and the stereotypes that they have. It is surprising that students who were brought up in the same culture and received similar education may have different ideas about various cultural phenomena. This is what allows us to show students the importance of learning about and from other cultures, of respect for cultural differences, which is the key to effective teaching of intercultural communication.

As a creative task that can be performed both individually and in groups, we offer students to make a video "What if I Was Born in Britain (Canada, USA, New Zealand, etc.)?" after showing the original advertisement video "What if I Was Born in Russia?", starring the famous American actor David Duchovny. In this video, the actor reflects on what his life would be like if he had been born in Russia. He imagines himself being an astronaut, a hockey player, a choreographer, etc., focusing the audience's attention on

the most outstanding achievements of culture, economics, and sports in Russia. During this assignment, students have to analyze the cultural realities of the target culture, and imagine themselves as part of a foreign language community. After analyzing the socio-cultural realities of the life of their peers in the country chosen for the project, students need to describe the place of birth, their family, social circle, education received, hobbies, and their chosen profession.

As a written creative task, students are assigned to write a first-person story about an important historical event in the target culture. As recommendations for the implementation of this individual task, we recommend watching the film "Forrest Gump", which highlights the most important US events of the second half of the 20th century, seen through the eyes of the main character. Watching the film not only helps students cope with the written assignment, but also broaden their horizons, delve deeper into American culture and history, perfect their listening skills, and improve their linguistic competence.

CONCLUSION

In the course of studying a foreign language, it is necessary for students to learn to perceive certain phenomena inherent for a different culture in comparison with comparable phenomena of the native culture as well as analyze communication failures in intercultural communication and, if possible, avoid or clarify them. It is also indispensable to teach students to be sensitive to representatives of different cultures, to form the habit of preparing for business negotiations, familiarizing themselves with the strategies of correct behavior of a representative of a particular culture. In our opinion, the result of language training of students depends equally on the level of preparation and motivation of students, on the teacher's professionalism, on the choice of teaching methods and on teaching materials, which are relevant to the training objectives. The formation of students' intercultural competence will be effective only if the authentic educational and methodological complex is supplemented, and correctly adapted to the students' native language and native culture. In this case, students master not only linguistic material, but also acquire an interest in learning foreign cultures, customs and traditions; they learn to understand, appreciate and respect both a foreign culture and their own, while being subjects of intercultural communication.

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WAYS TO DEAL WITH DIFFICULT SITUATIONS, BY YOUTH ADDICTED AND NON-ADDICTED TO THE INTERNET

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ABSTRACT

In difficult and stressful situations, people apply different remedial strategies. Most often these are active strategies: planning, active coping, positive reevaluation and development (Oginska-Bulik and Juczynski 2009). As a consequence of stress, activities are undertaken containing cognitive components, concentration on the problem, emotions and individual (Seoul 1999). Opposite the young people, the Internet offers enormous possibilities today, which allows unlimited access to all kinds of information, but also creates the danger of addiction. A worrying phenomenon is the fact that young people addicted to the Internet are becoming younger people. Therefore, the aim of this research was to learn about the differences in the ways of dealing with difficult situations that occur in addicted and non-Internet dependent youth? The theoretical analysis of coping with difficult situations by addicted and non-addicted youth as well as the results of the research so far allowed to formulate the following main hypothesis: Young people with a high degree of Internet addiction are less able to cope with difficult situations than young people with a low degree of addiction. This hypothesis has been empirically verified using the following tools: COPE Questionnaire to measure Carver's coping strategies. The second tool was the personal worksheet, which was used to collect basic information about the examined youth and their activity on the Internet. The research was conducted in person in January and February 2019. The selection of the subjects was deliberate. The study was attended by a total of 338 young people, ie 16-18 year old students studying in high schools in the Lesser Poland Voivodeship in Poland. Obtained results of research on coping with difficult situations by the studied youth differentiate extreme groups. Young people characterized by high activity on the Internet received a low score of coping with difficult situations. They mostly used coping style based on emotions, cessation of activities and distraction. On the other hand, young people with low Internet activity in difficult situations search for emotional support, apply a strategy of positive reevaluation, planning and active action. The obtained test results have their confirmation in the adopted general hypothesis. The completed research program does not exhaust the problem of coping with young people in difficult situations, nevertheless the research carried out has a socially relevant meaning, as it allowed to formulate application forms for pedagogical practice relating to effective intervention in the form of universal education about Internet addiction and ways of dealing with difficult situations.

Keywords: Internet, youth, difficult situations, addiction.

INTRODUCTION

Difficulties are related to stress, which is accompanied by a whole life with a different intensity. In the literature, it is described as the body's response to physical or mental demands, such as biological and psychological stress. In another aspect, stress is treated as a difficult situation resulting from overload or danger. Researchers also describe stress as a reaction that results from a disagreement between an individual and his environment [1]. For every person, the ability to deal with stress is very important. As Terelak writes [2], coping with stress is a difficult and complicated process. It is connected with the observation and assessment of what the individual is currently thinking or doing, what reactions he is expressing and what decisions and intentions or ways of thinking he makes to free himself from mental tension. In Taylor's concept [3], a person in a dangerous situation can manifest three types of actions aimed at returning to a proper psychological functioning. The first way is to look for the cause of the event, change the current life goals, its meaning from the perspective of current experiences. In the second person tries to control the situation, take control and get the power of agency. The last action is a focus on self-strengthening, which is mainly about comparing with people whose situation is even worse. Thanks to this, the individual begins to assess himself more positively.

The literature on the subject talks about the style of coping. It is defined as a permanent, individual disposition of the individual to a specific struggle with stressful situations [4]. This instruction is not dependent on the stressful situation, because it is the property of the individual. However, it does not affect the stress situation in the same way, because coping depends on many variables.

Another notion present in science is the coping strategy, understood as a behavioral and cognitive effort undertaken by a given person in a given stressful situation. These activities, depending on the type of stressful situation, may have different functions. Which unit will depend on the type of situation, personality components, age, sex or education [5]. The way in which people deal with difficult situations undoubtedly affects their health in terms of both subjective and objective. This is clearly marked in the psychological dimension, while it is less important in a social context. People with high coping skills who, knowing their emotions more often in a stressful situation, choose rational and task-focused coping styles. However, they rarely use ineffective coping styles that focus on emotions [5]. Stress is often the result of conflict resulting from rivalry between people. Units compete for power and position, as well as for personal resources. Social rivalry has an impact on self-esteem and self-esteem. Important remedies and their determinants are important in this regard. Some personality traits are resources that help the individual in stressful situations. Others limit remedial actions. People who cope better with stress are generally extroverted, are characterized by low levels of anxiety, are mentally resilient, are more involved and control, and stressors appear to be a challenge.

Talking about the subjective conditions of dealing with difficult situations, it can be stated that individual people prefer different styles and strategies of remediation. Some focus on the task and successive problem solving. Most often these are active strategies: planning, active coping, positive reevaluation and development [6] others on avoidance and escape. Adolescents who prefer avoidable forms of coping are more at risk of being able to fall into different addictions. As a result of this addiction, relationships with loved ones may be destroyed, school grades may be lowered. One of the forms of addiction of

contemporary youth is Internet addiction [7], [8]. It manifests itself in too frequent use of social networks, games, chat, shopping or surfing on websites. An addicted person limits time to sleep, nutrition, just to have more access to and use of the Internet. He has a strong desire to use the Internet, he has difficulties with self-control regarding the use of this medium and because of the lack of access to it there is a feeling of discomfort. In the face of a stressful situation, young people use only some strategies, although there are many more. This is conditioned by the characteristics of the given situation and personality traits. Therefore, the problem has been identified in this research.

METHODOLOGY

The aim of this research was to find out the differences in how to deal with difficult situations that occur in addicted and non-Internet dependent youth.

The theoretical analysis of the problem of coping with difficult situations by addicted and non-addicted youth as well as the results of the research carried out so far allowed to formulate the following main hypothesis:

> ***H1. Young people with a high degree of Internet addiction are less able to cope with difficult situations than young people with low addiction.***

This hypothesis has been empirically verified using the following tools: COPE questionnaire for measuring coping strategies Ch. Carver. The second tool was the personal worksheet, which was used to collect basic information about the examined youth and their activity on the Internet.

The research was conducted in person in January and February 2019. The selection of the subjects was deliberate. The study was attended by a total of 338 young people, ie 16-18-year-old students studying in high schools in the Lesser Poland Voivodeship in Poland. From this group, two extreme groups (28 students each) were identified, ie group A - students who declare their low online activity and group B - students declaring high activity on the Internet.

RESULTS

Aktywność badanej młodzieży w Internecie

Of the 338 respondents (including 158 women and 180 men), 79 people (including 31 women and 48 men) rated their activity on the Internet as high, 208 (including 99 women and 99 men) and as low as 51 (in including 28 women and 23 men). The analysis of these data shows that men's activity on the Internet is slightly higher than that of women. Therefore, two extreme groups of 28 people (including 14 women and 14 men) were distinguished for further analyzes in order to be able to correlate these results with the results of the COPE Carver Ch. questionnaire.

Remedy activity of the young people

The surveyed youth declaring low activity on the Internet within 15 assertions indicated behaviors that they apply in a stressful situation: 1) almost never, 2) rare, 3) often, 4) almost always.

Behaviors used in difficult situations by young people for LOW Internet activity	**Women**				**Men**			
	1	**2**	**3**	**4**	**1**	**2**	**3**	**4**
1. Active coping (ARS)			9	5			11	3
2. Planning (PLA)			6	8			7	7
3. Search for Instrumental Support (IPR)			8	6			10	4
4. Search for Emotional Support (PWE)			9	5		3	9	2
5. Avoidance of Competitive Actions (UKD)		2	8	4			6	8
6. Return to Religion (ZKR)		2	6	7		5	6	3
Positive Revaluation and Development (PPR)		1	7	7			8	6
8. Abstaining from the Action (POD)								
9. Acceptance (AKC)			8	6			9	5
10. Focus on Emotions and their Discharge (KNE)								
11. Denial (ZAP)								
12. Inverting Notes (ODU)								
13. Cessation of Activities (ZAD)								
14. Use of Alcohol or other Psychoactive Drugs (ZAL)								
15. Sense of humor (PHU)								

Behaviors used in difficult situations by young people for HIGH Internet activity	**Women**				**Men**			
	1	**2**	**3**	**4**	**1**	**2**	**3**	**4**
1. Active coping (ARS)								
2. Planning (PLA)								
3. Search for Instrumental Support (IPR)								
4. Search for Emotional Support (PWE)								

5. Avoidance of Competitive Actions (UKD)								
6. Return to Religion (ZKR)								
Positive Revaluation and Development (PPR)								
8. Abstaining from the Action (POD)								
9. Acceptance (AKC)								
10. Focus on Emotions and their Discharge (KNE)			9	5			11	3
11. Denial (ZAP)			8	6			9	5
12. Inverting Notes (ODU)								
13. Cessation of Activities (ZAD)			6	8			7	7
14. Use of Alcohol or other Psychoactive Drugs (ZAL)		1	7	7			8	6
15. Sense of humor (PHU)								

Links between the activity of the examined youth on the Internet and dealing with stress in the examined youth

Young people who declare low activity on the Internet are characterized by higher remedial activity. The remedial behavior preferred by her aims at solving the problem effectively. Teenagers with low online activity confront the difficult situation using the following strategies: active coping (ARS), planning (PLA), searching for instrumental support (IPR), seeking emotional support (PWE), avoiding competitive activities (UCC), return towards religion (ZKR), positive reevaluation and development (PPR) and acceptance (AKC).

Youth declaring high activity on the Internet is characterized by lower remedial activity. The obtained data confirm earlier passages that a group of people with high activity on the Internet does not tend to behave in a difficult situation, uses less effective strategies for coping with stress, focuses on unloading unpleasant emotions (KNE) escaping into Internet activity (distraction - ODU). Resigns from taking any action (ZAD), falls into helplessness, abandoning the achievement of the goal. These youngsters prefer emotional coping. This means that he focuses on the negative emotions he experiences. He escapes into the world of fantasy (ZAL), which is not conducive to rational behavior. they also use escapist remedial techniques. When confronted with a stressful situation, they reduce tension by using the Internet.

CONCLUSIONS

The obtained test results have their confirmation in the adopted general hypothesis. Obtained results of research on coping with difficult situations by the studied youth differentiate extreme groups. Young people characterized by high activity on the Internet

received a low score of coping with difficult situations. They mostly used coping style based on emotions, cessation of activities and distraction. On the other hand, young people with low Internet activity in difficult situations search for emotional support, apply a strategy of positive reevaluation, planning and active action.

The completed research program does not exhaust the problem of coping with young people in difficult situations, nevertheless the research carried out has a socially relevant meaning, as it allowed to formulate application forms for pedagogical practice relating to effective intervention in the form of universal education about Internet addiction and ways of dealing with difficult situations. Social support is very important for young people addicted to the Internet. Persons who are in a crisis make it possible to change the assessment of their own competences and to strengthen the sense of resourcefulness. The result is a change in the assessment of secondary stress to one that allows you to effectively deal with it. An important condition is that in the process of helping people who offer social support encourage young people to increase their own effectiveness, they were present at it. The certainty that a person has access to people who are ready to help her causes that fear is reduced, and the difficult situation is not so negatively marked. However, it is also worth noting, as Litzke and Schuh [9] write, that exaggerated help may in consequence result in the syndrome of learned helplessness). Internet addiction is a new phenomenon, but intensively researched, new scientific discoveries in this field allow the adaptation of existing therapeutic programs to the needs of „network-alcoholics".

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WAYS TO IMPRUVE THE EFFICIENCY OF STUDENT-CENTERED LEARNING IN RUSSIAN UNIVERSITIES

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ABSTRACT

The purpose of the article is to consider possible ways to improve the efficiency of student-centered learning in Russian universities.

It is well known that the involvement of students in the management of higher education institutions (HEI), their active participation in the definition of individual trajectories of their professional training increases the motivation of students, and hence the quality of education. To do this, it is necessary not only to consolidate the principles of student self-government in the local regulations of the HEI, but to build mechanisms for the implementation of these principles. In particular, this can be expressed in the structure and content of educational programs developed in accordance with educational standards, consisting of the mandatory part and the part formed by the participants of educational relations. To bridge the gap between theory and practice in student training will help project-based learning. Inclusive education should be provided not only with infrastructure, but also with special training of lecturers, the inclusion of specialized adaptation modules in educational programs. To ensure the quality control of students ' knowledge, the professional level of teachers and the organization of the educational process, internal University quality management systems for training specialists are created, an important element of this system should also be the structure of student self-government. It is also necessary to understand that the student-centered learning is not limited to the educational process, and covers the organization of life of the student campus, the possibility of self-realization of students in various public organizations, in creative teams.

In the context of increasing the competitiveness of education in Russian universities, the article identified and justified ways to improve the effectiveness of the implementation of student-centered learning. In particular, it was revealed a high demand for the possibility of influencing students on their individual trajectories of education, self-realization through participation in projects, both in the educational process and in public life.

The study used the results of sociological research based on surveys of students and teachers, including online surveys, content analysis of the quality of education in Russian universities, as well as the practice of the educational process and extracurricular activities in Russian universities, including taking into account the personal experience of the authors. The results can be used for further development of student self-government in order to improve the quality of the educational process.

Keywords: student-centered learning, motivation of students, individual trajectory of education, inclusive education, competitiveness of education

INTRODUCTION

By studying student-centered learning in Russian universities, we have identified its inevitable connection with the overall development strategies of universities. This shows that, on the one hand, leading Russian universities are trying to actively engage in global competition between universities, and on the other hand, the entire Russian education system needs deep transformations. Russian society is significantly different from the traditional societies of developing countries, but nevertheless has not yet come to the realization of the need to create human capital, which has long been in Western countries, not only part of the theories of human capital [1], but also part of public policy in the field of education, the daily practice of corporate strategies.

For example, spending on education as part of GDP in Russia amounted to 4.2% [2], unlike, for example, the Scandinavian countries, where this figure is the highest in the world: Iceland - 7.8%, Norway, Sweden - 7.7%, Denmark - 7.6%, Finland 7.2%.[3] Western countries, and especially the Scandinavian countries, show their public policy recognition that education, along with health care and other factors that shape the quality of life, become the main areas of human capital formation, the development of new knowledge, skills and abilities, or competencies by citizens. Preparation of high-quality labor force becomes a strategic condition for economic growth and development of the country, which largely determines its international competitiveness.

A fundamental study conducted at the Institute of World Economy and International Relations of the Russian Academy of Sciences identified the following trends in education in the next two decades:

"- changing the content of educational disciplines and teaching methods;

- lifelong learning;

-leveling differences in education systems of different countries;

-formation of a single world educational space;

-increasing labor mobility;

-increasing the number of stakeholders in the education process;

-the growing importance of University science in the preparation of the generation of the 2030s".[4]

If we analyze the development strategies of leading Russian universities, in particular Peoples' Friendship University of Russia (RUDN University), we can see that these provisions are already reflected in the real life of universities.

The fundamental document that determines the life of the University is the Charter of the University, which stipulates that one of the main governing bodies is the Conference of employees and students, a full participant in the management processes is the Students Council.[5]

Based on the proclaimed Mission: “Uniting people of different cultures by knowledge RUDN University creates leaders to make the World better” the purpose of the RUDN(PFUR) as an international classical university is

"- in the association of knowledge of people of different nationalities, races and religions;

- in the preparation of priority demanded specialists in various spheres of human activity;

- in the formation of individuals who are patriots of their countries and friends of Russia, attached to the achievements of world culture, carrying the ideals of humanism, democracy and friendship of peoples;

- in the education of young people who are able to work successfully in any country of the world and show their creative abilities in the context of the interconnection of civilizations and the diversity of modern society”.[5]

Since its establishment in 1960, the Peoples’ Friendship University of Russia, has had ample opportunities to independently plan the educational process and develop student self-government. Today, the Academic Council of the University and Academic councils of faculties have even more opportunities to independently determine the directions of training, ways to improve the educational process and the life of students. To ensure the high quality of education on the basis of preservation of its fundamental nature and compliance with the current and future needs of the individual, society and the state, students are actively involved in the selection of individual trajectories of their professional training.

Educational programs are independently developed and approved by RUDN(PFUR) on the basis of its own educational standards and Federal educational standards.

Educational programs developed in accordance with educational standards consist of a mandatory part and a part formed by the participants of educational relations. The balance of the training time allocated for the study of individual disciplines, certification requirements, is aimed primarily not at simply memorizing a certain set of facts and other data, but to acquire skills for learning, the ability to independently search and analyze information and knowledge. According to various studies, "another skill the increasingly matters in finding and keeping a job is the ability to keep leaning. When technology is changing in unpredictable ways, and jobs are hybridizing humans need to be able to pick up new skills".[6]

E-learning and distance learning technologies may be used in individual training programs. Implementation of a number of training programs is possible in the network form.

To ensure the availability of information, electronic libraries and encyclopedias, both in the public domain and purchased by the University by subscription, are widely used along with printed publications.

Digital technologies are expanding distance learning opportunities not only for students with disabilities, but also within the concept of life-long learning (LLL), for example, University graduates for advanced training. New prospects are opened by the production of ore of own MOOC, as here all over the world.

Many years of experience in teaching Russian and foreign languages has significantly expanded the list of general cultural, general professional competencies formed by students of the Russian Academy of Sciences, which increases their competitiveness and demand in the labor markets, both national and international.

The Russian and several foreign languages proficiency of the university graduates is ensured by the world-famous school of teaching Russian as a foreign language and the modern system of teaching foreign languages. In addition to training highly qualified specialists for many dozens of countries around the world, the university and its faculties maintain wide relations with many universities in the field of exchange of modern ideas for the development of university education, joint research, exchange of students, inviting well-known scientists and teachers to give lectures, etc. This enables effective use of the best universities in the world in training and education-minded and well-educated specialists able to enter the intellectual world elite.

Of particular importance for the motivation of students is the opportunity to participate in real research. In Western universities has long been a traditional combination of scientific and pedagogical activities. University science in developed countries plays an important role in strategies to increase the science intensity of GDP, this practice is actively and successfully adopted by developing countries. According to the forecast, by 2030, the outstripping growth rates of expenditures on IR in China and India will lead to a significant convergence of these indicators. (Table 1.) [4]

Table 1. The share of R&D expenditures in GDP, %

	USA	Japan	EU	Russia	India	China	WORLD
2020	2,72	2,90	1,89	1,05	0,95	1,01	2,00
2010	2,85	3,41	1,69	1,07	1,00	1,50	1,95
2020	3,00	3,50	2,00	1,50	1,50	2,00	2,17
2030	3,10	3,50	2,10	1,90	2,00	2,30	2,32

Unfortunately, if these trends continue, Russia, which is still together with the OECD countries, as well as China and India, concentrated the bulk of scientific and technical resources, may lose its position in the field of science and technology. Given that science is currently the main productive factor of technological progress, the accumulation and dissemination of scientific knowledge, scientific Outlook provide favorable conditions for modernization and innovation, to improve the efficiency of past investments in science and education, Russia may lose its existing position in global competition.

High rates of knowledge intensity of developed countries (the first 20 countries from Israel from 4.30% in 2015 to the Czech Republic from 1.98%) [7] are provided by both the costs of research and development (R&D) of the state and private companies. Moreover, it is believed that the higher the share of financing from private corporations (50% and higher), the more Mature and effective is the national innovation system. Private investments are used both for internal research and for placing orders for research and development in universities on the basis of the project approach.

Therefore, to bridge the gap between theory and practice in the people's friendship University to develop the approach to the learning process (The "CDIO Initiative"(Create-Develop-Implement-Operate) aimed at strengthening the involvement

of students in research activities and the practical orientation of training of future graduates, as well as the introduction of problem and project-based learning.

Involvement of students and teachers in research projects will enable students to deeply study their specialty and apply in practice the knowledge gained in the implementation of a real project.

This allows you to meet the basic standards of CDIO:

Standard 1. The necessary context of education is created in which theoretical, technical knowledge and practical skills are taught, assimilated and applied in practice.

Standard 2. Acquisition of personal, interpersonal and professional competencies in the creation of products, processes and systems.

Participation of students in the work on a real project will allow students to gain skills and abilities of individual and group interaction in the process of real activity (teamwork, prof. communication), as well as to improve personal learning outcomes (problem setting and problem solving, experimentation and obtaining new knowledge).

Standard 3. Integrated curriculum.

Working on a real project will help to identify the disciplines that need to be integrated into the learning process to achieve high learning outcomes in terms of disciplinary knowledge and skills.

Standard 4. Introduction to professional activities.

During practical training and internships, students are involved in professional practice by performing simple tasks performed individually and in teams.

Standard 5. Experience in design and implementation activities

The work of students on the creation of projects in the real world will allow them to be able to establish the relationship between the disciplines they study and their content and their professional and career interests.

The social skills acquired in the framework of the project-oriented approach are also very popular in the labor market. David Deming of Harvard University has shown that the labor market is already rewarding people in acquisitions that require social skills. Since 1980 growth in employment and pay has been fastest in professions across the income scale that put a high premium on social skills.[6]

Social skills are important for a wide range of jobs, not just for health-care workers, therapists and other who are close to their customers. Mr Deming thoughts their main value lies in the relationship between colleagues: people who can divide up tasks quickly and effectively between them form more productive teams. If work in future will increasingly be done by contractors and freelancers, that capacity for co-operation will become even more important.[6]

The University has developed and adopted a number of documents regulating the activities of the University in the field of vocational guidance and creating conditions for inclusive education.

When training disabled people and persons with disabilities, RUDN includes specialized adaptation modules in educational programs. E-learning and distance

learning technologies should provide for the possibility of receiving and transmitting information in accessible forms.

The center of youth student groups "Meridian of Friendship" created a working group of volunteers of the volunteer group "Wind of changes", the purpose of which is to supervise and help students with disabilities.

Work of Scientific library of PFUR organized in such a way that created the opportunities to serve individuals with disabilities:

To ensure the quality control of students ' knowledge, the professional level of teachers and the organization of the educational process in our University was established intra-University system of quality management of training as one of the defining areas of improvement of educational activities.[8]

In January 2005, the scientific Council of the RUDN approved the structure and purpose of the quality of education system (QMS) of the RUDN. In the NKR people's friendship University includes three main components: a model quality management program and improving the quality of training, service of quality assurance.

In 2011, the French company AFNOR Certification conducted a certification audit of the quality management system of training in the ore, the results of which the Commission decided on the compliance of our quality management system with the requirements of the international standard ISO 9001:2008.

The quality assurance program is part of the strategic development plan of the University. Implementation of the quality program is carried out by the quality service under the control of the University administration. As training in the RUDN (PFUR) is based on a system of credits (credits), all students of the RUDN (PFUR), forming their personal curricula, participate in the organization of training. The influence of students on the activities of the University has increased even more after the creation of Commissions on the quality of education at each faculty and at the educational Institute.

The Commission on the quality of education is a permanent Commission of The student Council of the RUDN (joint Council of students), which implements the right of students to participate in the management of the educational process, in order to protect the rights of students in obtaining quality education, as well as to assist the RUDN (PFUR) in the training of qualified specialists.

The social function of education is also highly relevant. Due to the higher level of education, the number of amateur citizens who are able to do without strong social support of the state, have high adaptive abilities in a rapidly changing world, are ready to be included in public life and activities. Such activity of citizens together with social trust between people, between citizens and the state forms the Foundation of social capital, which also testifies to the quality of life in the country. Scandinavian countries are also the leaders in this indicator. Therefore, the student-oriented training in the RUDN (PFUR) is not limited to the educational process.

From the first days of his stay at the peoples ' friendship University of Russia, the student is surrounded by the attention of the administration and his fellow countrymen-senior students who help him to join the University family. Studies show that training at the University is accompanied by the so-called evaluative anxiety.[9] As low and excessively high level of evaluative anxiety prevent "normal adaptation to learning and

interfere with productive learning activities", and therefore carried out with the support of students necessary Advisory and preventive work aimed at "normalizing the level of evaluative anxiety." [9]

Students have not only the right to participate in the discussion and resolution of the most important issues of the University, but also undertake to comply with the Code of honor of students. Almost all students are members of national associations (fraternities), which throughout the years of study help in learning, in solving everyday problems, organize national and international exhibitions, festivals and festivals. Friendship and life in a multinational student family, helps graduates to interact with each other in professional and social activities, in business.

At the University, where foreign citizens come for 5-10 years to live and study, everything is created for a full life of young people. These are not only worthy conditions for study, but also creative self-realization in more than 30 studios, ensembles and circles of the Interclub, education of leadership qualities and active life position in more than 200 national and international public organizations of the RUDN(PFUR).

The richest experience and traditions of PFUR for the preparation of highly qualified specialists for many dozens of countries, development of student self-government, the quality of the educational process allowed in 2018 select it and 9 leading signatory universities from different countries (from UK to Australia) as pilot sites for the new project "Living values of universities" ("Living Values"). This project was initiated by the Magna Charta Observatory, the world guarantor of the fundamental university values. At the moment, the Magna Carta of universities has about 800 members, including the leading Universities of the world. This organization was founded 30 years ago - in 1988.

Now the RUDN University Living Values are one of the most important elements in the university strategic development. The Living Values underpin the RUDN University corporate culture and serve as a basis for forming a corporate identity. The RUDN University Living Values are reflected in the RUDN University Mission, Teacher, Student and Employee's Codes of Honor and other documents. According to the RUDN University Mission the main RUDN University Living Values include: - multinationality and international cooperation; - contribution of the academic staff, researchers, students and graduates to the development of the international community; - comprehensive character of educational scientific activities; - equal opportunities; - commitment to studies, research and social activities.

The Coordination Board has been established under the implementation of the RUDN University Living Values project. It is headed by RUDN University Rector, Member of Academy V.M. Filippov, Professor Vladimir Tsvyk, Project Manager "Living Values RUDN University", Assistant professor Olga Savvina, Project Executive Secretary.

The Coordination Board consists of representatives of all RUDN University faculties, institutes and academy, academic staff, students and employees, university administration, representatives of student committees, RUDN University alumni.

During 2018 (May — October) RUDN University was doing research in the internal target group in order to determine the level of awareness, understanding, acceptance of the RUDN University Values and adherence to them. The research was carried out by a

working group of employees of the Sociological Laboratory of the RUDN University Faculty of Humanities and Social Sciences through directed discussions and focus-groups. The target group included students, members of the Council of Young Scientists, representatives of Student Associations, academic staff, researchers, administration. Following these discussions the values which can be perceived as living ones were determined as the main personal values. They include Unity – Multinationality – Peoples' Friendship – Tolerance – Discipline – Punctuality – Tactfulness - Responsibility. On 17 September 2018 RUDN University Rector V.M. Filippov made a report on the RUDN University experience and goals on the formation of the Living Values at the Forum of the annual meeting of the signatory universities of the Observatory Magna Charta Universitatum in Salamanca (Spain). The presentation by the RUDN University Rector noted that following the results of the preliminary stage of the implementation of the Living Values project at RUDN University the goal to promote the following values was set. They include: - Social Responsibility - Research Culture - Professional Development.[10]

The future goal is the implementation of the following strategy in the further RUDN University activities: From RUDN University Living Values – to Live the RUDN University Values![5]

The implementation of this project will not only improve the competitiveness of the University due to greater efficiency of coordinated work of teachers and staff, greater involvement of students in the educational process, but also allow to use this experience and other universities.

CONCLUSION

The Russian education system, being an integral part of modern society, is also in a transitional state. As in the economy, there are still problems of a qualitative and structural nature.

Leading signatory universities, one of them Peoples' Friendship University of Russia (RUDN University), develop student-centered learning in different spheres (the ability to keep leaning, participation in real scientific research, social skills, project-based learning etc.) as an inedated part of living values of universities, now most important elements in the university strategic development.

The analysis shows that in the coming years will continue the existing trends for greater autonomy of higher education institutions in the financial and administrative policies, the content of curricula and disciplines, the definition of the vector of research and development, the development of student-centered learning, which will improve the quality of education and, ultimately, the quality of life in the country.

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YOUTH IN RUSSIAN EDUCATION SYSTEM

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ABSTRACT

The article reviews the results of empirical research, which is focused on the position of youth in the Russian education system. The research was conducted among Russian young people in 2017-2018; the statistical population of Russia is represented by total sample of 1600 responders. Problems of involvement of young people in the educational system and satisfaction with the educational system are considered through the prism of the social context. The following issues were identified within the framework of the study: the socio-demographic characteristics of Russian youth; features of youth's involvement in educational activities; structure of leisure time; statistic of Russian education system; the possibility of self-realization during educational process. The results of research provide means for answering the following questions: What are the young Russians involved into? What is the attitude of Russian youth to studying? How do they spend their free-time? Is it possible for young people to realize themselves in the educational system?

Keywords: youth, education, young people, educational system, self-realization.

INTRODUCTION

Problems of studying the values, stereotypes, worldview, behavioral activity of young people are cross-disciplinary. Various elements, aspects, factors that make up the process of socialization of young people, affecting the behavior of young people, are analyzed by representatives of social and human sciences. Most part of socialization young people spend in various educational systems.

The relevance of the research is confirmed by many factors. Firstly, in any historical period, young people are considered as a driving force for the development of society in general; the same we can say about modern youth. Secondly, modern Russian society is going through a process of polarization between young people, which requires a deeper analysis of the convictions of young people, in particular - the analysis of the values of young people, the motives that define their behavioral activity. Thirdly, young people have a peculiar dynamic in terms of their exposure to political and economic factors [1].

Theoretical framework

There are different approaches to understanding the role and position of youth in society. A number of authors believe that young people since the allocation of this social group in the structure of society, is an active social group. Three main criteria of

allocation of youth as social group – age, position in society, social and psychological features – are described. These criteria determine the active position of young people in society [2].

Within the framework of the psychoanalytic concept, the natural prerequisites of youth, the specifics of growing up, the gender behavior of young people, the causes of aggressive behavior of young people in different situations are studied by G. Hall, K.G. Jung, E. Erickson, D. Riesman, I.S. Kon [3].

The followers of the structural and functional concept analyze young people as a socio-demographic group, whose representatives occupy certain statuses in the social structure and perform a complex of social roles in accordance with the occupied statuses [4]. T. Parsons, F. Mahler, H. Szeliski, S. Eisenstadt, B.N. Boras, V.G. Vasiliev, V.A. Mansurov, M.N. Rutkevich, V.I. Staroverov, S.S. Frolov, V.N. Shubkin and many other representatives of this concept studied different trends in the formation of youth as a social group, especially the labor and social activity of young people, the nature of youth involvement in social structures [5].

Representatives of the risk concept pay special attention to the concept of risk and its importance for young people. D. Lupton, T. Schuller, M. Young, R. White, J. Bayner, U. Neigel, Y. Zubok in their studies dwell on different situations, one way or another associated with numerous risks of young people: the situation of age discrimination, social inequality, social mobility and self-realization of young people [6; 7].

The questions of studying ideas, ideals, values, beliefs, stereotypes of young people, which are further refracted into the study of behavioral activity of young people, are carried out within the framework of the cultural concept [8].

Youth as a social group differs in a number of systemic characteristics from other social groups. Young people are mobile. They are quite actively involved in different activities, try themselves in different areas, achieve their goals, or switch to achieving alternative goals. Accordingly, young people not only dynamically change their activities, their social environment, but also learn different social experiences, which leads to a change in the system of values of young people.

The values and perceptions of young people reflect their views on the surrounding reality, their place and role in social realities.

In this article we will focus on the main results of the study of the position of youth in the Russian education system, conducted by the authors in 2017-2018.

Methodology

The object of the research was the Russian youth -- young people from 16 to 24 years old. The attitudes to the education of the Russian youth were considered as a subject of study. The attitudes of young people to the education were measured through the young people's opinions to main occupation, to the features of spending free time, to the satisfaction of educational institutions.

The main objectives of the study: to identify the position of young people in education system; to identify the place of education in the structure of free time; to identify the involvement of young people to educational system.

To achieve these goals, a quantitative method of collecting primary information was used – conducting a survey of young people in the form of a questionnaire.

The choice of this method is explained by the problematic origin of the research topic for the respondents' perception. Young people's educational values are shaped under the influence of social realities. Thus, the spiritual and social spheres of modern Russian society are reflected in the values of young people.

In order to neutralize the interviewer's influence on the subject and to give to the respondents the opportunity to express their position in a universal form there were used closed-ended questions in the questionnaire. Closed-ended questions offer to respondent a predetermined set of response options, from which the respondent should choose those answer which is most consistent with his opinion. In order to give the respondents, if necessary, the opportunity to express their opinion in free form, semi-closed questionnaire questions were used. Semi-closed questions offer to respondent to formulate an answer independently and write it in the space provided. Accordingly, the method of questioning allows to achieve the above tasks.

According to the sample set, 51.4% of males and 48.6% of females took part in the survey. This percentage distribution corresponds to the overall socio-demographic structure of Russian youth.

Accordance to the research program, young people aged 16-24 years took part in the survey. 39.3% of respondents indicated their age range from 16 to 18; 60.7% - age from 19 to 24 years old.

The respondents of the first age range are high school students or college students; the respondents of the second age range are students of universities and technical colleges, as well as partially working youth.

The occupation of young people

Statistics of respondents' answers to the question about the main type of their occupation confirm the assumption that for young people aged 16–24 years, education is the main activity.

16.4% of respondents study at school; 23.7% study in university; 25.3% study in a college; 24.3% of respondents combine work and study. 10.3% of respondents chose alternative "Other". These respondents are on maternity leave or on academic leave, and this fact indicates a leading learning activity.

The education system in Russia has a multi-level structure. In general, during recent 10 years the largest number of Russian youth engaged at the stage of higher professional education (a total of 4161,7 thousand students in 742 educational institutions of higher education). Training programs for skilled workers, employees and mid-level specialists are developing dynamically.

According to the Federal State Statistics Service, at the beginning of the 2018/2019 academic year, there are 3658 vocational educational organizations in Russia, which provides middle-level specialists (vocational education) and skilled workers and employees, were enrolled in the ACT programs for 2464,3 thousand students; training programs for skilled workers, employees – 542,1 thousand students. These statistics indicate the demand for higher education among young people in Russia as a whole.

Young people are integrated into the Russian education system for more than 9 years. Since Soviet times in Russian society there is an idea of the value of education, of its influence on the future life.

Some indicators of Russian education statistics are presented in table 1.

Table 1. Statistic of Russian education[1]

	2018	In percent by 2017
Number of organizations carrying out educational activities on educational programs of primary, basic and secondary General education, units	41349	98,5
Number of students, thousand people	16137,3	102,7
The number of educational organizations carrying out educational activities for training programs of skilled workers, employees and mid-level specialists, units	3658	99,3
Number of students enrolled in training programs for skilled workers, employees, thousand people	542,1	99,7
Number of students enrolled in training programs for mid-level specialists, thousand people	2464,3	103,2
Accepted for training in educational organizations on training programs for skilled workers, employees, thousand people	207,1	100,8
Accepted for training in educational organizations on training programs for mid-level specialists, thousand people	783,0	105,2
Graduated from the level of education of skilled workers, employees, thousand people	168,6	93,1
Graduated from the level of education of mid-level specialists, thousand people	531,5	104,9
Number of educational institutions of higher education and scientific organizations engaged in educational activities for bachelor's, specialty, master's, units	742	96,9
The number of students enrolled in undergraduate, specialty, master's programs, thousand people	4161,7	98,0
Accepted for training in bachelor's, specialist's, master's programs, thousand people	1147,9	100,5
Graduated bachelors, specialists, masters, thousand people	933,2	96,3

[1] The table is built by the authors on the basis of Russian Federation Federal State Statistics Service http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/en/main/

Satisfaction with the degree of involvement in the life of the educational institution

Young people assess differently their level of satisfaction with the degree of involvement in the life of an educational institution.

Three quarters of respondents think that they can realize and express themselves in educational institutions: 30.3% of respondents fully agree with a given statement, 46.3% of respondents rather agree with a given statement. However, 12.3% of respondents rather disagree, and 2.5% completely disagree with the given statement. Also, 8.6% of respondents found it difficult to give a specific answer to this question.

Consequently, every fourth young man believes that in an educational institution they are not able to realize themselves fully. Probably, such opinions are related to the low level of education quality, with disliked student life in any educational institution or with not enough developed programs for the students' involvement in extracurricular activities.

During the answering the question of how often from the moment they entered an educational institution (school, college, university) young people felt that they were not included into educational institution or student life, respondents also gave different answers.

36.8% of respondents indicated that they had never experienced this feeling; 42.6% sometimes felt that they did not feel being included into school / student life. However, every sixth respondent thinks that they were unable to integrate into the educational environment (10.7% often experience this feeling; 4.4% always experience this feeling; 5.5% found it difficult to give an answer).

It can be assumed that this fact relates to the fact that education becomes an instrumental value for young people [9]. In modern society, it is customary to have an education, to study, there is a stereotypical idea that education is necessary for a further successful career. It can also be assumed that young people do not have the desire to realize themselves in an educational institution, they do not consider the educational environment as an environment for self-realization, more realizing themselves outside the walls of an educational institution.

The results of the study showed that for all respondents aged from 16 to 24 years, the leading activity is education.

The structure of free time

The ways how the Russian youth is spending their leisure time are quite diverse: walking, reading books, socializing with peers, spending time at the computer, playing computer games, visiting theaters, making artworks, doing part-time jobs.

Every second respondent indicated that they spend their free time walking (51.9%) and sitting at the computer (playing games, using the Internet) (51.1%).

In the structure of young people's leisure, communications with friends is prominent: 44% usually spend their free time talking with friends offline; 48.6% chat with friends online.

The results of international studies also indicate that virtual communications start dominating on the real communications [10].

The next popular responses were: helping parents with the housework (41.7%), doing sports (36.7%), visiting cinema, theaters, exhibitions, concerts (37.2%), reading books (29.6%), visiting cafes (23.7%). Every fifth respondent (22.6%) answered that in their free time they earn money by doing jobs that they can do. Also, every fifth respondent (21%) is doing art (drawings, taking photographs, dancing, singing, creating hand-made crafts).

Less popular forms of leisure were: travelling (11.6%), attending additional educational activities like master classes, open lectures (10.2%); preparing for admission to university / magistracy / graduate school (10.3%); volunteering (6.8%).

A small number of respondents indicated that in their free time they involved in the activities of political organizations (3.1%) and involved in religious organizations (3.3%).

Young people actively use various forms of leisure, combining both active and passive forms of leisure time. It should be noted that every tenth young man indicated additional educational activities in the structure of his free time.

CONCLUSION

Whiting a framework of the study, the position of Russian youth in the educational system were studied.

Research results suggest that education is the main activity for Russian young people.

Most young people think that in educational institutions they can not only get knowledge, master a future profession, but also, they can realize and express themselves in educational institutions.

The value of self-realization is one of significant life value for young people. Young people are confident that Russian educational system contributes to the development of the necessary qualities for self-realization. But every fourth young man believes that in educational institution there is part possibility to realize yourself fully.

Young people diversify their leisure activities including various ways of self-realization: go in for sports, go to cinema, theaters, exhibitions, concerts, do creative work (drawings, taking photographs, dancing, singing, creating hand-made crafts). Every tenth young man indicated additional educational activities in the structure of his free time.

It can be conducted that on the one way, education in educational institutions becomes an instrumental value for young Russian people; on the other way, the involvement of young people in educational processes outside the mainstream educational system is growing every year.

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KNOWLEDGE OF EARLY EDUCATION TEACHERS ABOUT CREATIVITY AND THE MODEL OF THE IDEAL STUDENT

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ABSTRACT

By creating the right conditions for developing creative potential and creative activity of children we should eliminate various blockades that inhibit this development, share knowledge about the work and practice cognitive skills, necessary for creative thinking. To make this possible, it is important that teachers were able to accurately identify and then develop and stimulate the creative potential of each student. It is important, whether they have professional knowledge or base on current knowledge and their own theories. Depending on one's views about the possibilities of the child and his abilities teacher shapes his expectations and educational impact. The educational environment created by the teacher and accepted style of educational activities support these abilities that the teacher sees, recognizes as important for school learning and performance of the individual child. Greater opportunities for developing their abilities and raising the level of school achievements have this student, whom the teacher perceives as capable, creative, with great development opportunities [1], which does not necessarily coincide with the child's real image. The teacher's student image, therefore, directs the diagnosis, ability to recognize children's creative abilities, determines the adopted communication patterns, selection of educational content, work methods, the scope of individualization in the approach to children, anticipated ways of achieving their achievements and assessment methods.

Analysis of the results of Polish research indicates that in Polish schools, teachers describing the image of an ideal student do not always choose the characteristics of a creative student. A creative student is not synonymous with the desired student, but he is not the opposite. Teachers, however, prefer a responsible student with a high personal culture than an original student who is independent in thinking [2]. Teachers overestimate the student's intellectual properties and underestimate personality traits. On the other hand, they reject socially undesirable student behavior and disregard the students' intellectual passivity.

The aim of the research was to determine what knowledge about creativity of the surveyed teachers and whether it helps to appreciate the creative behavior of students and what is the image of a child as an ideal student in the opinion of the studied teachers, which can be a model of interpretation of pedagogical reality and the design of everyday pedagogical practice. I also tried to determine whether the ideal student is a creative student, or does the teachers' knowledge of creativity result in the choice of creative behavior in the image of the ideal student?

The research used the diagnostic survey method and 108 Polish early school teachers were examined. A questionnaire was used to study the state of knowledge of early school education teachers about various aspects of creativity.The surveyed teachers presented

views on: creativity, features of creative people, determinants of creativity, their own creative potential and ways to develop and stimulate students' creativity. It was determined to what extent teachers' knowledge about creativity may influence their educational practice.

Research results indicate that a significant proportion of teachers surveyed refer to colloquial knowledge, hidden theories about creativity, which is not favorable for supporting the creative attitudes of pupils and creating appropriate conditions for their development by teachers.

Teachers' knowledge about creativity is not enough, especially about the creative process. Meanwhile, it is the knowledge and understanding of various aspects of creative learning by the teacher that allows you to modify your daily activities to give them the characteristics of creativity. Based on the results of the assessment of their creative potential, most teachers claim to be creative, but the indicated manifestations of their creativity do not always confirm this view. Teachers value the creative behavior of students, the child's independent and creative cognitive activity, but at the same time they rarely indicate such attributes of creativity as originality, openness, independence, resilience and perseverance. This is not conducive to developing children's creativity, which is necessary in a dynamically developing world.

Keywords: creativity, knowledge, early education, teacher, creative pupil

INTRODUCTION

Creativity is currently one of the main goals of education and a key life skill. By creating the right conditions for developing students' creativity, blockades that inhibit this development should be eliminated. The teacher should have professional knowledge about creativity, know its conditions, be able to recognize creative behavior and know how to stimulate children's creative potential. the teacher's reference to colloquial knowledge created on the basis of observations, own and other people's experiences, and relying on implicit theories containing personal judgments, subjective beliefs are noticed at school. This happens in problem situations, often unusual, unique, requiring effective and creative strategies, and thus requiring professional knowledge and professional action. Colloquial knowledge and implicit theories are also used to create the image of an ideal student. This is especially the case when the teacher does not have sufficient professional knowledge. Colloquial and implicit theories shape patterns and stereotypes, replicate them. The teacher's stereotypical thinking about the student may be the cause of improper stimulation of the child and may lead to various errors in interaction with students. Indirectly, colloquial and hidden, implicit theories shape patterns and stereotypes, replicate them [3]. The teacher's stereotypical way of thinking about the student may be the cause of improper stimulation of the child and may result in various errors in interaction with students.

Depending on the child's own views on the child's creative possibilities and abilities, the teacher shapes his expectations and educational impact. A teacher convinced of the student's creative abilities will more often provoke him to creative thinking, while less able children will have less opportunity to show their intellectual abilities and will be more often criticized [4]. The educational environment created by the teacher and the adopted style of educational activity support those abilities that he perceives and

considers as important for school learning and individual achievements of the child [5]. According to Bałachowicz, this student, whom the teacher perceives as talented, creative, with great development opportunities, has a better chance of developing his abilities and raising the level of school achievements [6].This is not necessarily the actual potential.

The use of colloquial knowledge containing private theories of creativity may prove to be useless and even unfavorable at school. This is evidenced by errors in the treatment of gifted students depending on their own perceptions of their abilities and the creation of cognitive development conditions adequate to the perception. The teacher's image of the student directs the diagnosis, the ability to recognize children's creative abilities, determines the adopted communication patterns, the selection of the content of education, work methods, the scope of individualization in the approach to children, anticipated ways of achieving their achievements and ways of assessing. Based on the formulated image of the student, relatively constant preferences can be predicted in the methods of action towards students with noticed or unnoticed creative potential and the styles of activities adopted by the teacher in integrated classes [7]. The research results show that the teacher's knowledge about supporting creativity and creativity is not sufficient, and especially poor about the course of the creative process, which means that teachers do not sufficiently modify their daily activities to give them the characteristics of creativity. They create different variations of the instrumental style, which does not support children's creative behavior, but only promotes the appearance of adaptive behavior of children, which are of little use in a dynamically changing world. Some teachers' opinions about a creative person also differ from scientific knowledge. Teachers associate the personality with creative personality such as direct or responsible, but rarely indicate such properties as a non-conformist who follows his own path. In the opinion of other surveyed teachers, a creative person is in fact characterized by features that define creative personality, such as: original, independent and flexible in thinking, independent in solving problems, rich in imagination, non-conformist, asking many questions, inventive, inquisitive [8], but this is not a complete picture of creative personality traits. Teachers recognized the features that characterize creators, such as: competitive, firm, impudent, as demonstrating a strong "ego" and not accepted at school.

Research on the characteristics of a creative student and the ability to recognize him by teachers, undertaken repeatedly, show that the properties of a creative student can relate to the social, personality, external appearance or manifested behavior. Preliminary results of Karwowski's research have shown that the image of a creative student is dominated by two elements, consistent with scientific theories, i.e. student's activity and his character traits. One of the important determinants for recognizing a student as creative are their school successes. Creativity is often associated with good academic performance and personality traits that characterize outstanding students, but does not appear as a student trait with poor academic performance. Creative students are defined as high achievers or, in a minimalist version, average learners. The 'creative' attribute attributed to learners is well listed along with such qualities as: active, ambitious, creative, competent, confident, curious of the world, independent, bold, open, tolerant responsible, able to act and bring the undertaken work to the end, having self-esteem. Students with lower academic performance have no chance of being considered creative. Teachers assessing a child's creative abilities most often also take into account the quality of their creative work.

The results of Aleksandra Tokarz and Aleksandra Słabosz's research revealed [9] that the characteristics of an ideal student are rather consistent with the description of creative

people (curious about new things, thinking independently, hard-working, undertaking difficult tasks), however teachers in their preferences pay more attention to the features of the student's mind, forgetting about social functioning. The results of research conducted by Wiechnik show [10] that the image of an ideal student differs significantly from a creative student. Teachers prefer a responsible student with a high personal culture as opposed to an original or independent student in thinking. The results obtained by Irena Pufal-Struzik [11] confirm Wiechnik's analyzes . Teachers value a more systematic, diligent and collaborative student than creatively talented. In the image of an ideal student, there are no adjectives characteristic of creative units (including the original, interesting, self-confident, resolute), although they were on the list of features.

The results of Polish research indicate, therefore, that teachers distinguish an ideal student from a creative one and do not see many creative personality traits in creative students, and some of them are not accepted by them. ome features of creative students can be embarrassing for teachers, e.g. constructive non-conformism, resistance to criticism, non-authority, self-confidence, high self-esteem, sense of comedy, ability to spontaneous expression [12], emotionality, impulsiveness, creating own rules of conduct [13], risk taking [14]. A. Cropley[15] emphasizes that a creative child is a challenge for the teacher. Unexpected questions and answers disturb this class, besides, independence of thinking often looks like disobedience, and individuality is close to rebelliousness. Teachers often suppress their students' creativity from the very beginning.

It is worth emphasizing that the difficulty in accurately assessing the student's potential may be related to the fact that not every child actually reveals a creative personality [16] in behavior. Similarly, not all impulsive, non-conformist children are creative .Thus, in the literature on the subject and in practice there are many conflicting opinions about the relationship between personality traits and creativity. It also turns out that talented students with behaviors positively correlated with creativity, which are characterized by: independence, originality, nonconformity, creative courage, do not always gain the sympathy of teachers.

The research of M. Karwowski and Dominika Jazurek shows[17] that although the ideal student desired in the class is non-creative, teachers are willing to accept a creative student in the class, but they do not dream about it. It is worth emphasizing, however, that if a creative student enters the class, he is not particularly disadvantaged, but moderately desirable.

The results of R. Wiechnik's [18]research also indicate that the "ideal student" is "independent in thinking", but should not go too far "beyond the information provided".

Teachers promote a student who is a creative student in their eyes [19], but their understanding of creativity often has nothing to do with scientific theories.

Summing up Polish research, it can be noticed that teachers overestimate the student's intellectual properties, underestimate personality traits and at the same time reject socially undesirable student behavior and disregard the students' intellectual passivity . The lack of professional knowledge of teachers about the characteristics of creative people can lead to an incorrect creative diagnosis. students' potential in the classroom. This may result in the fact that a creatively gifted student is not identified as creative, and a student with creative predispositions is assessed as a defiant nonconformist due to incorrect behavior.

METHODOLOGY

The aim of the study was to find out what the surveyed teachers know about creativity and what image of the child as an ideal student in the opinion of the surveyed teachers, which can be a model of interpretation of pedagogical reality and the design of everyday pedagogical practice. Attempts were made to determine whether the ideal student is a creative student, to what extent teachers value creative behavior in children.

The questionnaire was used to study the state of knowledge of early school education teachers about various aspects of creativity. The surveyed teachers presented views on: creativity, features of creative people, determinants of creativity, factors stimulating creativity, their own creative potential and ways to develop and stimulate the creativity of students. It was determined to what extent teachers' knowledge about creativity may affect their educational practice.

RESULTS

Studies have shown that teachers value creativity as a desirable, valued and necessary quality.

Most teachers (62%) know what creativity is and what it expresses. Some respondents express the opinion that creativity is' the ability to produce something ',' products from various fields, e.g. art, music, language and dance ',' independent creating and using your own ideas ”refer to the sphere of creating and obtaining products and works. According to some respondents, creativity is a set of abilities that, apart from intelligence, can include creative imagination, openness, and self-criticism. Almost half of teachers (46%) believe that creativity is expressed in the ability to think independently, produce innovative ideas and solve unknown problems.

A significant part of the surveyed early school education teachers (86) consider themselves creative and assess their creativity at an average level.

Some teachers think their creativity is even smaller compared to others. It is puzzling that teachers assess their competence in creativity at a lower level than the high one, since they know how important this feature is in the teaching profession.

The results of my research are not consistent with the results of E. Marek, who in her research obtained the results showing that teachers of early school education [20] believe that many of their educational activities undertaken by them are creative, have creative features. The surveyed teachers showed insufficient knowledge and stereotypes regarding the assessment of "creative students."

Some teachers believe that a significant proportion of students considered creative exhibit emotional disorders (69%), more than half think they are "Other than peers" (52%) that not everyone can develop their creative talents (62%), and creativity cannot be developed through various ways and forms of work (49%). These people recognize the qualities of creative people as personal properties, acquired and therefore difficult to develop at school. This position may raise concerns as to whether teachers see the sense of educational activities undertaken to develop creative potential and creative education.

The results of my research on the teaching of the "creative student" have also shown that a creative student is also one who primarily asks questions (23%), is interesting, open to

new things (33%), thinks independently (44%), is unconventional (26%), egositic and withdrawn (22%), undertakes challenges (53%). The teachers also value such qualities as: capable of spontaneous expression, active, inquisitive, inventive, sensitive, emotional, take risks. Teachers therefore pointed to the features that characterize creative individuals, while stressing that some of these features, such as inquisitive, independent thinking or expressive, can disrupt the lesson process.

Many authors also point to this problem [21] , emphasizing that some features of creative students are embarrassing at school. A. Cropley[22] notes that the unexpected questions and answers of creative students disturb the course of activities, besides, the independence of thinking often looks disobedient, and individuality is close to rebelliousness. Teachers often suppress their students' creativity. In my research, teachers pointed out this problem.

The researched teacher defined the conditions of creativity and listed factors stimulating creativity. These are: subjective conditions related to the child's person (e.g. internal motivation, independence), conditions related to the teacher's person (e.g. open work style, passion, commitment) and objective methodological conditions (e.g. problem, seeking, activating methods), technical conditions (e.g. rich and varied teaching resources), content, including goals and tasks (e.g. creative goals, open problems), environmental (e.g. atmosphere of security, trust, peace, freedom, acceptance). , recognition and love.

The respondents showed the highest knowledge of the climate and factors stimulating creativity. These are: a climate of security and trust, underestimating each child's product, praising for perseverance, consistency, assessing not only the result, but also for commitment, effort, ideas, building a student's faith in his own abilities and motivating him to cognitive activity, create opportunities for experimenting, researching, searching, creating, formulating questions.

Preferring creative features should be related to the state of knowledge about creativity, and the advantage of creative behavior in the image of an ideal student should correlate with general knowledge about creativity.

Research results have shown that although teachers value students' creative behavior, independent and creative cognitive activity of a child, they rarely point to such features as originality, openness, independence, resilience and perseverance as desirable traits.

he choice of reproductive behavior correlates with the state of knowledge about creativity. The low level of knowledge about the creativity of the surveyed teachers does not determine the choice of the characteristics of an ideal student. Some regularity can be seen between the preference of the student's creative characteristics and the teachers' views on the climate of stimulating creativity. This is the opposite relationship, probably those who value creative behavior understand the conditions for supporting students' creativity. Teachers who indicate ideal reproductive behavior as desirable for a student are unlikely to care for a climate conducive to children's creativity in the classroom. Teachers who indicate ideal reproductive behavior as desirable for a student are unlikely to care for a creative climate in the classroom (teachers with more seniority, career advancement levels).

A significant proportion of teachers surveyed recognize and value creativity-promoting behaviors, which are more likely to dominate the image of an ideal student, especially from the cognitive sphere. Creative behaviors are more valuable for teachers who also

recognize themselves as creative. Factors related to work experience slightly correlate with the choice of creative features in the student. Even achieving the status of a qualified teacher does not encourage the setting of ambitious goals, which are guided by the ideal of a creative student.

The research attempts to determine to what extent knowledge about creativity can affect the educational practice they create.

The surveyed teachers declare that their educational activities often refer to the reproductive knowledge of students, rarely motivate them to formulate questions and themselves ask creative questions themselves.

CONCLUSION

According to Danuta Czelakowska, the Polish education system still has deficiencies in developing students' creative attitudes. Creativity of children is often perceived as "strangeness", a difference for which there is neither time nor place in the lesson. Unfortunately, teachers still recognize and reward mainly "good" answers, punish or criticize "bad" answers, while they do not like or avoid answers, statements, unusual, strange, difficult or new questions [23].

While criticizing the school, D. Turska [24]notes that the school not only underestimates the creative attitudes of students, but even inhibits them. According to Uszyńska-Jarmoc [25], children showing fluency, flexibility and originality of high-level thinking (creative children) after three years of school education no longer manifest such behavior and this is often associated with inhibiting their creativity at the foundations by teachers themselves. Therefore, it seems reasonable to attempt to sensitize teachers in order to recognize and develop creative students in order to be able to effectively support them.

Admittedly, the surveyed teachers have knowledge about creativity and value the child's independent and creative cognitive activity, are able to create a climate of classroom security, respect children's dignity, appreciate their work, encourage independence and courage in undertaking and solving difficult tasks, but often use known forms of control , sometimes together with students they define the criteria for the performance of tasks, they do not allow students to choose problems to discuss, they do not give students the freedom to ask questions, to express themselves, sometimes they allow reflection and critical thinking[26].

Teachers are therefore more message-oriented than self-learning, developing the child's motivation and interests.

The results of research on the common knowledge of Polish teachers about creativity and their image of an ideal student indicate some deficiencies in professional knowledge

Teachers' knowledge about creativity and creative personality traits is a very important component of teaching competences, including creative competences. It provides the cognitive basis for the interpretation and understanding of the sense of educational reality and the practical action of a teacher. Knowledge about creativity co-determines the nature of the teacher's understanding of creative human behavior (including students), the ability to support children's creative attitudes and create educational conditions for conversation.

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