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AUGSTĀKĀ IZGLĪTĪBA
Higher Education

STUDENTS' ENTREPRENEURSHIP AS AN EXTERNAL EFFECT OF HIGHER EDUCATION INSTITUTION ON THE CASE OF STATE SCHOOL IN BIAŁA PODLASKA

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Abstract. *Entrepreneurship at the university, may be recognised both in the group of teachers/researchers and among students. Students' entrepreneurship is an important form of external effects of educational activity of the university. The aim of the paper is to define the predisposition of students of State School of Higher Education in Biała Podlaska for entrepreneurship activity during studying. Second aim is an assessment of the ability of the school to create the framework and conditions for academic entrepreneurship. Sources of information for research were subject literature, official documents and information from the school and own survey among students. Research results show that academic entrepreneurship is rather poor and reasons for that are on both sides – dissatisfied students' attitudes to business activity and weak school support for these external effects of educational activity. Investigation proved that there are large areas for improvements.*

Keywords: *academic entrepreneurship, external effects, State School of Higher Education.*

Introduction

The term "entrepreneurship" appeared first in modern times, at the turn of the XVIII and XIX centuries during the industrial revolution. It has been the subject of discussion in various schools of economics. There are many definitions of entrepreneurship related to theoretical concepts in economics, and to the functioning of various socio-economic systems. Neoclassical economists like J. Schumpeter and A. Marshall described entrepreneurship as the fourth production factor, next to land, labour, and capital as well as a source of innovation (Białasiewicz, 2008). They greatly contributed to the development of entrepreneurship theories. I. Kirzner described entrepreneurship in market processes as discovering the unknown possibilities in a market by an entrepreneur. Entrepreneurship can be described as (Janasz, 2004): - a set of features and behaviours which determine the occurrence of an enterprise, and are realized for a set purpose upon the assumption of limiting the risks; - a kind of human activity,

an activity which is observing the environment in search for opportunities and using them to realize certain ventures that provide economical and non-economic effects; - a process, that leads to creating a new and valuable thing, with a certain degree of financial risk, the effect of which is personal and financial satisfaction.

Entrepreneurship is a subject of interest of economics, psychology, sociology, law, management sciences, and other fields. It can be examined in various aspects, as innate or acquired, individual or team related, independent, financial, social, local, and others. (Klonowska-Matynia & Palinkiewicz, 2013).

A particularly important aspect that relates to the subject of this article is intellectual entrepreneurship that is based on knowledge, innovative entrepreneurship and academic entrepreneurship. Academic entrepreneurship is equated with a wide array of business activities of various scientific entities that is based on intellectual property (Wyrwa & Sołtysiak, 2016). Next to academic entrepreneurship, which relates to scholars' activity at universities and research institutes, there is also student entrepreneurship; students, apart from their main goals of acquiring knowledge, abilities and social skills, take up a side business activity that is oriented toward making money, increasing qualifications, and preparing oneself for an earlier and more effective entry into the job market. Development of student entrepreneurship can be treated as an outside effect of studying and acquiring a certain profession through receiving a certain diploma.

The purpose of this article, on the example of the State School of Higher Education in Biała Podlaska, is to show students' ability to starting business activities, and to show the means through which a school of higher education may foster the growth of entrepreneurship - both academic and student entrepreneurship.

Basics, essence and the form of academic entrepreneurship

Historically, we can distinguish three generations of universities. The first generation was higher education in the Middle Ages, whose representative was the University of Bologna, established towards the end of the XI century. This university's role was to educate with politically influenced knowledge. The second generation was born at the beginning of the XIX century, through actions of Wilhelm von Humboldt, who established a university in Berlin, In 1809 Humboldt's model of a higher education school was quite autonomous, allowing for freedom of science and unrestricted teaching and voicing of opinion. The main goal of the universities was the development of science and advancement of theory that generalized the diversity of practical fields. This generation lasted until the second half of the 50's of the XX century, when American and English universities turned toward economic practice, which spawned the Anglo-Saxon model. This third generation model combined classical teaching with teaching

professions through practical classes (Poznańska, 2014). In the XXI century, the constant technological progress, changes in national and international markets, globalization, growth of the economy based on knowledge, and above all, the rising importance of knowledge and intellectual capital in business, has contributed to more reforms in higher education. We can say that universities of the fourth generation have been established.

The European integration played a large part in how the modern universities were formed. The marker for the scientific transformation of universities in Europe is the Lisbon Strategy and Declaration, and the Bologna Process, as well as Europa 2020 programme (Brendzel-Skowera, 2016). The above mentioned documents are meant to improve the quality of education and growth of economy based on knowledge, which should be facilitated through increased research spending, development and innovation (European Commission, 2010). These actions show that the universities can be a resource of economics that promotes innovative economy. However, in Europe, some noticed the so-called "European paradox" - high level of research does not translate into the ability to adapt technology to the market or to an organisation (Matusiak & Matusiak, 2007). This phenomenon has caused years of delay of the European economy in comparison to top countries of the world. Noticing this paradox and outlining the aforementioned strategy was meant to form the European Research Area as a unified open area for the world, where knowledge, science, technology and scientists can move around freely and use the innovative potential present in the employees and scientific institutions.

In the USA and in England, the new generation of universities has focused on active support of entrepreneurship in people related to the environment of free universities, who cooperate with their environment, and particularly, with businesses (Piecuch, 2013). An important part of this process was the development of private financing (Tamowicz, 2006). In Europe, the economic potential in the cooperation of universities and businesses was also noticed, which led to the formation of a new kind of entrepreneurship - "academic entrepreneurship". One can see the beginning of this phenomenon in the activities of some American universities, like the Stanford University and Massachusetts Institute of Technology. Good examples of linking a university with economy and a market, primarily through using private funds, can also be seen in other American universities of the new generation, like Yale or Texas University, which became famous for their technology incubators (Frączkiewicz-Wronka & Wronka, 2012).

A university of the new generations should prepare its students for fostering proactive behaviour that facilitates autonomous action in the market, and even shapes the development of a region (Brendzel-Skowera, 2016). The universities of this generation, which endeavour to achieve a strong place internationally in the teaching and research markets, benefit from commercialization of their

research, cooperating for the environment to gain significant benefits (Tokarski, 2010). An entrepreneurial university, its entrepreneurial and innovative approach is an institution that links academic culture with the market culture, and is an important link of cooperation between business and government structures. A modern university is becoming an important element of the network economy, which can be considered a new stage of the growth of economy based on knowledge (Makiela, 2017).

Academic entrepreneurship is entrepreneurship of the academia through research organizations, scholars, associates, administration, postgraduates and students being actively engaged in business (Frączkiewicz-Wronka & Wronka, 2012). It is taken up not only in universities but also in their close environment. In this process, research and potential of research organizations transform into goods and services that directly or indirectly increase the benefits of the customers, and develop local, regional, and national economies. Activity within academic entrepreneurship is split into two aspects: institutional and personal. The optimal scenario is when those two forms supplement each other (Kurowska-Pysz, 2015). Figure 1 presents the elements which the phenomenon of academic entrepreneurship comprises.

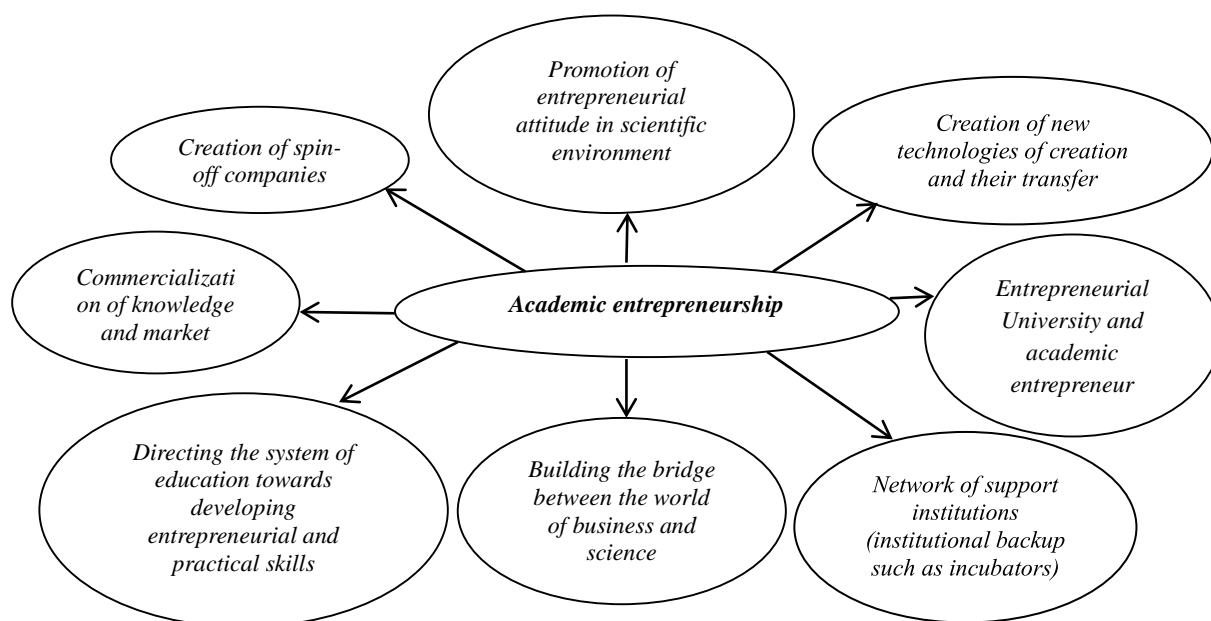


Figure 1 *Main elements of academic entrepreneurship* (Szacillo, 2018, 91)

The benefits of academic entrepreneurship depend on the form of cooperation of the university with business and its environment. The most advanced form of cooperation is the formation of clusters, and within them, spin-off companies and supporting organizations are the leaders. Gains from academic entrepreneurship are received by the beneficiaries to which the academic

institutions belong, teachers and employees of the university, businesses, students, graduates, and government organizations (Bryła, Jurczyk, & Domański, 2013). The academic entrepreneur should introduce new and unique products to the market, as well as services, patents, licenses, technologies, and new organizational solutions. Academic entrepreneurs are also called intellectual entrepreneurs, as their driving force is knowledge and intellectual capital made by the employees and students. An important form and an effect of academic entrepreneurship is student entrepreneurship. Through teaching, universities shape students' attitudes, among which there are personal courage, belief in won abilities, creativity, problem-solving skills (Smogula, 2013). Appropriate study programmes and their practical direction, equipping universities with modern equipment, pro-business attitudes and actions of academic teachers, and skilful use of the educational offer by the students, play a large part in the growth of student entrepreneurship.

In Poland, the legal groundwork for the growth of academic entrepreneurship has been initiated by the Act of Higher Education of 27 July 2005, which contained the following clause: "universities cooperate with the economic environment, particularly through sale or free transfer of research results and studies to businesses, or through spreading entrepreneurial ideas in the academic environment in the form of business activity, separate organizationally and financially from the university. The amended Act of 18 March 2011, Act on Higher Education, introduced a new form of university engagement in the active economic cooperation through commercialization of research results. The new act points not only to the necessity of economic cooperation but also social cooperation," particularly when it comes to running research for economic entities in separate forms of business, including the process of forming a special purpose entity (...), as well as the involvement of representatives of employers in devising educational programmes, and in the teaching process".

To better use the intellectual and technical resources, and research results the universities may create new instruments of technology transfer, such as the academic technology incubators or centres of technology transfer. The issue of academic entrepreneurship has also been introduced to other legal acts regulating the cooperation of science and economy. The government has noticed the importance of knowledge, science, and new innovative technologies, and it has endeavoured to create laws for these corporations. The formulated basics expanded the field of activity and interaction with the economic/social environment of a traditional university and it implemented academic innovation into the economy, which made Polish schools of higher education more like the universities of III generation (Guliński & Zasiadły, 2005).

The laws should be followed by actions that increase the number of spin-off companies, people actively working from the academic environment, the amount of money designated to research and development, the number of implemented

ideas, patents, organizational projects, technologies, and other innovative solutions. The Polish universities focused on following the universities of other countries, especially in opening new faculties, which significantly increased the enrolment rate in higher education but did not translate into a wide application of theoretical knowledge in the economy. The search for a new organizational model for the Polish economy and the struggle to increase entrepreneurship of the academia resulted in the new Act of 20 July 2018 known as "The Science Constitution". The new act says that "research in universities should not only provide knowledge of basic phenomena but it should also be applicable to getting new knowledge and skills, help create new products, processes, or services, or significantly improve them. Concurrently with research, universities should conduct development works, understood as activity comprising acquiring, connecting, training, and application of available knowledge and skills (...) to plan production and to design and create changed, improved, or new products, processes or services". According to the report of the Polish Board of Business, which includes almost 400 universities, in 2016 there were 5600 companies connected with science (Śledziwska, 2017).

The State School of Higher Education in Biała Podlaska, as an entity in academic entrepreneurship

The school has been in operations since year 2000 as one of the 36 state vocational schools. Initially, it offered education only at the first stage of bachelor studies, but with time, it started offering also engineering studies and master studies. During the years of population boom over 5000 students studied there, and at present, the number of students approximates to 3000. The school offers education within 18 majors and, for many years, apart from didactic activities, it has also been performing scientific and research activities as well as informative activities within two faculties - Faculty of Economics and Technical Sciences and the Faculty of Health Sciences and Social Sciences. Large part of its academic staff, which amounts to about 200 people, is engaged in research led in two modern research centres. Highly rated activity of the school, both in the field of didactic and scientific activities, has led the school to take the first place among state vocational schools in a nationwide ranking, and this place has been maintained for the last three years. Both faculties obtained a high category in parameterization of higher education schools held in 2016 – category A was granted to the Faculty of Economic and Technical Sciences and category B was granted to the Faculty of Health Sciences and Social Sciences. At school there is a considerable amount of foreign students from Belorussia, Ukraine, other European countries, Asia and Africa. The school also offers Academic Centre of Vocational Education, Children University, middle school, high school,

University of the Third Age, many postgraduate studies, different forms of professional trainings. Academic publishing house issues three quarterly research papers, monographic and conference publications. Career office, connected with section of students' work placements, supports the school's academic entrepreneurship. The mission of this entity is also to be an academic adviser to students and graduates, activate and shape the skills considered to be useful on the labour market, and to help in making first professional decisions as well as to inspire personal development. The school offers open lectures, meetings with business representatives, open trainings and workshops developing social skills, work placements and internships. Cooperation with labour market institutions is also offered. For several years the school has led, in cooperation with National Polish Bank, economic and business education for students and teachers of high schools from the region, called League of Young Entrepreneurs. The school houses ten student research groups and many cultural and sport groups. Students and teachers actively take part in the European Program ERASMUS. Variety of projects, directed at supporting of employees' and students' competences as well as increasing position of competitive school at the country and international level, are continuously realized at school.

Participation in the following projects co-financed by EU during years 2014-2020 has been crucial for the development of academic entrepreneurship:

“Efficient career office as a guide to labour market” the goal of which is to prepare certain number of students to enter the labour market by their participation in enhanced service offer of entities in terms of professional marketing and coaching, as well as improving professional competences of employees.

“I require from myself – new competences of didactic staff at PSW” a project directed to didactic staff of the school and aiming at increasing of the level of their modern competences in terms of didactics, IT, foreign languages, which will increase the quality of the conveyed knowledge, enhance the effectiveness of learning program and adjusting it to the needs and expectations of students.

“Between the University and employment”, the main assumption of which is to provide competences in terms of communication, entrepreneurship, IT, analytics, and others to more than 200 students of economic majors so that they could meet the expectations of the employers of the local labour markets.

It can thus be claimed that the school in Biała Podlaska has undertaken a series of multidirectional steps to approach the level of the university. It has also undertaken certain steps towards the development of academic entrepreneurship. Apart from the school as an institution, the main role in making these efforts real is played by students and the personnel. We assume that the research regarding the students' entrepreneurship will shed a new light on this important line of development of the school.

Academic entrepreneurship of the school in the students' opinion

Empirical research regarding students' entrepreneurship at PSW was held in the first half of 2018 and the research was organized for a 100-person test group of students. The research regarded the entrepreneurship as a phenomenon, the question of self-employment and academic entrepreneurship. In this article, the thematic range was limited to academic entrepreneurship solely. The test group was selected with the use of random, simple selection method. The technique of individual questionnaires was applied and it could be filled out by any student or graduate, regardless of their major. The questionnaire was accessible on the website docs.google.com. It was elaborated and analysed by M. Szaciłło, which she later used for writing her M.Sc. thesis. (Szaciłło, 2018).

The aim of the research was to search for the answers regarding the professional experience of the students, their attitude towards possibility of establishing their own business, ability to use the available offer of higher education in order to succeed in business, dependence between the attitude of the entrepreneur and respondent and their undertaken steps leading to self-employment. Also, the evaluation of the school's activity in the field of supporting students in gaining competences and succeeding in the area of business activities was performed, as well as the general evaluation of the level of academic entrepreneurship with regards to fulfilling the criteria of the third generation university. Students were also asked about the knowledge of the local labour market. In this paper we present only students' opinions on the academic entrepreneurship. In general, it can be claimed that the results of the research do not fill us with excessive optimism.

The result of the questionnaire is a statement that students themselves block or hinder their own development, since 47% of the questioned students do not use and do not participate in the opportunities offered by the school, and 38% use the opportunities from time to time. Only 15% of students regularly participate either in school's offers or events initiated by themselves. If this questionnaire was to be treated as a representative one, this would mean that in year 2017/2018 only 450 out of 3000 students could be considered as active in terms of entrepreneurship. Only the fact that over 1100 students show periodic interest in entrepreneurial activities is consoling.

The most popular form of students' activity is organizing school events and participation at school conferences (Figure 2). Over 23% the questioned students took part in realization of these tasks. Participation in the work of science clubs appreciates also significant interest. About 20% of the questioned students attend these clubs. Such a good result is influenced by the relatively large amount of science clubs, engagement in their work of the didactic staff members, attractive forms of activity of the clubs and publishing a collection of papers presented

during conferences. Activities that 4-5% of respondents take part in are sport activities, conferences outside of the school and additional activities, mainly regarding improvement of the language skills or marketing skills. Small part of respondents has been engaged in the work of student council, dance section or international cooperation in the ERASMUS project.

Among the variety of possible institutional forms of starting the entrepreneurial activity, students most often choose the school's Career Office. This institution was mentioned by almost 38% of the respondents. Career Office located at the school realizes job counselling, especially in the scope of soft skills, for which the EU funds are applied. High number of indications (between 7 and 9 per cent) was also given to regional and local training and consulting centres, research centres and scientific information centres. One of them is the Regional Centre of Research and Development located in another school in Białą Podlaska, the Centre of Entrepreneurship and Civic Activity in Białą Podlaska, the Development Foundation in Białą Podlaska, the Centre of Entrepreneurship Support in Białą Podlaska. Students are also aware of the activities of academic and municipal business incubators or technological parks. These pointed out between 5 and 7 percent of respondents. What is, however, worrying is that 17% of the respondents did not notice during their classes any kind of institutions supporting entrepreneurship. Despite many efforts made by the school, significant amount of forms of support offered by it remains unnoticed or underestimated. Only 9% of the questioned students definitely confirm existence of such support and 26% denied that the school helps the students in gaining features and skills of an entrepreneurial person. 19% did not have an opinion on that case, while 46% claimed that some forms of support are offered by the school, but they cannot describe what forms in particular. These opinions place the school in rather not positive light. It seems, however, that the passive attitude towards the entrepreneurial activity of the students themselves is not without significance, given the fact that while not being interested in business activities during the studies, the students do not acknowledge the school's offer of entrepreneurial development. Nevertheless, the respondents, when asked how they imagine possible forms of help offered by the school, enumerate series of suggestions which should be taken into consideration by the school in the process of shaping of academic entrepreneurship (Figure 2).

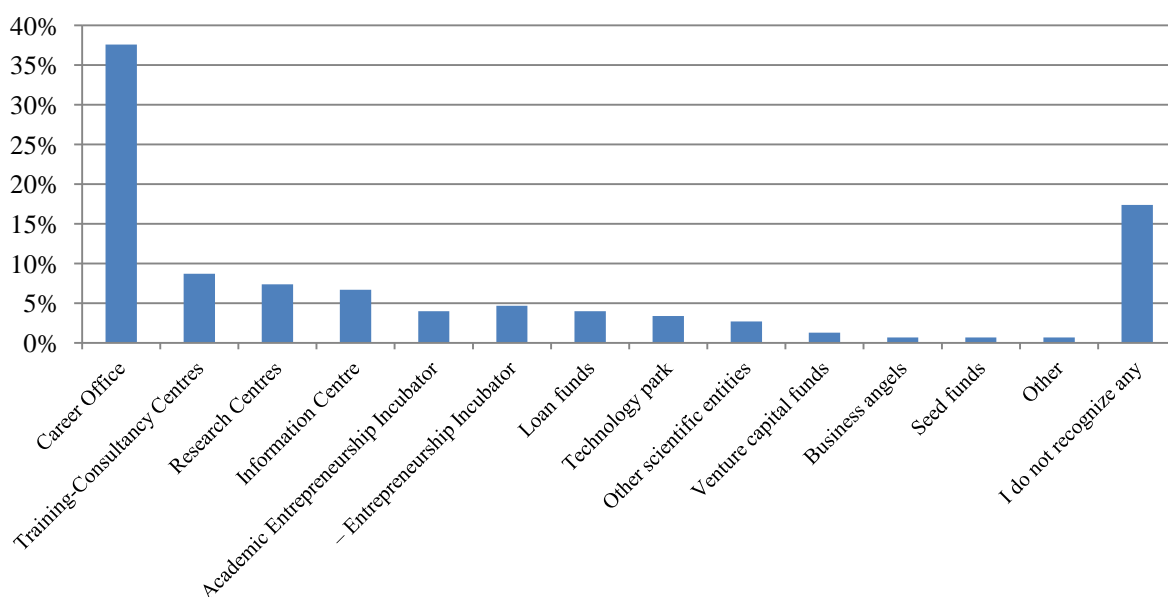


Figure 2 *Institutional forms of academic entrepreneurship perceived by the students* (Szacillo, 2018, 174)

The respondents indicated the need of organization of trainings and workshops ending with certificates, classes and courses realized in companies, paid internships and meetings with representatives of business and employers. The attention was also directed to the need of assistance from lecturers in establishing own business, including creation of the business plan, filling out the application for funding, preparing variety of documents which an active entrepreneur encounters. Attention was also paid to the need of greater efforts of the school in creating spin-off companies. A quarter of the questioned students did not have any idea for introducing any kind of improvements or proposing any kind of interesting forms of activity, and 4% of questioned students did not see the need for any kind of change. Nevertheless, certain interesting suggestions of entrepreneurial activities were proposed, the introduction of which should be taken into consideration.

Conclusions

1. Entrepreneurship is an indicator and measure of active attitude of students and teachers. Schools and teachers, preparing students to enter the labour market, may play an important role in building the students' entrepreneurship.
2. The school may play an important role in development of academic entrepreneurship, in which process both students and school staff take part. It is important, on one hand, whether and to what extent is the school prepared

for creation of academic entrepreneurship, and on the other hand, if the students are active and express willingness to use the potential of the school to create entrepreneurial attitudes and skills to practically use them.

3. State School of Higher Education in Biała Podlaska, while building the modern didactic base and science and research facilities, and while offering innovative practical program of the studies, undertakes activities in fields of developing academic entrepreneurship which cannot be yet treated as advanced compared to Universities of Third Age.
4. Students covered by the questionnaire do not fully use the opportunities provided by the school and its staff in order to develop entrepreneurial attitudes and implement entrepreneurial activities. Small number of students undertakes full-time employment or other forms of work during their studies. Generally, the students have a poor orientation about the local labour market and incomplete knowledge of the forms of help that they can get at the school. An important role in building entrepreneurial attitudes may be played by smart, well organized didactic and educational process, directed at stimulation of students' professional activity.

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SCHOOLS OF HIGHER EDUCATION VERSUS LOCAL LABOUR MARKET. THE CASE OF SCHOOL BIAŁAPODLASKA

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Abstract. *The State Professional Schools of Higher Education constitute an important sector of higher education in Poland. They are the results of the transformation process of the last decade of the 20th century. Since 1999, 36 public professional schools have been organized. After consolidation, there are 33 state professional schools which concentrate on educational activity, however some at them conduct research and other academic activity.*

The main aim of the paper is an evaluation of the functioning of this type of schools in the context of local labour market on the case of Pope John Paul II State School of Higher Education in Biała Podlaska, which for several years has been the leading organization in higher education sector in Poland. Sources of materials for research were found in literature, official documents of the school and own diagnostic survey with the use of questionnaires directed to 15 teachers, 105 students and 21 business representatives, which were subsequently analysed.

Research results proved that there are some discrepancies between demand and supply on the local labour market in the group of higher education sector. Comparing to the educational fields offered by the State School of Higher Education in Biała Podlaska, there is a shortage of workers in such professions as: IT specialists, physiotherapists, construction engineers while the excess of supply exists for foreign language teachers, sociologists, economists, tourism servants, agricultural engineers. In conclusion, a stronger links between professional schools, enterprises and local organisations are suggested. Implementation of practical profile of students requires some changes in curricula as well as in the system of cooperation between schools and regional labour markets.

Keywords: *higher education, labour market, local development, professional schools.*

Introduction

State Professional Schools of Higher Education (SPSHE) are an element of the process of systemic transformation and preparation of Poland to integrate with the EU. Post implementation at the beginning of the last decade the XXth century

of the basic economic reforms designated to reinstate economic freedom and market mechanisms, the system of ownership was also reinstated and the so called light modern development factors associated with knowledge-based economy using immaterial forms of capital – intellectual, human and social capital started to be pursued (Adamowicz, 2014).

The SPSHE started to appear in the final years of the XXth century pursuant to the Act adopted on 26 June 1997 on professional schools of higher education and today, they constitute a significant sector of higher education in Poland (Draus, 2014). The occurrence of state Professional schools of higher education in Poland was embedded in the general-European process of changes in the higher education from the start, being referred to as the Bologna process. For over 15 years, 36 state Professional schools of higher education were in place, which were mainly located in the cities which, as a result of administrative reform, lost their voivodeship city status (Kowalska, 2014). At present, this sector encompasses 33 functioning schools of this type. Despite an increasing number of these schools the sector of public Professional schools of higher education continues to be an important element within the sector of higher education, all the more considering the aspect of education and raising the quality of human resources for the local labour market. The amendment of the law on higher education carried out in the years 2005-2011 increased the programme autonomy of the schools as a result of which, state Professional schools of higher education were able to adjust their standards of teaching to the practical needs of local labour markets. Further new education constitution, accepted by the Sejm on 4 July 2018, also introduces many qualitative changes which will have an impact on the functioning of the Professional higher education sector.

The objective of the hereby work is to characterize the functioning of state Professional schools of higher education in the aspect of their impact on the local labour market, on the example of the State School of Higher Education in Biała Podlaska (SSHE). The Bialska School has for the past 3 years been the leader in the SPSHE in Poland.

Research materials and methods

The material for research and analyses consisted both of primary and secondary sources. The primary sources encompass information obtained under own survey research carried out by means of questionnaires. Secondary sources are formed by subject literature, regional and local statistical data, Regional Strategy of Innovation for the Lublin Voivodeship, data from POL-on system as well as data from the all-Poland system of monitoring of Economic Fates of Graduates (ELA) of schools of higher education.

The survey research were carried out in 2015 on a sample of 15 university employees, 105 students and 21 representatives of enterprises. The methods of statistical and descriptive analysis were applied.

Pope John Paul II State School of Higher Education in Białą Podlaska as the representative of the sector of higher professional education

The SPSHE sector functioned on the basis of the Act of 26 June 1997 on higher education professional schools, which along with entry into force the 27 July 2005 on higher education ceased to be applicable. The purpose of SPSHE is to educate students in the scope of fields of study and professional specializations (practical) as well as to supplement knowledge and retrain them in the scope of a given specialization. The tasks of SPSHE is also to popularize technical progress and co-act with other entities in order to expand knowledge, develop culture and local growth of the region. The existence of SPSHE is ensured by active participation on the local and regional level.

The SSHE in Białą Podlaska was launched in 2000. Since is very beginnings the school developed various fields of study, striving to ensure convenient conditions for learning, rest, practicing sport and developing own interests to its students. The accepted investment strategy of the school allowed to build a modern campus, sport base, Research Centre for Innovations and a complex of environment, agriculture and construction study labs. In recent time, the school managed to significantly increase its material database, mainly thanks to the consequent investment policy, while at the same time managing to effectively obtain the UE funding. Being mainly a didactic facility, educating in professional scope and at bachelor level, for many years it has been educating also at the master level, realizing a general academic profile. It also commenced, as one of few Professional schools of higher education, its scientific-research activity. Thus, the school transformed itself into a didactic-research centre.

The realized investments - school complex is comprised of:

- Didactic building at 95/97 Sidorskiej Street with a usable area of over 11,000 sq., where one may find 50 didactic rooms.
- Didactic building at 102 Sidorskiej Street with a usable area of over 2,700 sq., where 25 lecture and practical class rooms are located.
- The sports hall with a didactic unit and a playfield with dimensions of 52 x 31,8 m, the total area of which is 6,165 sq. may also be found.
- Student house is equipped in 192 accommodation spots with 1 and 2-person rooms in high standard of furnishing.
- Research centre - Research Centre for Innovations (CBnI) which supports scientific development in three fields of studies: construction

(with specialization of renewable energy sources), public health (with the programme of studies devoted to borreliosis and tuberculosis), computer science (elements targeted at optic image processing, telecommunication and semiconductor elements).

- Research centre - Regional Centre for Environmental Studies, Agriculture and Innovative Technologies “EKO-AGRO-TECH” is a modern research infrastructure designated for the conduct of scientific research in the scope of environmental analyses, physic games, biological-food analyses. In total, the school has 19 specialized research labs at its disposal.
- The library, the general area of which for disclosure and resource management amounts to approx. 1,200 sq. The library holds over 33 thousand of inventory units.
- The training-educational centre in Międzyrzec Podlaski.
- Sport stadium (female football) for employees and students, open swimming-pool available for students, employees and inhabitants of the city The school has 18-years’ educational experience, confirmed by positive assessments received from the Polish Accrediting Commission. Within the 18 years of its activity it has occupied high spots in the rankings of higher education schools which ultimately led to reaching in 2016, 2017 and 2018 the first higher education school in Poland from amongst all state schools of higher Professional education (<http://www.perspektywy.pl>). Yet another success of the school in 2016 was obtaining scientific category “A” by the Faculty of Economic and Technical Sciences and scientific category “B” by the Faculty of Health and Social Sciences. The school employs approx. 220 academic teachers.

The school houses a pre-school “Zielony Słonik”, Academic Gymnasium, Academic High School, Children University and University of the Third Age.

In the period of demographic decline and in the framework of its two departments it educates approx. 2,650 students who attend its 18 fields of study and 48 specializations within the free of charge undergraduate studies, engineering, consolidated master and master (supplementary) programmes of studies through which they may develop their passions in 18 scientific cycles. Post-graduate studies are maintained in all fields of studies.

The Publishing House existen at the SSHE publishes 3 scientific journals as well as post-conference volumes, monographs, scripts and academic books as well as contributes to the informative and promotional activities of the school through issuing the paper “Bialski Academic Review”.

The mission of the SSHE in Biała Podlaska is to educate the youth at high quality level, to initiate and conduct scientific researches as well as to act towards the development of the city and the region. In accordance with the updated strategy for development of the SSHE in Biała Podlaska, the strategic goal for 2020 will remain to transform the school into the Bialska Academy (Update, 2015). This stems directly from the accepted by the school main strategic goal according to which the school in Biała Podlaska is supposed to be: a modern higher education school which educates highly qualified personnel for the purposes of regional economy, healthcare, education and social zone. It is also supposed to strive to strengthen the memory of the school's patron in national and international cooperation. The realization of the above goal was associated with actions within five following scopes:

- 1) To increase the number of independent science personnel - doctor habilitatus.
- 2) To obtain authorizations (first) to carry out doctorates in the field of health and economic sciences.
- 3) Annual update of educational offer - liquidation or replacement of fields of study with recruitment at the level of 20-30 attendees with related fields of study.
- 4) Maintenance of entitlements to educate at master level within the 5 fields of study: national security, economy, nursing, tourism and recreation, public health and within the consolidated master studies in the field of study of physiotherapy.
- 5) Development of social and scientific base.

Table 1 Didactic offer of the SSHE in Biala Podlaska (status as on 01.10.2018)

| Conducted fields of studies of I degree | | | | |
|--|------------------|------------------------------------|------------------------|------------------------|
| Construction | National Safety | Dietetics | Economics | Finance and accounting |
| Philology (English and Russian) | Computer Science | Mechanics and machine construction | Pedagogy | Nursing |
| Medical Rescue | Agriculture | Sociology | Tourism and recreation | Management |
| Conducted II degree fields of study (supplementary) | | | | |
| National Safety | Economics | Physiotherapy | Nursing | Tourism and recreation |
| Public Health | | | | |

Source: own elaboration.

Furthermore, the school also offers programmes of 26 post-graduate studies within 8 fields of science and a number of qualification courses (5 types),

instructor trainings (3 types), language courses (8 types) and skill trainings (3 types).

At present, the school is preparing for reorganization and adjustment to the requirements of the new Act on Higher Education which has been in place since 1 October 2018. Increasing the number of faculties to four, among other things, is planned.

The assessment of didactic and research activity of the SSHE in Biała Podlaska in the context of its adjustment to the local labour market

The concept of open economy, based on knowledge, has introduced into the theory of economy a new development paradigm, whilst into the economic reality - a new quality in which knowledge, skills and competencies become the key factor which determines the seed of economic growth (Żelazny, 2006). There is a feedback occurring between economy, labour market and the education offered by colleges. Relations between the labour market and the preparation of higher education schools' graduates into entering the area of factual economy are of particular significance (Jakubowska & Rosa, 2011). The paradigm of third generation university indicates the multidimensional nature of the functioning of higher education school, however, this education and scientific research constitute two basic tasks. Didactic offer should ensure the graduates a set of adequate knowledge, skills and competencies so that a relatively smooth transition from the world of education to the world of labour was possible (Krajeńska, 2003). However, issues may occur in this problem area which consist of unadjustment of qualifications to the labour market. The most significant is the structural unfitness which consists of discrepancies which may be observed between the qualifications of potential employees and the current and planned demand on the labour market submitted by the employers. But, also mental unfitness occurs, in case of which there are discrepancies between the employers, the employees and the potential employees in the scope of knowledge and expectations related to employment (Trych, 2011).

Biała Podlaska belongs to a group of small cities with population amounting to 57,545. About 62 % of the city inhabitants are at productive age, 18 % are at pre-productive age while 20 % of inhabitants are at post-productive age. Selected labour market data of Biała Podlaska, at the background of the Lublin Voivodeship, have been presented in the table below.

Table 2 Data regarding the Biała Podlaska labour market at the background of the Lublin Voivodeship (status as at 31.12.2016)

| Selected data | City | Voivodeship |
|--|-------------|--------------------|
| Employed | 13 714 | 383 022 |
| Registered unemployed | 2 995 | 95 596 |
| Share of registered unemployed below the age of 25 in % | 10.2 | 16.0 |
| Share of registered unemployed remaining without work for longer than 1 years in % | 48.2 | 45.4 |
| Registered unemployment rate in % | 12.7 | 10.3 |
| Work offers | 41 | 1764 |

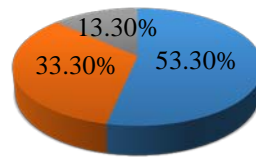
Source: *Statistical Handbook of Elected Representative 2017, Statistical Office in Lublin, Lublin 2017.*

The functioning of the SSHE in Biała Podlaska in terms of its impact on the local labour market has been verified under the survey research of employees and students of Bialska higher schools as well as the representatives of business within Biała Podlaska district.

The school personnel, especially lecturers on individual fields of study who are generally perceived as equipped in good theoretical knowledge of the functioning of the local labour market in the context of the realized didactic process at school. Their opinion is important as to the tendencies and functional links on the local and regional market. The research was attended by 15 employees (didactic and administration) of the SSHE in Biała Podlaska.

Vast majority of research participants noted that Bialska school conducts labour market analyses and the analyses of the status of local economy, whether by means of own research or using the existing elaborations and reports. The employees are also obliged to update and adjust the programmes of studies to the needs of educational market as well as to the labour market purposes. One of the questions within the survey questionnaire concerned the frequency of carrying out a review and update of educational offer. As many as 67 % of the respondents noted that it was monitored on an ongoing basis, at the occasion of commencing each academic year, whilst 33 % of them noted that it was monitored in justified cases.

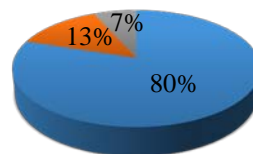
The vast majority of respondents indicated that they conduct analyzes of the labour market and the state of the local economy using other studies or through their own research, which is a positive aspect (fig.1).



- We use the elaborations of other researchers and institutes related to the labour market, since it helps us shape the future school strategy
- We conduct our own researches under scientific studies

Figure 1 *The opinion of respondents on analyses conducted by the school on labour market and local economy*

Source: own elaboration on the basis of the opinions of employees of the SSHE BP (n=15).



- Significant since it helps us in the choice of future fields of studies and attracting new students
- Moderate since the plans are established on the basis of many factors and the indicated ones are not the most significant
- Weak since the school does not focus only on the local environment

Figure 2 *Impact force of situation on the local labour market and in the regional economy on the school's education and research policy*

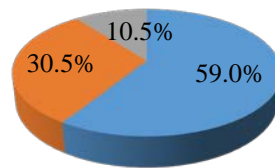
Source: own elaborations on the basis of the opinions of employees of the SSHE BP (n=15).

The vast majority of the survey participants considered the situation on the labour market and the region's economy to be very strongly impacting the realized fields of studies, and only 7 % considered this impact to be weak, which indicates a large connection to the local environment (fig.2). Similar results presented the situation of observing the fates of graduates by the school. These actions are the task of the career department which, in the opinion of 80 % of the respondents, efficiently operates in this regard, while only 20 % considered its actions to be rather weakly effective.

The school, considering its territorial location, concentrates mainly on servicing local and subregional labour markets. The basis of such a strategy is the location in the space on which other academic centres from Warsaw, Lublin, Białystok and Siedlce have an impact.

The views of students concerning the labour market are of significance since they impact the choice of fields of studies, further education on post-graduate studies and decisions concerning the future place of work. Many students already

while selecting their major and place of studying have a well-formed vision of where they would like to work in the future.



■ It was very useful ■ It was useful but I did not obtain sufficient skills ■ Only to a small degree

Figure 3 Usefulness of gained knowledge in the course of studies during professional internships /current work

Source: own elaboration on the basis of the opinions of PSW BP students (n=105).

Students, while assessing the usefulness of the gained knowledge in the course of studies and during realization of professional internships / current work, considered it to be useful in vast majority, even though certain indications were reported that they lacked certain skills (fig.3). One of the subsequent questions concerned concentration of classes on theoretical knowledge or practical one. Over 55 % considered theory to be interweaving with practice, whilst further 35% noted that they learnt theory through practical solving of problems. On the other hand, more than 9 % of students considered theory to be the dominant domain. The results concerning contact with professional advisor, who might assist in establishing professional aptitude seem rather worrying, as well as further professional path. Only 9 % of respondents confirmed that such a meeting had taken place at school while the remaining respondents either were not aware of such a possibility or did not use it so far.

The school trains personnel mainly for the needs of local, subregional and regional labour market. This does not mean however that the school graduates do not find employment in other regions of Poland or abroad. Verification of the gained knowledge and skills with practical experience occurs at the workplace. Within the local labour environment also the social competencies gained at school are put into use. The attitudes and competencies in the scope of graduates' entrepreneurship are revealed when faced with the practical reality.

Local economic entities constituted a significant group of respondents in the survey research, since it was necessary to test the opinions of the representatives of the demand side (employers) regarding the knowledge, skills and social competencies gained by the graduates of the SSHE in Biała Podlaska. The survey

questionnaire also contained a number of questions regarding the local labour market and the methods of searching for employees.

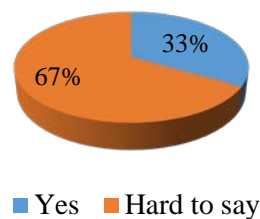


Figure 4 Perception of students/graduates as potential future employees
Source: own elaboration on the basis of opinions of business representatives (n=21).

The entrepreneurs, asked about their perception of students/ graduates as their potential employees replied (67 % of respondents) that it was difficult to state it. One third of them confirmed seeing them as their future employees, having acquainted themselves with the didactic offer of the SSHE in Biała Podlaska (fig.4). On the other hand, 81 % of the respondents considered employees with higher degree education as being more interested in their professional development within a company, whilst the others thought otherwise. Moreover, they appreciated a third degree education while considering such employees are being characterized, above all, by better communication and work organization, better professional preparation, openness and creativity.

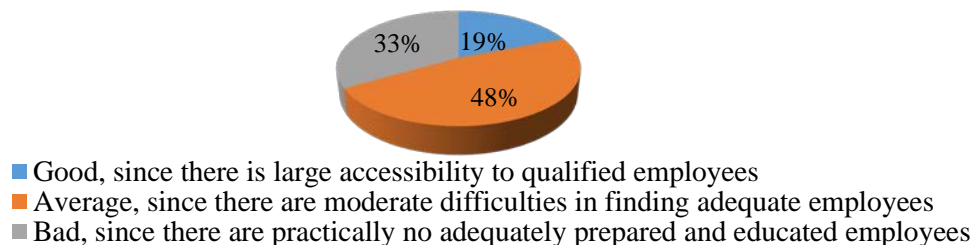


Figure 5 The opinion of respondents on the assessment of local labour market
Source: own elaboration on the basis of opinions of business representatives (n=21).

Exactly 67 % of the survey participants who are the representatives of local market assessed the local labour market to be on a high or average level. The research participants notice the availability of qualified employees or moderate difficulties with finding them. However, as many as 33 % assessed this labour market poorly due to lack of adequately prepared and educated employees (fig.5). Also, the structure of replies to yet another question concerning whether the graduates of SSHE can be characterized by an adequately high level of knowledge and skills looks promising. Almost half of the survey participants (48 %) is of the opinion that they ought to have a greater practical and specialized knowledge instead of general and theoretical one. Subsequent 33 % of the survey participants

noted gaps in practical skills, noticing at the same time the right level of theoretical knowledge. Whilst, 14 % considered their level as adequate and 5 % noted that their level of theoretical and practical knowledge was adequate. The fact that a large part of entrepreneurs (53 %) expected the graduates of the SSHE in Biała Podlaska, equipped in the necessary skills and qualifications in the coming 3 years on the local labour market is rather comforting. This stems from the fact that the employers follow the teaching programmes at the higher education school (practical profile) as well as being aware of an increasingly improving reputation and authority of the school. Also the engagement in obtaining external financing designated for realization of innovative and modern teaching aids has been appreciated. The school itself sees an opportunity in it, realizing scientific-didactic projects directed towards both the students and the didactic personnel, which facilitate increasing knowledge, skills and competencies of the graduates.

One ought to point out, that an important body at the school that guards the adjustment of educational offer to the local labour market needs and ensures good preparation of the graduates to the activities in professional environment is the school convention which to a large degree consists of the local society and business representatives.

The follow up on fates of the graduates with the use of the all-Poland system of monitoring of Economic Fates of Graduates (ELA) is a tool designated for increasing the quality of education and adjusting educational offer to the requirements of the labour market. At present, this system has quite a large database at its disposal which are obtained mainly from the Social Security Institution (ZUS) and the integrated information system regarding science and higher education POL-on. On the basis of the gathered data, cross-sectional reports are elaborated according to which, in case of second degree studies, as many as 85.3 % of graduates were registered in the Social Security Institution's registers, while the average period of job search in case of graduates of the 2nd degree studies, post obtaining a diploma, amounted to 3.28 months (<http://ela.nauka.gov.pl>). On the other hand, the average time from obtaining a diploma to undertaking the first job on the basis of an employment contract post obtaining a diploma amounted to 3.8 months, while the risk of unemployment among the graduates of the 2nd degree studies in the first year post obtaining a diploma amounted to 19,8 % in total. The percentage of graduates who had any sort of experience at work in the first year post obtaining a diploma amounted to 73,5 %, while the percentage of graduates who had a work experience on the basis of employment contract in the first year post obtaining a diploma amounted to 57,8 %. Monthly remuneration on account of employment contract amounted to, on average, 2,119.94 zlotys while the overall median amounted to 1,816.73 zlotys. An average relative index of wages of graduates (average value of the quotient of

average monthly salary of a graduate towards the average monthly salary within their poviata of residence) amount to in total 0.52.

While performing the analysis of data available in the barometer of professional it is visible that in Białą Podlaska certain issues with adjusting the didactic offer to the local demands on the labour market occur. In 2018, within Białą Podlaska district and the city of Białą Podlaska deficit professions included, among others: IT specialists, physiotherapists, construction engineers or accountants which are compliant with the fields of study available in the SSHE in Białą Podlaska. Whilst, such professions as pedagogues, foreign language teachers, sociologists, economists, travel agency personnel and tourism organizers or agriculture experts belong to surplus professional and despite this, they are available within the didactic offer of the the SSHE in Białą Podlaska (<http://barometrzwodow.pl>). It is however not obvious whether the above state of affairs is of interim or a long-term nature.

Conclusions

Pope John Paul II State School of Higher Education in Białą Podlaska, as one of the best schools in the public sector of higher professional education in Poland, successfully develops its didactic activity while considering the needs of the local labour market, though its profile is open, it does not fully cover the demand of this market regarding specialist with third degree education. The school realizes practical studying profile and undertakes scientific-research activity as well as expert activity towards the economy and society in the region.

One of the most significant factors of the functioning of state Professional higher education schools is establishing partnerships between the school and the workplace. A need of close cooperation of a public Professional institution with employers stems from the specificity of these schools and, above all, from their practical approach towards the process of education. As a consequence of such cooperation which ought to be based on the participation of the convention in the shaping of the programme of actions, participation of employers in the realization of the didactic process, a graduate should possess knowledge and practical skills as well as adequate social competencies.

The process of permanent education which, post-graduation from studies, assumes systematic further education, is an inseparable element of constantly changing labour market. The SSHE in Białą Podlaska seems to be noticing these issues, which is reflected in the efficiently operating Academic Centre of Continuous Education which encompasses within its offer proposals for persons at all ages. Furthermore, didactic-scientific activity of the Białaska School is well-correlated with all smart specializations of the Lublin Voivodeship which translates into, among others, the right infrastructural backup (specialist labs and

research centres), human resources, organizational structure as well as the realized fields of study and their specializations (<http://rsi.lubelskie.pl>).

Bearing in mind fields of study of the first degree studies at a practical profile, as well as an increasing number of additional project classes, workshops, e-learning trainings, directed at teachers and students, one may note that the SSHE takes into consideration in an increasing scope the expectations of the employees on the local labour market. The new act, Continuation of Education, implemented since 2018, may become a chance for further improvement of the adjustment of the didactic offer and scientific research to the needs of entrepreneurs and the local society. The new, bicameral model of organization of the higher education school assumes, apart from the so far school bodies of the senate and the rector, appointment of the school council performing the function of its collegial body, consisting of the representatives of local government units and the employers. This ought to lead to ensuring a greater coherence of the elaborated changes and the educational process as well as its adjustment to fast changing needs of the labour market.

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METHOD FOR THE CONSTRUCTION OF STUDENTS' SCIENTIFIC IDENTITY WITHIN ENGLISH FOR ACADEMIC PURPOSES: THE CASE OF INTERNATIONAL STUDENTS OF MASTER PROGRAMME "INFORMATION AND ELECTRICAL ENGINEERING" AT HOCHSCHULE WISMAR

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Abstract. *Reaching the Goals of the 2030 Agenda for Sustainable Development is facilitated by science development. In order to strengthen scientific efforts in implementing the 2030 Agenda, the number of our modern society's members who associate themselves with scientific community has to be increased. The research question is as following: What method promotes the construction of students' scientific identity in language education within higher engineering education? The aim of the present research is to analyse the inter-connections between scientific identity and language education underpinning empirical analysis of use of biographical methods in English for Academic Purposes within Master programme "Information and Electrical Engineering" for International students at Hochschule Wismar. Research methods include theoretical and empirical methods. Theoretical methods comprise analysis of theoretical sources and theoretical modelling. The research methodology implies the study of the meaning of the key concepts of "scientific identity", "language education" and "biographical method". Moreover, the study demonstrates how the key concepts are related to higher engineering education. The empirical study was carried out at Hochschule Wismar in 2018. The data reveals students' positive evaluation of use of biographical methods in English for Academic Purposes studies. The novel contribution of the paper is the newly formulated research question.*

Keywords: *biographical methods, English for Academic Purposes, international students, higher engineering education, language education, role models, scientific identity.*

Introduction

Reaching the 17 Sustainable Development Goals and 169 targets declared in the 2030 Agenda for Sustainable Development (United Nations, 2015) is facilitated by science growth and development. In order to strengthen the science efforts in implementing the 2030 Agenda, the number of our modern society's members who associate themselves with scientific community has to be increased. Thus, the guiding research question is as following: What method promotes the construction of students' scientific identity in language education within higher engineering education?

The aim of the present research is to analyse theoretically the interconnections between scientific identity and language education underpinning empirical analysis of use of biographical methods in English for Academic Purposes within Master programme "Information and Electrical Engineering" for International students at Hochschule Wismar, Germany.

Research methods include both theoretical and empirical methods. Theoretical methods imply analysis of theoretical sources and theoretical modelling. The research methodology comprises the study of the key concepts of "scientific identity", "language education", "role models" and "biographical method". Moreover, the study demonstrates how the key concepts are related to higher engineering education. The empirical study was carried out at Hochschule Wismar in Germany in February 2018. Observation served as the basis for data collection. The novel contribution of the paper is the newly formulated research question.

Literature review

Science or, in other words, scientific identity is the sense of who students are, what they believe they are capable of, and what they want to do and become in regard to science (Brickhouse, 2001). Researchers also emphasize the interconnections between scientific identity and role models (Arhipova, 2018, 42): scientific identity is an element of role model (Zaščerinska, Andreeva, & Aļeksejeva, 2015). Role models assist in guiding individual's personal development, making important decisions that affect the human well-being and finding satisfaction and fulfillment in individuals' lives (Zaščerinska, Andreeva, Glonina, Zaščerinskis, & Aļeksejeva, 2016). In higher education, use of role models is traditionally considered from one perspective only: students are users of role models created by their educators despite that engineering students indicate that they are role models for their friends, family members and colleagues (Zaščerinska, Andreeva, Glonina, Zaščerinskis, & Aļeksejeva, 2016).

Construction of scientific identities is built through individual's experience (Arhipova, 2018, 51). While individual's experience plays the central role in the knowledge construction process (Maslo, 2007), individual's life experience is portrayed by biography. The method of biographical analysis, or, in other words, biographical method, is identified as a tool for constructing their identity (Arhipova, 2018):

- On the one hand, biographical method serves as a causal model, i.e. a person on a subconscious level builds his life, depending on the events that happened to him before, especially in childhood.
- On the other hand, biographical method is an instrument to study the dynamics of social phenomena, norms and values through the prism of individual experiences of individuals or families. As empirical studies reveal, the culture norms and values of international students and educators of Master programme "Information and Electrical Engineering" at Hochschule Wismar, Germany, differ (Gruenwald, Ahrens, Zaščerinska, Melnikova, & Andreeva, 2018).

The construction of scientific identity is mediated via academic language (Zaščerinska, Andreeva, Zaščerinskis, & Aļeksejeva, 2016). English for Academic Purposes studies as part of higher engineering education are an opportunity for the development of students' scientific identity (Zaščerinska, Andreeva, Zaščerinskis, & Aļeksejeva, 2016). The close inter-relationships between English for Academic Purposes studies and role models have to be pointed, too: two elements, namely individual's identity and cognition of three (individual's identity, cognition and social interaction) of both English for Academic Purposes studies and use of role models coincide (Zaščerinska, Andreeva, & Aleksejeva, 2015). Figure 1 illustrates the hierarchy of inter-connections between role models, scientific identity, biographical method and English for Academic Purposes studies.

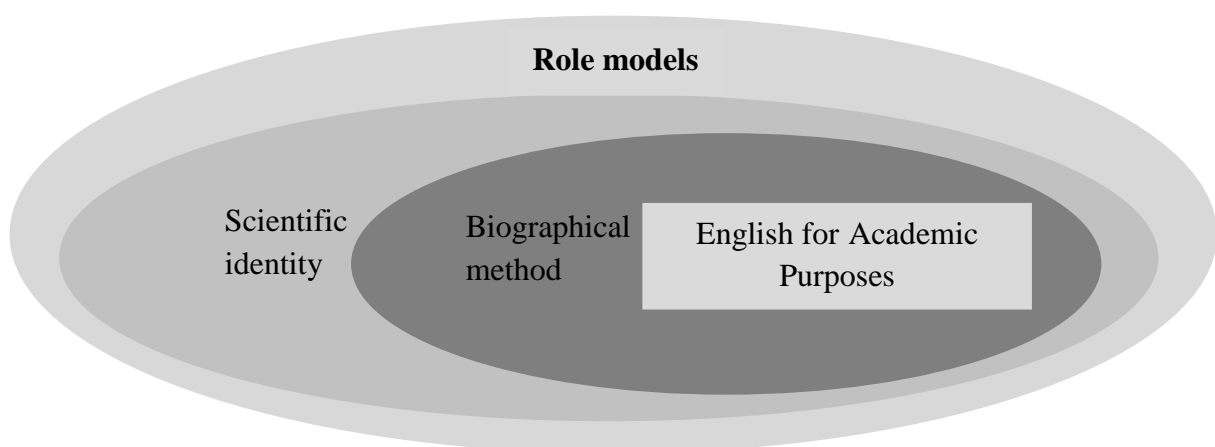


Figure 1 The hierarchy of inter-connections between role models, scientific identity, biographical method and English for Academic Purposes studies

Thus, biographical method was integrated into English for Academic Purposes studies (Zaščerinska, 2009). Students of English for Academic Purposes were suggested to prepare and make a PowerPoint presentation on the biography of an outstanding person (Zaščerinska, 2009) in the students' degree study area (engineering, economics, management, etc). However, further enhancement of the biographical method requires analysis of the historical development of biographical method within different scientific fields.

Table 1 based on the analysis of the scientific literature (Zaščerinska, 2009; McLean & Abbas, 2011; Zaščerinska, Andreeva, & Aleksejeva, 2015; Zaščerinska, Andreeva, Glonina, Zaščerinskis, & Aleksejeva, 2016; Zaščerinska, Andreeva, Zaščerinskis, & Aleksejeva, 2016; Arhipova, 2018) outlines the main stages of the development of the biographical method in different scientific fields.

Table 1 Historical development of the biographical method within different scientific fields

| Historical period | Scientific field | Use of biographical method |
|--------------------------|----------------------------------|---|
| 1920s | Sociology | A large study of Polish farmers in Europe and America |
| 2009 | English for Academic Purposes | Students' presentations on an outstanding person's biography (focusing on person's way of growth, achievements, and reasons of success) in the students' degree study area (engineering, economics, management, etc) |
| 2013 | Teaching of university sociology | Sociology lecturers teach by way of biographical methods in order to tackle pedagogical difficulties associated with the increasing marketisation of higher education and the depoliticised attitudes of the students |
| 2015 | English for Academic Purposes | Students' writing of their own short biography (200 words) to be included in their scientific publications |

Source: created by the paper's authors.

Methodology

The present part of the paper demonstrates the design of the empirical study. The design of the present empirical study comprises the question and purpose, sample and methodology of the empirical study.

The guiding question of the empirical study was as follows: What is students' evaluation of use of biographical method within English for Academic Purposes? It should be noted that English for Academic Purposes is part of language education (Zaščerinska & Aleksejeva, 2012). Language education or the languages of education is an overarching concept for language as a subject,

language across the curriculum and foreign languages (Aase, 2006, 4). Language proficiency and problems is a concept of the theoretical framework on master programme for international students (Ahrens, Gruenwald, Bassus, Zaščerinska, & Melnikova, 2017).

The purpose of the empirical study is to analyse students' evaluation of use of biographical method within English for Academic Purposes.

The exploratory type of the case study research has been applied (Zainal, 2007) in the present empirical study as case studies have an important function in generating new research questions, hypotheses and building theory (Kohlbacher, 2005). Exploratory case studies set to explore any phenomenon in the data which serves as a point of interest to the researcher (Zainal, 2007).

The interpretive paradigm was used in the empirical study. The interpretive paradigm aims to understand other cultures, from the inside through the use of ethnographic methods such as informal interviewing and participant observation, and establishment of ethically sound relationships (Taylor & Medina, 2013). The interpretive research paradigm corresponds to the nature of humanistic pedagogy (Lūka, 2008, 52). The interpretive paradigm creates an environment for the development of any individual and helps them to develop their potential (Lūka, 2008, 52). The core of this paradigm is human experience, people's mutual everyday interaction that tends to understand the subjectivity of human experience (Lūka, 2007, 104). The paradigm is aimed at understanding people's activity, how a certain activity is exposed in a certain environment, time, conditions, i.e., how it is exposed in a certain socio-cultural context (Lūka, 2007, 104). Thus, the interpretive paradigm is oriented towards one's conscious activity, and it is future-oriented (Lūka, 2007, 104). Interpretive paradigm is characterized by the researcher's practical interest in the research question (Cohen, Manion, & Morrison, 2003). The researcher is the interpreter.

The sample of the present empirical study was composed of five respondents within the Master programme "Information and Electrical Engineering" for international students at Hochschule Wismar. The five respondents are from different parts of India. Moreover, they represent different field of engineering studies such as electronics, mechanical engineering, electrical engineering, etc. Therefore, the sample is multicultural as the respondents with different cultural backgrounds and diverse educational approaches were chosen. Students' different cultural and educational experience emphasized the significance of each student's evaluation of use of biographical method within English for Academic Purposes (Luka, Ludborza, & Maslo, 2009) within the present empirical study. Thus, the group (age, field of study and work, mother tongue, etc.) was heterogeneous.

The empirical study was carried out in February 2018. It should be noted that the Master programme "Information and Electrical Engineering" at Hochschule Wismar involves the students from India only. However, the Master programme

"Information and Electrical Engineering" is open for all the interested international students. The Master programme "Information and Electrical Engineering" for international students is popular at Hochschule Wismar, Germany, as it ensures such economic resources, that influence the regional economics, as labour and entrepreneurship (Ahrens, Grünwald, Bassus, Andreeva, Zaščerinska, & Melnikova, 2018).

Only five respondents as a case for the study participated in the empirical study as a qualitative research design has been employed (Kohlbacher, 2005). The qualitatively oriented empirical study allows the construction of only few cases (Mayring, 2004). Moreover, the cases themselves are not of interest, only the conclusions and transfers we can draw from these respondents (Flyvbjerg, 2006). Selecting the cases for the case study comprises use of information-oriented sampling, as opposed to random sampling (Flyvbjerg, 2006). This is because an average case is often not the richest in information. In addition, it is often more important to clarify the deeper causes behind a given problem and its consequences than to describe the symptoms of the problem and how frequently they occur (Flyvbjerg, 2006). Random samples emphasizing representativeness will seldom be able to produce this kind of insight; it is more appropriate to select some few cases chosen for their validity (Flyvbjerg, 2006).

Observation was employed as a basis of data collection. Observation is a highly effective method of qualitative data obtaining (Zaščerinska, 2013). Observation makes use of a number of techniques, namely, document analysis, respondent interviewing and students' self-analysis (McCall & Simmons, 1969, 1). Moreover, observation contributes to a more adequate picture that emerges of the research setting as a social system described from a number of participants' perspectives (Geertz, 1973; Burgess, 1984), namely students' evaluation of use of biographical method within English for Academic Purposes. Furthermore, Hargreaves (Hargreaves, 1967, 193) described advantages of participant observation as a research method for those carrying out studies in institutions in which they work: the method of participant observation leads the investigator to accept a role within the social situation s/he studies – s/he participates as a member of the group while observing it. In theory, this direct participation in the group life permits an easy entrance into the social situation by reducing the resistance of the group members; decreases the extent to which the investigator disturbs the 'natural' situation, and permits the investigator to experience and observe the group's norms, values, conflicts and pressures, which (over a long period) cannot be hidden from someone playing an in-group role.

The collected data were processed via structuring and summarizing content analysis focused on such a criterion of students' evaluation as students' attitude. It should be noted that attitude is identified as a combination of evaluative judgments about a phenomenon (Crites, Fabrigar, & Petty, 1994, 620). For the

purposes of the present research, attitude includes two indicators, namely social interaction and cognitive activity (Zaščerinska, 2013). Such constructs of social interaction are identified as students participate in the activity, exchange ideas with others, co-operate with others, analyze a problem, are in the dialogue and search for problem solving tools together with others (Maslo, 2006, 15). In turn, such constructs of cognitive activity are determined as student regulates his/her own learning process, sets his/her own goals, takes responsibility for his/her own learning, works independently, evaluates his/her own learning process and continues to improve his/her own skills (Maslo, 2007, 39). Traditionally, attitude is differentiated into positive, neutral or negative (Ahrens & Zaščerinska, 2014).

Research results

The students' observation carried out within English for Academic Purposes classes devoted to use of biographical method in the Master programme "Information and Electrical Engineering" at Hochschule Wismar started with the students' choosing of an outstanding scientist. All the five students actively discussed their choice of an outstanding scientist in order not to make a presentation of the same scientist. The five students chose different scientists for their presentations. All the five students with Indian educational and cultural background selected an outstanding scientist with Indian roots for their presentations. Three students proposed a biography of an outstanding scientist from a scientific field different from the students' field of degree study. This was considered as an advantage as such an approach to analysing a biography of an outstanding scientist from a scientific field different from the students' field of degree study strengthens students' interdisciplinary perspective on their field of study.

Later, about 15 minutes at the end of English for Academic Purposes class were given to the students to start their PowerPoint presentations on a biography of a chosen scientist in the class in order to motivate the students to continue to do the task. During the given 15 minutes, the students enthusiastically engaged in preparation of their PowerPoint presentation on a biography of the chosen scientist in the class. As all the five students enthusiastically engaged in preparation of their PowerPoint presentation on a biography of the chosen scientist in the class, the respondents enjoyed searching for the detailed biographical information of a chosen scientist on the Internet. The students finished their PowerPoint presentation on a biography of the chosen scientist already after the English for Academic Purposes class.

On the day of the students' presentation, the students demonstrated the well-elaborated slides of their PowerPoint presentations: the students integrated photos and other visual materials in order to highlight the conditions of the working and

family environment of the chosen scientist. The students also provided figures, formulas and schemes in order to demonstrate the scientific contribution and achievements of the chosen scientist.

During the students' presentations on an outstanding scientist with the use of PowerPoint slides, the students spoke in a fast manner. It should be noted that for the use of the biographical method, fast manner of speaking is considered as an advantage as the students wished to provide more information about the scientist. But for the purposes of the development of students' academic presentation skills, fast manner of information delivery is a disadvantage as the listeners cannot perceive the provided information. The students were open to provide even more detailed information about the chosen scientist, clarify the details of scientific contribution of the chosen scientist as well as to answer other students' questions and comment on the educators' remarks.

The observation demonstrated that all the five students participated in the activity, exchanged ideas with others, co-operated with others, analyzed a problem, were in the dialogue and search for problem solving tools together with others (Maslo, 2006, 15) as well as regulated their own learning process, set their own goals, took responsibility for their own learning, worked independently, evaluated their own learning process and continued to improve his/her own skills (Maslo, 2007, 39). Consequently, all the five students have positive attitude to the use of the biographical method in English for Academic Purposes studies. Consequently, the summarizing content analysis (Mayring, 2004) of the data based on the analysis of attitude's indicators, namely social interaction and cognitive activity, reveals that all the five students positively evaluated the use of the biographical method in English for Academic Purposes studies.

Conclusions

The theoretical findings of the present research allow drawing conclusions on the existing inter-connections between role models, scientific identity, biographical method and English for Academic Purposes studies. Moreover, the hierarchy of inter-connections between role models, scientific identity, biographical method and English for Academic Purposes studies was determined such as role models → scientific identity → biographical method → English for Academic Purposes studies. The results of the empirical study allow concluding that the respondents positively evaluated the use of the biographical method in English for Academic Purposes studies. The following new research questions has been formulated: What is engineering students' evaluation of writing their own short biography (200 words) as required by scientific publications? The present research has limitations. The inter-connections between role models, scientific identity, biographical method and English for Academic Purposes

studies have been set. As well as the hierarchy of inter-connections between role models, scientific identity, biographical method and English for Academic Purposes studies has been established. Another limitation is the empirical study conducted by involving only the students of one master programme at one higher education institution. Therein, the results of the study cannot be representative for the whole area. Nevertheless, the results of the research – the hierarchy of inter-connections between role models, scientific identity, biographical method and English for Academic Purposes studies - may be used as a basis of evaluation of use of biographical methods. Further research tends to implement a comparative analysis of use of biographical methods within English for Academic Purposes from students' perspective. Empirical analysis to reveal effectiveness and impact of use of biographical method within English for Academic Purposes is proposed.

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CREATIVE PLATFORM METHODOLOGY: THEORETICAL FRAMEWORK FOR STUDENT CREATIVITY DEVELOPMENT IN COLLEGE STUDIES

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Abstract. *In recent years, researchers have focused on the manifestations of students' creativity, on the factors that impact its development, as well as on the conditions, means and methods that can facilitate students' creativity in various fields of study. In the present investigation, the existing definitions of creativity, creativity development, the concept of Creative Platform and prior research conducted in the field have been analysed.*

The theoretical framework of the Creative Platform methodology, developed by the Danish researchers Christian Byrge and Søren Hansen (2009), is based on previous studies of creativity development (Amabile, 1998; Csikszentmihalyi, 2006; Stenberg, 1996; etc.). This methodology is currently used as a didactic model in higher education institutions across the globe, including Malta, Spain, China, and other countries.

The present investigation presents a model based on the Creative Platform methodology. It is designed to develop students' creativity in college studies via a specific teaching process during which students develop extra confidence, concentration, and motivation necessary for freeing themselves from the professional, social, or cultural stereotypes.

Keywords: *creativity, creativity development, Creative Platform, higher education.*

Introduction

The 21st century learners are surrounded by a variety of visual means, mobile and smart technologies. Under the circumstances, the all-embracing advancement of technologies has become decisive in shaping a different understanding of communication, search for information and creation of meaning (Pedro, 2006). In the face of constant changes in technology and knowledge expansion taking place across the globe, creative education has become especially important since learners constantly and inevitably face new phenomena, and there is an ever-growing need to be able to learn to think creatively. In recent research, emphasis is laid on the significance of developing creativity in higher education. To illustrate, a Lithuanian researcher Barynienė

(2015) points out that HE faces a very ambitious goal since the present-day graduates will operate the type of technology and under the circumstances that now are even non-existent. For that reason, creativity as the ability to generate new ideas, think independently, evaluate problem situations and make fast and reasonable decisions while projecting future tendencies has become a top priority. Urban (2014) believes that creativity or creative action involves much more than divergent thinking and claims that in order to not only cope with, but also construct and shape one's life and future successfully, it is necessary that individuals have at their disposal a broad set of competencies, especially those involved in a comprehensive concept of creativity.

The concept and manifestations of creativity as well as the processes of its development have been widely researched and discussed. Nowadays, the paradigm of education is based not on knowledge transmission, but on more practice-based methods that encourage problem-solving skills, ask for critical thinking, and demand an overall creative approach. Craft, Cremin, & Burnard (2008) points out that creativity cannot appear out of nowhere, and it is the teacher who plays a crucial role here. Thus creativity does not simply manifest itself due to the existence or availability of 'interesting resources' or due to a 'different organizational pattern' of activity in comparison to the habitual one. Numerous investigations present proof that new ideas and relevant solutions are made on the basis of non-traditional approaches to the existing problems. Creativity calls for unconventional ways of solving the problems we face. The latter statement draws our attention to the role of favourable environment for creativity development, which includes two components: the psychological component (a positive attitude towards pro-active manifestations, initiative, curiosity, readiness to experiment, tolerance of digressive and inventive attempts, playfulness, humour, and the like) and the physical component (plentiful visualizations, naturally-friendly and resource-rich environment, positive disposition-enhancing and well-matching tones of colour). In Sternberg's view (2006), the factor of environment ranks high in generating manifestations of creativity. The author believes that some people need creativity-supportive acknowledgement in the form of rewards and extra bonuses, while others, those with a strong inwardly-hidden potential for creativity, may badly need outwardly-expressed support and encouragement from the environment to be able to reveal their creativity potential. Thus it could be stated that education can be not only an incentive but also an obstacle to creativity development (Ganusauskaitė & Liesionis, 2009; Girdzijauskienė, 2012). Therefore, it is of utmost importance to include components of the personal features responsible for creative behavior as well as to recognize the mutual dependencies of person and environment throughout the whole process of creative development and activity itself (Urban, 2014). Grakauskaitė-Karkockienė (2010) believes that development of creativity

is an integral part of the overall development of a personality. In her opinion, with successful stimulation of creativity in place, it is possible to enhance general development of a personality, and creativity, in turn, can be fostered: by designing and developing teaching programmes, by choosing appropriate methods of teaching and learning, or by selecting individually-applicable methodologies and designing some 'tailor-made' models. Lund, Byrge, Nielsen (2017) also talk about the possibilities of developing creativity by developing programs using certain methods.

Thus, higher education institutions can play a significant role in the process of developing students' creativity on condition that they have a clear understanding that traditional teaching, based on knowledge transmission and reception, can no longer meet the present-day requirements in education, which is undergoing a constant change. To foster students' creativity in HE in Lithuania, a theoretical model has been designed. This model is based on the Creative Platform methodology which was originally developed by the Danish scientists Byrge and Hansen (2009). At present, the model is being applied in college studies that are implemented within the system of HE in Lithuania.

The relevance of research

The complex and ever-changing environment poses demands and needs for solving problems creatively. Lithuania's Progress Strategy "Lithuania 2030" emphasizes the role of higher education which should provide all necessary conditions for the development of a creative, responsible and open-minded personality. Creativity is related to unconventional thinking, unexpected decision-making, one's ability to generate ideas, demonstrate non-traditional approaches, and the like. The overview of research literature demonstrates that creativity is viewed as a way of creating knowledge (Craft, 2008), and in order to involve learners into the processes, pro-creative methodology is used (Simplicio, 2000). Edward de Bono (as cited by Valantiejtė, 2009) states that one of the problems of different education systems is their erroneous belief that creativity refers exceptionally to the disciplines of art (music, visual arts or dance) since many people cannot comprehend the fact that the very essence of creativity lies in generating ideas and taking new approaches while trying to solutions to different complex situations. The research literature reveals that a number of researchers (Fullan, 1998; Jucevičienė, 2007) discuss the processes of teaching and learning relying on a conceptually new approach to education. Fullan (1998) asserts that desirable outcomes in education can only be achieved on condition that the ability of learners to think independently and creatively is consistently developed. At the same time, both foreign and Lithuanian researchers point out that present-day institutions of higher education still tend to use a lot of practices

that are directed towards reproductive rather than creative approaches towards learning. The study carried out in Lithuania in 2014 by Research and Higher Education Monitoring and Analysis Centre (MOSTA) showed that, in the opinion of Lithuanian employers, higher education graduates lack decision-making skills (84%), analytical skills (77%), and creative approaches (59%). University and college graduates often lack knowledge and skills about specific strategies for developing creativity as well as about ways of creative thinking in general. To bridge the existing gap, a theoretical model based on the Creative Platform methodology has been designed and applied in college level studies in the system of higher education.

The object of the research is developing students' creativity. The aim of the research is to reveal the aspects of student creativity development. The objectives of the research are:

- To provide overview of possibilities of creativity development, research of creativity development;
- To analyse the significance of student creativity development within the context of higher education;
- To present the student creativity development model based on Creative Platform methodology.

The research method used in preparing the article is analysis of research literature.

Creativity and its development

In recent decades' creativity has been analysed as a multi-faceted phenomenon within the context of personality, society and culture studies. Creativity, its conceptualization and forms of manifestation as well as creativity development – all these aspects have been widely researched. For example, Guilford (1950, 1987), Sternberg (2006), Grakauskaitė-Karkockienė (2006, 2010, 2013, 2016), Craft, Cremin, & Burnard (2008), Ganusauskaitė & Liesionis (2009), Hennessey & Amabile (2010), Girdzijauskienė (2012), Byrge & Hansen (2009, 2014, 2015), Robinson (2011), Kaufman (2012), Urban (2014) investigated the concept of creativity, the key decisive factors and methods of creativity development. Torrance (1999), Csikszentmihalyi (2006), Beresnevičius (2006), Starko (2014), Barevičiūtė (2014) researched creativity as a personal skill used to identify societal problems and make appropriate decisions. On the other hand, Penkauskienė (2016) explored the relationships between critical and creative thinking; whereas Rimkutė-Jankuvienė (2016) studied theoretical aspects of creativity discourse and Burkšaitienė (2018) investigated the role of university for the development of students' creativity as

well as university students' attitudes towards its development while studying a foreign language.

In this context it is important to mention new research instruments and models developed to investigate creativity. For instance, Kaufman (2012) created – the instrument *Kaufman Domains of Creativity Scale* (K-DOCS), aimed to establish creativity domains to be measured. Urban (2014) summarized creativity theories and provided a model that determines two main groups of components within the environmental dimension: Cognitive (Divergent thinking and acting, General knowledge and thinking base, Specific knowledge base and area-specific skills) and Personality (Focusing and task commitment, Motivation and motives, Openness and tolerance of ambiguity).

In the research, creativity tends to be viewed as a systemic phenomenon (Sternberg, 1996) especially within the contexts that cross the boundaries of psychology, and patterns of creative modelling are viewed as an effective basis for creativity development. Thus creativity becomes an indispensable skill for the present-day individuals, the skill that can be encouraged or subdued like any other skill. Simonton (2000), who views creativity as a successfully-matched combination of favourable circumstances and possibilities put to use, suggests using techniques of social communication. In the researcher's opinion, the attitude towards one's own creativity ranks among the most important factors in developing creativity, that is why insufficient evaluation or even diminishing one's own creativity has a negative impact on it, while support and praise received from others enhance one's confidence in one's own creative power. The results of a study conducted by Burkšaitienė (2018), on the other hand, showed that in higher education curriculum should contain assignments aimed at developing student creativity. Creativity as a certain system is well-developed in the theory of creativity offered by Csikszentmihalyi (2006), where creativity is treated as an ever-changing, constantly developing and socioculturally dependent system. Csikszentmihalyi (2006) emphasises the impact of sociocultural factors on creativity and asserts that creative decisions depend on three inter-related components: good knowledge of your creative field of activity, personal or inborn abilities and skills, and the ability to apply one's knowledge gained in a field of creativity in practice. Amabile (1998) treats creativity as a permanent quality of a personality and points out to differences in people in terms of their abilities, cognitive qualities, motivation, and other circumstances that precondition personal creativity. Creativity can find various forms of manifestation depending on different cultural contexts, and motivation, especially the intrinsic one, which can play the decisive role in creativity manifestations (Hennessey, 2010; Csikszentmihalyi, 2006; Amabile, 1998).

Rimkutė-Jankuvienė (2016) points out that researchers from different fields have displayed a keen interest in creativity, which has gradually resulted in

different approaches to creativity while designing instruments for measuring it, whereas creativity has been most commonly analysed as a specific individual ability or a certain type of thinking; creativity has also been studied both as a process and as the outcome of the process. The researcher asserts that the observed variety of approaches towards creativity research has given rise to completely different treatments of the phenomenon of creativity. The discussion regarding the interaction of various factors and the underpinning arguments can be found in the works of representatives of *confluence education* (Rhodes, 1961, Amabile, 1998; Sternberg, 2006; Csikszentmihalyi, 2006; Sternberg, 1996, 2006; Weisberg, 2006). Rhodes (1961), with the *4P concept of creativity*, was among the first ones to view creativity in a systemic way, at the basis of which lie four variables of creativity: the person (the qualities of a creative personality), the processes (of motivation, activity, thinking, communication), the product (ideas, scholarly and artistic works), the environment (sociocultural context of creative agent), which means that it is impossible to define creativity by one single component. Sternberg (2006) researched the origins of creativity, and he pointed out that creativity is not a merely inborn human quality. In his opinion, the development of one's creativity can be a completely free choice of individual. His *investment into creativity* theory claims that everyone can become creative if they are prepared to invest time and effort. The author believes that creativity manifests itself as a coherent whole of personal cognitive processes and personal qualities, thus the significant creativity pre-conditioning factors are: intellect, knowledge, style of thinking, personal qualities, motivation, and environment.

Edward de Bono (as cited by Valantiejtė, 2009) also states that creativity techniques can be fairly successfully exploited by separate individuals at their choice. Long-term research findings into creativity give solid basis to assert that personal qualities and traits significantly influence the qualitative dynamics of creativity (Sternberg, 2006): a perceived will to overcome obstacles, readiness for risk-taking, tolerance, self-dependence and self-reliance. Rakauskaitė (2014) is of the opinion that creativity is a skill that requires constant development, thus original 'tailor-made' methods of educating creativity are needed to cherish creativity. Torrance (1984), who studied creative thinking for a number of years, believes that creativity can be educated. In his opinion, the key skills of creative thinking (fluency in thinking, flexibility, originality) and imagination can be developed by posing relevant questions and setting pro-creative tasks. Ganusauskaitė and Liesionis (2009) believe that it is of utmost importance in higher education institutions to conceptualize the essential value of educating 'the whole personality'. According to the researchers, the understanding of creativity should by no means be restricted to the development of imagination – so as to be able to create masterpieces of art. In the first place, a creative personality is able to think critically and independently, can resist ideological restrictions, can offer

new ideas and cherish them, even though it may be impossible to put them into practice immediately. Grakauskaitė-Karkockienė (2013) is of the opinion that important steps include studying, recognising, and consciously approaching different aspects of a creative personality in order to better comprehend how to deliberately address the needs of a creative personality in the process of creativity development. All personal qualities relating to creativity should be given timely attention by offering suitable programmes and methods that encourage the development of creativity.

In conclusion, it is priority being given to the study of factors that become decisive in developing creativity. The researchers also to agree that specifically chosen methodology, deliberately designed programmes as well as conscious and continual attention to the processes of fostering creativity in higher education can make a significant contribution to the development of student creativity.

The significance of developing student creativity in higher education

Ganusauskaitė and Liesionis (2009) believe that the purpose of higher education is to educate an inventive and self-reliant personality, able to display original thinking. In the authors' opinion, teachers in higher education institutions are frequently reluctant to reveal and admit the existing shortcomings in their own creative thinking, therefore, they hesitate to acknowledge the value of creative thinking and are not always willing to apply the techniques of creative thinking in practice. Daujotytė (2010) states that the prospects of mankind have become closely related to creativity in the present-day world more than ever before. The future will depend on how many creative people we will be able to educate, the people capable of creative functioning, of generating ideas, and of shaping alternative approaches. In the researcher's view, a creative personality comes up with unexpected decision-making, discovers ways out of complex situations, takes new directions, and perceives the surrounding world in a completely new way.

Robinson (2011), on the other hand, discusses the issues of education and culture of habit-shaping asserts that previously performed reforms and changes are insufficient and calls for a fundamental change – a systematic development of creativity, imagination and innovation. Grakauskaitė-Karkockienė (2006) asserts that there are essentially two points to be considered in educating creativity in higher education: your self-assurance that you are a truly creative personality, and your ability to participate in creative processes on a par with others, to be ready to hear your self-assurance confirmed by peers or, at times, be ready to accept some criticism from them. The author points out that this kind of attitude helps a person to build his confidence, enables him to convince others of one's ideas, encourages him to display his own creativity. The researcher refers

to 25 strategies put forward by Sternberg and Williams (1996) that could facilitate students' creative thinking if their teachers include them into their study curriculum. As much as these pro-creativity strategies work in favor of creative thinking, there also exist other strategies that work on the contrary, and are even capable of "killing" creativity. Hennessey and Amabile (2010) describe five ways of acting that work against creativity: asking learners to do tasks while expecting a previously-agreed upon reward for the would-be work, deliberately creating competitive situations, focusing learner attention on expected evaluation, constant observation and controlling, and creating situations of limited choice. Fasko (2000, 2001) also stresses that outwardly-focused evaluations tend to weaken intrinsic motivation and prevent learners from producing a creative product. With the learner's mind set on the expected reward, the learner's extrinsic motivation becomes dominant, especially in the situation of being closely observed in the process of activity. In the author's opinion, in the situations where the teacher's goal is to improve the learners' convergent thinking, evaluation from aside could have a favourable effect upon the result of fulfilling a creative task. However, when the learner feels that creativity itself is being evaluated, creativity undergoes a negative effect. Obrazcov (2013) points out that a contemporary higher education teacher has to overcome personal limitations in viewing creativity (lack of confidence or insufficient motivation, unwillingness to undergo change) to be able to organize educational activity and develop creativity.

Thus, the literature overview reveals a significant role that the higher education teacher has to play in order to develop students' creativity and highlights its preconditions, which include favourable environment, specifically chosen teaching and learning methodology. While designing the present model aimed to develop students' creativity in higher education, much attention was given to the development of teachers' competencies. The present theoretical model created on the basis of the Creative Platform methodology is described in detail below.

The concept of *Creative Platform*

The Creative Platform methodology (CP) was created by Christian Byrge and Søren Hansen (2008) at the University of Aalborg (Denmark), on the cooperative basis between research and educational institutions as well as private companies. This methodology integrates a number of prior studies into creativity development (Amabile, 1998; Csikszentmihalyi, 2006; Sternberg & Williams, 1996 and others), and nowadays it is applied as a didactic model in higher education in several countries across the globe. In didactic terms, the CP is based on the assumption that it is only through the activities of confluent inclusion that

we can get rid of the dominant patterns of thinking, the patterns that rely on following the discipline, social structures, and cultural traditions. The aim of this methodology is to create a practical approach to the perspective of knowledge by encouraging creativity. The main aim of the Creative Platform is to facilitate and encourage creativity.

The model developers assert that creativity is possible to educate on the basis of learning style that encourages students' confidence and develops their concentration, by encouraging motivation to get free from professional, social and cultural pre-conditioning that imposes certain limitations on the students' ability to use the obtained knowledge freely and creatively. The conception of CP is based on four principles enabling the development of creative competencies (motivation, concentration, confidence and knowledge). Byrge and Hansen (2015) analysed how these four principles interact in creativity development including the impact of motivation on creativity (both positive and negative factors of motivation), parallel thinking in learning to concentrate one's thoughts, students' confidence and relationship with other participants of the educational process, and selection and application of appropriate knowledge to create new knowledge (horizontal thinking). These principles highlight the key points that are essential for the creative processes to take place. In the process of designing our theoretical model, we relied on the theoretical aspects of the CP methodology. The focus of the researcher (the author of the article) is oriented towards the very process of creativity development e rather than towards the result of the creative process. In designing the present model, the author targeted the creative process as it allows to relate students' ability to concentrate their attention, to apply creative thinking, to develop confidence and to encourage motivation. Students' creativity model is presented in Figure 1.

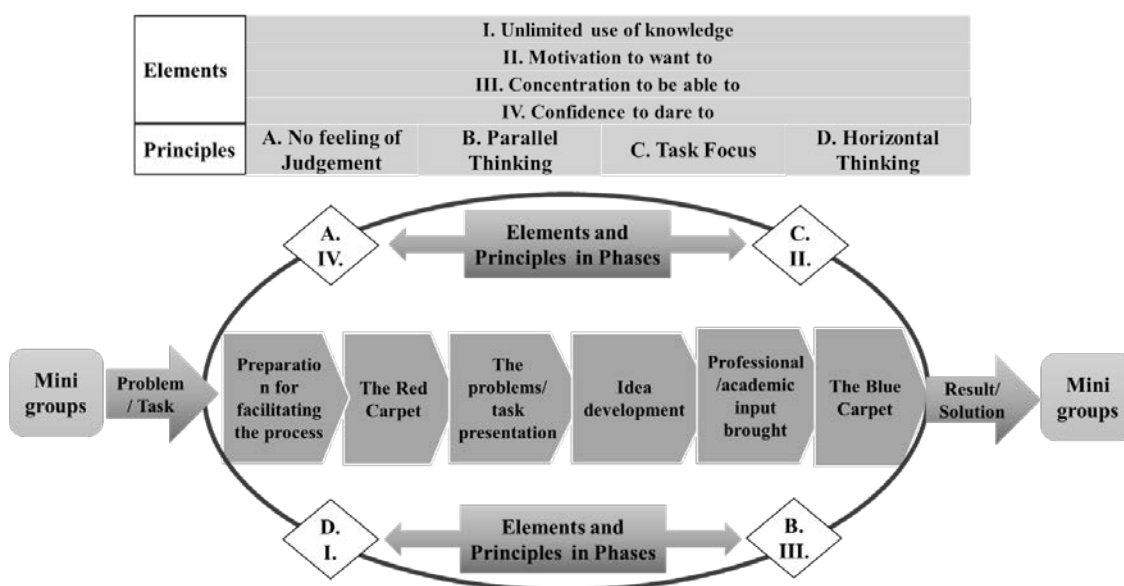


Figure 1 Students' creativity model

The model is integrated into the study process in a particular Lithuanian college. It is applied to mini groups of students, to find decision the work on task/problem. The newly-designed model is based on 3D cases, when are chosen appropriately methods for creativity development. The process follows 6 phases: Preparation for facilitating the process, the Red Carpet, the Problem/task presentation, Idea development, Professional/academic input brought, and the Blue Carpet. Always the process follows 6 phases no matter the work on task/problem. The going process four principles highlight the key points that are essential for the creative processes to take place: all participants of process have the same kind of thinking and behavior at all times (parallel thinking), one should only focus on the task (task focus), there should be no experience of judgement (no experienced judgement), plus stimulating the use of all kinds of knowledge (horizontal thinking). On the basis of the designed theoretical model, practical work has been done with the participation of 16 teachers using the model in practice. The teachers underwent practical training before the model was applied in the process of college studies to facilitate their choice of methods in developing students' creativity. Both theoretical and practical tutorials were offered to the teachers with the aim of integrating the Creative Platform methodology into the process of college studies when they were provided with possibility of trying out some methods for creativity development e. The teacher training sessions were followed by reflection and feedback sessions. Criteria for the evaluation of interim results were created and will be used at the end of the semester. As the integration of the model is oriented towards overall processes of college studies, rather than towards separate subjects, we believe that this pedagogical intervention will facilitate the processes of creativity development, and also hope to be able to present our findings of this intervention in the future.

Conclusions

1. The concept and manifestations of creativity as well as the processes of developing creativity have been widely researched and discussed in research literature. Creativity is viewed as a complex and multi-faceted phenomenon which operates within the context of personality, society, and culture studies. The discussion of the interaction of factors and the underpinning arguments are be found in the works of representatives of confluence education. Creativity is viewed as a way of creating knowledge (Craft, 2008), thus it is required to be aware of the essence of creativity and how education can benefit from creativity. The literature overview demonstrates that creativity is the ability that can and should be developed, whereas a creative personality is characterized by fluency and coherence of thinking, originality and flexibility, curiosity, initiative and readiness to act, the ability

- to come up with unexpected decision-making, innovative problem-solving and the like.
2. Higher education institutions can play a significant role in the process of developing students' creativity on condition that they have a clear understanding that traditional teaching, based on knowledge transmission and reception, can no longer meet the present-day requirements in education, which is undergoing fast and ever-changing developments.
 3. To develop students' creativity in college studies, a theoretical model has been designed on the basis of the theoretical aspects of Creative Platform methodology. The newly-designed model is based on 3D cases, when are chosen appropriately methods for creativity development, to find decision the work on task/problem. The model is applied to mini groups of students, that the entire process of the Creative Platform take place in the 6-phase.

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ПРОБЛЕМЫ ПОДГОТОВКИ СПЕЦИАЛИСТОВ В ОБЛАСТИ ЭКОНОМИЧЕСКОЙ БЕЗОПАСНОСТИ

The Problems of Specialists Training in the Field of Economic Security

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Abstract. *The purpose of the article is to identify the problems inherent in the current stage of higher education in the field of economic security, on the basis of analysis and assessment of the state of personnel training for "Economic Security" specialty, and develop recommendations on the formation of an educational trajectory in the training of economic security professionals based on the principles of continuity education.*

When writing the article, both general scientific and special methods of scientific knowledge were used: scientific abstraction, dialectical, induction and deduction, analysis and synthesis, detailing and generalization, systemic, comparative, sociological.

Identified the problems of training of the specialists in the field of economic security. The analysis and assessment of the state of training of the personnel in the field of economic security is supported by the results of an empirical study carried out using a standardized questionnaire survey of students studying in this specialty. This allowed us to assess their motivation in choosing a profession related to economic security, to identify the positive and negative components of the educational process and to justify the recommendations for the formation of an educational trajectory aimed at long life learning.

Keywords: *continuity of education, economic security, education, educational trajectory, millennials, specialty.*

Введение **Introduction**

Актуальность исследования связана с необходимостью обеспечения государства и бизнеса высококвалифицированными специалистами в сфере экономической безопасности. Деятельность по адекватной защите от угроз

внутренней и внешней среды: недобросовестной конкуренции, промышленного шпионажа, коррупции, организованной экономической преступности, теневой экономики - становится социально значимой и востребованной (Гончаренко & Акулинин, 2018).

Цель исследования заключается в анализе современного состояния системы высшего образования в сфере экономической безопасности, выявлении имеющихся проблем и разработке рекомендаций по формированию образовательной траектории подготовки кадров по экономической безопасности, соответствующих современной модели образования, а также потребностям общества, государства и экономики.

В основе исследования лежат положения Федерального закона РФ «Об образовании в Российской Федерации», «Федеральной целевой программы развития образования на 2016-2020 годы», в которых подчеркивается актуальность и целесообразность новой модели образования, способствующей личностному и профессиональному развитию при гарантии их качества, а также повышению конкурентоспособности личности, образовательных институтов и в конечном итоге экономики и государства. Кроме того, исследование базируется на положениях Федерального закона «О безопасности», «Стратегии национальной безопасности РФ», «Стратегии экономической безопасности Российской Федерации на период до 2030 г.», определяющих принципы и содержание деятельности по обеспечению национальной безопасности, а также доктрины экономической безопасности.

Обзор литературы

Literature review

Экономическая безопасность – это емкое, многогранное, сложное понятие, до настоящего времени не имеющее однозначного толкования, о чем свидетельствует обзор специальной литературы.

Концептуальные вопросы, связанные с понятием «экономическая безопасность», рассматривают такие авторы как Прохожев А. (Прохожев, 2005), Сенчагов В. (Сенчагов, 2010), Иванов Е. (Сенчагов & Иванов, 2015), Криворотов, В., Калинина А., Эриашвили Н. (Криворотов, Калинина, & Эриашвили, 2012) и др. Понятие экономической безопасности как качественной характеристики экономической системы дает проф. С. Глазьев, считая ее фактором устойчивого социально-экономического развития и должного уровня конкурентоспособности предприятия (Глазьев, 1997). Аспекты, связанные с экономической безопасностью предприятия на основе управления рисками, рассматривает Безуглая Н. (Безуглая, 2012).

Касперович С., Дербинская Е. трактуют понятие экономической безопасности предприятия с позиций функциональных целей управления (Касперович & Дербинская, 2016). Отдельные работы в области подготовки таких специалистов опубликованы преподавателями ВУЗов, подведомственных МВД России. Так, Шенделева С. предложен состав квалификационной характеристики эксперта в области обеспечения экономической безопасности (Шенделева, 2010). Фалинский И., анализируя состояние подготовки кадров по противодействию теневой экономике, положительно оценивает результаты реформирования ведомственного образования (Фалинский, 2014).

Теоретические вопросы, связанные с понятием «экономическая безопасность», российскими учеными рассматриваются довольно активно, в то же время проблемам подготовки специалистов в сфере экономической безопасности не уделяется должного внимания в специальной литературе. С момента опубликования глубокого исследования Ефремова В. принципиально новых подходов в области экономического образования на сегодняшний день нет (Ефремов, 2002). Актуальны вопросы обеспечения преемственности и непрерывности образовательной деятельности данного вида. Недостаточно исследована мотивация абитуриентов, необходима концептуальная проработка вопросов, связанных с методологическим обеспечением и учебно-методическим наполнением учебных планов и программ по специальности «Экономическая безопасность». В этой связи существует необходимость выявления и решения проблем подготовки таких специалистов.

Материалы и методы *Materials and methods*

Объект исследования - состояние профессионального образования в сфере экономической безопасности. Исследование концептуальных оснований высшего образования в сфере экономической безопасности было проведено в трех направлениях: 1) исследование общих подходов к подготовке кадров; 2) исследование специфики подготовки кадров в сфере безопасности; 3) выбор подходов к организации образования именно в области экономической безопасности. Это позволило сформулировать гипотезу: для достижения качественного профессионального образования в области экономической безопасности необходим учет целостности образовательного процесса, включающего общие и частные аспекты, а также основанного на принципе «образование через всю жизнь».

Рабочие материалы исследования: а) нормативные документы и подзаконные акты в сфере образования, безопасности, а также экономической безопасности); б) научные и методические тексты (концептуальные наработки, описание подходов к профессиональному образованию); в) результаты социологического исследования (анкетирование обучающихся); г) рефлексивные замечания и предложения.

Сбор эмпирической информации осуществлялся путем опроса респондентов на основе стандартизированного интервью: курсантов вуза, подведомственного МВД РФ ФГКОУ «Санкт-Петербургский университет Министерства внутренних дел Российской Федерации», г. Санкт-Петербург (величина выборки 77 чел. – 78 % от числа обучающихся на курсе) и студентов гражданского вуза - Международный институт экономики, менеджмента и информационных систем ФГБОУ ВО «Алтайский государственный университет», г. Барнаул (51 чел. – 68 % от числа обучающихся на курсе). При проведении исследования учтен фактор компетентности респондентов: в опросе принимали участие обучающиеся четвертого курса специальности «Экономическая безопасность».

Результаты исследования ***Research results***

Наиболее существенные результаты исследования связаны с формулированием проблем подготовки специалистов в области экономической безопасности, условно объединенных в три группы. Первая группа связана с общими проблемами подготовки миллениалов (поколение Y), вторая – со спецификой подготовки специалистов в сфере безопасности, третья - с особенностями подготовки специалистов именно в области экономической безопасности.

Проблемы первой группы распространяются на всех студентов поколения Y как особой группы людей, объединяемых особенностями воспитания и схожими ценностями и др. (Howe & Strauss, 1991). Семь основных характеристик поколения миллениалов подробно представлены в Отчете Института Конгресса США (A Report by LifeCourse Associates on behalf of Congressional Institute, April 2015). Hromádková T. на примере Чешской Республики показывает сильные и слабые стороны поколения миллениалов, которые могут быть учтены рекрутинговыми агентствами (Hromádková, 2013). По мнению Тенхунен П. и Елисейевой Ю., причины различий поколений не сводятся только к нарастанию объемов информации и развитию информационно-коммуникационных технологий (Тенхунен & Елисейева, 2015).

Среди российских ученых наиболее активно в этом направлении работают Левада Ю. и Шанин Т. (Левада & Шанин, 2005), Султанов К. и Воскресенский А. (Султанов & Воскресенский, 2015), основатель и координатор проекта RuGenerations «Теория поколений в России» Шамис Е. (Шамис, 2018) и др.

На основе перечисленных характеристик выделены образовательные парадигмы и технологии образовательного процесса миллениалов: многозадачность в образовательном процессе, модульный формат основных и дополнительных образовательных программ, оптимизация информационных потоков с точки зрения соотношения теории и практики, особенные мотивационные системы, максимальное использование потенциала компьютерных игр в качестве симуляторов и тренажеров и др.

Специфические проблемы подготовки специалистов в области безопасности связаны с необходимостью развития не только базовых компетенций (как на уровне бакалавриата), но и углубленных - по избранному направлению. Специалист – это не академическая степень, а профессиональная квалификация. Профориентационная работа должна быть направлена не на максимальное привлечение абитуриентов на программу специалитета, а на выявление необходимых личностных характеристик будущего специалиста, осознанность ими своего выбора.

Образовательные программы в сфере экономической безопасности открыты в 163 вузах РФ (Сборник вузов России, 2018). Особенность подготовки – реализация вузами, подведомственными как МВД РФ, так и Министерству образования и науки РФ. Подготовка специалистов ведется: 1) в соответствии с требованиями Болонской системы и на основе реализации ФГОС высшего образования по направлению 38.03.01 «Экономика» (уровень бакалавриата) и 38.04.01 «Экономика» (уровень магистратуры); 2) на основе реализации ФГОС высшего образования 38.05.01 «Экономическая безопасность» (уровень специалитета).

В гражданских вузах, кроме традиционных проблем, существуют специфические: организация спецподготовки, отсутствие доступа к информации из нормативных документов и литературе с грифом «для служебного пользования». Это вынуждает их концентрировать внимание на подготовке специалистов по экономической безопасности на национальном, региональном уровне и уровне предприятия в качестве аналитиков по мониторингу пороговых значений, рисков, проектированию систем обеспечения экономической безопасности и т.п.

Еще одна специфическая проблема подготовки специалистов по экономической безопасности - это отсутствие четко обозначенной научно-методологической основы для трансформации концепции экономической безопасности на уровень учебно-методического обеспечения учебного

процесса. Так, Литвиненко А. проанализировано более пятидесяти отечественных источников определения экономической безопасности (Литвиненко, 2015). Основные методологические проблемы, с которыми сталкиваются преподаватели: неоднозначность понятийного аппарата экономической безопасности; в какой степени вводить в категориальный аппарат компоненту развития; можно ли обеспечить безопасность, отражая только текущие угрозы; в какой степени можно обеспечить региональную экономическую безопасность с учетом федеративного устройства государства и т.д.

Эмпирическое исследование, проведенное в двух российских вузах, помогло уточнить выдвинутую гипотезу и сформулировать ряд проблем. Высокая оценка респондентами данной специальности подтвердила её престижность и социальную значимость. Практическая ценность исследования связана с уточнением приоритетов и мотивов поступления абитуриентов («вход»), выявлением преимуществ обучения и проблемных зон в содержании и организации учебного процесса («выход»).

Ниже приведен фрагмент таблицы, отражающей результаты проведенного опроса (табл.1).

Анализ мотивации абитуриентов «на входе» показал: выбор будущей профессии в значительной степени зависел от ее престижности, популярности и востребованности в обществе. Наиболее существенной проблемой, выявленной в ходе опроса, является недостаточная организация профориентационной работы среди школьников по набору на специальность «Экономическая безопасность», что приводит к завышенным ожиданиям части абитуриентов, а в дальнейшем - к разочарованию в избранной профессии. Её решение кроется в целенаправленной работе со школьниками, т.н. «профилизации»: формирование познаний о профессии, образовательной программе, особенностях обучения и т.п. Решение отмеченных респондентами проблем в организации учебного процесса связано с корректировкой учебных планов и программ дисциплин, улучшением учебно-методического обеспечения образовательного процесса, изменением соотношения между базовыми и специальными дисциплинами.

Преимуществом и непрерывность образования предполагает, кроме «профилизации» школьников, и новые возможности послевузовского образования: разработка программ повышения квалификации и переподготовки кадров по специальности «Экономическая безопасность», с помощью которых был бы реализован лозунг ЮНЕСКО «От образования на всю жизнь – к образованию через всю жизнь».

*Таблица 1. Фрагмент результатов опроса студентов специальности
 «Экономическая безопасность»
 Table 1 Part of the survey's results of students enrolled in the specialty "Economic
 Security"*

| Вопрос / Question | Ответ /Answer | Процент ответивших / Percentage of respondents | | |
|---|---|---|-----------|-------|
| | | СПбУ МВД | Алт ГУ | Всего |
| Почему Вы выбрали данную специальность? / Why did you choose this specialty? | Потому что специалитет / Because it is a specialist programme | 9 | 25 | 16 |
| | Настояли родители / Parents have insisted | 5 | 12 | 8 |
| | Особо не задумывался / I didn't think | 9 | 4 | 7 |
| | Из-за престижа данной специальности в обществе / The specialty is prestigious in society | 23 | 12 | 19 |
| | Интерес к будущей профессии / Interest in future profession | 36 | 18 | 28 |
| | Специальность дает возможность осуществлять правоохранительную деятельность / The specialty gives the chance to carry out law-enforcement activity | 10 | 21 | 15 |
| | Понравилось название / I liked the name | 1 | 2 | 1 |
| | Случайно / accidentally | 5 | 2 | 4 |
| | Затруднительно ответить / Difficult to answer | 1 | - | - |
| Другое / Other | 5 | 4 | 2 | |
| Собираетесь ли | Да / Yes | 82 | 45 | 66 |
| Вы работать по | Нет / No | 8 | 6 | 7 |
| специальности? / Are you going to work in the specialty? | Затруднительно ответить / Difficult to answer | 10 | 49 | 27 |

Программы последиplomного обучения должны базироваться на принципе преемственности с основной образовательной программой и давать возможность выпускникам формировать индивидуальную образовательную траекторию, отвечающую современным запросам общества, государства и экономики: корпоративная безопасность, противодействие корпоративному мошенничеству, выявление и предупреждение мошенничества с финансовой отчетностью, методы конкурентной разведки, проверка контрагентов, мониторинг лояльности трудового коллектива и др.

Создание системы непрерывного образования при подготовке специалистов в сфере экономической безопасности – актуальная задача современных вузов. Проведенным исследованием подтверждена престижность и социальная значимость данной профессии. В то же время обозначен ряд проблем, связанных, а) с общими подходами к подготовке специалистов, б) со спецификой подготовки специалистов в сфере безопасности, в) с особенностями подготовки специалистов именно в области экономической безопасности. Эмпирическое исследование показало наличие проблем в организации профориентационной работы в вузах по набору на специальность «Экономическая безопасность».

Предложения *Suggestions*

Результаты исследования позволили сформулировать предложения по усилению преемственности образования: они нацелены на формирование образовательной траектории подготовки специалистов по экономической безопасности, основанной на «триедином» процессе: управление набором абитуриентов, соблюдение требований ФГОС и профессиональных стандартов, а также международных подходов к образованию, основанных на принципе его непрерывности. Этому будет способствовать эффективная организация профориентационной работы, а также переход к выстраиванию индивидуальных траекторий путем организации многоаспектного последиplomного образования.

Практическая значимость исследования состоит в том, что выводы и предложения могут быть учтены вузами при разработке и корректировке основных образовательных программ по экономической безопасности, а также программ последиplomного образования.

Дальнейшие исследования в этой области следует вести в направлении разработки концепции развития профессионального образования в сфере экономической безопасности, а также решения научно-методологических проблем, связанных с трансформацией концепции экономической безопасности на уровень учебно-методического обеспечения учебного процесса.

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принимавшим участие в анкетировании, а также анонимным рецензентам, рецензировавшим научную статью до ее публикации.

Summary

The issues of training qualified specialists in economic security are important for the national and regional economy, as well as for business. The purpose of the study was to analyze the current state of vocational education in the field of economic security, identify problems and develop recommendations for the formation of the educational trajectory of training modern personnel in economic security.

On the basis of a review of the special literature in the work, the approaches to the definition of the concept of economic security are systematized, on the basis of which it was concluded that there is no unambiguous interpretation and a suggestion was made on the need for conceptual elaboration of issues related to the methodological support and educational content of curricula and programs specialty "Economic security".

The study confirmed the high social importance and prestige of this profession. At the same time, a number of problems were identified, related, firstly, to the general issues of preparing millennials (generation Y), secondly, to the specifics of training specialists in the field of security, and thirdly, to the specifics of training specialists in the field of economic security. An empirical study conducted in two Russian universities helped to identify the motives for admission of applicants to the specialty "Economic security", to characterize the benefits of learning, and also to identify problem areas in the content and organization of the educational process.

Proposals for enhancing continuity in the education of specialists in economic security are aimed at forming an educational trajectory based on the "triune" process: managing a set of applicants, complying with the requirements of federal state and professional standards, as well as international approaches to education based on the principle of its continuity. This will be facilitated by the effective organization of vocational guidance work, as well as the transition to building individual educational trajectories based on the organization of multidimensional postgraduate education.

The practical significance of the study is that the conclusions and suggestions can be taken into account by universities when developing and adjusting basic educational programs on economic security, as well as postgraduate education programs.

Suggestions.

The results of the study allowed to formulate proposals for enhancing the continuity of Education: The are aimed at forming an educational trajectory for training specialists in economic security based on the "triune" process: managing a set of applicants, complying with the requirements of federal state standards and professional standards, and on the principle of its continuity. This will be facilitated by the effective organization of vocational guidance work, as well as the transition to building individual trajectories through the organization of multidimensional postgraduate education.

The practical significance of the study is that the conclusions and suggestions can be taken into account by universities when developing and adjusting basic educational programs on economic security, as well as postgraduate education programs.

Further research in this area should be conducted in the direction of developing a concept for the development of vocational education in the field of economic security, as well as solving scientific and methodological problems related to the transformation of the concept of economic security to the level of educational and methodological support of the educational process.

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**«У МЕНЯ ЕСТЬ МЫСЛЬ И Я ЕЕ ДУМАЮ»
(КРИТИКА АУДИТ-ПОДХОДА В ГУМАНИТАРНОЙ
НАУКЕ И ОБРАЗОВАНИИ)**

***“I Have a Thought and I am Thinking It”
(Criticism of the Audit Approach in Humanities Research and
Education)***

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Abstract. *This article points out the problem of incompatibility of certain types of humanities research with the standard requirements to scientific paper, which have been developed in recent decades. In humanities studies, the process of reflection and development of a thought is often the main content of scientific work; however in the current standard this aspect is almost ignored. The standard set of requirements imposed upon papers by most scientific journals makes it difficult to obtain the full scientific status for those humanities works that are based on innovative conceptual approach and introduce new perspectives. The aim of this paper is to show the failure of the audit approach to humanities research and substantiate the necessity of extending the current format of a journal article giving it greater freedom and flexibility. In the paper the following methods are used: analysis of relevant literature, method of rationale, historical method, and comparative analysis. The proposed relaxation of the standard requirements to scientific article may stimulate humanities studies that have ground-breaking innovation but do not fit into the standard format. Moreover, it will contribute to the development of conceptual thinking of students of higher school humanities programs, which will create opportunities for more intensive development of the humanities.*

Keywords: *audit approach, humanities research, standard requirements for a scientific paper.*

Введение

Introduction

Гуманитарная культура необходима для интеллектуального и духовного развития человека и общества. О понимании ее важной роли в современном мире свидетельствуют результаты общественных опросов, экспертные оценки лидеров в области политики, бизнеса и науки, количество заявок от абитуриентов, желающих обучаться в вузах по

гуманитарным специальностям (Heikkilä & Niiniluoto, 2017; Schweizerische Akademie der Geistes- und Sozialwissenschaften, 2016; Drakeman, 2016). Не вызывает сомнения также общественная и субъективно-личностная значимость гуманитарных исследований. Хотя они редко связаны с быстрой прибылью или созданием новых рабочих мест, ценность исследований в области гуманитарных наук раскрывается в других ценностных категориях, таких как развитие образованности, критического мышления и эстетического вкуса; более глубокое понимание истории общества, культурного наследия, природы человека; способствование социальной стабильности, плюрализму и демократии; междисциплинарный вклад в развитие наук (Holm, Jarrick, & Scott, 2015).

Вместе с тем гуманитарные исследования существенно отстают от других областей науки по включенности в национальные и интернациональные гранты, в международные научные базы публикаций (Heikkilä & Niiniluoto, 2017). Это отставание связано с несоответствием между унифицированными формальными требованиями, предъявляемыми к научным проектам и публикациям, и особенностями гуманитарного исследования. Гуманитарии видят свою задачу в предложении новых размышлений, перспектив, нового оригинального подхода к теме (Hellqvist, 2010; Furlong & Oancea, 2007; Guetzkow, 2004). При этом «производительность труда» и (внешний) успех научной работы не являются для них признаком качества исследования и поэтому не представляются особенно важными (Fisher, Rubenson, Rockwell, Atkinson-Grosjean, & Grosjean, 2000; Hemlin, 1993). Чаще, чем в других науках, исследование ведется индивидуально (Cronin, Shaw, & La Barre, 2003; Ochsner, Hug, & Daniel, 2013), поэтому личность автора приобретает в гуманитаристике гораздо большее значение и проявляется ярче. Эти и некоторые другие особенности гуманитарной науки вступают в противоречие с господствующим в настоящее время подходом к оцениванию научных статей, который основывается на аудит-культуре – «культуре подсчитывания» (McIntyre, 2010). В рамках аудит-культуры любое явление оценивается с точки зрения его соответствия определенным, заранее выработанным схемам и количественным показателям. Появившись как инструмент контроля и оценки финансовой деятельности бизнес-структур, этот подход становится все более влиятельным; в последние несколько десятилетий он широко используется в самых разных сферах. В частности, аудит-культура и маркетинг все сильнее проявляются в науке и образовании (Rinehart, 2016).

Цель данной работы – показать несостоятельность аудит-подхода к гуманитарному исследованию и обосновать необходимость расширить принятый в настоящее время формат научной статьи, придать ему больше

свободы и гибкости. В работе использовались следующие методы: анализ литературы по теме исследования, метод логического обоснования, исторический метод, сравнительный анализ.

Предлагаемое расширение стандартных рамок научной статьи может стимулировать гуманитарные исследования, которые имеют богатые концептуальные перспективы, но не вписываются в стандартный формат. Более того, снятие сковывающих рамок формата научного исследования будет способствовать развитию концептуального мышления студентов гуманитарных специальностей, что создаст возможности более интенсивного развития гуманитарной науки.

**«У меня есть мысль и я ее думаю»
“I Have a Thought and I am Thinking It”**

Толчком к написанию данной статьи послужило намерение написать статью – на другую тему. Была идея, сформировался план, отражающий ее развертывание, – осталось перевести все в текст, но на этом этапе работу пришлось приостановить. Задуманное никак не укладывалось в рамки того стандарта, который сегодня предъявляется ко всем без исключения научным публикациям. Так мысль переключилась на другой объект, и представилось особенно актуальным разобраться в противоречивой ситуации: несоответствии общих требований, предъявляемых журналами к научным публикациям, и содержания большинства гуманитарных исследований, для которых данная схема неудобна и даже вредна.

Если не вдаваться в риторику по поводу того, что свободная научная мысль не вмещается в прокрустово ложе предписанных форм, стоит разобраться, почему требования, предъявляемые научными журналами к публикуемому материалу, не только не стимулируют творческий процесс научного изыскания, но, напротив, отбраковывают как несоответствующие порой самые интересные работы, на том основании, что в них не отражены определенные предписываемые позиции.

Как же сформировано то пространство, в которое предлагается «втиснуть» поток гуманитарного исследования, при условии, что автор хочет быть услышанным и, соответственно, опубликовать свой труд не в интернет-блогах, а в серьёзном научном журнале? Всякая статья, независимо от научного направления, должна включать следующие разделы: Введение, с обязательным указанием на актуальность выбранной темы и обзором литературы по данной проблеме, далее – методы исследования и, сразу, результаты исследования, т.е., собственно, выводы. А где же в этом списке место анализу, постепенному развертыванию мысли, философской рефлексии, - всему тому, что составляет истинное содержание

гуманитарного исследования?! Получается, что ценность имеет лишь результат, а не процесс. Хотя, казалось бы, очевидно, что в гуманитаристике сам процесс рассуждения представляет главную научную ценность, при этом определенного и однозначного результата может и вовсе не быть, что не умаляет значимости гуманитарной научной работы.

Совершенно очевидно, что предлагаемая схема сложилась в применении к эмпирическим исследованиям в области естественных и социальных наук, где обзор литературы необходим, чтобы продемонстрировать осведомленность о современном уровне проработанности проблемы и подчеркнуть новаторство собственных разработок. Методы исследования, соответственно, могут быть просто описанием проводимых экспериментов, и поэтому следующий пункт – «результаты» – вполне логично вписывается в схему. Но разве возможно механически экстраполировать то же самое на области философии, культурологии, герменевтики, а также на работы по музыковедению и визуальным искусствам? Например, насколько обязателен перечень литературы по данной проблематике (априори предполагается, что таковая имеется)? Предпочтение здесь отдается работам последних лет. Опять-таки, для «естественников» – понятно: открытия прошлых веков, как правило, теряют актуальность. Но для гуманитария мысли Платона и Аристотеля, Канта и Гегеля, Ницше и Шпенглера вряд ли окажутся менее значимыми, чем те, которые можно почерпнуть из пятистраничных публикаций нескончаемого ряда современных ученых. А цитировать классиков гуманитарной мысли практически не обязательно, что, в конце концов, приводит к убогому дилетантизму, когда знакомство с фундаментальными работами вполне можно свести к чтению их краткого пересказа в Интернете. Впрочем, авторитет классиков от этого не пострадает: их «индекс цитирования» всё равно недосыгаем, несмотря на дискриминацию по признаку «современности».

И не стоит переоценивать опору на изданные статьи. С публикациями дело тоже обстоит неблагоприятно. Для подтверждения ученого статуса любой преподаватель вуза обязан «публиковаться», причем количество необходимых печатных листов постоянно возрастает. Чтобы приспособиться к этой «листогонной» системе, приходится отказываться от написания масштабных работ, требующих глубокого погружения в тему, детального аналитического подхода, да еще, желательно, проявления индивидуального стиля изложения, узнаваемости творческого метода. Лучше писать по шаблону небольшие статьи, часто варьируя практически одну тему и не претендуя на серьёзные индивидуальные прорывы.

Невозможно даже приблизительно назвать цифру ежегодных публикаций, даже если делать выборку по близкой проблематике.

Немыслимо подсчитать общее количество научных журналов, ежегодно выходящих в мире. А ведь еще в 1899 году Г. Риккерт предупреждал: «Философия не должна ставить себе задачу – давать обрывки “сознательного полуобразования”, к чему она, однако, при обилии современного научного материала необходимо должна будет в этом случае привести» (Rickert, 2013). Что же говорить о веке Интернета? А тут еще проблема «индекса цитирования»: чем больше, тем лучше. Вот и возникает ситуация, когда горстка ученых, возделывающих одну грядку, тиражирует короткие публикации, которые раньше тезисами считались, и старательно цитирует в них друг друга, соблюдая приличный количественный фактор. Все удовлетворены, но при чем здесь гуманитарная наука, которая вся есть в широком смысле философия, т.е. любомудрие, и, чем менее очевидны и банальны рассуждения даже о, казалось бы, знакомых предметах, тем выше гуманитарная научная ценность. Ибо, как говорил А. С. Пушкин в предисловии к сочинению итальянца С. Пеллико «Об обязанностях человека», «мысль отдельно никогда ничего нового не представляет, мысли же могут быть разнообразны до бесконечности» (Пушкин, 1962).

Причины такого положения вещей, когда все самое интересное и нетривиальное оказывается «неформатным», а потому и не востребованным, достаточно очевидны. Тот океан исследовательских работ, который выдает на-гора сегодня научное сообщество, очень разный по качеству: от глубоких и новаторских подходов – до дилетантизма и откровенного мракобесия. Каковы же должны быть критерии отбора публикаций, и кто их устанавливает? Порой «судьи» ни в чем не превосходят «подсудимых», разве что, часто, старыми заслугами. И им нужно некое мерило, чтобы сохранять хотя бы видимость объективности, хотя возможна ли объективная оценка философского или искусствоведческого исследования, в то время как само это исследование часто находится на грани науки и искусства? И здесь на помощь приходит тот самый аудит-подход. Все можно сосчитать: количество использованных методов, использованной литературы, заданных вопросов и полученных ответов. Все, выходящее за рамки стандартных критериев, можно счесть не имеющим научного статуса.

К сожалению, в рамках данной статьи, ориентированной на все тот же стандарт (до 10 страниц), не представляется возможным провести такой филологический эксперимент: переработать в форму современной журнальной публикации какой-нибудь известнейший классический текст – например, «Антихрист» Ницше, дерзкое и парадоксальное исследование современного автору состояния европейского сознания, заражённого «расслабляющим духом» христианства, и предложение путей выхода из исторического тупика. Пародия могла бы получиться злой – и не по

отношению к Ницше. Скорее всего, такую «статью» не принял бы к публикации ни один журнал: и из-за экстремального содержания, и из-за несоответствия требованиям, предъявляемым к публикациям (например, никакого списка литературы там нет – да и откуда бы ему взяться?). Только «безусловная свобода относительно себя» (Nietzsche, 2008). Зато влияние этого текста, оказанное на сознание нескольких поколений европейцев, невозможно переоценить.

Жанр свободного культурологического (философского, филологического и т.д.) эссе в принципе не отвечает требованиям жесткого стандарта. Вряд ли современный академический журнал принял бы к публикации, например, эссе Ролана Барта «Смерть автора». Впрочем, академическая тенденция замыкаться в узких корпоративных рамках имеет многолетнюю (если не многовековую) традицию. Барт, до конца жизни так и не имевший обеспеченного научной степенью гарантированного академического статуса¹, опубликовал этот программный постструктуралистский текст в 1967 г. не в научном журнале, а в американском мультимедийном издании *Aspen*, выходившем в виде коробок или папок, заполненных самыми различными материалами, включая буклеты, аудиозаписи, плакаты, открытки и киноролики. Однако если академические журналы будут дистанцироваться от «неформатных» гуманитарных работ, они рискуют потерять научный авторитет и оказаться на обочине развития современной гуманитаристики.

С иными, но столь же завязанными на формальный подход проблемами сталкивается и современная педагогика. С одной стороны, есть общая установка на то, что к исследованиям нужно приобщать детей со школы. Предполагается, что школьники таким образом пробуют себя в научной (шире – интеллектуальной) деятельности. С каждой педагогической ступенью (бакалавриат, магистратура) эта деятельность должна расширяться, исследования становиться глубже и профессиональнее. В идеале именно так и должно быть, но фактическая установка на массовость «детской интеллектуальной деятельности» приводит к откровенной профанации. Способность к научной работе в области гуманитаристики – столь же индивидуальное качество, как музыкальный слух или художественный талант. Но сочинять стихи, рисовать или играть на инструменте все-таки не предписывается всем подряд, а вот рефераты, эссе, а потом и курсовые работы должны сдавать все «обучающиеся», что приводит к тому, что молодежь массово приобщается не к науке, а к плагиату: преподаватели получают десятки однотипных (иногда просто

¹ Лишь за 4 года до смерти Р. Барт по предложению Мишеля Фуко был избран профессором Коллеж де Франс (правда, его избрание было достигнуто с перевесом всего в один голос).

одинаковых) работ, источником которых служит все тот же Интернет. Оценка таких работ тоже формализована: стандартный, то есть «правильный», план, количество выводов, список литературы, – соблюдения этих параметров достаточно, чтобы получить как минимум положительную, а, возможно, и хорошую оценку за работу, не представляющую ни малейшего интереса ни для того, кто сдал, ни для того, кто проверил. Интеллект включается только на той фазе обучения, где работы бакалавров и магистров проходят проверку на наличие плагиата, которую следует ловко обойти. Это несложно: при механическом сравнении текстов на совпадение слов достаточно «пересказать своими словами» готовый материал из Интернета – и никакой «антиплагиат» не сработает. Подобная практика настолько глубоко усваивается уже школьниками и укореняется в студенчестве, что часто проявляет себя даже при написании диссертаций. Главной заботой опять оказывается соблюдение предписанной формы, подкрепление «своих» выводов как можно большим количеством авторитетных имен, с мнением которых нельзя не согласиться, – и успех защиты обеспечен. А интересные и перспективные работы, во-первых, просто теряются в этом нескончаемом, бессмысленном потоке, во-вторых – могут вызвать неприятие и отторжение именно своей нестандартностью, невписываемостью в тему, несогласованностью с общепринятыми устоявшимися взглядами. При таком положении смысл гуманитарного исследования оказывается настолько дискредитирован, что это просто лишает гуманитаристику научного статуса – увы, не без оснований. Как же далеко ушла по пути формализации и обесценивания свободной мысли гуманитарная наука с тех пор, когда все великие умы – от математика до врача, биолога, астронома – ощущали себя философами, культурологами, герменевтами, – то есть гуманитариями. И именно гуманитарное знание о мире было базовым для любого научного дискурса.

Вышесказанное приводит к выводу о необходимости серьезных изменений в организации научной деятельности в гуманитаристике. Начинать следовало бы с педагогического процесса. Невозможно и даже вредно требовать исследовательскую работу от всех школьников. Вообще, погружение в гуманитарный научный процесс не подразумевает столь юный возраст. Он больше подходит для экспериментального дискурса. Экспериментальная наука стремительно молодеет. Не случайно сейчас некоторые школьники и детские коллективы добиваются серьезных успехов в области изобретательства, робототехники, компьютерных технологий. Для этого необходимы такие качества, как острый ум, мобильность, умение работать в коллективе. Этими свойствами обладают многие современные молодые люди. Но никаких аналогичных прорывов в гуманитарных науках нет – и вряд ли они могут быть. Гуманитаристика – наука для взрослых. Она

требует совершенно иных свойств личности, обычно присущих более зрелому возрасту: сформированного мировоззрения, философского отношения к жизни, индивидуализма, – и все это – на базе широкого культурного багажа, элементарной начитанности, которой еще не обладают молодые люди. Поэтому период накопления знаний для возможной в дальнейшем собственной научной реализации у гуманитариев значительно длиннее. Поэтому школьные требования к интеллектуально-гуманитарному развитию должны быть направлены не столько на самостоятельные исследования (обреченные на дилетантизм и профанацию), сколько на накопление этого багажа. Чтение, конспектирование и обсуждение гуманитарных текстов может способствовать решению этой задачи, но, опять-таки, не в форме, обязательной для всех, а факультативно, для людей, имеющих природную склонность к процессу рассуждения как таковому, без направленности на достижение какого-либо конкретного конечного результата. Собственно исследовательская работа может начинаться не ранее бакалавриата, причем необходимо, чтобы начинающие ученые чувствовали жанровую природу каждого научного исследования: чтобы реферат не превращался в конспект, а бакалаврская работа содержала – пусть очень локальную, но свежую и, по возможности, нетривиальную мысль. Количество необходимых для защиты работы публикаций не стоит, вероятно, постоянно увеличивать: одно красивое эссе имеет большую ценность, чем десяток формальных работ, в которых на разные лады проговариваются всем известные истины.

Стандарты же, предъявляемые к научным публикациям любого уровня, требуют даже не обновления, а принципиально иного подхода. Необходимо убрать – или, по крайней мере, сделать более гибкими – рамки, установленные для гуманитарных научных работ. Совершенно недопустимо в оценке гуманитарного исследования руководствоваться количественными критериями, а в оценке качества должны учитываться такие субъективные параметры, как «интересно», «ново», «убедительно», «своеобразно». Если человек делает что-то неправильно – это серьезное основание обратить на него особое внимание. Только при условиях предоставления внутренней свободы можно получить нетривиальные, новаторские, побуждающие к рефлексии и обсуждению работы.

Гуманитарные методы исследования очень далеки от естественнонаучных, и они совершенно иначе работают. Герменевтический метод, метод сравнительного анализа, анализа мотивной драматургии, наконец, описательный метод, историко-генетический, метод логического обоснования, – все они предполагают неторопливое развертывание мысли в процессе медленного погружения в материал. Интуитивное постижение исследуемого объекта, психологическое сродство с ним направлено не на

нахождение конкретного решения проблемы, а на запуск механизма мышления, опирающегося на весь культурный опыт человечества. При таком подходе критерии актуального и не актуального, современного и не современного попросту неэффективны: если некая мысль вызывает интерес ученого, и он будет «думать ее» с точки зрения представлений о мире современного человека, то вопрос об актуальности может быть снят как несущественный. Главное – не ставить границ этому процессу, только тогда возможны яркие прорывы в области гуманитарной науки.

Выводы и рекомендации *Conclusions and recommendations*

В организации гуманитарных исследований необходимы серьезные изменения. Жесткие формальные стандарты научной работы, возникшие в области эмпирических исследований, неприменимы ко многим типам гуманитарных работ.

Крайне актуален вопрос оценивания качества гуманитарных исследований и выработки гибкой системы критериев, органичных для гуманитарного мышления и позволяющих, в частности, вернуть научный статус жанру гуманитарного эссе. Для этого необходимо тщательно изучить международный опыт, накопленный в этой области, и объединить усилия исследователей, поддерживающих выраженную в данной статье точку зрения. Варианты системы «мягких» критериев для не-эмпирического гуманитарного исследования может разработать международная экспертная группа, которая затем представит их на рассмотрение научному сообществу.

Нуждается в коррекции подход к академическим работам студентов гуманитарных вузов. Желательно, чтобы студенты в течение периода обучения на практике освоили жанровое многообразие научного письменного текста; в оценивании разных жанров академической письменной работы необходимо применять различные критерии.

Summary

Humanities research is significantly behind other areas of science with regard to involvement in national and international grants, and publication databases. This lag is due to the fact that some important features of the humanities research are in conflict with the approach to the evaluation of scientific articles that has been established in most scientific journals. This approach is based on the 'audit culture', or the culture of control and calculation: any phenomenon is assessed in terms of its compliance with certain predetermined schemes and quantitative indicators. This approach has appeared as a tool

for monitoring and evaluating the financial activities of business structures, but in recent decades it has spread in many other fields. In particular, audit culture is becoming increasingly strong in the organization of science and education.

The principles of the audit approach work quite well in the evaluation of empirical research in the natural and social sciences, but they are not applicable to many types of humanitarian research. In general, formal quantitative requirements for the scientific activities of humanities scholars (a certain number of publications per year, compulsory quoting of research of recent years, sometimes of articles indexed in certain databases, etc.) more often have a negative effect on the quality of humanitarian studies. Humanitarian texts often do not fit into the formal standard of structure of article: Introduction – Literature Review – Methodology – Results and Discussion – Conclusions – References. In this scheme there is no place for analysis, philosophical reflection, and gradual development of a thought, which form the main content of the humanitarian research. Many of the most important works that initiated new scientific fields in humanities are written in the form of a free essay. The refusal to publish non-format articles may lead to a loss of scientific credibility of academic journals as well as to their lagging behind the development of humanities. Extension of the audit culture also harms humanities education. The formal audit approach does not contribute to the development of independent thinking of students and pushes them to explicit or hidden plagiarism in their academic work.

The proposed relaxation of the standard requirements to scientific article may stimulate humanities studies that have ground-breaking innovation but do not fit into the standard format. Moreover, it will contribute to the development of conceptual thinking of students of higher school humanities programs, which will create opportunities for more intensive development of the humanities. In this connection, creating a flexible system of relevant criteria of assessing the quality of humanitarian research is crucial. After careful studying the corresponding international experience, an international expert group could develop variants of the “soft” criteria system for non-empirical humanitarian research, and submit them for consideration by the scientific community.

The approach to academic works of students of humanities programs requires revision. During the training period students should be able to practice various genres of scientific writing, for which different evaluation criteria should be used.

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FUTURE EDUCATORS' LEARNING TRENDS AT THE UNIVERSITY: HOW IMPORTANT AND SIGNIFICANT THE LEARNER'S EXPERIENCE IS?

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***Abstract.** The structure and content of studies at a higher education institution, educating specialists in the field of education studies, are more oriented to subject-centred rather than pedagogical preparation; insufficient attention is paid to students' practical training, where through self-reflection and reflection students' sensations turn into experience. The problematicity lies in the fact that often students' practical experience is limited only to technical skills applied in concrete situations; the basis is mechanical learning, when the focus is on theoretical knowledge gained at the university, which is not integrated with the students' experience outlived earlier or during practice. On the other hand, theoretical knowledge is often not related to the practical activity. The results of the quantitative research disclose future educators' teaching and learning trends at the university by analyzing, assessing and linking learners' outlived experience with a specific learning context.*

***Keywords:** future educator, learning, university, the learner, experience.*

Introduction

In educational strategies and in practice, the transformational function of education is increasingly coming into prominence: to initiate positive societal changes, creating a better world (Eurydice, 2015; European commission, 2015; UNESCO, 2016; UNESCO, 2017; Eurydice, 2018). Many scholars discuss the problems of teaching/learning at the higher education institution, developing lifelong learning ideas and the synthesis of theory and practice in the educational process (Clegg, 2000; Nicholls, 2001; Mezirow, 2003; Brookfield, 2005; Colomer et al., 2013; Bruno, Dell'Aversana, 2018, et al). The latter authors emphasize in their research that the successful preparation of students to become specialists in their field will depend on whether they developed the ability to learn from their experience during their studies and whether they became researchers of their activities; i.e. if the student can be characterized as a person who is constantly acting, reflecting and changing his employed theories, relating theory and practice, adjusting his actions and creatively implementing values in action.

The aim of teacher education in Lithuania, as well as in teacher education practice abroad, is to prepare qualified educators who are able to respond to currently relevant needs of the person, society and state development, to educate a person who is independent, flexible, open, responsible, creating, knows how to solve problems and adjust to the changing conditions of the environment (Teacher Education around the World. Changing policies and practices, 2012; Regulation of Teacher Training, 2018). Educators working in the education system must acquire a university education that would guarantee both the highest-level subject preparation and proper understanding and skills of education and training activities (Reform of Teacher Training, 2018). To achieve the latter aim, much attention should be paid to the educated specialists' competence development, ensuring that the prospective specialist is able to analyze his experience and learn from it. Teacher education studies cannot be based solely on basic knowledge of the subject and pedagogy. It is essential to develop the educator's ability to constantly analyze and reflect on his professional activity. Future teachers must be able and know how to use knowledge, reflecting on their experiences and feelings so that they can solve problems professionally.

It is important for teacher educators of higher education institutions to apply reflective practice strategies and methods enabling students to move from technical knowing to know-how. Thus, preparation for the profession in higher education studies must be based on reflective learning, one of the main sources of which is the learner's experience and its analysis (Larrivee, 2000; Conway, 2001; Hixon & So, 2009; Schmidt, 2010; Salter et al., 2013; Benade, 2015). The essential aim of the study process, seeking to improve students' teaching and learning, is orientated to the development of reflection abilities. The teacher must be able to work with different types of knowledge, analyzing, testing, reflecting on it, deepening his knowledge and understanding, learning from his experience and treating learning as a lifelong process. The process of learning, and, thus, reflecting on experience, is individual, arising from personal attitudes, approaches and values. Students' experience acquired during studies is based on hidden reflection when the theoretical knowledge systems presented during the lectures are related to previous practically outlived experience, and vice versa. Often, students' practical experience is limited only to technical skills applied in specific situations. On the other hand, the theoretical knowledge acquired at a university is not related to practical activities. Regardless of what formal knowledge will be provided in the educational process, the individual will develop a peculiar understanding of a phenomenon or activity by creating personal theories related to outlived experience. It is important to create possibilities for learners to explore and discover on their own so that ideas and knowledge come from real solutions related to learners' personal experience.

Reconstruction of experience while learning is a central, and at the same time, continuous aim, which is pursued in many areas of teacher education (Griffiths, 2000; Walkington et al., 2005; Simoncini et al., 2014; Naylor et al., 2015). To achieve this aim, learners must reflect analysing their values, approaches and emotions, which transform their understanding in their own way and give new meanings to ideas, linking them with previous knowledge and obtained information.

The research aim is to analyze trends of prospective educators' learning at the university, disclosing the significance and importance of learners' experience.

Research Methodology

Sample. The study was attended by 128 prospective educators who have chosen study programs of pre-school and primary education and childhood pedagogy at 4 universities of Lithuania. The respondents were selected applying targeted-criterion selection method, encompassing the entire population. 98,4 percent of respondents who participated in the study were women. The average age is 22,1 years. By the year of study the data were distributed as follows: students studying in year one made up 26,6 percent; year two, 30,5 percent; year three, 25 percent; and year four, 18 percent.

Research methods. Data were collected using a modified questionnaire¹. It contained 18 statements reflecting university students' learning peculiarities and the significance and importance of the students' experience in this process. The respondents expressed their views on the statements of the questionnaire by choosing one of the following: "I completely disagree", "I disagree", "I don't know", "I agree", and "I completely agree". The survey was conducted meeting the respondents and by electronic means. The collected data were analysed performing statistical analysis (using IBM SPSS 21.0 software): a) quantitative descriptive statistics of the research data; b) the multidimensional statistical method – factor analysis, based on the analysis of the correlation between the variables and transformation of the initial space of the variables to the space of smaller measurements (factors). To process the research data, an exploratory factor analysis was used, which establishes the number of factors and the variables constituting a factor, while the latter help understanding what these factors mean.

¹Some of the statements given in the questionnaire in previous studies were presented to other groups of respondents. For more information, see: 1) Bubnys, R. (2010). Integrity of Reflection on Action and Learning in Theoretical Studies at the University. *Pedagogy*, 99, 38-44; 2) Bubnys, R. (2011). Manifestation of Integration of Theoretical Knowledge and Personal Experience in Social Work Studies. *Professional Studies: Theory and Practice*, 8, p. 79-85

Research Results

Having performed the factor analysis of the data on future educators' learning trends at the university, four factors disclosing the significance and importance of learners' experience in this process were distinguished. The coefficient 0.82 of the Kaiser-Meyer-Olkin (KMO) scale shows that the matrix suits the factor analysis well. The distribution typical for the scale 67.3 % (from 22.9 % to 10.8 %) shows that all factors explain not less than 10 % of the distribution and can be interpreted. Internal consistency coefficient of the factors of the scale (subscales) Cronbach alpha (α) fluctuates between 0.85 and 0.66, this shows that the scale is homogeneous. The variables of all factors satisfy the condition $L \geq 0.5$ and are solid from the point of view of methodology. The data of the factor analysis and the rating of the suitability and reliability of the scales are presented in Table 1.

Table 1 Factor variables and statistical validity indicators

| FACTOR VARIABLES | Factor weight (L) | Descriptive distribution of the factor (%) | Cronbach α |
|---|-------------------|--|-------------------|
| KMO = 0,82 | | | |
| MECHANICAL LEARNING VS SIGNIFICANCE OF EXPERIENCE WHILE STUDYING | | | |
| The most important thing while studying is knowledge and facts, and experience is important only when you are at the workplace | 0,73 | 22,9 | 0,85 |
| I learn many things without thinking where I will be able to use the acquired knowledge | 0,71 | | |
| Learning is art how to please concrete teachers | 0,69 | | |
| I think I could describe my learning as quantity without quality | 0,67 | | |
| Most often, while learning you have to memorize separate facts without analyzing your own experience | 0,58 | | |
| You have to cram a lot by heart in order to successfully pass the exams | 0,56 | | |
| During accounting teachers evaluate my ideas and experiences less favourably than those I convey from textbooks | 0,52 | | |
| POSSIBILITIES AND IMPORTANCE OF LEARNING FROM PERSONAL EXPERIENCE WHILE STUDYING | | | |
| During my studies, I am encouraged to analyze the acquired experience, projecting possible new experience | 0,78 | 19,5 | 0,78 |
| While studying, possibilities are created to learn from your own experience, discussing previously acquired theoretical knowledge | 0,72 | | |
| Many of the teaching / learning methods used in the lectures promote to ground on previously acquired experience | 0,60 | | |
| While studying, life events are often reflected on and analysed; therefore, I can often ground on the already possessed personal experience | 0,58 | | |

| | | | |
|--|------|------|------|
| While studying, possibilities to learn from your own experience are created | 0,54 | | |
| THE LEARNER'S INTUITION AND MEANINGFULNESS OF KNOWLEDGE | | | |
| When I have to learn a lot, I intuitively guess what can be important and what to focus on | 0,73 | 14,1 | 0,74 |
| Yes, as if I remember something, I would say something about most of the previously studied subjects | 0,68 | | |
| REFLECTION ON PERSONAL LEARNING AND SELF-ASSESSMENT OF ACHIEVEMENTS | | | |
| During studies, I devote enough time to reflect on and evaluate how I learn | 0,72 | 10,8 | 0,66 |
| During studies, I devote enough time to reflect on and evaluate my learning achievements | 0,62 | | |

The first factor “Mechanical Learning vs Significance of Experience while Studying” emphasizes university students’ learning priorities, emphasizing the priorities of experiential vs mechanical learning and trends of the conformist relation with teachers (see Table 2).

Table 2 Statistical Indicators of the Factor “Mechanical Learning vs Significance of Experience while Studying”, (%)

| Variables of the factor (statements of the questionnaire) | Completely agree | | Agree | | Don't know | | Disagree | | Completely disagree | |
|--|------------------|------|--------------|------|--------------|------|--------------|------|---------------------|------|
| | No. of resp. | % | No. of resp. | % | No. of resp. | % | No. of resp. | % | No. of resp. | % |
| The most important thing while studying is knowledge and facts, and experience is important only when you are at the workplace | 14 | 10,9 | 31 | 24,2 | 10 | 7,8 | 42 | 32,8 | 31 | 24,2 |
| I learn many things without thinking where I will be able to use the acquired knowledge | 13 | 10,2 | 28 | 21,9 | 16 | 12,5 | 48 | 37,5 | 23 | 18 |
| Learning is art how to please concrete teachers | 14 | 10,9 | 35 | 27,3 | 21 | 16,4 | 27 | 21,1 | 31 | 24,2 |
| I think I could describe my learning as quantity without quality | 13 | 10,2 | 30 | 23,4 | 31 | 24,2 | 39 | 30,5 | 15 | 11,7 |
| Most often, while learning you have to memorize separate facts without analyzing your own experience | 7 | 5,5 | 56 | 43,8 | 26 | 20,3 | 29 | 22,7 | 10 | 7,8 |
| You have to cram a lot by heart in order to successfully pass the exams | 23 | 18 | 36 | 28,1 | 23 | 18 | 35 | 27,3 | 11 | 8,6 |
| During accounting, teachers evaluate my ideas and experiences less favourably than those I convey from textbooks | 10 | 7,8 | 19 | 14,8 | 53 | 41,4 | 35 | 27,3 | 11 | 8,6 |

It was found that more than a half of the prospective pre-school and primary education teachers who participated in the study assessed experience as an important factor while learning (57 percent), but almost half of them (49,3 percent) had to memorize separate facts while learning without analyzing their experience. It should also be noted that about one third of the respondents (35,1 percent) prioritize knowledge and facts while learning and consider experience as important only when you are at workplace. 32,1 percent of students learn without thinking where they will be able to use acquired knowledge, a share of them – 12,5 percent – have not even realized the practical value of the acquired knowledge. 42,2 percent of future educators describe their learning as quality learning, without prioritising the quantity of learning alone, but a significant proportion of students maintains that the quantitative scope of learning is relevant and significant (33,6 percent). Many (41,1 percent) students find it difficult to identify the value of acquired knowledge while learning and to predict whether personal ideas and experiences will be assessed favourably during accounting compared to those conveyed from textbooks. Conformist behaviour of students in their relations with the teacher is observed: as many as 38,2 percent of students agree that learning is art how to please concrete teachers.

The second factor of “*Possibilities and Importance of Learning from Personal Experience while Studying*” highlights the possibilities and conditions of learning from personal experience at the university as well as the importance of reflection on experience while learning, applying experiential teaching / learning methods (see Table 3).

Table 3 Statistical Indicators of the Factor “Possibilities and Importance of Learning from Personal Experience while Studying”, (%)

| Variables of the factor (statements of the questionnaire) | Completely agree | | Agree | | Don't know | | Disagree | | Completely disagree | |
|---|------------------|------|--------------|------|--------------|------|--------------|------|---------------------|-----|
| | No. of resp. | % | No. of resp. | % | No. of resp. | % | No. of resp. | % | No. of resp. | % |
| During my studies, I am encouraged to analyze acquired experience, projecting possible new experience | 27 | 21,1 | 81 | 63,3 | 13 | 10,2 | 6 | 4,7 | 1 | 0,8 |
| While studying, possibilities are created to learn from your own experience, discussing previously acquired theoretical knowledge | 22 | 17,2 | 81 | 63,3 | 16 | 12,5 | 8 | 6,3 | 1 | 0,8 |
| Many of the teaching / learning methods used in the lectures promote to ground on previously acquired experience | 18 | 14,1 | 75 | 58,6 | 18 | 14,1 | 16 | 12,5 | 1 | 0,8 |

| | | | | | | | | | | |
|---|----|------|----|------|----|------|----|-----|---|-----|
| While studying, life events are often reflected on and analyzed; therefore, I can often ground on the already possessed personal experience | 30 | 23,4 | 70 | 54,7 | 14 | 10,9 | 11 | 8,6 | 3 | 2,3 |
| While studying, possibilities to learn from your own experience are created | 32 | 25 | 64 | 50 | 22 | 17,2 | 9 | 7 | 1 | 0,8 |

Although the results of the study disclose that almost one-third of students pay more attention to mechanical memorization, the majority (84,4 percent) admit that university studies encourage to analyze the acquired experience, projecting potential prospects in the future. 75 percent of students who participated in the study agree that they are provided with the conditions and possibilities to learn from their experience. A similar number of students (80,5 percent) indicate that possibilities to learn from their experience by analyzing previously acquired theoretical knowledge, using methods that encourage to ground on previous experiential knowledge are created (72,7 percent). The use of the methods promoting the processes of experiential analysis at the university is proved by the fact that as many as 78,1 percent of students indicate that during studies they reflect on and analyze life events based on the already possessed personal experience.

The third factor *“The Learner’s Intuition and Meaningfulness of Knowledge”* discloses the importance of intuition in learning and the importance and significance of provided learning material in the future (see Table 4).

Table 4 Statistical Indicators of the Factor “The Learner’s Intuition and Meaningfulness of Knowledge”, (%)

| Variables of the factor (statements of the questionnaire) | Completely agree | | Agree | | Don’t know | | Disagree | | Completely disagree | |
|--|------------------|------|--------------|------|--------------|------|--------------|------|---------------------|-----|
| | No. of resp. | % | No. of resp. | % | No. of resp. | % | No. of resp. | % | No. of resp. | % |
| When I have to learn a lot, I intuitively guess what can be important and what to focus on | 20 | 15,6 | 79 | 61,7 | 15 | 11,7 | 6 | 4,7 | 8 | 6,3 |
| Yes, as if I remember something, I would say something about the majority of previously studied subjects | 11 | 8,6 | 63 | 49,2 | 19 | 14,8 | 24 | 18,8 | 11 | 8,6 |

The obtained results prove that intuitive learning at the university is not an important way of learning for students. 77,3 percent of students indicate that when they need to learn a lot, they do not try to intuitively guess what can be important and what they must focus on. 11,7 percent of students are not sure whether their learning is guided by intuition, guessing what may be important.

For a share of students (11 percent), intuitive guessing is an acceptable way of learning at the university. Attention should be paid to the paradoxical situation: although the majority of students maintain that meaningfulness of learning is important, as many as 57,8 percent of students agree with the statement “yes, as if I remember something, I would say something about the majority of previously studied subjects”.

The fourth factor “Reflection on Personal Learning and Self-assessment of Achievements”, reveals the trends of analysis, observation and self-assessment of learners’ learning (see Table 5).

Table 5 Statistical Indicators of the Factor “Reflection on Personal Learning and Self-Assessment of Achievements”, (%)

| Variables of the factor (statements of the questionnaire) | Completely agree | | Agree | | Don't know | | Disagree | | Completely disagree | |
|--|------------------|------|--------------|------|--------------|------|--------------|------|---------------------|-----|
| | No. of resp. | % | No. of resp. | % | No. of resp. | % | No. of resp. | % | No. of resp. | % |
| During the studies, I devote enough time to reflect on and evaluate how I learn | 27 | 21,1 | 72 | 56,3 | 15 | 11,7 | 14 | 10,9 | - | - |
| During the studies, I devote enough time to reflect on and evaluate my learning achievements | 26 | 20,3 | 59 | 46,1 | 18 | 14,1 | 22 | 17,2 | 3 | 2,4 |

It is evident that during studies, the majority of students (77,4 percent) devote sufficient time for reflection and self-evaluation of their learning, only a small share (22,6 percent) have not realized or do not devote time for reflection on their learning experience and self-assessment during studies at the university. 66,4 percent of students devote sufficient time for reflection and self-assessment of learning achievements during their studies, which is positive in order to learn from one’s experience.

Conclusions

The results disclose that experience and its analysis are important and significant for learners who have chosen early childhood studies at the university. Although memorising of facts, conformist tendencies in the relations with teachers and not always realised areas of the use of knowledge are relevant for students, it is acknowledged that conditions and possibilities for analyzing outlived experience and learning from it, based on previously acquired knowledge, are created.

The trend is observed that students try to memorize new knowledge and mechanically accumulate facts, but the fact that prospective educators allocate sufficient time for reflection on their learning achievements and self-evaluation creates preconditions for learning from their experience. It is paradoxical that although meaningfulness of learning is important for the majority of students, they find it difficult to remember factual material and use it for the analysis. The need to create conditions for students to reflect on their activities and integrate it into practical activities more often comes to prominence, which would create preconditions for increasing the meaningfulness of memorizing theoretical material and its use in the future.

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IDENTITY CRISIS: PROBLEMS OF TEACHER FORMATION

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Abstract. *The article is devoted to the problem of the crisis of personal and social identities as significant components of the “existential crisis” in the context of social transformation. Based on the ideas of existential phenomenology, the authors reveal the changing nature of the teacher identification system, suggest highlighting the notion of the “teacher identity” and consider the crisis nature of its formation. The authors revealed that the process of identifying future teachers is carried out in stages through the subsequent change of academic, educational, professional and professional identity. The transition from one type of identity to another occurs on the basis of identity crises.*

Keywords: *identity crisis, formation of teacher identity, phenomenological approach.*

Introduction

Effective modernization of modern education is impossible without a philosophical understanding of the concept of “identity crisis”. For our study of the formation of identity among teachers, it is especially important to determine what the value scale and ideological orientations of teachers in modern education are, what is the understanding of the socio-cultural foundations of the life of the individual and society. Of particular relevance is the problem of studying the characteristics of the formation of professional identity among students who have chosen the teaching profession. It is during the student period that the targeted development of the system of knowledge, practical skills and

abilities in the chosen professional activity takes place; the formation of holistic ideas about this professional community; the development and filling of the substantive content of the motives and goals of future activities; development of student's professional identity.

World globalization is accompanied by the neglect of many traditional spiritual and social values, which has a significant impact on the identity of the modern man.

The category of identity is one of the most important in the framework of understanding modern socio-cultural processes. However, despite the abundance of theoretical and empirical researches, it is still one of the most complex and theoretically multi-valued. Depending on the field of human knowledge in which the term "identity" is used, it acquires its meaning. American social philosopher A. Etzioni rightly confirms that if the XX century is a struggle of ideologies, the social processes of the XXI century will be determined by identity challenges (Etzioni, 2004).

For Russia, as well as for the entire world community, a crisis of both individual and collective identities is characteristic, polyidentity and "blurred identity" are observed.

The crisis and the collapse of the Soviet ideology and culture once again exposed and extremely aggravated the problem of Russia's civilizational identity, actualizing the various potentials of its transformation, each of which has its own vector of possible sociocultural changes. So, according to A. S. Panarin, the main crisis of modern Russia, is not a social or economic crisis, but the identity crisis. It is this crisis that prevents the "maturing" in society and in the depths of the political elite of the nationwide idea and the formation of subjects of national interests (Panarin, 2003).

The problem of the identity of Russians is most often raised in scientific publications due to the fact that when analyzing the processes taking place in modern Russia, the identity crisis is stated as the most important consequence of the collapse of the former statehood and the source of psychological discomfort of a significant part of the population. The presence of this problem is recognized by both Russian and foreign researchers specializing in various fields of knowledge (Bugaychuk & Koryakovtseva, 2018). For example, I. S. Cohn talked about the "keen sense of loss of identity in modern Russia" (Cohn, 1990), A. Etkind defined "a sudden loss of personal identity" (Etkind, 1996). Thus, the most important consequence of the collapse of the USSR was the identification crisis experienced by a significant part of the population of Russia, and especially by people belonging to the older age groups.

Of course, we view the problem of "existential crisis" and the challenges of identity through the prism of transformation processes in Russia. But a similar situation today is in many countries of the world.

In connection with the above, researchers are faced with the issue of developing technologies and models for the formation of a new identity, and, first of all, a new identity of young people, which is of strategic importance for the future of any country. But since the contemporary social situation is determined by the instability of the traditionally established system of values, stereotypes of thinking and behavior, the loss of ideological orientations, an independent, active and competitive person is becoming the ideal in society, who is forced to self-identify in the conditions of the “identification crisis”. Of course, the process of self-determination and socialization is especially difficult for a young, becoming individual.

It should be noted that the problems of social identifications have recently been sharply actualized. Researches in this area convince us that social identities (who are We?), including civil identity, essentially depend on social status, or rather, the social resource of individuals, the potential of their abilities to independently comprehend and develop their lives.

G. M. Andreeva singled out the main processes inherent in the mass consciousness in the situation of instability that require a socio-psychological analysis: a) a global breakdown of established social stereotypes; b) changing the system of values; c) identity crisis (Andreeva, 2001).

In Russian psychology of the last decade, scientific researches have been conducted in all three of these areas, but especially intensively in the field of studying the crisis of identity or, more broadly, in the field of research of the changing system of identifications. N. M. Lebedeva studied the problem of the identity crisis (Lebedeva, 1999). In her opinion, a radical change in social categories in society that serve as the basis for diverse processes of personality identification is needed for major changes in identity to occur. It should be noted that not only social categories have changed, but also the essence of the processes of self-identification, their orientation and goals. There is a change in basic values and needs: the most common vector of change in values is from homogeneity to diversity, from collectivism to individualism, and the most common vector of change in needs is from the search for a positive sense of self to a search for meaning.

S. G. Klimova studied the crisis of identity and came to the conclusion that in the changing society, people are freed from their previous identity, they are forced to do self-identification: to compare, choose, create new communities, focusing on the coincidence of personal values with those that the community proposes. The individual recognizes the society as “own” not only because the individual shares its goals, but also because the ways to achieve them are morally acceptable for the individual. In the most general sense, the goal of self-identification of the person in the surrounding reality is the search for an answer to the question “Who am I?” (Klimov, 1995).

In the works of a number of researchers who rely on foreign and domestic experience, it is noted that the person's refusal from permanent identification is also a kind of conscious choice. A modern person, unlike a person of a traditional society, tied to a particular culture and tradition, does not stop at the place and avoids any fixation. The identity of a modern person can be defined as "here-and-now-identity" (Ivanova, 2004).

Materials and methods

E. P. Ermolaeva formulated on the basis of ideas about professional identity a new problem for our society – professional marginalism. This concept is a behavioral and conceptual antagonist of professional identity. In her opinion, the essential feature of marginalism as a psychological phenomenon is as follows: with external formal belonging to the profession - internal non-belonging to professional ethics and values of this sphere of professional labour as in terms of identity of self-consciousness (self-identification with responsibility, job duties and morality), and in the terms of real behavior (action not within the framework of professional functions and values, but under the influence of other motives or goals) (Ermolaeva, 2001). Obviously, to combat this problem, the system of training future teachers should be changed.

Innovative training of professional teachers is dictated today by cardinal changes taking place in Russian education. For many decades in high school pedagogy it was said about the need to consider the student mainly as a subject of training. But the realities of life outside and inside the university are such that this position has been declarative for a long time. The time has come to implement it fully as a concrete embodiment of the value-semantic content of pedagogical education.

According to Yu. P. Povarenkov, at the heart of any professional development are identification processes; the question is with what and with whom the person identifies himself/herself, choosing or rejecting one or another profession, this or that style of professional activity, and what life tasks the person solves by means of the profession (Povarenkov, 2003).

In accordance with the concept of the formation of the personality of a professional of Yu. P. Povarenkov professional identity as a criterion for professional development indicates the qualitative and quantitative features of the person's accepting: himself/herself as a professional; specific professional activity as a way of self-realization and satisfaction of needs; system of values and norms that are characteristic of this professional community. In the system of pedagogical education, according to this scheme, it is possible to determine the level of formation and nature of not only professional identity, but also

social and civic identity, since they must be an integral part of the teaching profession.

In full accordance with this assumption, there are three main lines of development of the teacher's identity, and accordingly there are three groups of parameters that can be used to assess the level of its formation. The parameters of the teacher's identity are: acceptance of the profession, namely, satisfaction with various aspects of the professional activity and the profession as a whole; acceptance of oneself in the profession - the qualitative and quantitative features of professional self-esteem (the structure of the ideal and real "Self - concept"); acceptance of the values of the professional community, for example, the peculiarities of the value sphere.

The program of the experimental research on the development of the professional identity of students in a pedagogical university is constructed in the form of an ascertaining experiment. It consists of three stages, where at each stage one of the three groups of indicators is diagnosed, which are used to assess the level of formation of epy teacher's identity (professional self-assessment, satisfaction with teacher's labour, acceptance of social values) (Bugaychuk, 2013).

These criteria are the characteristics served as the basis for conducting the research on students of all courses of the pedagogical university using the following methods of studying the formation of the teacher identity: Dembo - Rubinstein "Ladder", Budassi "Methods of studying self-esteem", Value-orientated unity, "Accepting the profession", Leontiev "Life Purpose Orientations", "Psychosemantic Method for Researching Professional Identity" (Mishchenko, 2005).

The empirical study was attended by students of the pedagogical university 1-5 courses in the amount of 185 people.

Results

From the standpoint of the concept of professional development of Yu. P. Povarenkov based on the results of our research, in which the formation of the identity of future teachers was studied, we can give characteristics of the identity crises of students of a pedagogical university in the learning process.

As the research materials show, in the period from the 4th to the 6th semester of education, there is a significant decrease in accepting the self as a professional, which indicates the presence of a crisis period for this identity parameter, which is most likely associated with the lack of implementation of professional claims. This identity crisis is the basis for the subsequent development of the professional identity, in this case educational and professional identity. From the 4th to the 8th semester of studies, the transition

from the academic identity to the educational-professional one is noted, the student begins to think of himself/herself more as a future teacher, and not as a yesterday's school student. In semester the 10th, the identity crisis manifests itself more on the qualitative level, where the most creative and humane identification process is observed.

From the 2nd to the 6th semester, there is a tendency to a decrease in the acceptance of the teaching profession. Significant changes in the professional inquiries of the first and second year students compared with the third and fourth year students are noted. The tendency to reduce the acceptance of the profession in the 6th semester is associated with the transition from the academic identity to the professional identity. The views of the third-year student about the profession, its content, and conditions of activity change from ideal to real, this pattern is associated with the first introductory teaching practice in school.

By the parameter "acceptance of the values of the professional community," there is a reorientation of values that occurs in the 6th semester and is manifested by the identity crisis. The fact is that in the 2nd and 4th semesters, the values of the professional community for their acceptance and identification with them, according to the students, should be socially active, independent, creative in nature, they are more learning-oriented, as learning identity is developing. In the 8th and 10th semesters, after the crisis of identity in the 6th semester, the trend changes towards the priority of performing, inactive values, this change leads to the formation of educational-professional identity. This trend is associated with the first teaching practice on the 3rd course.

Thus, the process of formation of the professional identity of students of a pedagogical university is carried out step by step through the subsequent change of academic and professional identity. The transition from one type of identity to another occurs on the basis of the identity crises. The basis of the development of the professional identity is the mutual influence and interdependence of its parameters, the leading role among which is played by the parameter of acceptance of the profession. The parameters for assessing the level of the professional identity have a specific dynamics of development, which is manifested in the heterochrony of the identity crises.

Discussion and conclusions

An adequate tool for identifying, understanding and conceptualizing the most important aspects of being a modern person, including young people, in our opinion, is existential phenomenology that stood out in the first half of the 20th century in Germany from the phenomenological movement. One of the most promising areas of analysis of the formation of youth self-awareness in the

Russian province is the use of a number of provisions of the existential phenomenology of E. Husserl and A. Schyuts (Gusserel, 2004 & Schyuts, 2005). The basis of this philosophical concept is the idea of subjectively conscious social communication and interaction of people as the basis of identity.

The formation of the social identity of the future teacher, and above all such its components as the professional and civic identity, is a complex, multidimensional and controversial process, the analysis of which requires consideration of many factors. An outstanding representative of Russian religious existentialism N. A. Berdyaev called the personality a spiritual entity and believed that "the activity of the human spirit" should determine "the activity of its actions" (Berdyaev, 1991). It is these postulates that we propose to build the concept of forming the identity of a young teacher. The active activity-related attitude of a person to the world, that is, socio-historical practice, requires, first of all, the formation of spirit activity in youth, otherwise the subjective factor in history will not work. In the framework of the phenomenological approach, we believe that society develops through the efforts of subjects, but in the process of social activity the Man himself/herself changes. The civil and professional activities are part of public (social) practice. Consequently, today it is necessary to expand the space of such social practice, during which the young teacher would recognize himself/herself as a Citizen and a Professional. Without this awareness, the formation of the Teacher is impossible.

We understand that the experience of the past as a model today is not quite suitable, although, according to students, the emphasis from quantity (the degree of material wealth) is transferred to the quality and novelty of goods and services, to the opportunity to show independence and abilities in the profession and social life. Obviously, we need new ways of targeting young people in reality. The mass standard, unlike the values of traditional group culture, does not reinforce the personal identity, does not give a ready answer to the questions: "Who am I?" And "With whom am I?", "What should I strive for and why?".

A young man has to make his/her own choice from the possible options, to determine his/her attitude towards himself/herself, to the world, to the profession. The field of free self-determination is wide. In the early stages of personal development this choice is very difficult. In our opinion, the task of the state is to help in the main thing: in the formation and development of the teacher's social identity, in understanding the social and professional significance. Otherwise, a developed civil society, about which prominent politicians and the media speak so much, cannot be formed in Russia. In addition, it should be remembered that in the youth itself, due to the distrust in the intellectual competence of social and political institutions and their

information, there is a search for new forms of social activity and communication, which is expressed in the wide spread of informal movements that undoubtedly affect the identification of young citizens.

So, in the works of most researchers, the crisis of identity is considered within the framework of the general transformation of modern society. Today, identity is not established neither by tradition, nor by the place of residence or birth, but it is formed, chosen by any person, including the future teacher, in the course of his/her own life.

In the context of globalization, the identification space is becoming much wider than the limits of an separate state. Processes of identity transformation are characterized by: revising the foundations of the social identity (especially in civil and professional aspects); the emergence of new objects of identification; new forms of identity. The identity crisis is associated with the loss of some of the most important elements of this complex system of values, feelings, rules, traditions, etc. Consequently, the formation of the identity of the teacher must be considered in the plane of restoration, the return of its best features. But at the same time, we should be aware that in many ways the new form of identity will not coincide with the previous one.

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О ВАЖНОСТИ ЛАБОРАТОРНОГО ПРАКТИКУМА В КУРСЕ «КОНЦЕПЦИИ СОВРЕМЕННОГО ЕСТЕСТВОЗНАНИЯ»

About the Importance of Laboratory Lessons in the Course “Concepts of Modern Natural Science”

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Abstract. *Methods of teaching the course “Concepts of modern natural science” are discussed. It is shown that real (not virtual) laboratory practical work is an important and necessary part of this discipline. The example of realization of such laboratory workshop is given in the article. This laboratory workshop consists of two parts, which can be called “physical” and “biological”. The laboratory works of the “physical” part of the workshop are selected in such a way as to demonstrate deep and universal physical concepts on simple examples. For example, the study of polarized light allows students to get acquainted with the concept of spin of a particle on a simple and understandable example. A simple experience with the Magdeburg hemispheres allows us to discuss the relationship between the continual and discrete approach to the theory of the structure of matter. The “biological” part of the workshop includes not only the fundamental problems of biology itself (for example, the problems of reproduction), but also the problems of mineralogy and paleontology. The study of mineralogical samples allows students to better understand the ideas of the evolution of the earth's surface, and the study of paleontology allows a better understanding of the ideas of the theory of biological evolution.*
Keywords: *course “Concepts of modern natural science”, laboratory workshop, methods of teaching, realization of laboratory workshop*

Введение *Introduction*

«Концепции современного естествознания» – относительно новая учебная дисциплина, основными целями которой являются повышение общего культурного и образовательного уровня бакалавров соответствующих направлений и профилей, создание предпосылок для формирования современного инновационно-технологического мышления

экономистов, а также обогащение и совершенствование методов исследования в гуманитарных и социально-экономических областях.

Вероятно, в свое время возникновение этого курса в программах специальностей, не связанных непосредственно с материальным производством, было связано с проводимым Министерством образования и науки России курсом на гуманитаризацию образования (в том числе и высшего). Одновременно возникновение курса «Концепции современного естествознания» можно было рассматривать как реализацию идеи целостного образования и как важный шаг на пути фундаментализации образования (Карпенков, 2004; Кожевников, 2009; Найдыш, 2007; Садохин, 2007). Практически курс «Концепции современного естествознания» заменял историю естествознания, астрономию, физику, химию, биологию, геологию, экологию и множество других естественнонаучных дисциплин. Этот курс часто рассматривается как «физика для гуманитариев» и это мнение (разумеется, страдающее крайней грубостью и упрощенностью) имеет под собой определенные основания.

Действительно, курс «Концепции современного естествознания» обычно читается на кафедре физики (разумеется, в тех вузах, где такая кафедра есть) и его основная функция – мировоззренческая. В этом смысле важность этого курса трудно переоценить (Бухман & Бухман, 2010; Бухман, 2009; Котляров, 2009; Суханов & Голубева, 2011).

Целью данной работы является описание реализации данного курса с использованием лабораторного практикума как существенной его части, а также экспериментальное сравнение результатов этого курса, реализованного с использованием лабораторного практикума (1 вариант) и без лабораторного практикума (2 вариант). Возможность экспериментального изучения данного вопроса связана с наметившейся в последнее время в некоторых вузах тенденцией к замене лабораторного практикума на семинарские занятия без изменения количества часов, отводимых на изучение дисциплины. Ясно, что сравнение первичной (по первой сдаче экзамена) успеваемости студентов одних и тех же направлений подготовки, изучавших один и тот же курс в одних и тех же объемах по 1 и 2 варианту, позволяет выяснить, как именно влияет на результаты обучения замена лабораторного практикума семинарскими занятиями.

Особенности методики курса «Концепции современного естествознания»

Features of the course methodology "Concepts of modern natural science"

Основная цель курса «Концепции современного естествознания» – дать будущим специалистам краткую, реалистичную и одновременно цельную

естественнонаучную картину мира (Голубева & Одинцова, 2013; Кожевников & Тульверт, 2017). При этом ни в коем случае нельзя ни делать этот курс непосильным для гуманитариев (что, кстати, неизбежно случится при попытке «втиснуть» все естественные науки в выделенные для курса «Концепции современного естествознания» часы), ни снижать научный уровень изложения до уровня «популярно-развлекательных» телепередач. Ясно, что достичь этой цели можно только с использованием всего арсенала средств мультимедиа. Лекционные компьютерные презентации, клипы, учебные фильмы, компьютерные тесты для промежуточной или итоговой аттестации студентов, а также для самоконтроля знаний студентов – вот неполный перечень использованных нами мультимедийных технологий в лекционной составляющей учебного процесса (Бухман & Бухман, 2018).

Тем не менее, визуальный ряд – это еще не все. Обязательным условием успешного усвоения программы курса «Концепции современного естествознания» является также и наличие серьезного лабораторного практикума по этой дисциплине (Hofstein & Lunetta, 1982; Millar, 1987; Solomon, 1988; Бухман, 2010; Бухман & Бухман, 2010; Бухман & Бухман, 2013; Евтюхов, 2018; Кузнецов, 2008).

Основными отличиями лабораторного практикума по дисциплине «Концепции современного естествознания» от привычного физического или химического лабораторного практикума являются следующие:

1. Тематика лабораторных работ должна быть крайне широка и включать вопросы астрономии, физики, химии, биологии, палеонтологии, минералогии.
2. Лабораторные работы должны быть ориентированы на гуманитариев и иметь не количественный, а качественный характер. Другими словами, основной задачей при выполнении лабораторной работы должно являться не получение тех или иных данных и их обработка, а личное качественное ознакомление с той или иной естественнонаучной проблемой. Наилучшим вариантом является лабораторная работа, по своему характеру приближенная к «лекционной демонстрации», которую студент делает сам для себя («эффект личного участия»).
3. Лабораторные работы должны иметь и «историческое значение» (то есть воспроизводить классические эксперименты первооткрывателей), и «перспективу» (то есть оказываться связанными с современными проблемами современных естественных наук).

Так, например, при изучении поляризации света наряду с «классическим» законом Малюса оказывается возможным обсудить как историю возникновения соответствующих оптических понятий

(становление представления о поперечности световых волн), так и такое квантовомеханическое понятие, как спин микрочастицы. Дело в том, что классическим аналогом спина является поляризация, причем поляризация электромагнитных волн является прямым следствием того обстоятельства, что фотон – так называемая векторная частица со спином 1.

Лабораторный практикум по курсу «Концепции современного естествознания»

Laboratory workshop on the course "Concepts of modern natural science"

Поскольку физика является основой современной научной картины мира, естественным является преподавание курса «Концепции современного естествознания» на кафедре физики и использование в качестве материальной основы лабораторного практикума по курсу «Концепции современного естествознания» части физического лабораторного практикума, уже имеющегося на этой кафедре. Речь идет, разумеется, не обо всех лабораторных работах физического практикума, а лишь о некоторых – наиболее простых и наглядных, имеющих принципиальное или историческое значение лабораторных работах, снабженных подробными описаниями и «адаптированных» под гуманитариев. По существу речь идет о принципиально новых (по сравнению с «физическими») лабораторных работах, которые выполняются в тех же самых лабораториях и иногда – на тех же самых установках.

Эта часть лабораторного практикума по курсу «Концепции современного естествознания» (часть физическая) представлена в изданном Самарским государственным архитектурно-строительным университетом (СГАСУ), ныне слитым с Самарским государственным техническим университетом (СамГТУ) учебном пособии (Бухман & Бухман, 2012). Это учебное пособие включает в себя описание семи лабораторных работ: «Магдебургские полушария и воздушный колокол», «Трубка Ньютона», «Магнетизм, рамка Эрстеда и великие объединения», «Геометрическая оптика. Телескоп», «Поляризация света. Спин микрочастицы», «Интерференция. Кольца Ньютона» и «Дифракция. Дифракционная решетка». Каждое описание снабжено подробным и хорошо иллюстрированным историческим и теоретическим введением и может использоваться как непосредственно в лабораторном практикуме, так и в самостоятельной работе студентов (Куликова, 2015).

Существенно, что каждая из представленных в пособии лабораторных работ имеет как бы два плана – «экспериментальный» и «историко-теоретический». С одной стороны, сами по себе экспериментальные манипуляции, осуществляемые студентами при выполнении лабораторной

работы, вполне посильны для любого гуманитария, успешно окончившего среднюю школу, причем эти манипуляции приводят не к «колонке цифр», а к качественным и потому запоминающимся результатам. С другой стороны, предварительное (перед выполнением работы) изучение теоретического введения позволяет понять данную лабораторную работу как маленькую часть глобальной проблемы, которая не только не устарела, но и продолжает существовать в наше время в современной науке в «превращенном» виде.

Так, например, лабораторная работа №1 «Магдебургские полушария и воздушный колокол» знакомит студента не только и не столько с занимательной историей жизни магдебургского бургомистра, увлекавшегося физикой (исторический аспект 1), но и с воззрениями Аристотеля на природу пустоты, с атомизмом Левкиппа, Демокрита и Эпикура (исторический аспект 2), а также с историей борьбы корпускулярного и континуального подходов к описанию явлений природы (исторический аспект 3) – вплоть до вполне современного корпускулярно-волнового дуализма (а это – уже одна из концепций именно современного естествознания).

Лабораторная работа №2 «Трубка Ньютона», посвященная в принципе воспроизведению известного исторического опыта Исаака Ньютона, опять-таки начинается с анализа воззрений Аристотеля и Галилея на свободное падение тел, продолжается анализом смысла и значения соответствующих опытов Галилея и Ньютона и заканчивается знакомством студентов с принципом эквивалентности и основами общей теории относительности Альберта Эйнштейна. Дело в том, что легендарные опыты Галилея по бросанию шаров с Пизанской башни и Ньютона по падению пера в откачанной трубке можно (и нужно) рассматривать как исторически первую экспериментальную проверку принципа эквивалентности Альберта Эйнштейна. То обстоятельство, что Ньютон (а тем более – Галилей) не понимали, что именно они проверяют, никак не может отменить это обстоятельство.

Лабораторная работа №3 «Магнетизм, рамка Эрстеда и великие объединения» начинается с «античного» электричества и магнетизма, китайского компаса, продолжается великими открытиями Эрстеда и Фарадея и заканчивается изучением четырех уже случившихся и двух только еще ожидающихся «великих объединений». Действительно, знаменитый опыт Эрстеда, приведший (вместе с опытами Фарадея) к объединению электричества и магнетизма, является исторически первым из четырех «Великих объединений» и при обсуждении этого опыта грех не упомянуть об остальных трех.

Лабораторная работа №4 «Геометрическая оптика. Телескоп» посвящена не только геометрической оптике и ее двухтысячелетней

истории, но и истории телескопов и астрономии – от телескопов Галилея и Кеплера до телескопа «Хаббл».

Лабораторная работа №5 «Поляризация света. Спин микрочастицы» в экспериментальном отношении знакомит студентов с особенностями и применением поляризованного света и поляризаторов. В историческом отношении она начинается с открытия двулучепреломления в 17 веке Бартолином, а в теоретическом отношении – «выводит» студентов на вполне современное понятие спина микрочастицы и деление всех элементарных частиц на бозоны и фермионы.

Лабораторные работы №6 «Интерференция. Кольца Ньютона» и №7 «Дифракция. Дифракционная решетка» посвящены, разумеется, истории борьбы волновых и корпускулярных представлений о природе света (в историко-теоретическом отношении) и историческому опыту Исаака Ньютона, а также спектральному разложению белого света с помощью дифракционной решетки (в экспериментальном отношении).

Из приведенного краткого перечня лабораторных работ, очевидно, что практически данное учебное пособие может (и должно) использоваться одновременно и как лабораторный практикум по курсу «Концепции современного естествознания», и как книга для самостоятельной работы по курсу «Концепции современного естествознания». Таким образом, одна и та же книга может использоваться и при аудиторных, и при внеаудиторных занятиях студентов.

Принятая на кафедре общей и прикладной физики и химии СамГТУ система выполнения лабораторных работ, когда имеет место чередование занятий («изучение теоретической части работы + собеседование с преподавателем» (первое занятие) – «выполнение лабораторной работы + ее сдача» (второе занятие)) позволяет студенту тщательно изучить теоретическую часть работы перед ее выполнением, что делает выполнение лабораторной работы осознанным и полезным. Поэтому каждая лабораторная работа снабжена подробным, развернутым и богато иллюстрированным теоретическим введением, обязательно содержащим историческую часть, а также обширным списком вопросов для самоконтроля.

Такая методика преподавания курса позволяет наполнить конкретным содержанием понятие «самостоятельная работа студентов», на которую, как известно, государственным образовательным стандартом (любого поколения) отводится более половины нормативной трудоемкости учебной дисциплины. Ритмичный характер лабораторного практикума позволяет преподавателю практически непрерывно (раз в 2 недели) контролировать добросовестность и успешность самостоятельной работы студентов и при необходимости своевременно корректировать ее интенсивность (Кузнецов,

2017). Кроме того, подобный подход позволяет легко и непринужденно применять принятую в СамГТУ «накопительную» (или же «рейтинговую») систему оценки знаний студентов.

Студенты после «растянутой» на весь семестр сдачи теоретической части лабораторного практикума «автоматически» оказываются изучившими значительную часть теоретического курса «Концепции современного естествознания» под «практическим» углом зрения, что существенно облегчает их подготовку к экзаменам во время сессии.

Разумеется, курс «Концепции современного естествознания» не сводится к курсу «физика для гуманитариев» – он гораздо шире и включает в себя также принципиальные моменты биологии и наук о Земле. Речь идет о цитологии, генетике, биологической и геологической эволюции (палеонтологии и минералогии). Ясно, что эта часть курса также нуждается в соответствующем обеспечении лабораторным практикумом. Эта часть лабораторного практикума по курсу «Концепции современного естествознания» создана на кафедре физики СГАСУ и описана в изданных СГАСУ пособиях (Бухман & Бухман, 2011) (первоначальный вариант) и (Бухман & Бухман, 2013) (существенно переработанный вариант издания).

Данное учебное пособие, как и предыдущее, включает в себя описание семи лабораторных работ: «Микроскоп», «Микроскоп с видеоокуляром», «Клеточная теория», «Размножение», «Микроорганизмы», «Минералогия» и «Палеонтология». Каждое описание снабжено подробным и хорошо иллюстрированным историческим и теоретическим введением и может использоваться как непосредственно в лабораторном практикуме, так и в самостоятельной работе студентов.

Лабораторная работа №1 «Микроскоп» и №2 «Микроскоп с видеоокуляром» знакомит студента не только с устройством микроскопа и техникой микроскопирования, но и с историей изобретения микроскопа, с ролью микроскопа в биологии, с понятием «увеличение» и «разрешающая способность».

Лабораторная работа №3 «Клеточная теория» в историческом аспекте простирается от античности (Аристотель и Теофраст) через классиков (Линней, Броун, Шванн) до современности (открытие археобактерий). Эта работа знакомит студентов с основной в биологии клеточной теорией строения живых существ. Попутно студенты знакомятся с современной классификацией живых существ (прокариоты-эукариоты, автотрофы-гетеротрофы, растения-животные-грибы-бактерии-вирусы и так далее). В практическом (экспериментальном) аспекте студенты наблюдают (при использовании микроскопа без видеоокуляра) или фотографируют (при использовании микроскопа с видеоокуляром) препараты клеток различного типа (растительные или животные клетки, клетки многоклеточных или

простейших), а также оценивают их размеры.

Лабораторная работа №4 «Размножение» в экспериментальном плане посвящена изучению (наблюдение и зарисовка при использовании микроскопа без видеоокуляра или наблюдение и фотографирование при использовании видеоокуляра) микропрепаратов делящихся клеток, гамет, хромосом, спор растений и тому подобного. В теоретическом отношении студенты знакомятся с митозом, мейозом, особенностями бесполого и полового размножения одноклеточных и многоклеточных организмов.

Лабораторная работа №5 «Микроорганизмы» в экспериментальном плане посвящена изучению (наблюдение и фотографирование или наблюдение и съемка видеоклипа с использованием видеоокуляра) живых «неконтролируемых» микроорганизмов, существующих в кафедральном аквариуме. В историческом плане при изучении данной лабораторной работы студенты знакомятся с историей открытия микроорганизмов А. Левенгуком.

При выполнении лабораторной работы №6 «Минералогия» студенты знакомятся с достаточно обширной коллекцией минералов, зарисовывают и описывают представленные в этой коллекции образцы. Теоретическая часть лабораторной работы начинается, разумеется, с Агриколы и Ломоносова и знакомит студентов с классификацией минералов и различными формами существования минералов в окружающем нас мире.

При выполнении лабораторной работы №7 «Палеонтология» студенты знакомятся с обширной коллекцией отпечатков и окаменелостей, зарисовывают и описывают представленные в этой коллекции образцы. Теоретическая часть лабораторной работы посвящена изучению геохронологии, шкалы геологического времени, теории биологической эволюции и ее экспериментальной основы – палеонтологии.

Существенно, что изучаемые студентами при выполнении лабораторных работ №6 и №7 образцы находятся не за стеклом витрины, а «в прямом доступе» – студенты могут (и должны) подержать их в руках, повертеть и хорошенько рассмотреть. Разумеется, при таком использовании минералогические и палеонтологические образцы «долго не живут» и потому регулярно заменяются на новые.

Выводы *Conclusions*

За период с 2007 по 2018 год описанная методика преподавания курса «Концепции современного естествознания» была опробована на достаточно большом и разнообразном наборе обучаемых.

К сожалению, начиная с 2017 года по инициативе руководства на

некоторых специальностях произошла замена лабораторного практикума на семинарские занятия. Для выяснения вопроса о последствиях этой замены достаточно сравнить средний балл первичной сдачи экзамена студентами одних и тех же направлений подготовки до и после этой замены. Средний балл первичной сдачи экзаменов в 2014-2016 годах (курс «с лабораторными», объем выборки 166 оценок) составлял 3.93 балла по пятибалльной системе. Тот же средний балл в 2017-2018 году (курс «с семинарами», объем выборки 58 оценок) составил 3.62 балла. Следует подчеркнуть, что все экзамены проводились объективно (в форме компьютерного тестирования, причем с использованием одного и того же банка тестов). Вероятность того, что отмеченное снижение средней оценки студентов с 3.93 до 3.62 баллов случайно, пренебрежимо мала – с использованием стандартной методики (t-критерий Стьюдента) она равна около 2 %. Поэтому это снижение успеваемости является неслучайным и является, очевидно, прямым следствием вышеупомянутой замены.

Полученные данные позволяют утверждать, что использование лабораторного практикума при преподавании курса «Концепции современного естествознания» позволяет сделать этот курс содержательным, полезным и интересным для студентов. Попытка замены лабораторного практикума на семинарские занятия приводит к значимому снижению уровня подготовки студентов.

Summary

The requirements for the laboratory workshop for the course “Concepts of modern natural science” are discussed. The real example of realization of this laboratory workshop is described in detail. It is shown that the use of laboratory workshop in teaching the course "Concepts of modern natural science" allows to make this course informative, useful and interesting for students. The results of computer testing of students of the same specialty who studied the course "Concepts of modern natural science" in the same volume by two different methods were compared. The first method was organized with the use of a laboratory workshop. The second method was organized with the use of seminars. It turned out that the replacement of the laboratory workshop for seminars leads to a statistically significant decrease in student performance. Thus, attempts to replace the laboratory workshop on the course "Concepts of modern natural science" with seminars are extremely harmful, because they lead to a significant and completely unjustified decrease in the level of training of students.

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INVESTIGATING THE USE OF STUDENT-GENERATED QUESTIONS IN DISCIPLINARY READING PRACTICES IN HIGHER EDUCATION ENVIRONMENTS

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Abstract. *The paper sets out to explore the issue of students' strategic ability of learning from disciplinary texts in tertiary education settings. While performing reading tasks, students acquire or restructure subject-area knowledge as well as improving conceptual resources and literacy skills indispensable for their academic attainment. The so-called reciprocal reading instruction promotes the adoption of a procedure in which students are required to generate their own text-based questions, then ask and answer them in pairs. The exploratory case study reported in this paper aimed to examine the performance of advanced Polish students of English during ten reciprocal reading sessions, part of a subject-specific course. The analysis of the collected data focused on selected aspects of the students' question-generating behaviour. Additionally, the data obtained from a semi-structured interview were scrutinized in order to find out how the students evaluated their task performance. The paper finishes with a discussion of the implications of the study for the use of student-generated questions and reciprocal reading tasks in enhancing disciplinary knowledge and academic literacy skills.*

Keywords: *disciplinary knowledge, reading to learn, reciprocal reading, student-generated questions*

Introduction

One of the basic goals of contemporary education is to equip citizens of today's globalised world with the ability to read so that they are able to process both traditional and electronic (also multimodal) texts in a diversity of personal and professional, often multilingual contexts. As learners at all the educational levels, including higher education schools, work with a substantial amount of written discourse, the concept of "reading to learn" or "learning from text", which underscores the simultaneous focus on the reading process and knowledge gains has been naturally brought to the front (e.g. Kintsch, 1998; Alexander & Jetton, 2002; Chodkiewicz, 2014; Grabe & Stoller, 2019). In fact, a dual perspective has

frequently been taken in order to comprehensively look at reading as competence development vs. reading as a basis of knowledge construction and expansion.

In academic reading situations, while working on texts representative of some domain or disciplinary knowledge areas students typically get involved in a variety of instructional activities such as oral discussions, summarization of the main points, asking and answering questions, notetaking, or writing essays, just to mention a few. A clearly emerging bond between academic reading and writing is connected with the fact that it is natural to display an outcome of reading comprehension and learning from text through written tasks. Another key feature of academic text-based work concerns reading multiple texts, which gives students an opportunity to develop a mental representation across texts so as to elaborate on and restructure their current knowledge (Alexander & Jetton, 2002; Grabe, 2004; Grabe, 2009; Shanahan, 2009; Britt, Rouet, & Durik, 2018). In order to intensify their work towards the learning goals set students behave strategically by taking deliberate actions while reading locally or globally. Undoubtedly, it is the efficiency of academic reading skills and careful monitoring of reading comprehension outcomes that contribute greatly to the learning success (Janzen, 2001; Koda, 2005; Ediger, 2006; Grabe, 2009). An array of reading to learn strategies found beneficial for the use at the academic level include, among others: reflecting on what has been learned from text, underlying/ marking the text, thinking on how to use the text in the future, notetaking, paraphrasing, summarizing or generating questions, which is the major focus of the study reported on in this paper (King, 1994; Ediger, 2006; Grabe, 2009; Chodkiewicz, 2014).

It is common educational practice worldwide that college and university students develop and implement their academic reading skills in different sociocultural contexts while processing text genres typical of specific bodies of disciplinary knowledge with view to the goals set both for their courses' and future professional tasks (Ediger, 2006; Chodkiewicz, 2014; Grabe & Stoller, 2019; Koda, 2019). The role of genre literacy and disciplinary reading is emphasized by Martin (2013) who firmly supports the view that knowledge creation in educational contexts must be a joint effect of the implementation of subject-based reading and writing practice. Such an approach also takes a proper account of language aspects expressed as an abstraction arrived at the fundamental linguistic levels of phonology/ graphology, lexicogrammar and discourse semantics compatible with particular content-based areas.

Theoretical background of the study

Although in many academic settings it is typically teachers who feel obliged to ask students questions to check their comprehension of the text's contents,

students can also ask questions of their own either out of their initiative or as required by some types of instructional practice. King (1991) advocates that student-generated questioning be primarily perceived as a metacognitive process helpful in monitoring discourse comprehension, as well as a mechanism used to control students' learning while reading. In fact, some scholars have preferred to use the concept of strategy adopting the terms 'metacognitive strategy', 'comprehension-fostering cognitive strategy' or 'learning strategy' used in knowledge construction (Garcia, Garcia, Berben, Pichardo, & Justicia, 2014). What has been generally agreed on, however, is that self-generated questioning does not directly lead to text comprehension, but helps monitoring comprehension and fosters it. To be more precise, it is assumed that the reader's own questions stimulate such facets of the reading and learning processes as inferencing, elaboration, explanation and justification. They can also help the reader concentrate on the main ideas of the text, search the text for the information needed to combine its pieces logically, and what is more, enhance critical thinking (e.g., King, 1990, 1994; King & Rosenshine, 1993; Rosenshine, Meister, & Chapman, 1996; Graesser & Lehman, 2011).

A growing interest in students asking their own text-based questions can be, to a large extent, attributed to the conception of the so-called reciprocal reading instruction, which started to be promoted by some educators and reading experts in the 1980s (e.g. Palincsar & Brown, 1984). Student's own questioning constitutes the key component of the procedure which engages students in collaborative discussions on selected texts with the use of strategies enhancing their reading and learning outcomes. As reciprocal reading is basically implemented as a multiple strategic approach, apart from student-generated questioning, also summarizing, clarifying, and predicting are given a role to play (Palincsar & Brown, 1984; Chamot, 2009; Yang, 2010). In theoretical terms, such an approach has its roots in the premises of instructional scaffolding, proleptic teaching, social constructivism, and Vygotsky's theory of the zone of proximal development (Klingner, Vaughn, & Boardman, 2015). In order to be able to flexibly implement the particular components of the reciprocal reading approach teachers should fully understand its principles that determine the role of reader, text and task factors in particular educational settings.

The exploitation of student own text-based questions as part of the reciprocal reading approach is particularly beneficial due to the fact that students ask and answer their questions in cooperation with other students. Above all, while working on the tasks in pairs students participate in meaningful verbal interaction, that is in a dialogue with the purpose of jointly constructing the meaning of the target text (Palincsar, 1986). The collaborative nature of students' task is underscored by King (1990, 665) who characterizes reciprocal reading as "(...) self- and peer-testing which allows students to check their understanding and

remedy any comprehension problems.” Other features of students’ shared processing of the text content in the course of their verbal interaction entail: restating of information, explaining and self-explaining, providing justifications, hypotheses and speculations, paraphrasing of material or promoting connections of new elements of knowledge with prior knowledge (King & Rosenshine, 1993; Taboada & Guthrie, 2006; Gunn, 2008). An important pedagogical decision is to offer students some systematic training in asking text-based questions. This can be done by providing students with prompts in asking questions such as selected signal words for starting questions. Some useful generic question stems and generic questions can also be listed for students’ use (King, 1994; Rosenshine, Meister, & Chapman, 1996).

Methodology of the study: research questions, participants and materials

The main goal of the current exploratory case study, representing a type of classroom research, was to investigate the questioning behaviour of advanced EFL university students who performed reciprocal reading tasks during a subject-specific course. In particular, the study aimed to answer the following research questions:

- Were the students able to ask questions as well as provide anticipated answers relevant to the content of the texts?
- Did the students pay attention to the formal quality of the questions they asked?
- Did the students make attempts at modifying their questions due to other students’ feedback?
- What types of questions did the students tend to generate in the tasks they performed?
- How did the students evaluate their task performance?

In order to examine the abovementioned issues, a one-term study was carried out. Eighteen undergraduate Polish students of the English Department at Maria Curie-Skłodowska University in Lublin completed reciprocal reading tasks based on a set of ten academic texts used during regular weekly classes in EFL Didactics. The level of the students’ language proficiency was estimated to fall between B2 and C1 according to the standards of the Common European Framework of Reference for Languages. The students’ questioning behaviour accompanying their reading of disciplinary texts was a goal of the researchers’ analysis and discussion. In order to discern some characteristics of the students’ question-generating individual performance a sub-sample of the population taking part in this study consisting of three participants was selected. The three female students exhibited different levels of both the English language competence and the

knowledge of EFL Didactics, which was determined on the basis of the final scores of the exams taken by the students in Introduction to EFL Didactics and in Practical English before the beginning of the present study.

Research tools and materials used to collect the data consisted of ten extracts of chapters of EFL Didactics textbooks, a handout of a taxonomy of questions, ten questioning cards, the transcripts of recordings of the participants' collaboration in pairs, and the transcripts of recordings of the post-study semi-structured interview. The topics covered the issues of teaching the skills of reading, listening, speaking and writing as well as of the use of stories, games, songs, rhymes and chants in foreign language classrooms. The average length of a reading passage was 400 words whereas the average level of language difficulty of the texts was estimated to be 13.3 according to Coh-Metrix L2 Readability Index.

There were two reasons why a taxonomy of questions was designed for the purpose of the current study on the basis of a selection of classifications of questions offered in recent literature (Graesser & Person, 1994; Taboada & Guthrie, 2006; Taboada, Bianco, & Bowerman, 2012). First, it constituted a point of reference for the participants performing the reciprocal questioning activities. Secondly, it was used to track the question types chosen by the students while generating their own questions. The taxonomy comprised five categories of questions, namely factual, description, explanation, pattern of relationships, and judgmental questions, which were assigned to five levels of cognitive difficulty. During each classroom questioning session the students were instructed to fill in the questioning cards. Their role was to guide the students through their reading and questioning tasks, as well as provide the researchers the data for further analysis.

Procedure and data collection

The research study took place in the natural classroom setting as a part of the EFL Didactics course. Each of the ten reciprocal questioning sessions followed the same pattern and lasted 45 minutes. The first session contained an additional element, that is formal instruction on basic question types to be focused upon in the study. The study participants were supplied with the handout containing the taxonomy of the target questions with appropriate explanations and examples for their personal use throughout the study. They were also informed on the rationale for adopting the strategy of generating their own questions during reciprocal reading sessions. The students read individually the selected topic-oriented texts and generated three questions based on them. Subsequently, they answered each other's questions in pairs and commented on them. Having made final alterations to their own questions, they wrote them down on the questioning cards. Finally,

the teacher and the students discussed the content of the text referring to the students' questions. All the cards were collected by the teacher at the end of each of the questioning sessions and given back to the students at the beginning of the subsequent session with the teacher's written feedback on the form of the questions asked.

The three study participants were recorded two times during the study, that is during the second and the eighth reciprocal questioning sessions. This gave a possibility to collect data on the students' verbal behaviour in the process of asking and answering questions in pairs as well as to observe the actual influence of the partners' feedback on the final versions of the questions provided. A week after all the sessions had been completed the students took part in a post-study semi-structured interview in which they were asked to comment on their decisions concerning the choice of particular question types, reasons for modifying their questions, as well as on the interactive aspect of the procedure they had become familiarised with.

Data analysis, results and discussion

All of the questions generated by the three study participants were analysed and rated by two academic teachers at two conferencing sessions. While classifying the question types used by the students, the two raters referred to the question taxonomy employed in the study as well as to the content of the texts. They had to decide whether the particular student's questions truly matched the information conveyed in the text. They also decided if the questions generated by the students and their anticipated answers were relevant from the perspective of the content of the texts and if they could be regarded as correct. Furthermore, they analysed the modifications introduced by the students in their questions.

On the basis of qualitative and quantitative analysis of the data gathered, the following results have emerged. The three study participants managed to perform the tasks successfully and provide the amount of questions required; each student asked 30 questions on 10 texts, that is 3 questions per text. As for the first research question, it was found that all of the student-generated questions were relevant to the content of the texts; the students followed the task instructions and asked questions primarily about the main ideas conveyed in the texts. They were also successful in providing relevant anticipated answers to their own questions – only 2 out of 90 answers lacked direct connection with the target texts.

As far as the second research question is concerned, the results of the analysis showed that the students generally did not have serious problems with obtaining clarity in their questioning. Overall, as much as 86.7% of their questions were rated as clearly expressed from the perspective of their addressee. Asking sufficiently clear questions posed a minor challenge for one of the students

(Student B) whose 7 out of 30 questions were found not to be clearly-stated. What caused a problem for all the three students was asking questions linguistically correct; in fact only 55.5% of them were correct in terms of their language form. The students tended to make similar kinds of errors resulting in e.g. the lack or misuse of articles and inversion, a wrong word choice or in an incorrect use of plural and singular forms of nouns and spelling rules. An interesting conclusion might be drawn, then, that the three participants of the study generally coped with asking communicatively satisfying questions which could be easily understood by the recipients, yet, they faced considerable problems with making their questions linguistically correct. The most substantial difference between the number of questions evaluated as clearly stated but not linguistically correct could be observed in the case of Student C who posed as many as 28 appropriate questions out of 30 (93.3%) while only 14 (46.7%) items were found to be linguistically correct.

Table 1 Number of the students' generated questions rated as appropriate across all the texts

| | Clearly stated questions | Linguistically correct questions |
|-----------|--------------------------|----------------------------------|
| Student A | 27 | 19 |
| Student B | 23 | 17 |
| Student C | 28 | 14 |
| Total | 78 | 50 |

n=30

In order to answer the third research question, the amount of modified questions was calculated. It was revealed that the students did not make many attempts at modifying their questions even though they were encouraged by the instructor to improve the form of their questions after receiving feedback from their partners. As few as 16 instances of question modification were found. Although the above-discussed findings concerning the linguistic correctness of the student-generated questions clearly point to the need of introducing changes to their form, the students seemed not to notice such a necessity and were frequently satisfied with the primary versions of their questions. Interestingly, whereas the biggest amount of changes, that is 7, was made by Student A who committed the lowest number of mistakes in her questions, the least significant amount of modifications, that is 4, was introduced by Student C who produced as many as 16 erroneous items. A more optimistic remark that can be made on the basis of the results concerns the number of appropriate students' modifications of their questions as assessed by the raters. Indeed, as many as 13 out of 16 modified questions were formally correct. It is worth noticing, then, that when the

undergraduates managed to notice errors in their own questions or were informed on their existence by their partners, they worked on the quality of the items and succeeded in correcting them.

As for the fourth research question, the findings show that two types of questions were particularly frequently used by the students. Namely, the participants generated as many as 31 (34.4%) description questions and 23 (25.5%) explanation questions. They asked the same amount of factual information and pattern of relationships questions, that is 16 (17.7%) questions per each category. Judgmental questions constituted the least frequently exploited type of questions as there were only 4 (4.4%) students' questions classified into this category. Table 2 below presents the distribution of the question categories as used by the study participants. On the basis of these findings it can be deduced that the undergraduates were mainly interested in the information concerning the definitions, characteristics and applications of key concepts discussed in the target texts. As a matter of fact, they worked relatively closely on the texts to search for relationships between certain ideas, however, they did not reflect deeply on the concepts through asking judgmental questions.

Table 2 Number of the five question categories asked by the students throughout the study

| | Factual Information | Description | Explanation | Pattern of Relationships | Judgmental |
|-----------|---------------------|-------------|-------------|--------------------------|------------|
| Student A | 2 | 6 | 13 | 6 | 3 |
| Student B | 7 | 15 | 4 | 4 | 0 |
| Student C | 7 | 10 | 6 | 6 | 1 |
| Total | 16 | 31 | 23 | 16 | 4 |

While analysing the data provided in the table above, it may also be noticed that all of the three students tended to use one category of questions more frequently than others. Student A most often asked explanation questions whereas Student B and Student C asked questions referring to the description of the ideas put forward by the texts. It is worth pointing out that no significant linear changes in the students' preferences as to the use of particular question categories could be found.

The last research question concerned the participants' evaluation of their task performance. All of the three students took a positive stand as they believed that formulating questions related to the main ideas of the texts they read helped them focus on the communicatively important pieces of information and improve text comprehension. While commenting on the process of generating questions, Student A stated that she chose fragments *that were discussed the most in the text, when was the most information about them*, which helped her remember the main

ideas of the texts she was expected to work with. Student B, on the other hand, observed that performing the question-related tasks proved to be beneficial for noticing what she found important or difficult: *But when I came across some more important information or the ones that I considered more difficult, I stopped to write a question and then I moved on.*

When asked to evaluate the interactive aspect of asking and answering questions, the participants shared the view that it not only provided them with an opportunity to test their text comprehension and content knowledge gained, but also to notice information they did not pay attention to while reading the texts. Student C mentioned that she found answering the other student's questions useful as *They were usually different even though we had the same text... they also focused my attention to other parts of paragraphs I didn't choose to ask my question about.* The students admitted that the fact that they had to ask their own questions to their partners made them be more careful in verbalizing their thoughts clearly. Student B claimed that when her partner experienced some problems with understanding her questions, it was a sign for her that her *questions weren't precise. So he was asking "What? what?" And I had to yeah....sometimes I had to change my question, to add some things to be more precise.* Such a behaviour of Student B's partner functioned as implicit feedback for her on the quality of her question. It was revealed, then, that the study participants decided to modify their questions when they were not clear enough to understand for the recipients. Another reason for introducing modifications, as reported by Student C, concerned the fact that she wanted her questions to be relevant not only to the content of the target text but also to be important for her partner with respect to their future career as a teacher. She maintained: *I would adjust the questions, make them more also relevant for teachers-to-be of English and Polish. And.... basically to help them notice what's the most important, so content. No change in language.* Interestingly, the students admitted that while modifying their questions, they took more care of the content and the clarity of the items but they rarely noticed the necessity of improving the linguistic form of the questions.

Conclusions and implications

It has to be acknowledged that enhancing specialized literacies to be used by students across different domain areas to engage with, reflect on, and evaluate advanced knowledge requires the development of a set of text-based strategies, including self-generating questions. The questions generated by the three students in the study reported in this paper gave insight into how the students interacted with the target texts and which information they focused upon. The students' engagement in reciprocal reading and questioning tasks enabled them to better process the contents of the texts they read as well as to practise asking selected

question types. When generating their own questions the students had to put them into correct language form as well as clearly express the ideas behind them. Interactive presentation of the students' ideas and comparing their reception of the content of the target texts with that of other students gave grounds for activating their critical thinking skills.

It can be concluded that self-generated questions can constitute an important strategy in disciplinary reading, that is in learning from expository texts in academic settings. They can make students more responsive to content-area input and more responsible for their learning and initiative to participate in classroom interaction. Generating students' own questions can stimulate students' reflection on content-area knowledge worked upon and its consolidation with their prior knowledge as well as ensure a critical approach in identifying points of relevance. Also the need for taking more care of the linguistic accuracy of one' verbal expression cannot pass unnoticed. Asking questions is undoubtedly a useful strategy for training would-be language teachers preparing for the dialogic character of instructional practice.

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MENTORING STYLES AND THEIR CONTRIBUTION TO PEDAGOGICAL AND DIDACTIC COMPETENCE DEVELOPMENT

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Abstract. *The current educational theoretical and practical discourse intensively highlights the issue of the relationship between the mentor and mentee, in other words, the style of mentoring. The issue of influence of mentoring style to the development of mentees' pedagogical and didactic competencies is still not sufficiently investigated. The purpose of the study is to explore mentoring styles and examine their contribution to the development of pedagogical didactic competencies of mentees. Reflective reports of student teachers (N=10) who had their internship practice in secondary schools, were analyzed using content (deductive) analysis method. The findings suggest that emerging mentoring style depends on the age and the previous pedagogical experience of mentee's: young and having no pedagogical practice mentees tend to follow the traditional-hierarchical mentoring relationship, while older and with some pedagogical experience mentees prefer to practice reciprocal relationship with their mentors. Anyway, in both highlighted cases, the emphasis of mentors is placed on the development of didactical competencies rather than pedagogical. The prevailing mentor – mentee relationship in secondary education and implications for the professional identity of student teachers are discussed as well.*

Keywords: *didactic competencies, mentoring styles, pedagogical competencies, reciprocal mentoring, traditional mentoring.*

Introduction

Mentoring is a process when a more qualified and experienced person teaches, supports, promotes, advises and maintains good relationships with a less skilled or experienced person in order to facilitate the professional and/or personal development of this person within the organization (Žukauskaitė, 2014; cites Lankau & Scandura, 2002). A number of studies were designed to illuminate the professional and personal development of new teachers at their career start (Hutchison & Colwell, 2012; Kemmis, Heikkinen, Fransson, Aspfors, & Edwards-Groves, 2014) and to explore the relationship between mentor and mentee for beginning teachers (Hobson, Ashby, Malderez, & Tomlinson, 2009;

Jones & Brown, 2011; Kupila & Karila, 2018) or in pre-service teacher education (Ambrosetti & Dekers, 2010; Ambrosetti, 2014; Ambrosetti, Dekkers, & Knight, 2017).

Mentoring is considered to be one of key forms of emotional and psychological support while providing the professional induction of beginning teachers (Hobson, 2002; Marable & Raimondi, 2007; Malderez et al., 2007), developing their competence repertoire that would emancipate their pedagogical socialization (Wang et al., 2008). No wonder that the issues of successful development of future teachers' professional emancipation still regard mentoring as educational priority, the effective realization of which needs efficient models and styles (Jones & Brown, 2011).

Professional benefits of mentoring occur when mentors clearly articulate and model pedagogical knowledge in such a way providing the possibilities for both: mentor and mentee teacher development (Hudson, 2013). For this reason, some of researchers tried to find the connections between the mentoring models and teacher development (Kensington-Miller, 2011; Geeraerts et al., 2015), beginning teacher's self-authorship process (Augustinienė & Čiučiulkienė, 2013), key components specific for mentor–mentee/protégé behaviors and interactions (Eller, Lev, & Feurer, 2014) or examined the contribution of mentoring styles to academic success among mentees (Leidenfrost, Strassnig, Schabmann, Spiel, & Carbon, 2011).

The above presented insights may be rounded up while highlighting the most relevant issues such as: mentoring as a professional support, mentoring as developmental process with its specific models and styles, mentoring models and styles' benefits to teacher development. Since there are studies researching the contribution of mentoring upon teacher development, our intention was to look deeper into this process.

In the current study, we aimed to examine in-depth mentoring styles, so as to elucidate mentor–mentee relationship prevailing in secondary education and determine mentoring style contribution to pedagogical and didactic competence development of student-teachers.

A theoretical framework that focused on a holistic mentoring standpoint was utilized to frame the research and analyze the data. Employing a qualitative approach, we conducted content (deductive) analysis of individual mentees' reflections in order to test the prevailing mentoring style. Then, a complementary method – a framework method – was used to structure the summarized data so that it can support answering the research questions.

Background

There is increased interest in and emphasis on mentoring theory and practice during the past years. The phenomenon is described in psychological terms, within the tradition of social psychology, from the theoretical view of business management or human resources development and from the perspective of social cognitive career theory (Kemmis et al., 2014). Therefore, the term is used differently in different terms and settings. In our view, mentoring in pre-service teacher education is defined as personal relationship between more experienced and a less experienced members of organization who work towards specific professional and personal outcomes for the mentee (Ambrosetti & Dekkers, 2010; Harvey, McIntyre, Thompson, Heames, & Moeller, 2009).

This relationship, or role models, can be different. The dominant, widely conceptualized in scientific literature, according to Kram's (1985) mentor role theory (cited in Jones & Brown, 2011) is **traditional mentoring**. Briefly, it can be summarized as one-way hierarchical relationship in passing experience where the mentor is older and more experienced while the protégé is younger and less well established within the organization (Sorcinelli & Yun, 2007). The mentor serves as authority, an exemplar and a guide when the mentee (protégé) is inclined to fit into the organization. But both parts are holding the power, because of their ability to withdraw from the relationship having incurred less personal cost, arguing the protégé invests less into the relationship (Anderson & Shore, 2008).

Reverse mentoring is seen as appropriate for the current rapidly-changing and technologically-advancing social context (Harvey et al., 2009). Reverse mentoring occurs when young and technologically adept junior members teach senior colleagues (Kemmis et al., 2014; Jones & Brown, 2011). In traditional mentoring situations, the mentor is charged with transferring existing organizational knowledge to the mentee, while in reverse mentoring, the knowledge that is transferred is often knowledge from outside the organization (Kemmis et al., 2014).

The concept of **reciprocal mentoring** arises from the current mentoring literature that suggests that mentoring may be beneficial for both, the mentor and the mentee, and that in terms of learning these individuals may be 'co-learners' (Kemmis et al., 2014). They shape interdependent, collaborative relationship, based on mutual respect (Bryant & Terborg, 2008; Higgins & Kram, 2001; Ragins & Kram, 2007), in equity rather than equality (Harris, Freeman, & Aerni, 2009).

Peer mentoring usually is defined as a relation where both partners are at comparable levels of experience and may be both mentor and protégé simultaneously, as they work together to facilitate growth and development in each other (Mayrinac, 2005; Kensington-Miller, 2011).

In response to rapidly changing organizational and social environments, scholars have explored other models of mentoring such as lateral mentoring (Bryant & Terborg, 2008; Langer, 2010), developmental networks (Higgins & Kram, 2001), multi-mentoring (Sorcinelli & Yun, 2007), team mentoring (Bozeman & Feeney, 2007), and mosaic mentoring in which “peers interact around an area of shared interest” (Mullen, 2009, p. 11). Palmberg (2009), Jones and Brown (2011) supplemented these frameworks by a complex adaptive systems (CAS) perspective as “a set of interdependent agents forming an integrated whole, where an agent may be a person or an organization” (Jones & Brown, 2011, p. 484). In one or another way, all these models proposed individuals the necessary developmental assistance from a set of people rather than just one person, moving beyond the dyad focus of both traditional and reciprocal mentoring.

Traditionally, mentors provide help in two general areas: career development which facilitates the mentee’s advancement in the organization, in other words, the mentor acts as a career coach and professional helper, with a focus on understanding how the organization operates at a cultural and political level (Stead, 2005); and psychosocial support which contributes to the mentee’s personal growth and professional development, including role modelling, personal support, increasing confidence and self-awareness in mentee’s ability, and professional identity (Kram & Isabela, 1985; Bennetts, 2002; Stead, 2005). In this study, we are interested in professional teacher’s growth which is understood as the development of teacher’s pedagogical and didactic competencies (Inventory of Pedagogical Professional Competencies, 2015).

Pedagogical competencies include the teacher – learner relationship: good knowledge of their students, cooperation with students, interest and respect of their needs, their personal problems. In other words, it is good class management, including ethical and moral issues. According to McInerney (2013), positive pedagogical relationships with students and a good emotional atmosphere in the classroom are prerequisites for effective teaching and learning.

Meanwhile, the concept of didactic competence includes models of teaching, i.e., the planning, execution, and evaluation of lessons (ibid, pp. 752-753). This competence is conditioned by the acquisition of efficient teaching strategies associated with combatting erroneous personal theories of teaching and accompanied by constant reflection over one's own teaching activity (Opre, Opre, & Zaharie, 2012). The main shift from traditional teacher-centred conceptions of teaching to more student-centred ones with a greater emphasis on learning than teaching forces teachers to look for appropriate teaching strategies, methods and techniques.

Methodology

While referring to the pre-service teacher context, we stress a holistic mentoring approach which “is rooted in the desire to make connections, build relationships, and mend false separations in and out of educational spaces to construct meaningful teaching and learning experiences” (Bieler, 2013). “Holistic” implies an intervention that holds together all three classic components of mentoring: continuing education, personal support, and professional development (Freeman, 1997). In other words it highlights the interdependent web of relationships between all the participants in the mentoring process, which, on its turn, attends to professional, corporate and personal development (Clutterbuck, 2001; Keller, 2005; Stead, 2005; Ambrosetti & Dekkers, 2010; Ambrosetti, 2014). While analytically distinguishing between pedagogical and didactic competencies, as well as different mentoring styles, we treat all these theoretical components as a whole rather than in parts.

Qualitative research design best matched our holistic mentoring approach for data collection and analysis. As an instrument for data collection the written reflections of mentees were used.

Reflection is a process used to carefully consider values and practices in the light of supporting evidence. Written reflection is considered to have value for student teachers in that it promotes habits associated with construction of new ideas and reconstruction of existing ideas with a view to improving practice (Heirdsfield et al., 2008). The student teachers responded to 3 open-ended reflection questions: a) “*What were Your relations with Your mentor?* b) *Could You highlight the most important moments that influenced Your professional development during Your practice*” c) “*What pedagogical and didactic competencies were You developing during the practice?*”. The length of the reports varied from 2 to 7 pages.

Table 1 Participants’ socio-demographical characteristics

| Participant No. | Code | Gender | Age | Teaching experience |
|-----------------|------|--------|-----|--|
| 1 | R1 | Male | 31 | Teaching experience was acquired during the pedagogical practice |
| 2 | R2 | Female | 34 | 5 years of teaching experience at the university, but not at school |
| 3 | R3 | Female | 39 | 16 years of teaching at the primary and secondary schools |
| 4 | R4 | Female | 41 | 18 years of teaching at the primary and secondary schools and university of applied sciences |

| | | | | |
|----|-----|--------|----|--|
| 5 | R5 | Female | 32 | 5 years of teaching experience at the university, but not at school |
| 6 | R6 | Female | 35 | 4 years of teaching experience at the university; 7 years of teaching at private special language schools, tutoring small groups of adults, who wanted to learn a foreign language |
| 7 | R7 | Female | 43 | 20 years of teaching at the primary and secondary schools and university of applied sciences (mainly the course of language for specific purposes). |
| 8 | R8 | Female | 37 | 7 years of teaching at secondary schools and gymnasiums with special programmes for foreign language teaching. |
| 9 | R9 | Female | 32 | 3 years of teaching experience at the university, but not at school |
| 10 | R10 | Male | 32 | 2 years of teaching in private schools and Lithuanian weekend schools in Ireland |

Participants. 10 student teachers who were in the final phase of their teacher education studies and who participated in the professional internship during the academic year 2016-2017 took part in this study. The specific feature of the pedagogical practice was the performance of the Action Research.

Table 1 displays the sample characteristics. All of the participants had some experience of teaching, at least of teaching practices included in their pedagogical studies. All participants are teachers / future teachers of a foreign language.

Procedures and ethics. The research idea, task and procedures were discussed during the staff meeting of Education department. The department of Education X University permitted organizing this study and the students were asked for permission to use their writings as research material. Mentees filled out a paper form reflection at the end of their internship.

Data analysis. Deductive content analysis is a qualitative data analytic approach that allows to identify and describe emerging patterns within a data-set. This technique was used to analyze the content of mentees' reflections. We started our analysis with a theory and relevant research findings as guidance for initial codes (Hsieh & Shannon, 2005). A coding scheme was developed before the analysis and responses were reviewed carefully. First, we used existing theoretical background to develop key concepts or variables such as traditional, reciprocal, reverse, peer-mentoring styles as well as pedagogical and didactic competencies, as initial coding categories seeking to evaluate the prevalence of mentoring styles. Next, operational definitions for each mentoring style category were determined while using the theoretical ground. We (the two authors) independently reviewed all of the mentees' final reflection reports and coded all the data following initial coding categories. No data illustrating peer-review and reverse mentoring styles was found, therefore, these categories were eliminated from further analysis.

Then, we applied a framework method aiming to find links between mentoring styles and teachers competencies. This analytical strategy, with notation to pragmatism, is appropriate for the analysis of textual data, where it is important to be able to compare and contrast data by themes across many cases, while also situating each perspective in context by retaining the connection to other aspects of inquiry (Gale, Heath, Cameron, Rashid, & Redwood, 2013).

A framework method is a way of summarizing and analyzing qualitative data which allows to analyze the data both by case (in our case, competencies) and theme (mentoring styles). According to Gale et al. (2013), there are 7 stages to data analysis using the framework method: transcription of the data; familiarization with the text of interviews; coding (using the deductive approach, we looked for data which corresponded with our defined themes); development of framework for analysis and based on the identified codes; applying the analytical framework; charting data into the framework matrix, and interpreting the data. Coded responses were subsequently organized in a matrix: the horizontal axis of the matrix includes mentoring styles, while the vertical axis – teacher competencies (pedagogical and didactic). Accordingly, the matrix output of summarized data provides a structure that can support answering the research questions (Gale, Heath, Cameron, Rashid, & Redwood, 2013). According to Groenland (2014), the semi-quantitative components (such as counting of responses, ranking) are possible in the framework method, and we included them in order to enable case comparisons. Thus, the framework method was aimed at finding confirmation of the structure and contents of the conceptual model of the study, as based on scientific knowledge.

Results

In table 2 the main data illustrating dominant mentoring styles is presented. We identified two mentoring styles: traditional and reciprocal. Unfortunately, we did not detect reverse and peer-mentoring.

Table 2 Dominating mentoring styles

| Traditional | Reciprocal |
|---|--|
| <p><i>“I worked together with a very experienced teacher and mentor. She always knew what she wanted. ... It is difficult to argue with her ... I always felt safe” (R1).</i></p> <p><i>“At first our relationship with my mentor was quite traditional. She was instructing me how to organize the class. <...> While preparing for my class, I tried to follow my mentor’s directions” (R2)</i></p> | <p><i>“I must confess that at the beginning I was worried about mentor’s being bossy. <...> Though the mentor presented her models, I was given space enough to insert my ideas. The mentor respected my opinion and my small initiatives.”(R2)</i></p> <p><i>“Though I had some teaching practice, this experience was new to me. I especially appreciate my discussions with my mentor. We discussed many questions, argued as colleagues, she accepted my</i></p> |

| | |
|---|---|
| <p>“My mentor is a really good example of a mentor-teacher”. She has answers and solutions to the majority of the situations. I like to observe her classes” (R5)</p> <p>“I was always thinking that there is a very little difference in teaching university students. I expected to be prior with my university teaching experience. But very soon I understood that I need my mentor not only for formalities, but for practical advice how to model my classrooms.”(R6)</p> <p>“My mentor is an expert teacher. Though I always feel suspicious about various authorities, she is a good example even for more experienced teachers than me. I decided to follow her instructions in order not to be a failure” (R9)</p> <p>“Teaching in Ireland is my first normal job. The system is different. One has to work as a teacher, to be on duty at school and many other things. My mentor here is a great help. He explained me the school rules, the documents, the classroom culture. I always feel his support” (R10)</p> | <p>ideas. On my turn, I was inspired to re-evaluate my experience. This practice was a real professional development”. (R3).</p> <p>“Our main meeting topic is the reflection of our activities. My mentor is very positive. Sometimes it seems to me that there is nothing to discuss, but she always finds something to speak about. We discuss my methods used during the class. I like station method very much. My mentor is not so fond of this method still during our reflection she recognized and appreciated the pupils’ progress and my opinion”. (R4)</p> <p>“We with my mentor were colleagues. But me, being a student, and her, being my mentor, opened new ways of our relationship. We both became more open with our ideas about organizing classes. We tried CLIL and team teaching. These activities need a lot of planning, arrangement and rearrangement of the ideas. There should be a lot of reflection. But the most important to me is our changed relations: from colleagues we turned into friends” (R7)</p> <p>“We spent a lot of time with my mentor thinking how to make our classes more interesting. I explained the possibilities of Action research. Now we both are doing action research, speak about our didactical and pedagogical progress. It makes our practice more inclusive...” (R8)</p> |
|---|---|

Participants, who had had no or very little experience in teaching (R1, R2, R5, R6, and R10) shaped traditional relationships with their mentors (“My mentor here is a great help. He explained me the school rules, the documents, the classroom culture. I always feel his support” R10; “My mentor is a really good example of a mentor-teacher”. She has answers and solutions to the majority of the situations. I like to observe her classes” R5; “But very soon I understood that I need my mentor not only for formalities, but for practical advice how to model my classrooms.” R6). The rest of the respondents (R3, R4, R7, R8) already had some experience at school and teaching, therefore the relationship was different: more trust (“Mentor said that she trusted me“ R3) and respect (“The mentor respected my opinion and my small initiatives” R2, “during our reflection she recognized and appreciated the pupils’ progress and my opinion” R4), collaboration (“She [mentor] accepted my suggestions” R3; “We both became more open with our ideas about organizing classes “ R7) and inspirations (“The discussion with my mentor inspired my personal search for organizing it” R2; “...I wanted to try my own ideas” R2; “Now we both are doing action research, speak about our didactical and pedagogical progress. It makes our practice more inclusive...” R8), sharing of ideas was implicated in this relationship.

Experience of Participant 2 unfolded the move from one mentoring style to other: at the beginning of internship the mentoring relationship seemed to be more traditional, but somewhere in the activities the change occurred. Reciprocal mentoring brought more satisfaction to both parties (*“We both (me and the mentor) were pleased with the lesson” R3, R4, R7, R8*), and mentees expectations were exceeded (*“... I have made a considerable progress in becoming a teacher” R2; “But the most important to me is our changed relations: from colleagues we turned into friends” R7; “Now we both are doing action research, speak about our didactical and pedagogical progress ...” R8*). While reflecting on traditional mentoring style Participant 1 remembered their relationship as *“demanding”*, setting *“clear tasks and terms”* (*“My mentor has suggested the ideas, I grouped them, prepared my plan and gave it my mentor to check” R1*) although this did not discouraged teaching (*“I would like to choose to teach” R1*).

Table 3 A framework matrix illustrating mentoring styles contribution on competence

| Competence area | Traditional | Reciprocal |
|-----------------|---|--|
| Pedagogical | <p><i>“We discussed with our mentor long-term training plans, their curriculum requirements” R1</i></p> <p><i>“Our discussion was about how to motivate our students” R1</i></p> <p><i>“Today we have spoken methods, textbooks, and lesson planning. My mentor highlighted the importance of additional material also about homework load” R1</i></p> <p><i>“Together with the mentor we examined the data of the electronic diary” R1</i></p> <p><i>“I tried to fulfil my mentor’s recommendations how to motivate class leaders to participate in our theatre” R5</i></p> <p><i>“My mentor and me organized consultations for parents who wanted to know about their children’s achievements. My mentor wanted that we all could come to agreement about homework control” R6</i></p> <p><i>“As my mentor suggested, I tried to highlight and rely on school regulations to stop being late” R10</i></p> | <p><i>“I learnt that my standards were a little too high when evaluating pupils and that I should have given them better marks” R2</i></p> <p><i>“I was given a remark that I failed to summarize what the pupils learnt in the lesson.” R2</i></p> <p><i>“... we analyzed differentiation with my mentor..” R2</i></p> <p><i>“Following mentor’s and my discussion points I pay a lot of attention to the class character analysis and understanding of individual pupils” R3</i></p> <p><i>“She [mentor] referred to the assessment of individual pupils as an area to be improved in the lesson” R3</i></p> <p><i>“We with my mentor came to common conclusion that we need to give the pupils more time for their reflection at the end of the class” R4</i></p> <p><i>“We both with my mentor cultivate positive critics, not only regarding us, but also we try to direct it towards pupils. We teach how to think and even criticize in a positive manner” R7</i></p> <p><i>“We involved into Action Research our students as well”. I was so happy when they started to ask the AR question: HOW COULD I HELP...” R8</i></p> |
| Didactic | <p><i>“Preparation for a lesson was devoted to the teaching how to prepare the debate file” R1</i></p> <p><i>“Mentor gave me ‘Teacher’s Book’ and asked to prepare listening</i></p> | <p><i>“I learn this technique from my mentor during lesson observation and was glad to put it to test” R2</i></p> <p><i>“During the whole class mentor was able to match active material teaching („if clauses“) and explaining didactics to me. At the end of the class</i></p> |

| | | |
|--|---|---|
| | <p>tasks with the hints stimulating a discussion” R5 <i>“Mentor explained how to organize video reporting. She said that we would do team teaching and presented the guidelines as well” R6 “I devoted much time to plan the grammar exercises, following mentor’s directions” R9 “Mentor stressed that in Ireland teaching is quite traditional. Teachers stick to curriculum given tasks.” R10</i></p> | <p>we all participated in reflection what we have learned” R2 <i>“The mentor noticed that I sometimes have lesson time management problems” R3 “While preparing for my class, I tried to follow my mentor’s directions: to take away the tension, not to correct the speaking slips” R2 “We were discussing with my mentor about introducing methods for vocabulary teaching” R3 “I enjoyed the art and language integrated classes very much. It opens more possibilities for creativity development. My pupils always were happy about these classes. We have even illustrated our exercise books” R4 “My top is “Station” method. It is vivid, communicative, and collaborative. I persuaded my mentor to practice it” R7 “As we were doing Action Research, I always tried to prepare different task for basic group and for those students I observed. I always involved them in direct language learning. I was very happy when they started to use active vocabulary and participate in the discussion” R8</i></p> |
|--|---|---|

Student teachers develop their pedagogical and didactic competencies in both, traditional and reciprocal mentoring styles, although there are some differences. Traditional mentoring style pays major attention to the development of pedagogical competencies of student teachers: they are taught to motivate their pupils, to work with parents, to fulfill the curriculum requirements and stick to school regulations.

Didactic competencies are developed by explaining and practicing particular teaching/learning methods, instructing how to plan lesson time. On the whole didactic competencies are developed by following methodical directions.

Reciprocal mentoring style preserves the balance between pedagogical and didactic competencies. Mentors and their mentees analyzed reflection, differentiation, evaluation of students’ achievements. Didactic block of competencies highlight the effective lesson management, practice of active teaching/learning methods, team teaching and content and language integrated learning (CLIL).

Conclusions

As it is known to us, this is the first attempt to examine contribution of mentoring styles to professional development of teachers in pre-service education. We did not make any a priori hypotheses about this relation – we conducted the qualitative study as if to have a deeper comprehensive approach on these relationships.

We expected the mentees to identify their didactic competence development more than pedagogical since it is very important to become a great “master” in the very start of the career. But more emphasis was placed on pedagogical competence. Especially this “correlation” emerged within traditional mentoring style. Reciprocal model, on its turn, more inspires the development of both competencies.

The interrelation between mentoring styles and duration of mentee’s practical teaching experience was obvious: the more the experience mentee had, the more mutually equivalent relationship emerged between mentor and mentee.

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ДЕЛОВЫЕ ИГРЫ В КВАЗИПРОФЕССИОНАЛЬНОЙ ПОДГОТОВКЕ БУДУЩИХ ПЕДАГОГОВ К РАЗВИТИЮ ОДАРЕННОСТИ ДЕТЕЙ

Business Games in Quasi-Professional Future Teachers' Training to the Development of Gifted Children

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Abstract. *The relevance of the selection and development of the independent component of the preparing the future specialists of psychological and pedagogical profile in a higher educational institution, the purpose of which is to develop students' competence in developing children's giftedness, is substantiated. The arguments according to the need of the development of requirements and complex of qualities and skills for identifying and developing of children's giftedness by the future teachers, starting with teachers of preschool education institutions, are given. The complexity and inconsistency of the forming the gifted individuals, the presence of special educational needs due to high abilities, original thinking, special worldview, asynchrony and other manifestations of giftedness are shown. The results of a students' questioning regarding the using the business games in the process of preparing them for working with gifted children are presented. The significance of quasi-professional activity in general and business games in particular during the preparing the future teachers for the development of children's giftedness is revealed. On the basis of the generalization of working experience, the pedagogical conditions of its successful organization in teaching the basic disciplines are highlighted.*

Keywords: *business games, gifted child, giftedness, interactive methods, quasi-professional activities, teacher's competence in the development of children's giftedness.*

Введение *Introduction*

На современном этапе реформирования высшей школы в Украине важным направлением деятельности учреждений высшего образования (УВО) должна стать организация специальной работы, направленной на формирование у студентов готовности к созданию благоприятных условий для воспитания и самореализации разных категорий детей. И в частности – для детей с особыми образовательными потребностями, поскольку они отличаются уровнем способностей, творческим потенциалом, состоянием здоровья, акцентуациями характера и другими индивидуальными особенностями. Исходя из этого, необходимо изменить традиционную направленность подготовки студентов к организации педагогической работы в образовательном заведении в целом на развитие у них способности создавать индивидуальную траекторию становления каждого конкретного ребенка как неповторимой личности. Особый акцент также следует сделать на выделении и разработке самостоятельной составляющей подготовки будущих специалистов психолого-педагогического профиля, целью которой является формирование у студентов потребности, комплекса качеств и умений выявления и развития детской одаренности.

Цель статьи – обоснование необходимости специальной подготовки будущих педагогов одаренных детей, раскрытие значения и методики проведения деловых игр в квазипрофессиональной деятельности студентов как составляющей этого процесса.

Методы исследования: теоретические – изучение и анализ литературы по вопросам одаренности и подготовки педагога для работы с одаренными детьми; эмпирические – наблюдение, беседа, анкетирование, анализ опыта использования деловых игр в подготовке будущих педагогов; методы статистического анализа для преобразования эмпирических данных в количественные показатели.

Теоретическая основа темы *The theoretical background*

Необходимость специальной работы в УВО, направленной на становление педагогов одаренных детей, обусловлена следующими научными аргументами.

Во-первых, талантливые и одаренные личности в современном мире считаются ценным человеческим капиталом. Благодаря их вкладу в различные сферы общественной жизни повышается как экономическое благосостояние, так и политический статус государства в мировом

сообществе. Поэтому в ряде развитых государств, в частности, США (Enrlich, 1978), внедряется политика поиска и поддержки талантливых людей.

Исходя из этого, актуализируется необходимость формирования системы специальной подготовки учителей, воспитателей, практических психологов к работе с одаренными и талантливыми детьми, которые проявляют неординарные способности в различных видах деятельности.

Во-вторых, исходим из того, что в последние годы в украинской системе образования, начиная с дошкольных учреждений, прослеживается положительная тенденция отказа от дидактико-авторитарной практики и переход к внедрению личностно ориентированной педагогики, концепции детоцентризма и компетентностного обучения. Научное сообщество и педагоги-практики постепенно отказываются от постулатов советской так называемой «бездетной педагогики», которая, несмотря на декларативно заявленный принцип индивидуального подхода, была ориентирована на абстрактного «среднего» ученика с условной возрастной нормой развития. Поэтому современный воспитатель должен в каждом ребенке видеть неповторимую личность, для развития которой необходимо создать индивидуальную траекторию (Голюк, 2016).

Обеспечение устойчивости, системности и необратимости таких прогрессивных изменений требует формирования генерации педагогов с новыми профессиональными ценностями, творческим мышлением и сформированными компетентностями.

В-третьих, в контексте внедрения инклюзивной педагогики одаренные дети считаются личностями с особыми образовательными потребностями. Следует подчеркнуть, что инклюзивное образование предусматривает полный учет всех индивидуальных различий и создание благоприятных условий для развития каждого нетипичного ребенка, в том числе и нестандартной оригинальной одаренной личности. Талантливые и творческие дети существенно отличаются от сверстников и требуют особого внимания, поскольку раскрытие их потенциала и развертывание жизненного сценария в каждом конкретном случае является нетипичным. По причине того, что они имеют уровень способностей выше среднего и разносторонние интересы, традиционная организация учебно-воспитательного процесса не способствует полной мерой их успешному развитию. В ходе реализации потенциала талантливых детей и становления их личности часто просматривается амбивалентность, которая характеризуется наличием как успехов, так и проблем. Кроме высоких достижений в одном или нескольких видах деятельности достаточно большая часть одаренных детей, по сравнению со сверстниками, испытывает трудности социально-психологического плана. Также, по результатам последних психологических

исследований, высокий уровень способностей часто сопровождается асинхронностью в когнитивной, эмоциональной, социальной сферах и физическом развитии. В связи с этим, выделяем (Демченко & Зайцева, 2017) несколько категорий детей с проявлениями разных видов одаренности, имеющих как особые образовательные потребности, так и социальные, эмоциональные и другие проблемы, для удовлетворения или решения которых необходимы дополнительные условия и ресурсы.

Своевременно идентифицировать проявления одаренности у детей, диагностировать их успехи и неудачи, а также создать благоприятные условия для их реализации в инклюзивном образовательном пространстве и помочь ребенку справиться с социально-психологическими проблемами сможет подготовленный педагог, владеющей специальной компетентностью.

В-четвертых, пока еще, в силу многих причин, в образовательных учреждениях не изжито явление скрытой «педагогической сегрегации» одаренных детей. В частности, в условиях традиционной системы образования еще доминируют коллективные и групповые формы работы, стандарты и жесткие рамки организации образовательного процесса. Это ориентирует педагогов на работу с ребенком, уровень задатков и способностей которого соответствует условной возрастной норме. Но в такую систему работы «не вписывается» одаренная личность. Кроме того, еще с советских времен большинство педагогов направляют свои усилия на выполнение в образовательном процессе негласного задания: «дотягивать» детей с низким уровнем способностей и достижений хотя бы до минимальных требований учебных программ. В итоге, способные и одаренные дети часто остаются вне профессионального внимания как успешные и благополучные, которые без дополнительной педагогической помощи могут самостоятельно усвоить учебный материал. Педагоги считают, что, даже в случае неудач, они будут соответствовать необходимому/среднему уровню. К тому же, консерватизм, неспособность некоторых педагогов к инновациям и творчеству не позволяют им отходить от традиционных рамок организации образовательного процесса, искать новые подходы, формы и методы воспитания и развития одаренных детей. Также нестандартная, любознательная и независимая одаренная личность часто «стает неудобной» для авторитарного педагога, поскольку часто не соглашается с ним, задает много вопросов, «оригинальничает».

Учитывая все это, для преодоления выше изложенных недостатков необходимо подготовить абнотивного и фасилитативного педагога, свободного от стереотипов и постулатов авторитарной педагогики.

В-пятых, анализ отечественной системы высшего педагогического образования показывает, что большинство ранее выделенных нами (Демченко, Кит, Голюк, & Родюк, 2018) противоречий пока еще остаются

нерешенными. В частности, особого внимания требует устранение несоответствия между необходимостью обеспечения педагогического сопровождения одаренных детей и отсутствием подготовленных специалистов соответствующего профиля. Профессиональные знания, которые приобретают будущие педагоги, не решают проблему подготовки к работе с одаренными детьми и только имплицитно представлены в ее содержании. Высшая школа пока еще только перманентно готовит студентов к работе с одаренными личностями. В большинстве педагогических вузов еще не введены специальные курсы и программы, не осуществлена «теоретико-методическая имплементация» в содержание психолого-педагогических дисциплин тем и вопросов, изучение которых обеспечит студентам возможность овладеть специальной компетентностью для осуществления этого направления профессиональной деятельности.

Поэтому с целью подготовки педагогов одаренных детей как специфической категории учащихся необходимо наполнить программы психолого-педагогических дисциплин дополнительным содержанием, разработать и внедрить методику формирования у студентов необходимых компетентностей для идентификации проявлений одаренности у детей разных возрастных групп и обеспечения условий для реализации их творческого потенциала.

Исходя из того, что в отечественной системе образования в целом и в высшей школе в частности, реализуется компетентностный подход, считаем, что результатом специальной подготовки должна стать *компетентность педагога по развитию одаренности детей*, которую мы эксплицируем как «интегративное личностное образование, становление которого начинается в системе высшего образования и продолжается в процессе рефлексивно ориентированного профессионального самосовершенствования» (Демченко, Кит, Голюк, & Родюк, 2018).

В своем исследовании базисным считаем трактовку термина «компетентность» как динамическую комбинацию знаний, умений и практических навыков, способов мышления, профессиональных, мировоззренческих и гражданских качеств, морально-этических ценностей, которая определяет способность человека успешно осуществлять профессиональную и дальнейшую учебную деятельность, является результатом обучения на определенном уровне высшего образования (Закон України, 2014). Соответственно, важной составляющей компетентности, но, в то же время, недостаточной, является система знаний, в нашем случае – это знания психологии одаренности, теории и технологий организации учебно-воспитательной работы по развитию детской одаренности. Они являются основой формирования практических умений, выработки комплекса качеств, без которых не возможно успешно

организовать любую деятельность. Среди умений педагога одаренных детей доминантными считаем следующие:

- проводить педагогическое наблюдение как метод научно-педагогического исследования с целью идентификации потенциально одаренных детей;
- использовать доступные для обработки диагностические методики выявления одаренности в детей, их способностей, личностных качеств; оценки достижений, обнаружения проблем;
- анализировать педагогические задачи и ситуации, искать альтернативные варианты их решения;
- выполнять индивидуальные нестандартные задания, творческие проекты, оригинально презентовать результаты своей деятельности;
- моделировать индивидуальную траекторию формирования личности ребенка;
- подбирать методы, приемы, современные технологии творческого развития учащихся с учетом их способностей и уровня одаренности;
- формировать собственную траекторию творческого саморазвития;
- проводить педагогическую рефлекссию и оценивать уровень своей творческой деятельности.

Благоприятные условия формирования компетентности педагога по развитию одаренности детей заложены в квазипрофессиональной деятельности студентов, приоритетом которой является детоцентризм (Голук, 2016). Она является одной из трех форм контекстного обучения (Вербицкий, 2004), поскольку ей присущи черты как собственно учебной, так и будущей профессиональной деятельности. Квазипрофессиональная деятельность в студенческой аудитории, используя язык учебной информации, моделирует условия, содержание и динамику производственного процесса (система образования – сфера духовного производства), отношения занятых в нем людей. По мнению ученого, наиболее ярко квазипрофессиональная деятельность представлена в деловой игре: оставаясь формой организации учебной деятельности студентов, она воссоздает предметное, социальное и психологическое содержание реального профессионального труда специалиста, задает целостный контекст его деятельности.

Современные исследователи относят деловую игру к имитационным / интерактивным методам подготовки будущих педагогов, в основе которой проецирование, моделирование профессиональной деятельности, взаимодействие субъектов образовательного процесса в ходе решения педагогической ситуации. Ее использование существенно повлияет на

качество этого процесса в целом, на совершенствование его отдельных составляющих (ценностной, мотивационной, методической, рефлексивной и др.). В частности, П.Щербань (Щербань, 2004) выделил следующие основные преимущества деловых игр: 1) при использовании деловых игр процесс обучения максимально приближен к реальной практической деятельности руководителей и педагогов образовательных заведений, так как деловая игра является имитационным методом обучения; 2) деловая игра является игровым методом обучения, поэтому все ее участники выполняют определенные роли и в соответствии с ними принимают управленческие решения; 3) деловая игра является коллективным методом обучения, и как следствие – решения вырабатываются совместно, коллективно; 4) в деловых играх специальными средствами создается эмоциональный настрой игроков, что повышает ее эффективность.

В процессе выработки компетентности педагога по развитию одаренности детей использование деловых игр выполняет несколько задач:

- содействуют выработке позитивно-активного отношения к работе с одаренными детьми как отдельного направления профессионально-педагогической деятельности;
- ставят студентов в позицию субъекта по овладению качествами, необходимыми для педагога одаренных детей;
- обеспечивают возможность творческого использования психолого-педагогических и методических знаний в сфере одаренности в условиях, приближенных к реальному образовательному процессу;
- позволяют моделировать и решать ситуации, связанные с обучением, воспитанием и развитием одаренных детей;
- развивают творческое мышление, учат взаимодействовать, оптимально находить общее решение;
- позволяют проводить оценку и самооценку уровня готовности к работе с одаренными детьми на рефлексивной основе.

Несмотря на значительный ресурс деловой игры как имитационного метода в квазипрофессиональной деятельности будущих педагогов, достаточную ее теоретическую разработанность нами выявлены и некоторые противоречия:

- между эффективностью данного метода в подготовке будущих педагогов и его недостаточным использованием в ходе преподавания психолого-педагогических дисциплин;
- между теоретической разработанностью основ деловых игр и отсутствием четких методических рекомендаций по их использованию в рассматриваемом нами направлении подготовки будущих педагогов.

Методы, организация и результаты исследования *Methodology, organization and results of the research*

Проведенное пилотное исследование было направлено на выявление отношения студентов к использованию деловых игр в ходе изучения психолого-педагогических дисциплин в целом и процессе их подготовки к работе с одаренными детьми в частности. Для этого была разработана и проведена специальная анкета «*Студент: участник деловой игры или пассивный наблюдатель*». Респондентами были избраны студенты 3-4-го курса бакалаврата специальности «Дошкольное образование» дневной и заочной форм обучения Винницкого государственного педагогического университета имени Михаила Коцюбинского (г. Винница, Украина); всего 96 участников. Ориентация на такую выборку была обусловлена тем, что подготовку будущих специалистов психолого-педагогического профиля необходимо начинать с воспитателей УДО – первых педагогов, работников начальной составляющей системы образования. В дошкольном возрасте уже просматриваются проявления детской одаренности, которые педагог должен своевременно увидеть и создать надлежащие условия для их развития. Следствием несвоевременной диагностики способностей в раннем детстве может стать упущение сенситивных периодов для их развития, а соответственно – «потеря одаренного ребенка». Обработка результатов опроса студентов дала возможность сделать следующие обобщения.

Как положительный факт отметим, что большинство опрошенных будущих педагогов (65,6%) позитивно-активно относятся к использованию деловых игр в процессе изучения психолого-педагогических дисциплин, считая их *«инновационными, интересными, живыми, творческими, способствующими повышению активности студентов, мотивации к педагогической деятельности в целом и конкретной теме в частности, развитию важных профессионально-педагогических качеств»*. Они также выразили готовность принимать активное участие в их подготовке и проведении, выявили желание брать на себя ведущие роли. Остальная часть (34,4%) респондентов продемонстрировали позитивно-пассивную позицию по отношению к такому методу обучения. В целом они оценивают деловые игры *«как актуальное требование к процессу подготовки будущих педагогов, необходимость ее усовершенствования»*, однако, в случае их организации преподавателями в процессе изучения конкретных дисциплин отказались бы от активного участия и выполнения главных ролей; возможно, взяли бы на себя обязанность подготовки лишь несложных заданий. Свою позицию они аргументируют тем, что *«привыкли работать репродуктивно, по шаблону; не уверены, что справятся, боятся ошибиться»*.

Оценка опрошенными студентами значения использования деловых игр в квазипрофессиональной подготовке к работе с одаренными детьми была еще более высокой. В частности, 87,5% респондентов высказали мнение, что необходимые для работы с одаренными детьми качества (творчество, артистизм, рефлексивность, умение импровизировать и др.) будущие воспитатели не могут развить в условиях традиционного обучения, выполняя репродуктивные задания. По их мнению, «деловые игры и другие интерактивные методы обучения способствуют индивидуальному развитию личности будущего педагога, предоставляют ему возможность стать не только знающим, но и компетентным».

Отвечая на следующий вопрос, в котором косвенно надо было дать оценку деловым играм, показать их значение в профессиональной подготовке к работе с одаренными детьми, не все респонденты смогли надлежащим образом раскрыть их потенциал. У многих студентов деловые игры ассоциируются с: детством и развлечениями (17,7%); новым и сложным видом деятельности (24,0%); тренировочной площадкой для приобретения педагогических умений (38,5%); инновациями и творчеством (19,8 %).

Более реально оценить позицию студентов в процессе организации игр позволил анализ их ответов на следующий вопрос анкеты. Определяя степень своей активности в ходе организации игры, изъявили желание выполнять главные роли – 9,4% будущих воспитателей; создавать режиссуру, сценарий, координировать действия участников игры – 11,5%; участвовать в игре на всех этапах ее организации, выполнять все поручения, необходимые для успешного проведения – 12,5%. Считаем, что эти студенты, несмотря на некоторые различия ответов, имеют позитивно-активную позицию по отношению к деловым играм и допускаем, что в процессе их организации они проявят высокий уровень субъектности. Суммируя количество полученных ответов, сравнивая их с результатами ответов на первый вопрос анкеты, мы получили более низкий результат позитивно-активной позиции будущих педагогов к деловым играм. Только 33,4% опрошенных студентов готовы принимать активное участие в той или иной роли в игре.

Соответственно большее количество студентов (55,2%) мы отнесли к позитивно-пассивной позиции, поскольку они предпочли выполнять «техническую работу» (подготовка помещения, изготовление атрибутов и наглядности, компьютерное обеспечение и др.). Также нами выявлена группа студентов (11,4%), которые вообще не хотели принимать участие в деловой игре, а быть «группой поддержки», «зрителями», или же стать ее участниками по крайней необходимости, требованию преподавателя / коллектива (рис. 1).

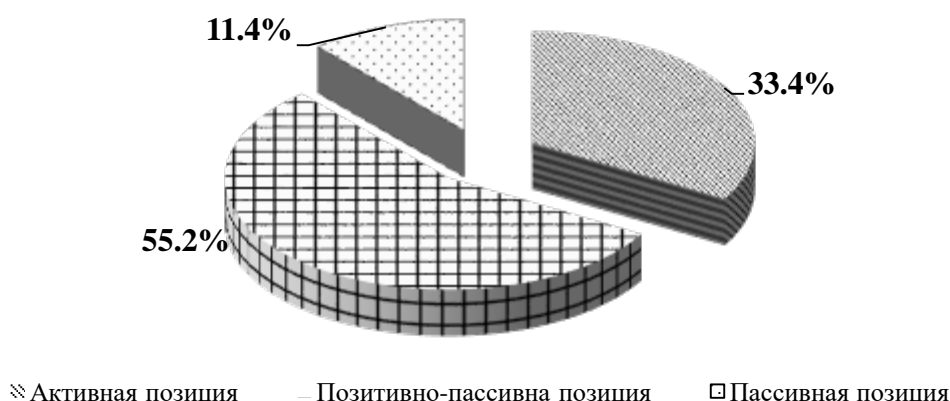


Рисунок 1. Распределение будущих педагогов по типам готовности принятия участия в деловых играх

Figure 1 Distribution of the future teachers by the types of readiness to participate in business games

Выполняя следующее задание опросника, будущие педагоги высказали свое мнение по поводу особенностей организации деловых игр и повышения их эффективности. Обработка, анализ и обобщение ответов позволило нам сформулировать *рекомендации преподавателям*: почаще проводить деловые игры на практических занятиях; четко ставить задания и распределять обязанности; давать больше времени на подготовку; приобщать студентов к работе на всех этапах организации игр; использовать деловые игры не только на практических занятиях, но и во время проведения экзаменов и зачетов; к подготовке и проведению игр приобщать детей, педагогов-практиков, родителей; стимулировать и дополнительно оценивать творчество, оригинальность и импровизационность студентов на разных этапах проведения игры; по завершению деловой игры особенное внимание уделять рефлексии.

Таким образом, результаты анкетирования, анализ ответов будущих педагогов в целом показали их мотивированность на участие в деловых играх а, соответственно, необходимость использования такого активного метода в подготовке к работе с одаренными детьми.

Обсуждение *Discussion*

Анализ системы подготовки будущих воспитателей УДО в Винницком государственном педагогическом университете имени Михаила Коцюбинского (г. Винница, Украина) показывает, что деловые игры активно используются в работе преподавателей факультета дошкольного, начального образования и искусств.

Эффективность деловых игр как метода обучения зависит от соблюдения ее организаторами ряда педагогических и методических требований. Апеллируя к трудам ученых по проблеме использования деловых игр в квазипрофессиональной подготовке (Вербицкий, 2004), (Щербань, 2004) и обобщая собственный опыт работы по их использованию в процессе подготовки будущих педагогов одаренных детей (Голюк, 2016; Демченко & Зайцева, 2017; Каплінський & Лазаренко, 2017; Любчак, 2007; Пахальчук, 2016; Родюк, 2017), выделим несколько организационно-педагогических условий их успешного проведения.

➤ *Системная организация деловых игр в подготовке будущих педагогов к работе с одаренными детьми, начиная с первого курса обучения в УВО.*

Метод обучения или педагогическая технология дает положительные результаты только при постоянном их использовании, что позволяет обеспечить студентам переход знаний в ценности, выработать необходимые умения и развить доминантные качества. Поэтому в последние годы деловые игры используем во время изучения ряда дисциплин на всех ступенях высшего образования и разных курсах в системе подготовки будущих воспитателей УДО: а) бакалаврата – «Педагогика общая и введение в специальность» (1 курс), «Педагогика дошкольная» (2-3 курс), «Теория и методика взаимодействия с семьями» (2 курс), «Основы научно-педагогических исследований» (3 курс), «Педагогическое мастерство с методикой организации игровой деятельности и проведением праздников в УДО» (3 курс), «История дошкольной педагогики» (4 курс); б) магистратуры – «Развитие творческого мышления воспитателя УДО» (1 курс), «Сравнительная педагогика» (2 курс) и др.

Например, были разработаны и организованы следующие деловые игры: педагогический совет в УДО «Одаренный ребенок дошкольного возраста: можно ли его обнаружить?», творческий кастинг «Сегодня креативный студент, завтра – мастер «фабрики творческих личностей»», педагогический суд над нетворческим педагогом «Разрушитель творчества», собеседование на замещение вакансии педагога в инновационном образовательном заведении для одаренных детей, телепередача «Прогноз педагогической погоды в учебных заведениях для одаренных детей» и др.

➤ *Обеспечение многовекторного взаимодействия педагога и студентов академической группы на разных этапах организации деловой игры.*

В частности, преподаватель проводит консультативную, коррекционную и другие виды работы фронтально со всей академической группой сначала на этапе моделирования, потом – во время организации игры, и обязательно по ее окончанию с целью рефлексии, анализа и подведения итогов. Важным направлением в общении педагога со студентами является групповая работа.

После объединения студентов в творческие микроколлективы (3-5 особ), каждой группе отдельно преподаватель объясняет цели, которых они должны достичь, специфику выполнения своей части подготовительной работы, помогает распределить обязанности. Обязательно педагог работает индивидуально – с модераторами каждой группы, отдельно с каждым студентом, инструктируя его по выполнению заданий и поручений. Соответственно, студенты взаимодействуют между собой во время выдвижения идеи и обсуждения плана проведения деловой игры, на этапе ее реализации и в ходе рефлексии. Наиболее продуктивное общение происходит во время индивидуальных консультаций преподавателя и во время выполнения заданий в парах или группах.

➤ *Повышение мотивации и развитие субъектности студентов в деловой игре через моделирование ситуаций успеха.*

Как показали представленные выше результаты опроса студентов, не все из них хотят принимать активное участие в деловых играх. Поэтому преподавателю необходимо сначала предложить оригинальную идею игры, вовлечь будущих педагогов в дискуссию по ее обсуждению, возможно и корректировке. К тому же обязательно необходимо разработать систему заданий разного типа (проанализировать литературу, подготовить доклад, нарисовать эмблемы, продумать оригинальное название команды или школы для одаренных, подготовить музыкальный номер, организовать выставку и др.), чтобы каждый студент смог выбрать для себя наиболее подходящее, с учетом своих способностей, творческих и интеллектуальных возможностей, уровня академической успеваемости, практической подготовленности, развития личностных и профессиональных качеств.

Особо хочется подчеркнуть, что многих студентов стимулирует непосредственное участие в игре, то есть исполнение конкретной роли. Поэтому педагог должен, с одной стороны разработать много вариантов исполнения ролей, не делая акцент на нескольких главных. С другой стороны, можно предложить будущим педагогам самим придумать для себя роль в игре.

Если задания интересные и разноплановые – это является почти стопроцентной гарантией, что каждый студент заинтересуется участием в игре, будет активным в процессе ее организации, сможет достичь положительного результата во время выполнения заданий и поручений, прочувствовать радость успеха.

➤ *Оптимальное сочетание подготовительной работы и импровизации во время проведения деловой игры.*

Успешность деловой игры в значительной мере зависит от продумывания каждой детали (названия игры, подбора ее атрибутов, места проведения, средств повышения ее эмоциональности и т.д.), подготовки в целом всего коллектива и каждого студента в частности. Большое значение

имеет распределение ролей, подготовка каждым участником своей речи, доклада, реплики, изготовление костюмов, реквизитов и др. Во время подготовительной работы студенты используют знания в новых условиях, проявляют творчество, выполняя разного рода задания.

Поскольку деловая игра является методом квазипрофессиональной подготовки студентов, она должна быть максимально приближенной к реальным условиям образовательного процесса, где невозможно все продумать и предусмотреть. Поэтому ее ценность зависит от соотношения: наличия смоделированной, подготовленной, отрежисированной составляющей, с одной стороны, и преобладания инсайтного, импровизационного, креативного, спонтанного действия, с другой.

➤ *Проведения рефлексии как обязательного заключительного этапа деловой игры.*

Деловая игра не сможет в полной мере решить поставленные задачи, если не будет проведен анализ всей проделанной работы. Ни в коем случае нельзя проводить обобщение формально, вскользь, уделяя этому несколько минут по окончании игры; или сводить к выставлению баллов, что также является обязательным, поскольку деловая игра – это метод обучения, использование которого имеет свои функции, в том числе и оценочную.

Считаем, что рефлексии необходимо проводить в два этапа, используя для этого несколько методических приемов. Сразу по завершении деловой игры можно использовать рефлексивное упражнение, фронтальную беседу, целью которых является эмоциональная оценка участниками своих действий, успехов, возможно ошибок. Студенты в нескольких словах или предложениях смогут высказать удовлетворенность / неудовлетворенность результатами, поблагодарить друг друга за сотрудничество.

На следующем практическом занятии важно провести более глубокий анализ. Для этого во время самостоятельной работы студенты должны выполнить несколько заданий: заполнить карту участия в деловой игре, написать эссе, сформулировать рекомендации себе, сокурсникам, преподавателю. Тогда в менее эмоциональной форме каждый может высказаться по поводу результативности проведения деловой игры, ее ценности в системе подготовки, указать на достижения и ошибки в ходе ее организации, обязательно начиная со своего участия. На этом этапе преподаватель также делает общий анализ и выставляет баллы.

Обобщение *Conclusions*

Обобщение научной литературы и результатов экспериментальной работы позволило сделать следующие выводы:

1. Овладение будущими педагогами специальной компетентностью по развитию одаренности детей считаем важным направлением в системе высшего педагогического образования. Реформирование высшей школы должно обеспечить условия для формирования творческого, инновационного педагога, с новым мышлением и профессиональными качествами (абнотивность, фасилитативность др.). Такой специалист не будет бояться «нетипичности» и «неудобности» одаренной личности, подавлять ее любознательность и оригинальность, а сможет спроектировать и создать неповторимую траекторию для развития.

2. Для этого необходимо совершенствовать содержание, формы и методы подготовки педагогов одаренных детей, адаптировать зарубежный опыт и учитывать национальные традиции, используя теоретические и методические наработки отечественных ученых. В связи с этим эффективной является квазипрофессиональная деятельность студентов как форма контекстного обучения, в частности, использование деловых игр.

3. Анализ результатов пилотного исследования выявил противоречие: с одной стороны, большинство опрошенных студентов положительно оценивают значение деловых игр в своей подготовке к работе с одаренными детьми, с другой, в случае их практического использования во время изучения психолого-педагогических дисциплин больше половины респондентов не готовы принимать активное участие в их организации.

4. Для усиления эффективности деловых игр в подготовке будущих педагогов одаренных детей необходимо обеспечивать условия для повышения субъектности студентов, овладения опытом взаимодействия с сокурсниками и преподавателями, продумывать систему творческих заданий и создавать ситуации успеха. Такую работу нужно начитать с подготовки будущих воспитателей УДО, поскольку, чем раньше будут выявлены у ребенка признаки одаренности, тем больше у него перспектив для успешного личностного роста и самореализации.

Summary

The actual direction of training the future teachers in the system of higher pedagogical education is considered the producing of a special competence of the development of gifted children. In our country, it is necessary to reform the content, forms and methods of becoming a teacher of gifted children, on the one hand, based on foreign

experience. On the other hand, it is important to look for the national traditions, to use the theoretical and methodological developments of domestic scientists. Such work should be started with the educating of the future preschool teachers, the sooner the signs of child's giftedness should be denoted, the greater the child has got the prospects for successful personal growth and creative self-realization. In terms of the traditional approach to the organization of the educational process in the higher education institution it is very difficult to form a creative, innovative teacher who will be focused on finding talented children, won't be afraid of their atypical and inconvenient features, won't suppress their curiosity and originality. Due to professional qualities (abnormality, facilitation, etc.) and new pedagogical thinking, formed during the getting higher education and self-improvement, the teacher will be able to project and create the unique trajectory for their development. In this connection, the students' quasi-professional activity as a form of contextual learning with the using business games, is effective. The analysis of the pilot research results revealed a contradiction: on the one hand, the majority of the surveyed students estimate the importance of using business games in the future teachers' preparing to work with gifted children positively, on the other, almost half of the respondents are not ready to take active participation in their organization if they are practically used business games during their studying the psychological and pedagogical disciplines. For raising the efficiency of business games in quasi-professional preparing the future teachers of gifted children, the conditions for increasing students' motivation and subjectivity should be provided producing of the diverse experience of interaction with group-mates and teacher, to think about the system of creative tasks and to create the success situations.

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DEVELOPING STUDENTS PROFESSIONALLY SIGNIFICANT SKILLS IN EDUCATIONAL PROGRAMMES AT NON-LINGUISTIC FACULTIES

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Abstract. *The article addresses some aspects of students' extracurricular activities in foreign language teaching at non-linguistic faculties. The topicality of our study consists in insufficient number of scientific works on extracurricular activities and insufficient application of students' extracurricular activities in foreign language teaching as a means of facilitating students' professionally significant communicative potential. The study focuses on the issues of students' communicative training through extracurricular activities in foreign language teaching at faculties of management. Hence the goal of our study is to provide theoretical justification and methodological development of the concept of extracurricular activities in foreign language teaching as a means of facilitating communicative training. We have examined the essence and have presented a definition of extracurricular activities in foreign language teaching. We have elaborated a concept and examined components and characteristics of extracurricular activities in foreign language teaching. We have produced a model for extracurricular activities and identified its stages, algorithms and communicative training indicators. The conceptual framework of the study follows the model of professional competence approach. Research and experience data obtained in our experiential work make it possible to identify the significance of extracurricular activities in foreign languages for students' professional development in educational programs at faculties of management.*

Keywords: *non-linguistic faculties, professionally significant communicative skills, teaching English, extracurricular activities, practice-oriented development patterns, cooperative learning.*

Introduction

In contemporary higher educational programs methodologists are in search of new ways to improve the quality of students' training. The quality concept in educational programs at faculties of management is also aimed at communicative component development. Communicative training has been considered to be a significant component by many researchers in management (П. А. Бавина, И. П. Горбунова, А. Л. Денисова, А. Б. Зверинцев, Л. С. Зинкина, & А. Е. Павлова). We consider foreign language teaching based on various communicative activities as a means of solving the above mentioned problems. However, utilizing the foreign language teaching potential to the full

extent appears to be difficult due to the limited number of contact hours allocated to this subject at non-linguistic faculties. Yet as experience shows, foreign language teaching due to its communicative nature requires a significant amount of controlled classroom activities under the guidance of the teacher.

To solve the problem methodologists offer various measures for more effective use of currently available external and internal reserves including extracurricular educational programs (Т. А. Бурцева, Л. М. Ванюшкина, & В. И. Попова). In scientific literature we find some concepts of students extracurricular activities developed for pedagogical universities (Н. Н. Азизходжаева, Т. А. Бурцева, Т. С. Деркач, Т. Б. Жулий, Е. В. Мещерякова, В. И. Попова, & К. К. Саломатов). There is a number of works devoted to the ideas of intensifying the learning process, of facilitating cognitive aspects through students extracurricular activities in foreign language teaching at non-linguistic faculties (Е. А. Буренок, М. А. Иванова, Н. П. Иващенко, Е. В. Коробова, & А. Т. Попова). Yet students' communicative training issues through extracurricular activities in foreign language teaching still remain open for theoretical understanding and experimental research. A large number of scientists focus their research on the students communicative training yet they connect it utterly with regular classes at non-linguistic faculties (Л. В. Абдрахманова, П. А. Бавина, А. Е. Павлова, & Т. Н. Чепцова).

Hence the topicality of our study consists in:

- insufficient number of scientific works on extracurricular activities in foreign language teaching as a means of students professionally significant communicative training at non-linguistic faculties;
- insufficient application of students extracurricular activities in foreign language teaching as a means of facilitating students professionally significant communicative potential.

Hence the goal of our study is to provide theoretical justification and methodological development of the concept of extracurricular activities in foreign language teaching as a means of facilitating professionally significant communicative training at non-linguistic faculties. The object of our study is the process of organizing students' extracurricular activities in foreign language teaching (FLT). The subject of our study is a pedagogical concept of students' extracurricular activities in FLT as a means of facilitating students' communicative training at non-linguistic faculties.

The tasks of our study consist in:

- examining components and characteristics of students extracurricular activities in FLT at non-linguistic faculties;
- modeling a concept of students extracurricular activities in FLT at non-linguistic faculties;

- approbating the concept of extracurricular activities in FLT as a means of facilitating students communicative training at non-linguistic faculties.

In our practical work the issue is being studied for the needs of the educational process at faculties of management. The conceptual framework of this article follows a model of professional competence approach. We investigate, in particular, the impact of extracurricular activities in FLT on the development of students' professionally significant communicative skills. The subject of students' extracurricular activities in our research is a language club for students at faculties of management.

Methodology part

The following research methods have been applied in our study: scientific literature analysis, work experience analysis, pedagogical observation, diagnostics methods (questionnaires), experimental work, data analysis.

In the field of education research deals with people and the events examined in it are not simple. Hence numerous considerations here should be taken into account to select the strategy. Scientists offer some research strategies and each of them fits a different research purpose (Bendazzoli & Escalante, 1997). In our work we attempt to use a field study. A field study depicts the phenomenon in the natural environment where it takes place. Such kind of observations are common in educational institutions. The description of phenomena in such case will have a qualitative approach. Qualitative approaches at the same time tend to be more conceptual. Hence we attempt to study our issue from a more conceptual point of view. In qualitative approaches they define a problem but may not need special research instruments since data will probably be in the form of educational positions based on supporting evidence obtained from the experience of practical work (Bendazzoli & Escalante, 1997).

Extracurricular activities concept

The competence-based approach aims at developing students skills (И. А. Зимняя). Hence examining factors which facilitate the development of professionally significant communicative skills proves to be topical. We consider students extracurricular activities in FLT as one of such factors at non-linguistic faculties.

In our definition based on studies and work experience we consider students' extracurricular activities as a part of university educational process, as a set of elevating, practice oriented professionally significant events

implemented in students and teachers cooperation aimed at students' professional development in addition to regular classes and in connection with them.

The complexity of students' extracurricular activities and multiple connections with various areas outside the learning process make for a wider range of approaches applied. In our work maintaining the leading role of the competence-based approach we make use of various techniques, forms and procedures of the communicative approach. At that we identify communicativeness as an interdisciplinary phenomenon in professional education and within the framework of students' extracurricular activities in FLT we note the integration of the foreign language teaching communicative principle into the general methodology communicative principle.

The study of scientific concepts and work experience gained at faculties of management in the area of students extracurricular activities in FLT allowed to identify some aspects of the concept of extracurricular activities in FLT aimed at developing the professionally significant communicative component.

Table 1 Some components of the extracurricular activities concept

| Components | Description |
|------------|--|
| Approaches | Competence based approach. Communicative approach. |
| Goal | Developing professionally significant communicative skills. |
| Content | Communicative activities focused on elaborating topics, handling tasks and solving problems. |
| Method | Cooperating arrangement group work. |
| Techniques | Elaborating communicative situations. |
| Forms | Students' language club. |
| Aids | Material and materialized devices. |
| Process | Procedures. Actions. Methods. Techniques. Forms. Aids. |

The concept separate components are mutually subordinated and function through students' interaction.

Language clubs as students associations at faculties

In a number of papers we find cases of working with students' associations described as groups of students holding the same ideas and motivated to communicate in the foreign language, as clubs for conversation practice. Methodologists note that unlike academic groups clubs for conversation practice provide such an environment which is much closer to authentic communication (Dobson, 1992).

In some papers we find descriptions of students' language clubs comprising numerous sections such as translators', musicians' ones. In our practical work

we propose a students' association where communication in the English language is combined with research, artistic, musical, scenic components. In this way multiple interests and aptitudes of each club participant receive their implementation. Moreover when individual peculiarities and actions of the club participants are combined that can lead to new developments both in the club activities and in the club members themselves. The phenomenon is known as the group dynamics effect based on the synergy of many actions. Group dynamics is the key to successful group work. Strategies for group dynamics are elaborated in some studies (e.g. sharing responsibilities, supporting peers, involving low-performing members) (Christison, 1997).

The students' language club is a group of participants united by joint activities which embrace many aspects and situations. While choosing the contents of the club activities, the needs of the educational process and the students' interests and inclinations are taken into account. The club group activities, as a rule, result in mass format students' events (drama, contests, debates, festivals). And what is more the club having an orderly organization can coordinate students' extracurricular activities in FLT at a non-linguistic faculty as a whole. The club also influences positively the learning process in FLT facilitating students' motivation to learn the language. The language club creates for students an environment where they can employ the language communication skills and knowledge obtained at their classes earlier and then recycle them into new types and products in the club activities.

Language clubs: activities and techniques

To work with the club group we make use of cooperative learning techniques developed by some scientists (Christison, 1997), in our case students events' method based on the cooperative techniques.

According to Paul Nation's research there are several types of group work in foreign language teaching. In our case we apply the method of the cooperating arrangement when the group members have equal access to the materials and the information and cooperate to do the tasks. The cooperating arrangement type is considered to be the most common for group work. Its distinctive feature is that all the students have equal access to each other's view of the materials and the information. This is because the purpose for the students is to share their understanding of the materials involved and of the solutions to the tasks. The authors also offer a range of tasks suitable for cooperative arrangement groups. In our work we select the following: solving problems and producing materials (Nation, 1997). Problem solving and task handling is likely to engage the students' cognitive machinery in an active participatory way.

According to M. N. Christison there may be several steps in developing cooperative skills:

- 1) students see some value in group work;
- 2) students are aware of the skills necessary for successful cooperation (getting information, responding to questions, etc);
- 3) students practice the skills in regular interactions with the peers;
- 4) students process the skills they have practiced (Christison, 1997).

According to D. W. Johnson and R. T. Johnson there can be several levels of cooperative skills: forming (organizing the group and establishing behavioral norms); functioning (completing tasks and maintaining good relationships); formulating (understanding the materials deeper); fermenting (exploring different ways of looking at the materials and challenging each other's ideas). (Johnson & Johnson, 1975). In the context of extracurricular activities the language club participants united by joint assignments and responsibilities get a new experience of cooperation which contributes to the development of their skills.

Motivation to cooperate in our case is enhanced by the interest of the task proposed for the participants. Product focused activities are based on outcomes or products. Output and feedback are the means by which the participants become aware of their level of success. It is in this way that each participant's resolution towards progress gets stronger.

Practice-oriented development patterns as didactic structures

In some papers we find descriptions of certain didactic structures, activities schemes, which are created periodically as patterns of some infrastructure, within which the activities of students can be organized (Ellis & Johnson, 1996). The context of activities within such a specific didactic design is usually produced by the students themselves.

Thus extracurricular activities of students in our work in each separate case are given concrete expression within a logical structure (scheme), i.e. a pedagogical design which we define each time as a practice-oriented development pattern. Activities within it are aimed at achieving specific goals, have their time limit, consist of a variety of interrelated actions. Holding mass format multi-component students' events in the English language within the above mentioned practice-oriented development pattern can be considered, in our opinion, a manifestation of the above - mentioned concepts.

Developing and implementing students' events within a practice-oriented development pattern in our case may go through several stages.

Table 2 Some stages in the practice-oriented development pattern

| Stage | Activities |
|------------------------------|---|
| Diagnosics and motivation | Establishing the initial condition. Analyzing it for the forthcoming activities. Motivating and organizing. Discussing themes and motivating for their development. Submitting hypotheses. Identifying options. |
| Preparation and organization | Designating the final product. Forecasting actions. Forming teams. Working out joint activities policy. Formulating tasks and methods. Modelling participants interaction. Discussing information sources and materials. |
| Development | Individual research and exchanging ideas. Submitting and integrating activities products. Selecting forms and types of implementation. Developing the scenario and modes of working with it. Allocating actions and roles. Mastering language materials and speech behaviour. |
| Implementation | Advertising campaign. Dress rehearsal. Adjustments and amendments. Feedback ensuring. Concluding the event presentation. |
| Subsequent activities phase | Analyzing the experience and the data from external examination. Discussing the idea of a new deed. |

The table shows that in the organized space and time of practice-oriented development pattern the participants construct their activities around the common cause. At that the participants' predisposition to particular types of activities is taken into account and they can try to perform in various lines of activities. Some authors, for example, distinguish various roles here such as compilers, coordinators, evaluators, implementers (Шафранкова, 2005). The artistic component is also of great importance here as it can facilitate the development of speech and thought process. Activities within the practice-oriented development pattern can contain various components each possessing particular properties. Combined together they may lead the participants to a new level in their skills' development.

Extracurricular activities at faculties and management operations

In contemporary methodological studies it is considered that competencies are formed and developed within some activities. In our practical work we consider activities as a mechanism which triggers both functioning of the practice-oriented development pattern and also developing professionally significant skills of its participants.

Within educational programs at management faculties students should be trained in many types of activities: project and technology, organization and supervision which require many important skills such as orientating oneself in

activities and resources, constructing the activities' space, functioning as a subject of activities (Ильясов, 2004).

Table 3 shows a correlation between components within a practice-oriented development pattern and components within management areas as described in management studies (Чепцова, 2005).

Table 3 Some activities in a practice-oriented development pattern and in management areas

| Practice-oriented development pattern | Management areas |
|---|---|
| Establishing the initial condition. Analyzing it for the forthcoming activities. Motivating and organizing. Discussing themes and motivating for their development. Submitting hypotheses. Identifying options. | Research and diagnostics of problems. Forecasting. Planning. Generating ideas. Decision making. |
| Designating the final product. Forecasting actions. Forming teams. Working out joint activities policy. Formulating tasks and methods. Modelling participants interaction. Discussing information sources and materials. | Setting goals. Organizing resources. Organizing horizontal and vertical structures. Establishing teams. Delegating responsibilities. Adjusting issues of external and internal environment. |
| Individual research and exchanging ideas. Submitting and integrating activities products. Selecting forms and types of implementation. Developing the scenario and modes of working with it. Allocating actions and roles. Mastering language materials and speech behaviour. | Consulting. Elaborating methods. Ensuring teams' interaction. Establishing creative environment. Managing conflicts. Managing innovations. |
| Advertising campaign. Dress rehearsal. Adjustments and amendments. Feedback ensuring. Concluding the event presentation. | Coordinating activities in the external environment. Positioning the organization. Project implementing. Control. |
| Analyzing the experience and the data from external examination. Discussing the idea of a new deed. | Certification. Assessing staff and organization activities. |

Thus the practice-oriented development pattern serves in each case in our practical work as a didactic structure and contributes to elaborating activities which appear to be similar to those from management areas.

Communicative activities were described as the content component in foreign language teaching as early as the 1970s. (Л. В. Щербя). Contemporary researchers also identify communicative activities as the content component in foreign language teaching (Johnson, 1990).

Table 4 The first stage of activities in the practice-oriented development pattern and its communicative components

| | | | |
|-----------------------------------|---|--|--|
| Stage description | Establishing the initial condition. Analyzing it for the forthcoming activities. Motivating and organizing. Discussing themes and motivating for their development. Submitting hypotheses. Identifying options. | | |
| Activities | Setting goals. Generating ideas. Designing models. Making decisions. | | |
| Communicative tasks | Identifying topics. Expanding contexts. Substantiating ideas. Defining ways for implementation. | | |
| Techniques | Brainstorming. Guided discussion. Problem solving. | | |
| Some applied communicative skills | Monologue | Giving an account of findings. Specifying. Commenting. Reasoning. | |
| | Dialogue | Entering the conversation. Asking and answering questions. Interviewing. Agreeing and disagreeing. Suggesting. | |

Hence within a practice-oriented development pattern in dynamically changing situations in limited periods of time the participants carry out communicative activities similar to those in management areas and thus may improve their professionally significant communicative skills.

The experiential work in our study (September 2015 – September 2017) included developing and approbating the students’ extracurricular activities concept at faculties of management. Data analysis obtained from the students’ questioning demonstrated more positive dynamics in developing students’ communicative skills in experimental groups as compared to the control groups.

Table 5 Questioning based assessment of development level of students’ communicative skills in control and experimental groups.

| Control group (grades) | | Experimental group (grades) | | Dynamics from pre-experiment to post-experiment questioning (grades) | | Dynamics from pre-experiment to post-experiment questioning (%) | |
|------------------------|-------|-----------------------------|-------|--|-------|---|--------|
| Pre- | Post- | Pre- | Post- | CG | EG | CG | EG |
| 76,6 | 85,25 | 75,85 | 93,5 | 8,65 | 17,65 | 111,29 | 123,27 |

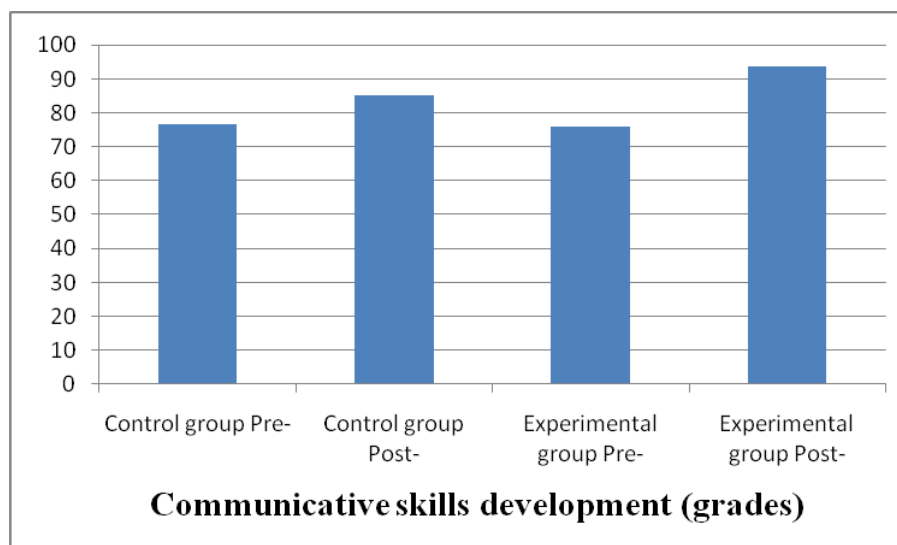


Figure 1. Dynamics in developing students professionally significant communicative skills within the practice oriented pattern activities

Conclusion

Developing and implementing students' extracurricular activities in FLT is demanding and require creativity but rewarding at the same time because of the real-life applications. Real-world applications and use is what most students are interested in. In extracurricular activities students feel like real partners in a cooperative enterprise. The participants are engaged in solving problems or completing tasks that involve them in interacting with each other and in social contexts.

That kind of occupation also requires some evaluation of the participants' progress. It can be assessed either by reviewing the results the participants have obtained or by examining feedback that will demonstrate them whether they have achieved the targets. When students feel they are contributing to the group progress and these contributions are recognized by the group they can be more likely to feel successful academically.

On the other hand, structured techniques of extracurricular activities may have effects on the participants' skills development including professionally significant communicative ones. In a unified group of the club students begin to think about group targets as their individual ones and the responsibility for the progress lies within the group and on its members. Students are asked to do things that they will be asked to do in their future professional activities, e.g. to take charge and responsibility for their actions. Hence in this way they may be better prepared to meet their future professional obligations.

The issues under study in this article need considerably more development. Nevertheless, we hope that their description in its present form may help in

some possible applications. For example, it may prove to be helpful in providing a framework for developing models of extracurricular activities in foreign language teaching at non-linguistic faculties.

Summary

Communicative training has been considered to be a significant component by many researchers in management. We consider foreign language teaching based on various communicative activities as a means of developing communicative component in educational programs at faculties of management. However, utilizing the foreign language teaching potential to the full extent appears to be difficult due to the limited number of contact hours allocated to this subject at non-linguistic faculties.

The goal of our study is to provide theoretical justification and methodological development of the concept of extracurricular activities in foreign language teaching as a means of facilitating professionally significant communicative training.

The following research methods have been applied in our study: scientific literature analysis, work experience analysis, pedagogical observation, diagnostics methods (questionnaires), experimental work, data analysis.

We have examined the essence and have presented a definition of extracurricular activities in foreign language teaching. We have elaborated a concept and examined components and characteristics of extracurricular activities in foreign language teaching. We have produced a model for extracurricular activities and identified its stages, algorithms and communicative training indicators.

It has been shown that the concept of students' extracurricular activities in foreign language teaching should be based on the students' cooperation and professionally significant communicative activities.

The professionally significant communicative component has been identified as the key component in the students' extracurricular activities in foreign language teaching.

Experimental data obtained confirm positive dynamics in developing the students' communicative skills within the framework of extracurricular activities in foreign language teaching at non-linguistic faculties.

The prospects of practical application of the study can be connected with a possibility of expanding the boundaries of the educational process through the use of students' extracurricular activities concept in foreign language teaching at non-linguistic faculties.

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МАТЕМАТИЧЕСКИЕ ЗАДАНИЯ КАК СРЕДСТВО ФОРМИРОВАНИЯ ПРОФЕССИОНАЛЬНЫХ КОМПЕТЕНЦИЙ БУДУЩИХ УЧИТЕЛЕЙ

Mathematical Tasks as a Means of Forming Professional Competencies of Future Teachers

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Abstract. *An important result of the preparation of the future teacher of mathematics is the formed professional competences. The process of formation should be carried out systematically, starting from the first year. While studying at the university, the foundations of modern mathematical knowledge should be laid, the need for professional self-development and self-education should be formed. The purpose of the study: the development of tools that contribute to the formation and development of professional competencies of students, future teachers of mathematics, in the study of mathematical disciplines. The study analyzed the professional competencies of a mathematics teacher, the components of mathematical culture and established their relationship. The competencies that can be formed during the first year of study are defined. Identified the need to convert standard mathematical problems. Based on the research, a technology for creating special complex problems based on standard mathematical problems has been developed. Tasks consist of two parts: subject (mathematical) and professionally-oriented. Tasks can be used to form subject and professional competencies, diagnose their formation. The article presents the requirements for them, types and examples of tasks. The result of the assignments from the point of view of the formation of subject and professional competences is described.*

Keywords: *complex mathematical task, mathematical culture, professional competences.*

Введение

Introduction

В последние десятилетия XX века в мировом сообществе происходила глобальная модернизация сферы образования. Причинами данного

процесса явились гуманизация общественного сознания, интенсивная индустриализация, интеграционные процессы в различных областях человеческой деятельности. Результаты данных процессов потребовали реорганизации и совершенствования системы подготовки педагогических кадров.

Новые образовательные стандарты высшего российского образования определяют целевую ориентацию учебного процесса на формирование системы определенных компетенций, отражающих готовность выпускников вуза быть мобильными и конкурентоспособными на рынке труда, стремиться к профессиональному росту.

Процесс подготовки учителя носит системообразующий характер. В связи с этим, изменение цели обучения в вузе, согласно принципам системного подхода, влечет за собой изменение содержания обучения, используемых методов и средств обучения. Поэтому любая учебная дисциплина, начиная с первого курса, должна изучаться в контексте будущей профессиональной деятельности студента, а ее содержание и методы обучения должны коррелировать с профилем получаемой профессии.

Одним из практических методов обучения математике будущих педагогов является решение математических задач. Однако решение стандартных математических задач вузовского курса, как правило, направлено на отработку и закрепление изученного материала, на формирование определенных знаний, умений, навыков, то есть на формирование предметной компетенции учителя математики. В тоже время, изучаемый в вузе математический материал может работать на формирование профессиональных компетенций будущего учителя, как в предметной области, так и области математической культуры, если он является составной частью специально разработанных комплексных математических заданий.

Целью данной статьи является представление специально разработанных комплексных заданий по математике, которые могут быть использованы как средство формирования профессиональных компетенций студентов первого курса в рамках предметной подготовки будущего учителя математики.

В ходе исследования был использован системный подход, проведен анализ научно-методической литературы по проблеме исследования, осуществлена опытно-экспериментальная деятельность, проведено конструирование и описание заданий.

Материалы и методы *Materials and methods*

Анализируя зарубежный опыт подготовки педагогических кадров, Н.А. Шайденко отмечает, что «в процессе гармонизации мирового образовательного пространства подготовка высококвалифицированных педагогических кадров – зона особого внимания для большинства государств» (Шайденко, 2014). В настоящее время в центре внимания мирового научного педагогического сообщества вопросы, связанные:

- с потребностью в обновлении образовательных систем в связи с возрастающей универсализацией образования, продиктованной динамикой общественного развития;
- с формированием высококвалифицированного педагогического корпуса для обеспечения качества образования, соответствующего международным стандартам.

Внедрение в систему российского общего среднего образования компетентностного подхода привносит изменения в требования, предъявляемые к современному учителю. Прежде всего, это связано с новым представлением о профессиональной компетентности учителя.

Теоретические основы реализации компетентностного подхода в процессе осуществления общего и профессионального образования разрабатывались в исследованиях Дж. Равена, А.К. Марковой, И.А. Зимней и др. (Равен, 2002; Маркова, 1996; Зимняя, 2006).

В структуре профессиональной компетентности педагога исследователи Н.В. Кузьмина, Т.В. Рихтер, А.В. Хуторской (Кузьмина, 1990; Рихтер, 2017; Хуторской, 2013) как правило, выделяют три аспекта:

- **когнитивный** (знание предмета, знание смежных наук);
- **операционно - технологический** (культура мыслительной деятельности, то есть умение абстрактно мыслить, проводить аналогии между различными фактами, извлекать информацию и отбирать её для решения конкретной задачи, адаптировать научное знание для достижения учебных целей, умение строить и проводить убедительные рассуждения, четко выделяя промежуточные этапы и др.);
- **аксиологический** (опыт эмоционально-личностного отношения к природе, обществу, человеку, глубокое понимание и умение использовать на практике основные ценности, понятия, нормы, достоинства, решения; готовность и желание познавать, учиться).

Учитывая особую роль математики в образовании выпускника средней школы, в профессиональном стандарте педагога выделяется два

основных уровня освоения математики учащимися: первый уровень – это математическая грамотность, второй уровень – овладение математической культурой. Для достижения первого уровня освоения математики учащимися учителю достаточно компетенций, зафиксированных в общих требованиях к педагогу (знание предмета, учебных программ и т.п.). Достижение второго уровня требует осознания педагогом роли математической культуры, как неотъемлемой части общей культуры современного человека.

Рассматривая «математическую культуру будущего учителя математики в виде интегративного качества, отражающего уровень сформированности системы математических знаний, ценностей, навыков, умений, специальных методов, процедур и алгоритмов, которые формируют профессиональное мировоззрение будущих педагогов для решения средствами математики профессиональных задач» (Ежова, 2011) можно сделать вывод, что она является составной частью операционно – технологического аспекта профессиональной компетентности педагога.

Многолетний опыт работы со студентами первого курса, будущими учителями математики, физико-математического факультета Псковского государственного университета позволяет говорить о недостаточном уровне развития математической культуры выпускника средней школы. Первокурсники не всегда умеют грамотно проводить логико-математический анализ определений математических понятий, формулировок теорем, структурировать системы математических понятий, предложений, анализировать доказательство, условие и решение задачи, обобщать задачи, обосновывать соответствующим теоретическим материалом выбор решения задачи, решать задачу разными методами, устанавливать причинно-следственные связи между понятиями.

В ходе анализа нормативных документов в области образования (Профессиональный стандарт педагога, 2015), научно-методической литературы, авторами были выделены профессиональные компетенции, которые можно формировать при изучении фундаментальных математических дисциплин на 1 курсе и которые способствуют повышению уровня математической культуры студента. К ним относится способность:

- 1) строить обоснованные логические рассуждения в математических и иных контекстах;
- 2) осуществлять выбор различных методов решения задачи;
- 3) использовать наглядное представление математических объектов и процессов;
- 4) видеть межпредметные связи при решении задач;

- 5) применять методы и приемы понимания математического текста, его анализа, структуризации, трансформации;
- 6) составлять аналогичные, обратные и обобщенные математические задачи.

В качестве одного из средств формирования профессиональных компетенций авторами предлагаются специально разработанные комплексные задания, в основе которых лежат стандартные математические задачи.

Анализ результатов опытно-экспериментальной деятельности позволил определить структуру заданий, их виды, требования, предъявляемые к комплексным заданиям и процесс конструирования.

Структура комплексных заданий:

- математическая часть (когнитивный компонент профессиональной компетентности), отвечающая за предметную подготовку будущего учителя математики;
- профессионально-ориентированная часть (операционно-технологический и аксиологический компоненты), способствующая формированию указанных выше компетенций.

Требования к комплексным заданиям:

1. Задания должны быть составлены так, чтобы при их выполнении студент:
 - мог поставить или осознать цель своей деятельности;
 - задумывался над тем, какую деятельность он выполняет;
 - мог контролировать не только результат деятельности, но и ее ход;
 - понимал, где и как используются результаты выполняемых заданий.
2. Формулировки заданий должны быть понятны студенту, побуждать к разным видам деятельности (практической, исследовательской, конструктивной) (Перькова, 2013).

Возможные виды комплексных заданий:

- разноуровневые;
- с предписанием выполняемых действий и последующей формулировкой вывода;
- со структурой динамического теста-лестницы, где задание более высокого уровня зависит от задания теста более низкого уровня;
- с нестандартными формулировками;
- с недостаточными, избыточными (противоречивыми и непротиворечивыми) данными.

Процесс конструирования комплексных заданий:

1. Выбрать стандартную математическую задачу.
2. Провести анализ задачи на возможность:
 - строить обоснованные логические рассуждения;
 - осуществлять выбор различных методов решения задачи;
 - использовать наглядное представление математических объектов и процессов;
 - учитывать межпредметные связи;
 - применять методы анализа математического текста;
 - составлять аналогичные, обратные и обобщенные математические задачи.
3. Разработать профессионально-ориентированную часть комплексного задания.

Рассмотрим примеры комплексных заданий, которые были использованы в ходе изучения основных математических дисциплин (вводный курс математики, аналитическая геометрия, линейная алгебра, основы математического анализа) студентами первого курса физико-математического факультета направления подготовки «Педагогическое образование» Псковского государственного университета.

1. Дисциплина «Вводный курс математики», тема «Элементы теории множеств».

а) Стандартная математическая задача.

A – множество всех параллелограммов, B – множество всех квадратов, C – множество всех ромбов, D – множество всех прямоугольников. Изобразить графически расположение данных множеств на плоскости в виде кругов Эйлера.

б) Комплексное математическое задание (разноуровневое).

Дано: A – множество всех параллелограммов, B – множество всех квадратов, C – множество всех ромбов, D – множество всех прямоугольников.

Выполните задания:

1. Сформулируйте определения четырехугольников, указанных в задаче и их характеристические свойства.
2. Сформулируйте определения подмножества, пересечения и объединения множеств.
3. Выделите множества, которые являются подмножествами других множеств; выделите множество, которое является подмножеством всех остальных множеств.
4. Выделите множества, которые могут пересекаться и фигуры, принадлежащие пересечению множеств.

5. Изобразите графически расположение данных множеств на плоскости в виде кругов Эйлера.
6. Составьте аналогичное задание с использованием математических или нематематических объектов.

Предметная составляющая. Выполнение заданий №1-4 способствует глубокому системному осмыслению свойств четырехугольников, понятий множество, подмножество и основных операций над множествами (пересечение, объединение).

Профессионально-ориентированная составляющая. В ходе выполнения задания №5 студент учится переводить математические выражения в область геометрических объектов и наоборот. Выполнение заданий №3-5 учит устанавливать межпредметные связи (между геометрическими фактами и понятиями теории множеств). Задания №1-5 способствуют формированию умения проводить логические рассуждения, задание №6 – составлять аналогичное задание.

2. Дисциплина «Аналитическая геометрия», тема «Элементы векторной алгебры».

а) Стандартная математическая задача.

Определить линейную зависимость векторов \vec{a} и $\vec{b} = 2\vec{a}$.

б) Комплексное математическое задание (с нестандартной формулировкой).

Дано: Студент привел такие рассуждения: «Рассмотрим векторы \vec{a} и $\vec{b} = 2\vec{a}$. Так как для этих векторов имеет место тривиальная линейная комбинация $0 \cdot \vec{a} + 0 \cdot 2\vec{a} = \vec{0}$, то система линейно независима». Найдите ошибку в его рассуждении.

Выполните задания:

1. Сформулируйте определения линейно зависимой и линейно независимой системы векторов.
2. Рассмотрите нетривиальную комбинацию $2 \cdot \vec{a} + (-1) \cdot 2\vec{a} = \vec{0}$. Какой вывод относительно линейной зависимости данных векторов можно сделать?
3. Докажите, что система линейно зависима, используя разные методы (свойства линейной зависимости, геометрический смысл линейной зависимости).
4. Приведите пример ошибочного доказательства линейной зависимости системы трех векторов.

Предметная составляющая. Выполнение заданий №1,3 способствует формированию умения применять определения понятий линейной зависимости и независимости векторов, свойств и геометрического смысла линейной зависимости для доказательства утверждений.

Профессионально-ориентированная составляющая. При выполнении задания №2 студент учится анализировать доказательство с точки зрения строгости, логичности. Задание №3 способствует формированию умения приводить различные методы решения задачи. Задание №4 учит составлять аналогичные математические задачи.

3. Дисциплина «Линейная алгебра», тема «Система линейных уравнений».

а) Стандартная математическая задача.

Решить систему линейных уравнений методом Гаусса.

б) Комплексное математическое задание (с предписанием выполняемых действий и последующей формулировкой вывода).

Дана система линейных уравнений:

$$\begin{cases} 2x_1 + 6x_2 + 5x_3 = 1 \\ 5x_1 + 3x_2 - 2x_3 = 0, \\ 7x_1 + 4x_2 - 3x_3 = 2 \end{cases} \quad (1)$$

Выполните задания:

1. Запишите систему линейных уравнений в матричном виде.
2. Определите, является ли система совместной. Если система совместная, то определите количество решений системы.
3. Решите систему известными методами.
4. Охарактеризуйте систему линейных уравнений.
5. Составьте текстовую задачу, решение которой сводится к данной системе линейных уравнений.

Предметная составляющая. Выполнение задания №3 способствует формированию умения решать неоднородную систему линейных уравнений разными методами.

Профессионально-ориентированная составляющая. В ходе выполнения задания №1 студент учится строить математическую модель. Задания №2,4 способствуют формированию навыка проводить анализ условия задачи, вопросов к задаче, строить логические рассуждения, обосновывать выбор метода решения, доводить решение до логического завершения, делать выводы. Задание №5 направлено на формирование умения устанавливать межпредметные связи.

4. Дисциплина «Основы математического анализа», тема «Определенный интеграл».

а) Стандартная математическая задача.

Вычислить определенный интеграл

$$\int_0^4 (2 - 4x + 3x^2) dx, \quad (2)$$

- б) Комплексное математическое задание (разноуровневое, с нестандартной формулировкой).

Дано неравенство:

$$\int_0^a (2 - 4x + 3x^2) dx \leq a \quad (a > 0), \quad (3)$$

Ответьте на вопросы:

1. Верно ли неравенство при $a = 2$?
2. Почему в задании дано условие $a > 2$?
3. Пусть $f(x) = 2 - 4x + 3x^2$; $F(x)$ - одна из первообразных функции $f(x)$, можно ли переписать условие задачи в виде $F(a) \leq a$. Почему?

Выполните задания:

4. Сделайте геометрическую интерпретацию условия задачи.
5. Решите неравенство.
6. Предложите решение, используя геометрический смысл определенного интеграла.
7. Предложите свое неравенство, аналогичное данному, решением которого будет $a = 4$.
8. Измените функцию $f(x)$ так, чтобы решением этого неравенства был промежуток $[5; +\infty)$.
9. Рассмотрев все случаи расположения параболы, предложите решение неравенства в общем виде, если

$$f(x) = ax^2 + bx + c, \quad (4)$$

где $f(x)$ - квадратичная функция.

Предметная составляющая. Выполнение задания способствует формированию умения применять формулу Ньютона-Лейбница при вычислении определенного интеграла, использовать его приложения при решении практических задач.

Профессионально-ориентированная составляющая. Отвечая на вопросы №1-3, студент учится переводить условие задачи на разные языки интерпретации, решать не только аналитическим, но и геометрическим методом, при этом сравнивать методы решения, выдвигать гипотезы, обобщать полученные факты. Задания №4-9, позволяют осуществлять разные виды деятельности (практическую, исследовательскую и конструктивную). Задания №4-6 помогают выбирать требуемые действия, №7-9 предполагают самостоятельное конструирование задач.

Выводы **Conclusions**

На основе проведенного исследования, опыта использования комплексных математических заданий при изучении математических дисциплин студентами 1 курса, будущими учителями математики, можно сделать следующие выводы:

1. Выполнение комплексных математических заданий способствует повышению уровня математической культуры студентов. Работая над заданиями, студенты учатся устанавливать взаимосвязи между теорией и практикой, отбирать необходимую информацию, выдвигать гипотезы, искать разные методы решения и сравнивать их, обобщать полученные факты, проводить обоснованные доказательства, конструировать новые задачи.
2. В ходе выполнения комплексных заданий формируются навыки познавательной, интеллектуально – творческой, исследовательской деятельности.
3. Нестандартная формулировка заданий способствует повышению мотивации и потребности у будущих учителей в профессиональном саморазвитии, самообразовании.

Таким образом, комплексные задания, составленные на основе стандартных математических задач, включающие в себя предметную и профессионально-ориентированную части, могут являться средством формирования профессиональных компетенций. Технология их разработки может быть использована преподавателями смежных дисциплин.

Summary

The result of training future teachers of mathematics should be a system of professional competencies. The article presents professional competencies that can be formed in first-year students in the study of mathematical disciplines.

A means of forming competencies are complex mathematical tasks. The article presents the structure of tasks, requirements for tasks, describes the stages of design, highlighted the types of tasks.

Complex task consists of two parts. The first part is mathematical, is responsible for the substantive preparation of the future teacher of mathematics. The second part - professionally oriented, contributes to the formation of professional competencies.

The article provides examples of complex mathematical tasks for first-year students in elementary mathematics, algebra, geometry, and mathematical analysis.

The use of complex tasks in the study of mathematical disciplines in the first year can contribute to the development of the student's personality and increase the level of his mathematical culture and readiness to carry out educational activities.

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МЕТОДИКА ИССЛЕДОВАНИЯ ВЛИЯНИЯ ЗНАНИЙ МАТЕМАТИЧЕСКИХ ДИСЦИПЛИН НА ИЗУЧЕНИЕ СПЕЦИАЛЬНЫХ ДИСЦИПЛИН

A methodology to Study the Influence of the Knowledge of Mathematical Disciplines for Studying Special Disciplines

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Abstract. Professional training of students at the University should form the graduate's solid knowledge and ability to quickly master his often changing functional duties. To do this, the basic disciplines of the engineer should be based on the fundamental disciplines of the first courses, which include, first of all, mathematics and physics. However, mathematical training of University students in the first years has become particularly difficult in recent years.

It is known that today school graduates have a low level of exam scores in mathematics, which does not provide adequate assistance to successfully master not only higher mathematics at the University, but also special disciplines. In this regard, currently an urgent task is to study the levels of knowledge of special disciplines by students of technical universities, depending on the level of knowledge of mathematical disciplines.

To ensure the quality of teaching mathematics at the University there are methodical systems of organization of level differentiation of training, which takes into account the initial level of pre-University training and corresponding to this level of the program of University mathematical training. However, their implementation is not very successful.

The paper proposes a method of evaluation of the study of the connection of mathematical disciplines with General scientific and special disciplines. Their establishment can allow to make necessary adjustments in their study for subsequent sets to the University.

Keywords: *basic disciplines, fundamental disciplines, educational process, exam scores, connection of disciplines.*

Введение ***Introduction***

Профессиональная подготовка студентов в вузе должна формировать у выпускника твердые знания и способность быстро осваивать часто изменяемые его функциональные обязанности. Поэтому контроль качества обучения является важнейшей составляющей учебного процесса. Обычно такой контроль осуществляют с помощью мониторинга формирования компетенций обучающихся (Stephen Adam, 2008; Хватцев, 2017). Не менее (а может даже и более) важным является установление факторов, влияющих на качество обучения.

Базовые дисциплины инженера должны опираться на фундаментальные дисциплины первых курсов, к числу которых относятся, прежде всего, математика и физика (Вертешев С.М., Герасименко П.В., & Лехин С.Н., 2017). Известно, что сегодня большинство выпускников школ имеют низкий уровень баллов единого государственного экзамена (ЕГЭ) по математике. Это обстоятельство затрудняет студентам, поступившим в университет, успешно осваивать не только высшую математику в вузе, но и специальные дисциплины (Герасименко П.В., 2011).

Поэтому в настоящее время актуальной задачей является исследование уровней знаний специальных дисциплин студентами технических вузов в зависимости от уровня знаний математических дисциплин.

Для обеспечения качества обучения математике в вузе существуют методические системы организации уровневой дифференциации обучения, где учитываются начальный уровень подготовки и соответствующая этому уровню программа вузовской математической подготовки. Однако их реализация большого успеха не имеет (Герасименко П.В., 2010).

В настоящее время, как и ранее, традиционно для оценивания качества организации и проведения учебного процесса в вузе используются результаты экзаменов в интегральной форме, а именно, в качестве показателей принимают: индивидуально для студента – его оценку; для группы студентов – среднюю оценку по данной дисциплине.

Как отмечалось, за последние несколько десятков лет качество знаний существенно пострадало, а уровни показателей этих знаний (экзаменационные оценки) практически сохранились.

Цель работы направлена на создание методики оценивания влияния математических дисциплин на качество изучения специальных дисциплин, а также оценки взаимосвязи между различными дисциплинами. Методика

должна позволять по статистическим данным действующего набора разрабатывать пути совершенствования качества изучения студентами учебных дисциплин будущих наборов.

Постановка задачи *Formulation of the Problem*

Для оценивания степени влияния базовых знаний, методических и организационных факторов более корректно рассматривать стохастическую модель (Герасименко П.В., Благовещенская Е.А., & Ходаковский В.А., 2017). Проявление стохастической зависимости объясняется действием на результаты семестрового экзамена большого числа как контролируемых, так и неконтролируемых в образовательном процессе факторов. Основными из них являются базовые знания, организация учебного процесса, методика преподавания и самостоятельная работа студентов.

В данной работе, как и в (Герасименко П.В. & Ходаковский В.А., 2014), на основе регрессионного и дисперсионного анализа результатов экзаменов предложены алгоритм и программа с использованием пакета MathCad построения матрицы взаимосвязи экзаменационных оценок.

В качестве показателей рассматриваются семестровые оценки изучаемых дисциплин, которые отражают связи этих дисциплин между собой. Выбор стохастической модели обусловлен огромной сложностью учебного процесса, зависящего от большого количества различных факторов.

Модель рассматривается как функциональное устройство, которое производит сложные преобразования над знаниями студентов по математике, увеличивая их объём и повышая степень сложности. В результате такого преобразования в течение семестра возникают новые знания, которые будут конечными для данного семестра и исходными для следующего семестра.

Таким образом, как вывод следует отметить, что реальный процесс поступления в университет и обучения студентов в вузе рассматривается как случайный процесс. Но поскольку выполнить моделирование этого процесса ввиду большой его сложности не представляется возможным, то рассматриваются сечения процесса - моменты сдачи вступительного (тестирование) и семестрового, либо двух семестровых экзаменов.

Описание процесса анализа *Description of the Process Analysis*

Основу методики составляют методы корреляционного, факторного и регрессионного анализов результатов освоения специальных дисциплин. Предлагаемая математическая методика освоения образовательной про-

граммы вуза учитывает индивидуальные и групповые средние оценки, которые получены по разным дисциплинам или группам дисциплин в зависимости от уровня освоения математических дисциплин.

Модель рассматривается как некий процесс преобразования знаний, приобретённых студентами при изучении на начальных курсах математических дисциплин, в знания по специальным дисциплинам. В результате такого преобразования в течение семестра формируются знания, которые являются конечными для текущего семестра и исходными для изучения специальных дисциплин в последующих семестрах.

Предлагаемая методика параллельно сопровождается иллюстрацией ее применения на процессе подготовки бакалавров по направлению «информационные системы и технологии» (ИСТ) в Псковском государственном университете (таблица 1).

Таблица 1. Результаты экзаменов студентов группы ИСТ за 3 семестров
Table 1 Examination results of students group of IST for 3 semesters

| Информационные системы и технологии | Мат. логика | Алгебра и геометрия | Мат. анализ | Информатика | Теория вероятностей | Дискретная математика | Программирование | Физика | Теория алгоритмов | Основы моделирования | Инф. технологии | Вычислительная математика | Инж. и комп. графика | Техн. программирования |
|-------------------------------------|-------------|---------------------|-------------|-------------|---------------------|-----------------------|------------------|--------|-------------------|----------------------|-----------------|---------------------------|----------------------|------------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| Семес Студ | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| 1 | 5 | 5 | 4 | 5 | 4 | 5 | 4 | 3 | 5 | 4 | 4 | 4 | 5 | 4 |
| 2 | 5 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 4 | 4 |
| 3 | 4 | 3 | 3 | 5 | 3 | 5 | 4 | 3 | 4 | 3 | 3 | 3 | 4 | 4 |
| 4 | 5 | 5 | 5 | 4 | 5 | 3 | 5 | 4 | 5 | 4 | 5 | 5 | 5 | 5 |
| 5 | 5 | 3 | 3 | 5 | 4 | 5 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 4 |
| 6 | 5 | 4 | 4 | 4 | 5 | 4 | 4 | 3 | 4 | 4 | 5 | 4 | 5 | 5 |
| 7 | 5 | 4 | 4 | 5 | 4 | 5 | 5 | 4 | 5 | 4 | 4 | 4 | 5 | 5 |
| 8 | 5 | 5 | 3 | 4 | 4 | 5 | 4 | 3 | 5 | 4 | 4 | 4 | 4 | 4 |
| 9 | 5 | 3 | 3 | 5 | 4 | 5 | 4 | 4 | 5 | 5 | 5 | 4 | 5 | 4 |
| 10 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 4 | 5 | 5 | 4 | 5 | 5 | 5 |
| . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| 24 | 5 | 3 | 3 | 5 | 3 | 5 | 4 | 3 | 5 | 4 | 4 | 4 | 5 | 4 |
| 25 | 5 | 3 | 3 | 4 | 3 | 4 | 4 | 3 | 5 | 3 | 3 | 3 | 4 | 4 |
| Ср балл | 4.92 | 3.72 | 3.56 | 4.52 | 3.72 | 4.4 | 4.16 | 3.32 | 4.44 | 3.72 | 4 | 3.8 | 4.64 | 4.16 |

В таблице представлены результаты успеваемости части студентов (по списку с 1 по 10 и с 24 по 25) группы ИСТ за три семестра обучения. При проведении исследования было проанализировано обучение студентов в течение 6 семестров, в которых изучались 25 дисциплин.

В соответствии с поставленной целью необходимо было выяснить степень статистической связи семестровой успеваемости группы и успеваемости по конкретной специальной дисциплине от средней ранжированной успеваемости группы по математическим дисциплинам (независимый фактор).

Для этого вместо матрицы статистических данных, в которой связаны студенты по их списку с результатами экзаменов по математическим дисциплинам, строится новая матрица результатов экзаменов по дисциплинам в соответствии с рейтингом, который присваивается студентам в результате освоения математических дисциплин.

Ниже приведена программа в среде MathCAD построения этой новой матрицы.

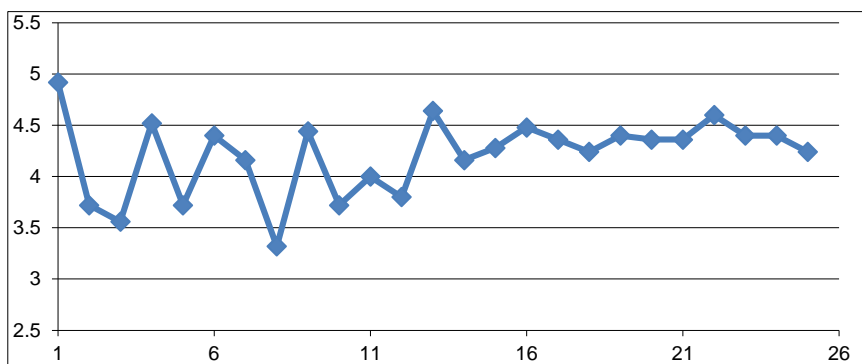
```

renom (X, Y) :=
| m ← rows(X)
| n ← cols(X)
| for k ∈ 0..n - 1
|   for i ∈ 0..m - 1
|     Di,k ← (X<k>)(Yi-1)
| D

```

Особенность программы заключается, что при формировании новой матрицы выбирается k -тый столбец таблицы 1 и формируется новая матрица, в которой строки указывают не номер студента в группе, а его рейтинг по среднему баллу математических дисциплин. Аргументом X в программе является таблица успеваемости, а аргумент Y – ранжированный в порядке возрастания вектор среднего балла студента по освоению математических дисциплин.

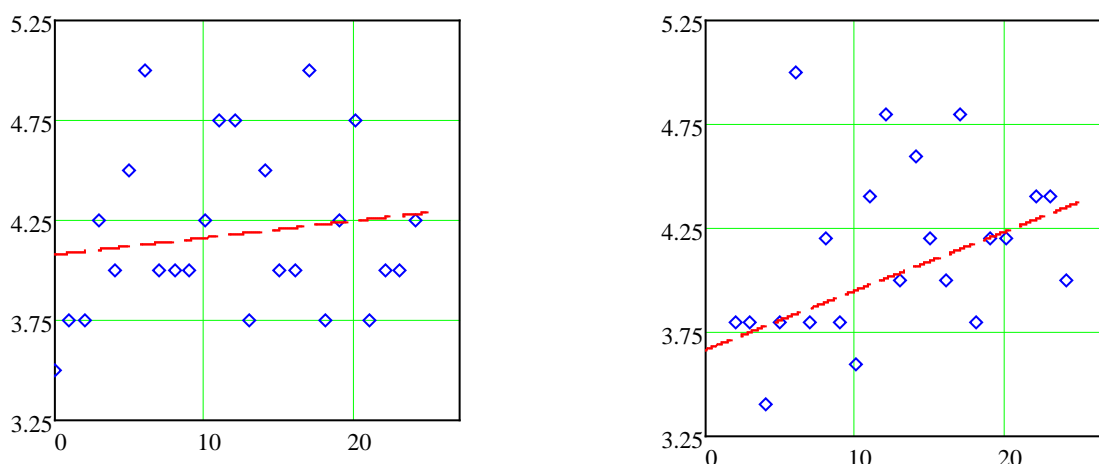
На рис. 1. приведен график среднего балла группы ИСТ по всем дисциплинам за период обучения.



*Рисунок 1. Средний балл группы ИСТ по всем дисциплинам (номер на оси X соответствует номеру дисциплины)
Figure 1 Average score of the ICT group in all disciplines (the number on the x-axis corresponds to the discipline number)*

Анализ рис. 1. позволяет сделать вывод, что успеваемость по дисциплинам, изучаемым в первых трех семестрах, имеет сильный разброс относительно среднего значения, а в последующих семестрах средний балл стабилизируется относительно балла 4,35. Данный результат объясняется влиянием нескольких факторов, основным из которых является повышение мотивации к обучению на старших курсах.

Авторами выполнен расчет и анализ графиков регрессии семестровой успеваемости по средней успеваемости математических дисциплин. Результаты представлены на рис. 2 – 4.



*Рисунок 2. Зависимость успеваемости в семестрах 1, 2 от успеваемости по математическим дисциплинам
Figure 2 Dependence of academic performance in semesters 1, 2 on academic performance in mathematical disciplines*

Анализ рис. 2. позволяет заключить, что регрессия результатов второго семестра более значима по сравнению с первым семестром, что может быть объяснено окончанием адаптации студентов к процессу обучения в вузе.

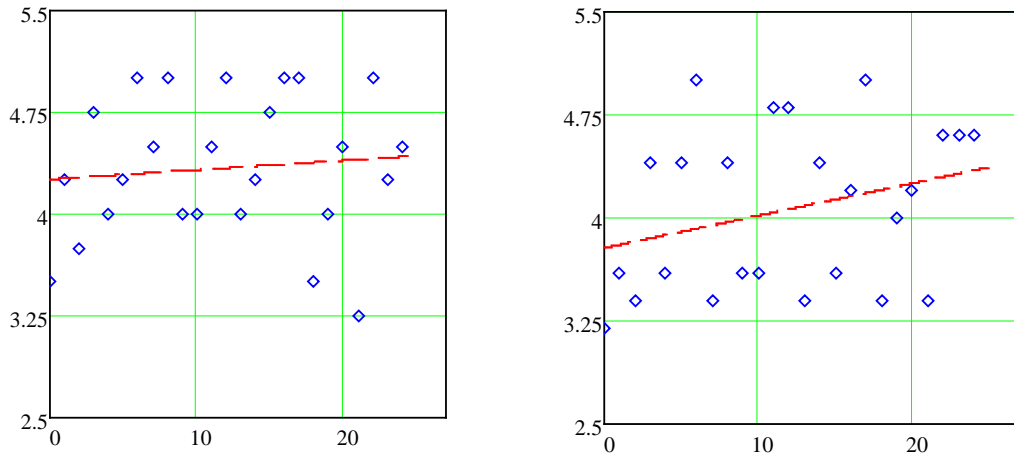


Рисунок 3. Зависимость успеваемости в семестрах 3, 4 от успеваемости по математическим дисциплинам

Figure 3 Dependence of academic performance in semesters 3, 4 on academic performance in mathematical disciplines

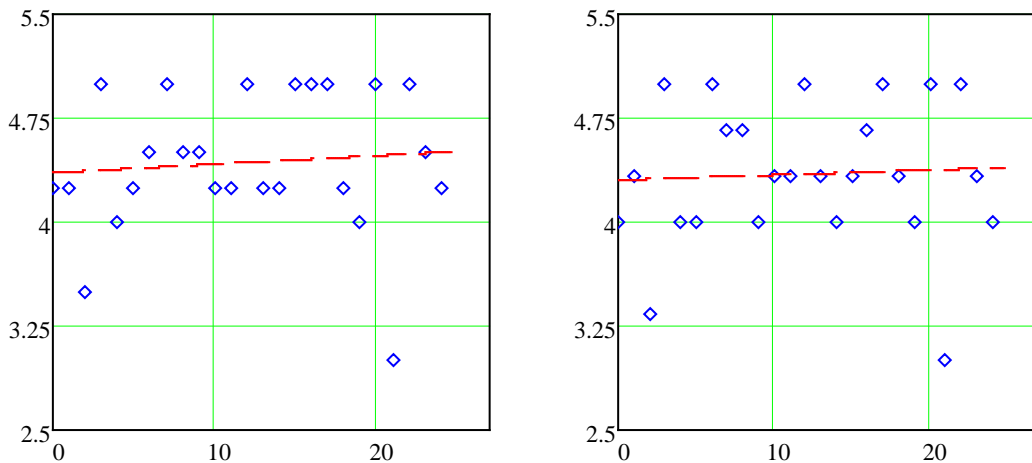


Рисунок 4. Зависимость успеваемости в семестрах 5, 6 от успеваемости по математическим дисциплинам

Figure 4 Dependence of academic performance in semesters 5, 6 on academic performance in mathematical disciplines

Анализ рис. 3,4. позволяет заключить, что регрессия результатов третьего семестра несколько снижается по сравнению со вторым семестром. Более того выявлено, что в последующих семестрах, особенно в шестом, статистическая связь становится малозначимой.

Далее приводится анализ статистической связи результатов освоения специальных дисциплин с результатами освоения математических дисциплин. На рис. 5. показана зависимость результатов экзаменов дисциплины №9 «Теория алгоритмов» (семестр 2) от результатов освоения математических дисциплин. Коэффициент корреляции Пирсона составляет $R = 0,57$, а детерминации $D = 0,33$.

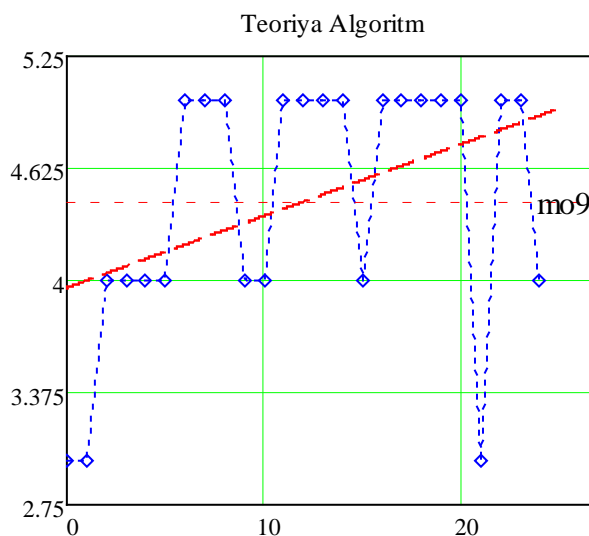


Рисунок 5. Результаты экзаменов по дисциплине «Теория алгоритмов»
Figure 5 Results of examinations in the discipline “theory of algorithms”

Из рис. 5. заключаем, что корреляция с математическими дисциплинами положительная, студенты 1,2 – показавшие слабые знания математики, и в данной дисциплине оказались отстающими, но в то же время студент 21, несмотря на неплохие результаты в освоении математических дисциплин, показал слабые знания в данной дисциплине.

На рис. 6. приведены результаты освоения дисциплины №10 «Основы моделирования» (семестр 3). Коэффициент корреляции Пирсона составляет $R = 0,825$, а детерминации $D = 0,68$.

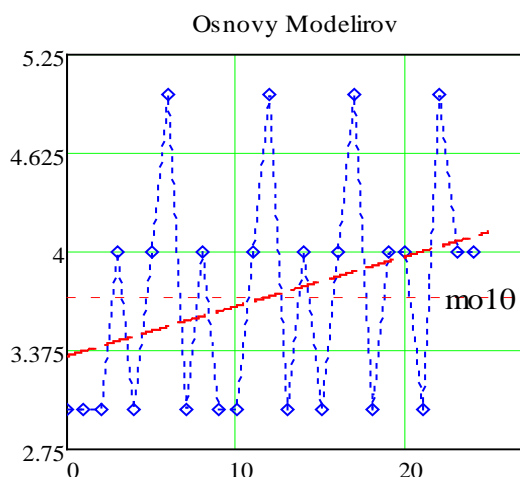


Рисунок 6. Результаты экзаменов по дисциплине «Основы моделирования»
Figure 6 Results of examinations in the discipline “Fundamentals of modeling”

На рис. 7. приведены результаты освоения дисциплины №15 «Теория информационных процессов и систем» (семестр 4) и дисциплины №19 «Управление данными» (семестр 5).

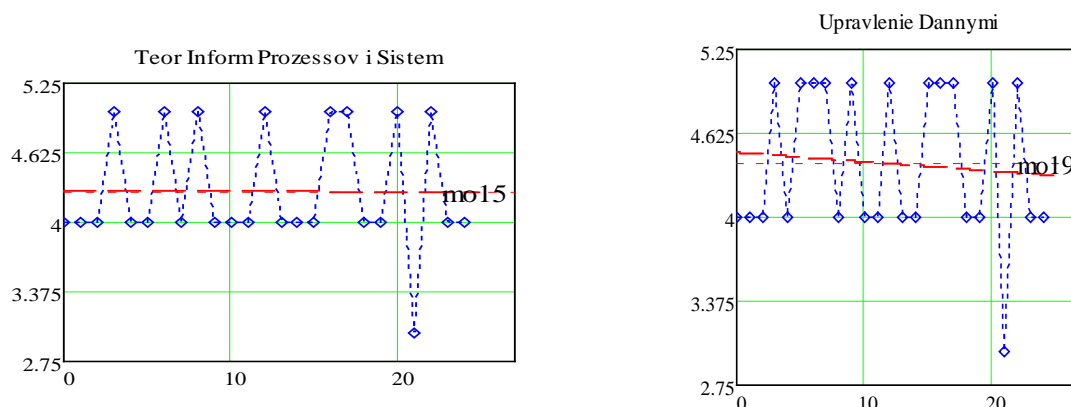


Рисунок 7. Результаты экзаменов по дисциплине «Теория информационных процессов и систем» и «Управление данными»
Figure 7 Results of examinations in the discipline “Theory of information processes and systems” and “Data Management”

Для результатов, представленных на рис.7, коэффициент корреляции Пирсона составляет $R = 0,52$, а детерминации $D = 0,27$ для дисциплины №15 и коэффициент корреляции Пирсона составляет $R = 0,43$, а детерминации $D = 0,19$ для дисциплины №19.

Анализ данных, позволяет заключить, что статистическая связь результатов освоения математических дисциплин с результатами экзаменов по специальным дисциплинам в пятом и шестом семестрах заметно снижается, однако средние баллы по специальным дисциплинам особенно в 5 и 6 семестрах оказываются более высокими.

Это может быть связано с несколькими причинами. Во-первых, не все преподаватели специальных дисциплин опираются на математические знания, а во-вторых, к четвертому году обучения мотивация к получению специальных знаний у студентов повышается, что и приводит к хорошим результатам экзаменов в 5 и 6 семестрах.

Выводы *Conclusions*

Авторы привели методику анализа результатов экзаменов, использованную ими в реальном учебном процессе Псковского государственного университета. Несмотря на относительную простоту вычислительных операций, применение ее позволяет получать научно обоснованные выводы по анализу результатов освоения студентами учебной программы.

В работе основной акцент сделан на оценку влияния математических знаний на освоение специальных дисциплин. Показано, что степень освоения математических дисциплин оказывает существенное влияние на освоение студентами университета специальных дисциплин. Методика позволяет по статистическим данным действующего набора разрабатывать пути совершенствования качества изучения студентами учебных дисциплин будущих наборов.

Summary

On the basis of regression and variance analysis of exam results, the method of evaluation of the connection of mathematical disciplines with General scientific and special disciplines is proposed. The technique contains a stochastic model, algorithm and programs using MathCad package for constructing matrices of interconnection of exam scores. The choice of stochastic model is due to the great complexity of the educational process, which depends on a large number of factors. The real process of admission and training of students at the University is considered as a random process. But since it is not possible to describe it due to the great complexity, its sections are considered - the moments of passing the entrance (testing) and semester or two semester exams.

The model is considered as a functional device that produces complex transformations over the knowledge of students in the discipline, increasing their volume and increasing the degree of complexity. As a result of this transformation during the semester there are new knowledge, which are final for this semester and initial for the next

semester. The model is discrete, because it establishes a relationship between the final numbers of test scores (entrance exam admitted to the University) and the semester exam scores.

The model is stochastic, because the exam scores and test scores are values of a random variable, and the value of a random variable that characterizes the knowledge of higher mathematics, depends not only on the knowledge of elementary mathematics, but also on many factors of the educational process, which are not taken into account by the model.

The technique allows you to make the necessary adjustments to the study of the discipline for subsequent sets to the University.

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LEGITIMATION OF VIRTUE EDUCATION IN TEACHER TRAINING DISCOURSE DURING SOVIET LATVIA

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Abstract. *Soviet virtue education had a relevant place in the discourse of the founders of communism and in the Communist Party's documents. Virtue education played a central role in the construction of the future Soviet society and the raising of the New Soviet Man, a conscious communist, productive worker and soldier. This paper addresses two research questions: how was character and virtue education conceptualized, legitimized and implemented in Soviet Latvia? What elements of the Soviet approach to character education facilitated the consolidation of totalitarianism in Latvia?*

This research is based on written academic sources published in Soviet Latvia about virtue education and intended to school teachers: two teaching manuals for teacher training (Jesipovs & Gončarovs, 1948; Iljina, 1971), and three collections scientific papers written by the leading educational academics of the Soviet Latvia published by the Latvian State University in 1962, 1964 and 1967 within the series "Questions about Upbringing in the Soviet school".

The findings highlight the understanding of virtue education during this period, and how it was ideologically, socially and pedagogically legitimized in the academic discourse and pedagogical literature addressed to school teachers.

Keywords: *legitimation, Soviet Latvia, Soviet virtues, teacher education, virtue education.*

Introduction

There is an ongoing academic discussion about the benefits and shortcomings of character education and citizenship education. Even if both fields are "intimately connected" (Arthur, 2003, 2), relevant differences exist regarding their understanding of the relations between 'the good and the right', their conception of pluralism, and the way they conceive the connection between morality and politics (Kristjánsson, 2004). Character education was recently criticized (Suissa, 2015; Kisby 2017) for being supposedly 'narrow and instrumental', emphasising the 'individual, moral dimension of character', psychologising problems 'rather than politicising them', presenting a 'depoliticised notion of good citizenship', and educating people for being 'compliant, not political'. In its turn, critics of citizenship education question its

(supposed) rejection – or at least downplaying – of transcultural moral values, its uncritical inculcation of democratic values, a frequent political bias, and a lack of attention to cultural diversity (Kristjánsson, 2004, 210-211).

This paper aims at contributing to this ongoing dialogue from the perspective of history of character education. It has been often argued that history is a mirror for reflection, and that historical knowledge helps to understand human beings and society, is a source of new ideas, and helps to evaluate current societal processes (Kestere, 2005, 6-9). The social and political dimension of character education was central in Soviet society. Since the beginning, Soviet leaders gave virtue education a central role for construction of socialism, placing propaganda at the heart of education (Fitzpatrick, 1969, 25). A better knowledge of the kind of personality education Soviet totalitarianism promoted, legitimated and implemented could shed light in the debate about education of character and citizenship.

For convenience reasons (author's language knowledge and document availability), this research was limited to Soviet Latvia (1945-1991). The overarching research question of this study was: how was character and virtue education conceptualized, legitimized and implemented in Soviet Latvia? What elements of the Soviet approach to character education facilitated the consolidation of totalitarianism in Latvia? The scope of this research was limited to Latvian academics' writings intended for school teachers. Other relevant sources, such as the document of Congresses of the Communist Party and the Program of the Communist Party of the Soviet Union, were not analysed.

Some conceptual and historical background about the Soviet ideology and Soviet history of education may be useful. According to Hannah Arendt (1976), "an ideology is quite literally what its name indicates: it is the logic of an idea ... Ideologies always assume that one idea is sufficient to explain everything in the development from the premise, and that no experience can teach anything because everything is comprehended in this consistent process of logical deduction" (Arendt, 1976, 470). Therefore, in totalitarianism any 'different idea' is a real enemy: "Any society has a certain ideology... [but] the Soviet ideology was permanently active; it was constantly waging war against other ideologies. The Soviet value system... had to be acquired and accepted by everyone" (Kestere, 2003, 294). "Totalitarian regimes communicate with their citizens in two ways: 1) through coercion, power and fear and 2) through propaganda that legitimizes their actions" (Kestere, 2017, 29). Soviet ideologs such as Anatoly Lunacharsky saw propaganda as the 'enlightenment of the people' (Fitzpatrick, 1969, 236).

As regards the historical background of the research, in 1931-1934 there was an official educational turn that put educational achievement and proper conduct and discipline as the centre of Soviet education. Progressive education, in fashion since the October revolution (1917), was dismissed by the regime, and Paedology,

the science of child development, was declared anti-Marxist (Brickman & Zepper, 1992, 34-35). In 1935-1936 Makarenko, the most influential educational theorist in the Soviet Union, reinforced this new trend. Between 1946 and 1948, the work of Zhdanov, secretary of the Central Committee, in the field of education resulted in the establishment of the so-called “iron curtain of the mind” (Brickman & Zepper, 1992, 37). After the death of Stalin (1953), the focus on discipline education at school continued till the end of the Soviet period.

This research is based on the written academic sources published in Soviet Latvia, mentioning explicitly character and virtue education, and intended to school teachers. Two teaching manuals for teacher training (Jesipovs & Gončarovs, 1948; Iljina, 1971) and three collections of scientific papers fulfilled these criteria. Jesipovs's & Gončarovs's book ‘Pedagogy - a teaching book for pedagogical schools’ (1948) was used for teacher training in Latvia for more than two decades. Its section 11 (pp. 246-305) was named ‘Contents and methodology for virtue education’. This work was replaced by Iljina's book ‘Pedagogy’ in 1971, which was used for teacher training till the end of Soviet system. The title of its section 6 (pp. 93-111) was ‘Virtue education’, and section 7 was called ‘Soviet patriotism and proletarian internationalist education’ (pp. 112-123). The scientific papers analysed were written by the leading educational academics of Soviet Latvia, members of the Department of Pedagogy and Psychology of the Latvian State University, which published them in 1962 (6 papers), 1964 (9 papers) and 1967 (9 papers) within the series “Questions about upbringing in the Soviet school”. 14 out of these 24 scientific papers addressed explicitly character and virtue education.

Character education under soviet Latvia

In the sources analysed, the term 'upbringing' referred to “the development of knowledge-based communist convictions in the future generation, and the creation of character features of personality that are appropriated in communist society” (Jesipovs & Gončarovs, 1948, 12). The expression ‘Soviet virtue education’ appears very often and refers to the education of the Soviet personality as a whole, whereas the word ‘character’ was almost always understood as ‘personal strength’ or ‘willpower’.

For Soviet educational theorists, educating a flourishing personality would be possible only after the new Soviet society will be established: “The radical improvement and development of humanity through upbringing will be possible only after the socialist system will replace the exploitative society through revolution, creating the conditions for a truly comprehensive development and upbringing of human beings” (Iljina, 1971, 41).

From the perspective of Soviet anthropology, virtue education was necessary because virtues and moral qualities are not inherited: “Marxist pedagogy and psychology categorically deny the idea that persons could have inherited moral properties” (Iljina, 1971, 93); but “with proper education and under conditions of positive influence, it is possible to ensure the formation of moral qualities corresponding to the goals and tasks of communist education” (p. 94).

Five concrete virtues were particularly relevant for a Soviet citizen: Soviet patriotism, socialist humanism, collectivism, discipline, and strength of character. Among them, patriotism, discipline and strength of character were the most important, and, in the sources explored, Latvian academics put a great deal of effort to explain them in detail (Jesipovs & Gončarovs, 1948, 246-306).

As regards patriotism, it is important to note that “the notion Latvian patriot was never used; consequently, it was installed in people’s memory that patriotism is Soviet and socialist.” (Kestere, 2003, 294). “Soviet patriotism manifests itself in the confidence to the Communist Party, in an unselfish willingness to serve the Lenin-Stalin’s case” (Jesipovs & Gončarovs, 1948, 29). Soviet patriotism considered itself as a “patriotism of a higher level” (Iljina, 1971, 114), and it was conceptually close to nationalism. In this context, intolerance was legitimated as a Soviet virtue resulting from patriotism: the ‘Moral Code of the Builder of Communism’, included in the Communist Party’s New Program of 1961, prescribed to be intolerant towards the violation of the social interests, injustice, social parasitism, unfairness, careerism, acquisitiveness, racial and national dislike and the enemies of communism.

Discipline was “a high quality of communist morality and one of the most important traits of character ... Soviet discipline should be conscientious, with self-initiative and strict” (Jesipovs & Gončarovs, 1948, 276). The main characteristics of ‘personal strength of character’ were purposefulness and self-conviction about one’s capacities together with perseverance (resolution and patience), mindful temperance (attention, inner and external calm, respect for others’ work), manliness (including courage, self-control and bravery), and endurance (Jesipovs & Gončarovs, 1948, 295-298), as well as initiative (Plotnieks, 1967, 131-143).

Upbringing of socialist humanism included “fostering of love and respect for parents and other adults” (Jesipovs & Gončarovs, 1948, 264), and the education of the “sense of duty and responsibility, honour and human dignity in children” (p. 267). The education for collectivism included the virtues of “companionship and friendship between children” (p. 269), and the upbringing of children’s collective consciousness (p. 271).

Among other emerging themes found in the sources, Soviet educators understood well the importance of emotional education for developing Soviet virtues in a sustainable way: “if you want to build character, cultivate feelings”

(Stepe, 1962, 94). The emotions to be cultivated at school included admiration of “moral qualities included in the Moral Code of the Builder of Communism” (Anspaks & Zeile, 1964, 240) and proudness feelings about the Soviet system and their school ‘name’ (Stepe, 1962, 90-91), but also “hatred and dislike for students who hinder the regular work and act contrary to school rules and traditions” (p. 94).

Arguments for legitimating of Soviet virtue education at school

Legitimation in social sciences “is often not gained by winning scholarly arguments or excavating empirically incontrovertible ‘hard facts’ but by persuading significant actors in the field that certain discursive themes carry more ‘symbolic capital’ than others” (Walker, Roberts, & Kristjánsson, 2015, 79). Which legitimation arguments did Latvian academics put forward for enhancing the symbolic capital of Soviet virtues and persuading teachers to implement it?

Firstly, and mainly, communist moral education was presented to teachers (and indirectly - to the Soviet censure) as legitim because of its close connection to Marxist ideology and scientific materialism: “Marxism-Leninism science gives it [virtue education] clear goals and beliefs” (Jesipovs & Gončarovs, 1948, 246). Virtue education was legitimated by reference to communism founders’ discourse and to the Party’s documents: “Lenin gave virtue education a central place in the cultivation of communism” (Iljina, 1971, 93); “attention is given to our courageous men of valour: the government, the Central Committee of our Party, our leaders and, above all, the comrade Stalin, pay homage to such people” (Jesipovs & Gončarovs, 1948, 298). The above mentioned ‘Moral Code of the Builder of Communism’ (1961) was a reference document for Soviet moral education. It prescribed in the first place “loyalty to Communism”, and also “conscious work for the good of the society”, “care for the collective property”, and “high consciousness of the social responsibilities”.

Virtue education was also legitim as far as it was useful for building the future Soviet society: “Well-rounded and harmonious development of personality is an objective necessity arising from the needs of our society on our way to communism.” (Iljina, 1971). Personality was instrumentally educated for the needs of Soviet society and for taking care of the common good: “A person with virtue education... is someone who subordinates his interests and his actions to the interests of his Homeland, to the interests of the people” (Jesipovs & Gončarovs, 1948, 246).

Virtue education was legitimated also as a necessity for creating the ‘New Soviet Man’ (hereinafter used in the sense of ‘human being’), who would possess the virtues that make of him/her a self-conscious communist, a productive worker, and a soldier who defends his Homeland (the Soviet Russia, not only Latvia) and

fighters against capitalism for establishing the new Soviet order. Virtue education played a central role in “the creation of communist consciousness”, which was the aim of the Soviet education system (Stepe, 1962, 96). The so-called ‘Soviet critical thinking’ and self-criticism was legitimated as a way of reinforcing the communist consciousness (Zelmenis, 1962, 119) and fostering the establishment of the new Soviet order: “in the struggle with the remnants of the past, with the manifestations of individualism and selfishness ... the development of critique and self-criticism plays a major role” (p. 99). The New Soviet Man was a productive worker: “a fundamental characteristic of the New Man - a member of the communist society - is a new attitude towards work, a communist attitude to work... The work is not done in a forced way, working gives joy... Work, says Stalin, is ‘a matter of honour, a matter of fame, a matter of courage and a heroism’ ” (Jesipovs & Gončarovs, 1948, 29).

As regards the methodological indications for implementation of virtue education at school, the two key elements of successful virtue education at school were the school culture (traditions, slogans and school rules); and the creation and reinforcement of students’ feelings of proudness or shame, according to their behaviour (Stepe, 1962, 90-91). The pressure of public opinion was an important legitimator and regulator of moral education (Iljina, 1971, 98). Social pressure at classroom and school level was particularly relevant for enforcing character education, in particular since Makarenko (1934-35).

Explaining in detail the numerous concrete methodological indications that Soviet academics gave Latvian teachers about how to develop each of the Soviet virtue mentioned above is out of the scope of this paper. In general, the methods described most in detail refer to discipline and behaviour education, and to character strength education. The methods for discipline and behaviour education included external methods, such as coercion and punishments (Jesipovs & Gončarovs, 1948, 280-290), persuasion and explanation methods, such as ethical discussions, meetings, disputes and debates, etc. (Iljina, 1971, 108-109), and indirect methods, embedded in school traditions (Klēģeris, 1962; Klēģeris, 1964; Klēģeris, 1967; Stepe, 1962) and in collective events (Jesipovs & Gončarovs, 1948, 288-290; Iljina, 1971, 98).

The features of ‘personal character strength’ were developed during the study process, and through slogans and school traditions. Stepe argued that “the school also uses the teaching and learning process in its character education system” (1962, 96). Slogans, frequently used for political propaganda by the Soviet regime (Calhoun, 2014; Musolff, 2017), were also used as an efficient virtue education method at school (Stepe, 1962, 90). Character strength was also educated through work experience (Anspaks, 1962; Anspaks, 1967).

Reflections on Soviet virtue education and pedagogical implications

A striking aspect of Soviet virtue education in light of classical Aristotelian character education theory is the total absence of any reference to the virtue of *phronesis* (i.e., wisdom or morally good judgement in practical action). In Aristotelian virtue theory, *phronesis* is an integrative virtue which guides the other virtues and enable to perceive, know, desire and act with good sense (Jubilee Centre, 2017; Kristjánsson, 2015, 83-103). However, in the Soviet system, the sole criteria of importance/relevance of an idea was its relation to the Soviet ideology: “Under authoritarianism, every phenomenon has an ideological value (positive or negative) and therefore guides everyone towards a “correct” understanding” (Kreegipuu & Lauk, 2007, 50). It seems that in Soviet character education, Soviet ideology replaced *phronesis* as the criteria of ‘good sense’ and in its role of *auriga virtutum*. *Phronesis* was probably considered superfluous and even dangerous, as the ideology provided already univocal criteria for action.

A related question is the treatment of another intellectual virtue in the literature analysed, namely – critical thinking. As mentioned above, critical thinking was legitim when it referred to oneself (self-criticism for enhancing communist consciousness), to comrades (revealing others’ deviances from the ideals of communist society), and to capitalism; but, in a regime of latent terror, it was not even thinkable to question the Soviet regime, its rulers or its ideology. The same phenomenon can be observed nowadays in other authoritarian countries. According to Arthur (2016), in China “students are simply told how to act and what to believe” (p. 66) and in “both Vietnam and China any criticism of the prevailing communist ideology is either ignored or condemned” (p. 67). It could be argued that one of the reasons of an eventual ‘mass support for totalitarianism’ (Arendt, 1976, xxiii) could be found in this abandon of *phronesis* and deep critical thinking as goals of virtue education, which allows for mass manipulation.

In the dialogue between character and citizenship education, one of the pedagogical implications that could be drawn from this discussion is the necessity of embedding *phronesis* and common-sensical critical thinking as an educational priority. Without them, most of the traits of character promoted by citizenship education programs “would be viewed with approval by dictators and tyrants” (Kahne & Westheimer, 2003, 196). This discussion reveals also the importance of avoiding a kind of ‘compliant’ character education disengaged from the societal and political issues. Character education should help students not only to ‘think critically’ about themselves, their classmates or some limited aspects of reality, but to acquire deep ‘critical thinking skills’ embracing the whole spectre of human activity, also the political one (Doyle, 1997, 440).

Another aspect that could be useful to discuss is Soviet moral relativism. Arendt (1976) argued that “the aim of totalitarian education has never been to instil convictions but to destroy the capacity to form any” (p. 468). This view seems to contrast with the (apparent) conviction with which Latvian academics wrote about the importance of Soviet virtue education and the emphasis put on the methods for achieving the formation of the New Soviet Man with its communist consciousness and its readiness to work and fight for the Soviet ideal.

Arendt point could be better understood considering that, while Soviet ideology replaced Aristotelian *phronesis*, communist consciousness may have replaced the *individual* moral conscience as the compass of moral action. The legitimization of character education in Soviet Latvia was based on the needs of the ideology, not on a common universally and cross-culturally shared understanding of moral values. Soviet Latvian academics were clear about that: “There is not, and it cannot be, any universal human morality. In a society which is divided into antagonistic classes, each class has its own morality” (Iljina, 1971, 95). So, a plausible explanation of the apparent contradiction mentioned above is that, in their writings, Latvian academics emphasized the convictions of the Soviet regime, not their own *personal* ones.

The rejection of transcendence, the ‘scientific materialism’ and the atheism inherent to Marxism-Leninism did not accept any source of morality external to the totalitarian Soviet ideology. However, a number of social scientists and philosophers, based on recent scientific research, claim the existence of a set of cross-cultural universal values (Kristjánsson, 2015; McGrath, 2015) enrooted in human nature. Interestingly, moral relativism is being promoted also in liberal pluralistic democracy, where “every ideal, including our deepest commitments and character itself, is constantly open to change. This contrasts sharply with an Aristotelian conception of character” (Arthur, 2003, 78).

An implication of this discussion for moral education would be the promotion of such versions of character and citizenship education which are based on moral objectivism (Kristjánsson, 2010, 128), recognize the importance of the formation of youngsters’ moral conscience (Devanny, 2018, 4), and are open to the spiritual and transcendent dimension of human beings (Kristjánsson, 2016). As Kristjánsson argued, “the human being is not only a political being ... citizenship education is to be kept in its proper place as a supplement to, but not a replacement of, the ‘moral basics’.” (2004, 217-218).

Conclusion

Soviet educationist stressed the development of students’ performance virtues, such as will strength, order and discipline, while crucial intellectual virtues were ignored or controlled, moral conscience was replaced by communist

consciousness, and personal flourishing was at the service of the social project of communism (Iljina, 1971). In character and citizenship education, careful consideration should be given to the kind of values (or anti-values) which are supported by education systems that stress the development of performance virtues without a clear moral compass, neglecting the profound cultivation of phronesis and the attention due to each individual person, prioritizing more impersonal societal concerns.

One of the major limitation of this study, which recommend relativizing the scope of its conclusions, is the cultural and temporal distance separating its author from the reality of Soviet Latvia. In addition, in Soviet “self-suppressing society”, in which enemies suppress each other, people gradually started to lose respect to Soviet ideas, widening the gap between official discourse and individual inner convictions (Gielen & Jeshmaridian, 1999, 290). A direction for future research would be to analyse commonalities and differences between teaching manuals and scientific articles regarding content or structure. Another direction would be to explore the explicit school-based propaganda of character education addressed directly to students, such as the Codes of Conduct in the Soviet School System (Maslinsky, 2016), and the “descriptions of students”, containing teachers’ evaluation of students’ Soviet virtues, which were to be produced for admission into Higher education institutions (Klēģeris, 1962, 66).

In this paper, the kind of virtue education promoted by totalitarianism in Latvia was explored, and some pedagogical implications for character education and citizenship education were discussed. However, it would be naïve to think that Soviet virtue education alone explains entirely the atrocities of totalitarian Soviet regime. As Arendt argues, “the fact that totalitarian government ... rests on mass support is very disquieting. It is therefore hardly surprising that scholars as well as statesmen often refuse to recognize it, the former by believing in the magic of propaganda and brainwashing, the latter by simply denying it ... It is quite obvious that mass support for totalitarianism comes neither from ignorance nor from brainwashing” (Arendt, 1976, xxiii). Even if the ‘*mysterium iniquitatis*’ (Pope John Paul II, 2005) which is at the origin of totalitarian regimes remains, this study shed light on the importance of educating phronimous, common-sensical persons and engaged citizens, who care about the flourishing of each person and of society, and resist both authoritarian and liberal totalitarianism.

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ARRANGING UNIVERSITY EDUCATIONAL PROCESS BASED ON THE REGIONAL COMPETENCE PROFILE

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Abstract. *To date, there are not enough tools by which the high school would target a graduate to work in a particular company. Moreover, various bodies, even public ones, periodically request educational establishments to submit proposals for improving the staff selection and training practices. This is the relevance of our research. This article deals with a tool that allows an employer to reasonably select a university graduate who most fully meets the requirements of a particular company. Such a tool should be a mechanism for integrating the regional competence profile for the graduates. This mechanism can be implemented through the upload of students' academic project (term theses, projects, design graphics and research works, graduate thesis, etc.) in an electronic information system. In addition to the student's study, the employer is offered access to abstracts, which contain a list of professional competences acquired by the student during the implementation of these studies. In addition, the employer is given the opportunity to write a comment regarding the relevance of the work and their final assessment, as well as suggest their own topic in the abstract. This will allow employers to track the professional growth of students they are interested in. In high school, this mechanism will affect the personal rating of the teacher - the head of the student's academic work. Thus, the teacher motivated to increase their rating will be forced to make contact with employers through the online information environment to obtain relevant topics offered by them, and to improve the quality of students' projects. The purpose of this study is to create a mechanism for integrating a regional competence profile of a graduate into a real educational process throughout the student's entire learning path. The result of the study is a mechanism for the teacher to continuously have in mind the requirements of the regional labor market and design an in-demand competence profile throughout the student's entire learning path. The study was carried out using the method of analysis, management in the chain "student-teacher-employer" on the basis of feedback, methods of observation and experiment.*

Keywords: *competence, employer, regional competence profile, feedback, rating.*

Introduction

The aim of the research is to create a mechanism for integrating a regional competence profile of a graduate into a real educational process throughout the entire learning path taking into account the requirements of regional employers and future markets (Домнина, Козлов & Савоскина, 2017).

The relevance is determined by the need to adapt the developed competences of students to the requirements of employers, including regional ones as well as needs of regional companies in talent acquisition best practices (Беленов & Шилова, 2017).

It is obvious that the integration of the labor market and education at the university described in the research is impossible without the involvement of the faculty of the university and requires its substantial restructuring (Boymuradov & Hodjaeva, 2017). The authors add the role of an auditor in the development of competences to the teachers' job duties (Верзунова, Давыденко & Пересыпкин, 2012).

In the same way that a classical auditor (in economics) is evaluated by its track record, it is proposed to create a mechanism for assessing the profile of a university teacher as a mediator between the labor market and students. This provides an independent, objective and comprehensive assessment of the teacher's reputation by all participants in the educational process with the competence-based approach: student-teacher-business. The student is invited to focus not only on the training program, but also on the teacher's track record. The research describes the mechanism of this process and put forward a proposal for the administration of the university on its use in the selection of truly passionate and qualified teachers.

The authors deals with an approach to reveal the teacher's role during development of professional competences of graduates as well as to motivate teachers for enhancing their track records that will identify them as a "creator" of students' professional competences. Therefore, the implementation of the educational process in the university on the basis of the regional competence profile will become a real communication tool between education, science, practice and the labor market (Zhestkova, Gubanichina, Oparina, Sidorskaya & Gusev, 2017).

Competency-based training approach

When training a specialist, a university should be guided not only by the federal state educational standard, but also by the requirements of the labor market defined in the form of professional competences on the basis of professional standards (Журавлева, 2014). According to the specificity

(specialization) of the training program, self-stated competences are in development as well. The self-stated competences mean such learning outcomes of a training program that allow successfully solving professional tasks based on the knowledge and skills captured in the process of learning in a university.

Any formal development of a graduate's regional competence model through the mechanical matching of competences from the educational standard and the model basic training program without taking into account professional standards and the views of leading specialists of the modern labor market does not provide a real link between the learning process and the needs of the regional economy. So, the idea of a competence-based approach to train specialists in universities implies the obligatory participation of employers in its formation. The scope of the competences of a graduate and the assessment of how well they are formed should be carried out jointly by the faculty of the university and employers (Домнина et al., 2017).

Currently, this paradigm is most fully implemented in further vocational education. Thus, within the framework of the priority project "Modern Digital Educational Environment in the Russian Federation" in Russia, ten Regional Competence Centers in the field of online learning (RCCOL) were created (Яновская, 2011). This mechanism is set out, in sufficient detail, in the documents regulating the procedure for secondary vocational education in the context of the dual training. In "classical" higher educational institutions, the integrating process to train specialists for the regional economy is not developed at all.

In the Samara region, the legal basis to implement the regional competence profile of a graduate is the approved regulations:

- Governmental program of the Samara region "Development of education and improving the implementation of youth policy in the Samara region" for 2014-2020;
- Development Program of the federal state budgetary educational institution of higher education "Samara State Technical University" until 2020.

Upgrade of the Educational Process

We analyze the task on creating the regional competence profile of the graduate within the Samara State Polytechnic University (Samara State Technical University) as a reference university of the Samara region, whose goal is to ensure the stable development of the region by training highly qualified specialists, primarily those focused on the region's economy (Алонцева & Хорина, 2010).

The development of a regional competence profile should be based on the specific labor functions required by an employee within the framework of professional standards, which should not contradict Articles 195.1-208 of the Labor Code of the Russian Federation. Professional regional competences developed at Samara State Technical University (graduate competency card) should include a clear description and be linked with the qualifications necessary for an employee to carry out a certain type of professional activity, and also comply with the requirements of the educational standard corresponding to the training program.

The idea of organizing the training process based on the regional competence profile is to provide employees with access to students' projects (term theses, projects, design graphics and researches, graduate theses etc.) in the online information educational system of the university (Козлов & Никерова, 2015). Not all the students' projects are uploaded to this online information educational system, but only those that have a high rating ("good" and "excellent" if converting into a five-point system). An abstract is attached to every student's project, which includes a list of professional competences developed during completion of that project and the level of their development. In this case, the competences must be specific, contain the name of the product or technology and must not be ambiguous or obscure that allows arbitrary interpretation. Table 1 shows an example abstract written by the teacher for Operating System training program for two students. The table contains skills that those students acquired for the PK-5 professional competence when making up the project. There is a student's rating justification. For Petrov A.V., there is a comment about the RK-1 regional competence aimed to be experienced with free software being in demand in the Samara labor market. The summary of such regional competences makes the regional competence profile.

Table 1 Abstract to student's project

| Project date | Teacher, department | Student, training program | Topic and link to text | Subject, year, rating |
|--------------|---|---|------------------------------------|--|
| 26/12/2018 | Kozlov V.V., IROST Department | Ivanov I.I. | RR scheduling algorithm simulation | Operating system, 1 st year, good |
| | PK-5: skill to simulate processes and systems | The project deals with the simulation of distributing CPU time between processes using the RR algorithm. The student mastered the RR algorithm and showed his skill in simulating one of the key algorithms used in operating systems. The "good" mark is set for completing the task in full, but with the study on a small simulation interval. | | |

| | | | | |
|------------|--|---|---|---|
| 26.12.2018 | Kozlov V.V., IROST Department | Petrov A.V. | FCFS scheduling algorithm simulation | Operating system, 1 st year, excellent |
| | PK-5: skill to simulate processes and systems | The project deals with the simulation of distributing CPU time between processes using the FCFS algorithm. The “excellent” mark is set for completing the task in full, the study on a long simulation interval. The comparative analysis between FCFS and SJF is made. | | |
| | RK-1: Knowing how to use free software | This study was made using MS Windows & Linux OS. This student’s showed his competence in using the free software, in particular OS Linux architecture. | | |

Table 2 shows the employers’ verifications.

Table 2 Verifications by employers of how the teacher evaluated the student’s

| Student | Subject | Project | Teacher | Rating | Checked by employer | |
|-------------|-------------------|--------------------------------------|-------------|-----------|---------------------|-----|
| Ivanov I.I. | Operating systems | RR scheduling algorithm simulation | Kozlov V.V. | good | CQG | YES |
| | | | | | Netcracker | NO |
| Petrov A.V. | Operating systems | FCFS scheduling algorithm simulation | Kozlov V.V. | excellent | CQG | YES |
| | | | | | Netcracker | YES |

The teacher's assessment, as table 2 states, was fully confirmed for student Petrov but partially for Ivanov. Thus, the credibility rating for the teacher will be 75%.

As a result, having access to the list of professional competences acquired by the student, the employer can make up the choice of the specialist he/she needs (table 3).

Table 3 Presentation of information on the formation of competences

| Student, training program | Competence | Subjects and projects to give competence | Teacher & Confidence rating |
|---------------------------|---|---|-----------------------------|
| Ivanov I.I. | PK-5: skill to simulate processes and systems | Operating systems: RR scheduling algorithm simulation | Kozlov V.V.: 75% |
| Petrov A.V. | PK-5: skill to simulate processes and systems | Operating systems: FCFS scheduling algorithm simulation | Kozlov V.V.: 75% |
| | RK-1: Knowing how to use free software | Operating systems: FCFS scheduling algorithm simulation | Kozlov V.V.: 75% |

Then the full text of the project and the abstract shall be available in search engine databases and be included in the student's portfolio that is accessible in the university's online educational system. It is assumed that the search engine will allow the employer to make a request, as a result of which he will be given a ranked list of potential employees (Козлов, 2015).

The student must be conscious that it is prestigious to get on the list given to the employer. So, the students will do their best to complete any project well. The teacher, at the risk of losing the confidence of employers and the management of the university, will not allow the student to get shortlisted with a low-rank project, and will not attribute the professional competences that do not exist in this project. If there some shortcomings in the student's project, the student will have to complete it in order to convince the teacher to include it in the list given to the employer. All abstracts to the student's projects represent a kind of the list of professional regional competences acquired. This list (table 3) should be available to each graduate for quite a long time after graduation and should help him or her not only in finding a job, but also in building his career.

A mechanism to integrate the regional competence profile of a graduate into a real educational process is therefore launched taking into account the requirements of regional employers (Балабашина & Козлов, 2016).

Due to the integration mechanism implemented in the university, there is another tool to enhance the quality level of teachers' jobs – the personal rating of the teacher. This rating is formed with assessments of students, graduates and employers (by giving +1 / -1). Any student may evaluate an abstract uploaded by the teacher if the comments to it (with professional competences specified) comply with the real content of the project. Graduates will assess the teacher's work by obtaining some experience in a specific company and rate the projects of other students. The teacher's opinion about the competences acquired by the student is given in table 2.

The teacher's personal rating is an average of votes and can be both positive and negative. Teachers can be divided into three conditional groups: active and authoritative, active and "overrating" and without a rating. When a negative threshold is reached, the teacher is deprived of the right to upload students' projects and information about the development of their professional competences. Thus, such a teacher may lose capable and competent students and will cease to be an authoritative expert on the labor market in the niche concerned.

In this way, the so-called public control will be carried out and the active core of teachers whose opinion the employer trust will be created.

The personal rating of the teacher can be used by the university management for appropriate promotion (the ideal teacher will upload 100% of the projects with a personal rating of confidence in his/her grade +1). Then the

ratings of the departments are established. If we go further, the ratings of educational establishments may be built in this way. For projects performed by a student outside the university, in third-party companies, and having material evidence (completed project text), it is possible (in the future) to make abstracts to them reflecting the student's professional competences developed during that project.

The possible access to the base of the developed professional competences of students at a particular university must also be provided to recruitment agencies that will offer worthy graduates to employers. The reliability of the information provided to employers and recruitment agencies is supported by the university's rating and the personal rating of the teacher who made the abstract.

Conclusions

The result of the study is the creation of a mechanism for the continuous accounting of the requirements of the labor market by the teacher and the design of training the competence profile of a graduate adapted to the needs of employers in the region, by the teacher throughout the entire training path of the student. This approach will help a graduate to acquire knowledge, skills, and abilities according to unique individual competences that will allow him or her to have advantages in the labor market (Давыдова, Козлов, & Шешунова, 2015). The employers will have a tool that allows them to reasonably select any specialist who best meets their prerequisites, remotely assess the level of competence developed by analyzing the source materials and the ability to order specialists with the necessary set of knowledge and skills that best meet the requirements of their companies. As a result, Samara State Technical University gets a tool for ranking teaching staff on the basis of their involvement in the process of forming specialists who are in demand in the regional labor market. The teachers of the Samara State Technical University receive their personal ratings, which are formed by graduates and employers through voting for how well the level of their work requirements complies with the existing qualifications. As a result, the university carries out public control over the job of the teacher, which should be reflected in a performance-based contract of employment by 2020, and a mechanism for updating the scientific and teaching activities of the faculty is being formed. Thus, in order to guarantee that any student developed the professional regional competences, the teacher, acting as a knowledge auditor, becomes a link between the student and the in-demand job market.

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VALSTISKĀS AUDZINĀŠANAS NEPIECIEŠAMĪBA MILITARIZĒTĀ IZGLĪTĪBAS IESTĀDĒ

Necessity of the State Fosterage in the Militarized Educational Institutions

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Abstract. Due to today's complex and changing geopolitical situation in the State Border Guard College as one of the militarized educational institutions it is important to promote the student's understanding of values and virtues, enrich their historical and cultural experience, strengthen their patriotism, belonging and loyalty to the constitution and to the Republic of Latvia. Patriotism can't be defined because it varies according to the subject's position. It is not a specific ideology, but this is a love of native land and defending it in words and in works. Patriotism means to love own country not just idolize the state symbols. Aim of the study is to clarify and scientifically substantiate the necessity of introducing the study subject "State Fosterage" into studies of border guards at the State Border Guard College as one of the militarized educational institutions and to determine the development of students' statehood consciousness, loyalty and patriotism as one of the study programs objectives at the State Border Guard College. For this purpose analysis and evaluation of documents, scientific, pedagogical and psychological literature were performed and conclusions about the necessity of introduction of the State Fosterage subject and possibilities of patriotism development were summarized.

Keywords: fosterage, loyalty, necessity, patriotism, possibilities, state, studies.

Ievads

Introduction

Valsts prezidents, uzsākot pildīt amata pienākumus, par savām prioritātēm izvirzīja Latvijas iedzīvotāju nacionālās vienotības, pašapziņas, patriotisma un lepnuma par savu valsti stiprināšanu (Patriotiskā audzināšana, 2018). Arī viesojoties Valsts robežsardzes koledžā viņš savā uzrunā uzsvēra un norādīja uz nepieciešamību pievērst pastiprinātu uzmanību jauno kadetu valstiskajai un patriotiskajai audzināšanai. Patriotisms praktiski nav definējams, jo tas atšķiras atkarībā no subjekta pozīcijas. Patriotisms nav konkrēta ideoloģija, bet gan savas dzimtenes vai valsts mīlestība, kā arī darbošanās tās labā un tās aizstāvēšana kā darbos, tā vārdos. Patriotisms ir savas valsts un visu tajā dzīvojošo etnisko grupu mīlēšana, nevis tikai valsts simbolu godināšana (Kas ir patriotisms, 2015).

Pēdējā laika pasaules notikumi un ģeopolitiska situācija liecina, ka ir nepieciešams vairāk pievērst uzmanību izglītības videi, kas ir viena no svarīgākajām patriotisma veidošanās vietām. Īpaši svarīgi tas ir militarizētā izglītības iestādē – Valsts robežsardzes koledžā, kas gatavo mūsu valsts - Latvijas aizstāvjus. Uzsākot studijas Valsts robežsardzes koledžā, studējošajiem ir jāpieņem jauna sociālā loma sabiedrībā – amatpersona (robežsargs), kas nozīmē atbildību, jaunus pienākumus un lielu psiholoģisko slodzi, un studiju procesā notiek vērtību sistēmas izmaiņas, iekšējās motivācijas veidošanās, intensīva profesionālu īpašību attīstība, kas veicina personības rakstura un intelekta īpašību veidošanos (Indriksons, 2017). Valsts robežsardzes koledžā kā vienā no militarizētām izglītības iestādēm ir svarīgi veicināt izglītojamā izpratni par vērtībām un tikumiem, sekmējot to iedzīvināšanu, bagātināt kultūrvēsturisko pieredzi, stiprināt patriotismu, piederību un lojalitāti Latvijas valstij un Latvijas Republikas Satversmei ar mērķi nodrošināt iespēju katram izglītojamam kļūt par krietnu cilvēku, tikumisku, rīcībspējīgu un atbildīgu personību sabiedrībā. Pētījuma mērķis ir noskaidrot un zinātniski pamatot atsevišķa studiju priekšmeta „Valstiskā audzināšana” ieviešanas nepieciešamību topošo robežsargu studijās Valsts robežsardzes koledžā, kā arī noteikt studējošo valstiskuma apziņas, lojalitātes un patriotisma attīstību kā vienu no koledžā apgūstamo studiju programmu mērķiem. Lai to noskaidrotu, tika veikta dokumentu, zinātniskās, pedagoģiskās un psiholoģiskās literatūras analīze un izvērtēšana. Pamatojoties uz analīzi, tika apkopoti secinājumi par valstiskās audzināšanas studiju priekšmeta ieviešanas nepieciešamību un patriotisma veicināšanas iespējām.

Literatūras apskats

Literature review

Jebkura politiskā, sociālā, militārā vai ekonomiskā nestabilitāte pasaulē var tieši vai netieši apdraudēt Latvijas iekšējo un ārējo drošību (Par Valsts aizsardzības koncepcijas apstiprināšanu, 2012), kas rada nepieciešamību pēc profesionāli sagatavota personāla, kurš spētu tikt galā ar jauniem izaicinājumiem. Valsts robežsardzes koledžā tiek apgūtas tās nepieciešamās speciālās zināšanas un iemaņas, kuras ir nepieciešamas topošajam robežsargam, lai varētu nosargāt Latvijas Republikas robežu. Robežsardzes likuma (1997) 7.pants nosaka, ka robežsargs ir Latvijas pilsonis, kurš iestājies dienestā Robežsardzē, devis Latvijas Republikai zvērestu apsargāt un aizstāvēt valsts robežu, apguvis robežsargu profesionālās sagatavošanas kursu, ieņem noteiktu amatu Robežsardzē un kuram piešķirta robežsarga dienesta pakāpe un ka robežsargs, pildot dienesta pienākumus savas kompetences ietvaros, pārstāv valsts varu. Savukārt šī likuma 22.pants paredz, ka visi robežsargi, stājoties dienestā Robežsardzē, dod šādu zvērestu:

“Es, Latvijas robežsargs, apzinoties atbildību savas tautas un likuma priekšā, apsolos un zvēru:

- būt uzticīgs Latvijas Republikai, tās Satversmei un likumīgajai valdībai;
- apsargāt un aizstāvēt valsts robežu;
- pēc labākās sirdsapziņas veikt man uzticētos robežsarga pienākumus saskaņā ar Latvijas Republikas likumiem;
- nesaudzēt spēkus, veselību un dzīvību Latvijas Republikas labā.”

No zvēresta teksta izriet, ka Valsts robežsardzes koledžai kā izglītības iestādei topošajiem robežsargiem ir jāstiprina studējošo valstiskuma apziņu, jāveicina viņu pilsonisko līdzdalību un iniciatīvu, lojalitāti un patriotismu. Tas sakrīt ar audzināšanas uzdevumiem attieksmes veidošanai izglītojamajos, kas ir definēti Ministru kabineta noteikumos Nr.480 „Izglītojamo audzināšanas vadlīnijas un informācijas, mācību līdzekļu, materiālu un mācību un audzināšanas metožu izvērtēšanas kārtība” (2016), kur minēts, ka audzināšanas uzdevumi ir veicināt izglītojamo:

- piederību Latvijas, Eiropas un pasaules kultūrtelpai, izpratni par vispārcilvēciskajām un kristīgajām vērtībām, latvisko dzīvesziņu, kultūras mantojumu, tradīcijām un to saglabāšanu, līdzdalību kultūras mantojuma un tradīciju pārnēsē un latviskās kultūrtelpas attīstībā mūsdienās;
- nacionālās identitātes un valstiskuma apziņu, lojalitāti Latvijas valstij, Satversmei un patriotismu.

Zinātniskajā literatūrā pastāv vairāki jēdziena „Patriotisms” skaidrojumi. H. Takeuši (Takeuchi, 2016) norāda, ka patriotisms ir būtiska personas individuālā iezīme. Patriotisms kā sociāla parādība ir jebkuras tautas un valstiskuma pastāvēšanas un attīstības pamatā. Savukārt M. Beins (Bain, 2016) uzskata, ka patriotisms nozīmē atbildību par savu ģimeni un savas valsts atbalstu ar savu vēlmi strādāt, maksāt nodokļus un, nepieciešamības gadījumā, savas valsts labā samaksāt ar dzīvību. Patriotisms ir valsts dzīvotspējas morālais pamats un kalpo kā svarīgs mobilizācijas resurss sabiedrības attīstībai, indivīda aktīvai pilsoniskai nostājai un gatavībai kalpot Latvijai. Arī Valsts prezidents 2018.gadā apmeklējot Valsts robežsardzes koledžu, savā uzrunā uzsvēra valstiskās audzināšanas un patriotisma stiprināšanas nepieciešamību mūsdienu sarežģītajā ģeopolitiskajā situācijā. I. Jurgena (2002) norāda, ka audzināšanas procesā veidojas un attīstās nozīmīga personības attieksme pret cilvēku, cilvēka darbu, kultūras vērtībām, dabu, sabiedrību, valsti.

Valsts robežsardzes koledžā kā militarizētā izglītības iestādē valstiskajai audzināšanai ir jāietver pasākumu kopums, kas stiprinātu studējošo patriotisko jūtu veidošanos, un tai ir jābūt plānotai, sistemātiskai, pastāvīgai un vienai no prioritātēm robežsargu kā Latvijas aizstāvju sagatavošanas procesā. Tās

provizoriskais mērķis ir sekmēt izglītojamo piederības sajūtu Latvijas valstij un tās pamatvērtībām; veicināt izpratni par demokrātiju un pilsoniskās līdzdalības iespējām, attīstīt atbildības sajūtu pret sabiedrību un apkārtējo vidi, stiprināt izglītojamā nacionālo pašapziņu un patriotismu (Valstiskās audzināšanas programma, 2013).

Valsts robežsardzes koledža savā darbībā īsteno Profesionālās tālākizglītības programmu “Robežapsardze”, 1. līmeņa profesionālās augstākās izglītības studiju programmu “Robežapsardze” (Valsts robežsardzes koledža, 2019), kā arī dažādus profesionālās pilnveides kursus. Profesionālās tālākizglītības programmas “Robežapsardze” mērķi ir sagatavot izglītojamo darbībai robežsarga profesijā, veicinot viņa pilnveidošanos par garīgi un fiziski attīstītu, brīvu, atbildīgu un radošu personību, veicināt profesionālo zināšanu un prasmju apguvi, attieksmju veidošanos, un sekmēt viņa kvalitatīvu darbību robežkontroles veikšanai mainīgajā Robežsardzes darba vidē, sekmēt izglītojamo pozitīvas attieksmes veidošanos pret līdzcilvēkiem un valsti, attīstīt profesionālo identitāti, veicinot viņa pašapziņu un spēju uzņemties Latvijas pilsoņu pienākumus, radīt motivāciju robežsarga profesionālajai attīstībai un tālākizglītībai un nodrošināt izglītojamajam iespēju sagatavoties izglītības turpināšanai profesionālās augstākās izglītības pakāpei. Savukārt 1.līmeņa profesionālās augstākās izglītības studiju programmu “Robežapsardze” mērķi ir sagatavot studējošo darbībai robežsarga profesijā, Valsts robežsardzes jaunākā virsnieka kvalifikācijā, veicinot viņa pilnveidošanos par garīgi un fiziski attīstītu, brīvu, lemtspējīgu, atbildīgu un radošu personību, veicināt profesionālo zināšanu un prasmju apguvi, kas nodrošina robežsarga kvalitatīvu darbību robežkontroles un robežuzraudzības organizēšanā un vadīšanā uz valsts robežas, radīt motivāciju tālākizglītībai (Pašnovērtējuma ziņojums, 2019). Taču, kā izriet no iepriekš definētajiem mērķiem, tajos nav neparedzēts Ministru kabineta noteikumos Nr.480 „Izglītojamo audzināšanas vadlīnijas un informācijas, mācību līdzekļu, materiālu un mācību un audzināšanas metožu izvērtēšanas kārtība” (2016) noteiktais, ka izglītības iestādei audzināšanas darbā ir jāveicina arī nacionālās identitātes un valstiskuma apziņu, lojalitāti Latvijas valstij, Satversmei un patriotismu, kas rada nepieciešamību koriģēt un papildināt Valsts robežsardzes koledžas īstenojamo studiju programmu mērķus.

Pētījuma rezultāti

Results

Teorētiskais pētījums tika organizēts, veicot dokumentu, zinātniskās, pedagoģiskās un psiholoģiskās literatūras analīzi un izvērtēšanu. Ministru kabineta noteikumi Nr.480 “Izglītojamo audzināšanas vadlīnijas un informācijas,

mācību līdzekļu, materiālu un mācību un audzināšanas metožu izvērtēšanas kārtība” (2016) definē, ka izglītojamo audzināšanu īsteno:

- mācību stundās, klases vai grupas audzinātāja stundā, ārpusstundu nodarbībās, starpbrīžos, interešu izglītības programmās, dažādos izglītības iestādes organizētajos pasākumos un projektos (izglītības iestādē un ārpus tās), ikdienas sadzīves situācijās;
- pedagogiem sadarbojoties ar izglītojamā vecākiem (personām, kas īsteno aizgādību) un izglītojamā ģimeni;
- pedagoģiskajā sadarbībā, izglītojamo un pedagogu, atbalsta personāla un citu izglītības iestādē nodarbināto personu mijattiecībās.

Valsts robežsardzes koledža ir militarizēta izglītības iestāde ar specifisku dienesta organizāciju un struktūru. Tā darbojas vienotā hierarhiskā sistēmā, kur viena amatpersona ir pakļauta citai amatpersonai (Valsts robežsardzes reglaments, 2008), un attiecības starp dažādos un vienādos hierarhijas līmeņos esošajām amatpersonām dienestā ir reglamentētas. Autors savos iepriekšējos pētījumos norāda uz militarizētas izglītības iestādes darbības specifiku, kuru raksturo personāla, kurš īsteno studiju procesu (docētājs) un personāla, kurš to apgūst (studējošais), savstarpējā atrašanās dienesta attiecībās, un militarizētas izglītības iestādes specifisko vidi raksturo nozarē lietojamie termini „pavēle”, „reglaments” un „disciplīna” (Indriksons, 2017). Līdz ar to šādā izglītības iestādē nav iespējama pedagogu sadarbība ar izglītojamā vecākiem un viņa ģimeni, un nav iespējamās pedagogu un atbalsta personāla mijattiecības ar studējošā ģimeni un studējošo šī jēdziena tiešākajā nozīmē. Tādēļ ir nepieciešams apzināt veidus un paņēmienus, kas var veicināt studējošo patriotisma līmeņa attīstību, kas ir iespējams un nepieciešams militarizētas izglītības iestādes specifiskajā vidē.

Valstiskās audzināšanas studiju kursa ieviešanas nepieciešamību Valsts robežsardzes koledža nosaka vairāki iemesli. Valsts robežsardzes koledža atrodas Latgales reģionā, un šāds ģeogrāfiskais izvietojums Latvijas austrumu robežas posma vidū nodrošina profesionālu speciālistu izglītošanu, regulāri pielāgojot izglītības programmas reālajai dienesta videi uz valsts robežas (Pašnovērtējuma ziņojums, 2019). Saskaņā ar veiktajiem pētījumiem (Pārskats par bezdarba situāciju valstī, 2018), reģistrētais bezdarba līmenis šajā reģionā ir vislielākais, līdz ar to Valsts robežsardzes koledžā studējošie pārsvarā ir no Latvijas austrumu reģioniem (atbilstoši autora novērojumiem, īpatsvars sastāda aptuveni 80%), kur informatīvajā telpā dominē kaimiņvalsts masu mediji ar nepārprotamu faktu sagrozīšanu un propagandas saturu (Krievijas propaganda Latvijā, 2018).

Analizējot Centrālās statistikas pārvaldes (2016) datus, aptuveni puse no iedzīvotājiem Latgales reģionā pēc tautības ir krievi (118 tūkstoši no 300 tūkstošiem), līdz ar to Valsts robežsardzes koledžā ir liels īpatsvars studējošo, kas nāk no krievvalodīgajām ģimenēm, savukārt, kā liecina pētījumi (Krievijas ietekme Latvijas informatīvajā telpā, 2018), 62% Latvijas mazākumtautību

pārstāvju izjūt pozitīvu attieksmi pret Krieviju un uzskata, ka Krievijas federālie masu mediji objektīvi atspoguļo notikumus. Līdz ar to pastāv eventuāla varbūtība pēc nepieciešamības veicināt lojalitāti un patriotismu šajos studējošajos.

Topošo robežsargu iepriekšējās izglītības iegūšanas vietās Latvijas skolās līdz 2018/2019. mācību gadam netika ieviests un īstenots valstiskās audzināšanas mācību priekšmets. No šī gada pilotprojekta ietvaros 14 skolās ir ieviesta valsts aizsardzības mācība ar mērķi sagatavot un attīstīt lojālu, pilsoniski aktīvu Latvijas pilsoni, kuram ir militārās pamatiemaņas, kā rīkoties krīzes situācijās (Roķis, 2018). Robežsargs, atbilstoši likumā noteiktajam, pārstāv valsts varu (Robežsardzes likums, 1997), tādēļ Valsts robežsardzes koledžā robežsargu sagatavošanas procesā ir jāvērs īpaša uzmanība uz studējošo valstiskuma apziņas, lojalitātes un patriotisma attīstību, ņemot vērā to, ka līdz šim viņu iepriekšējās studijās tas netika darīts.

Viens no pētījuma mērķiem ir apzināt patriotisma veicināšanas iespējas Valsts robežsardzes koledžas studijās. Ņemot vērā literatūras analīzi par patriotisma veidošanos un iepriekšminēto par studējošo sastāvu, ir nepieciešams un iespējams veicināt patriotismu:

- ieviešot valstiskās audzināšanas studiju kursu robežsargu sagatavošanas procesā;
- studiju procesā veidojot zināšanas par Latvijas vēsturi un vēsturiskiem faktiem;
- attīstot studējošajos spēju objektīvi novērtēt vēsturiskos faktus un parādības;
- veicinot prasmi atlasīt informāciju un atšķirt viltus ziņas no patiesības;
- studiju procesā un ārpus tā uzsverot sociālas lomas – valsts amatpersona nozīmi, atbildību un pienākumus;
- norādot studējošajiem uz uzvedību ne tikai dienesta, bet arī brīvajā laikā (sociālajos tīklos, ikdienā, personīgā apģērba noformējuma izvēle, dažādu valstu simbolu lietošana, ceļojumi un kontaktu veidošana kaimiņvalstīs utt.);
- ieviešot studiju programmā obligāto studiju priekšmetu „Valstiskā audzināšana”.
- apzinot un atjaunojot vēsturiskās robežsargu tradīcijas.

Atbilstoši Robežsardzes likuma (1997) 7.pantam, robežsargs, pildot dienesta pienākumus, savas kompetences ietvaros pārstāv valsts varu. Robežsargs ir pirmais, kurš sagaida personu uz Valsts robežas, un pēdējais, kurš to pavada, tādēļ viņš ir amatpersona, kas veido Latvijas tēlu kopumā. Tāpēc ir īpaši svarīgi, lai robežsargu sagatavošanas procesā studējošajiem tiktu attīstītas gan nepieciešamās profesionālās prasmes, gan arī lojalitāte, patriotisms un piederības sajūta Latvijas valstij un tās pamatvērtībām.

Militarizētā izglītības iestādē ir svarīgi veicināt arī docētāju uzticību un lojalitāti Latvijas valstij. Ņemot vērā to, ka Iekšlietu ministrijas pakļautībā esošas militarizētas izglītības iestādes vēsturiski ir attīstījušās pamatojoties uz Padomju Savienības karaskolu pieredzi, un arī atsevišķas amatpersonas savu dienestu un karjeru ir sākušas veidot tieši šajā laika posmā, kā arī nodevušas savu pieredzi nākošajām paaudzēm, jautājums turpmākam pētījumam ir apzināt nepieciešamību un iespējas veicināt Valsts robežsardzes koledžas docētāju un personāla valstiskuma apziņas, lojalitātes un patriotisma attīstību.

Secinājumi **Conclusions**

Mūsdienu pasaules notikumi un ģeopolitiska situācija liecina, ka Valsts robežsardzes koledžā kā militarizētā izglītības iestādē ir nepieciešams vairāk pievērst uzmanību patriotisma veicināšanas iespējām, ko ir iespējams panākt ar valstiskās audzināšanas studiju priekšmeta ieviešanu studijās. Veicot dokumentu, zinātniskās, pedagoģiskās un psiholoģiskās literatūras analīzi un izvērtēšanu, tika veikti šādi secinājumi:

1. Patriotisms kā sociāla parādība ir jebkuras tautas un valstiskuma pastāvēšanas un attīstības pamatā, tas ir valsts dzīvotspējas morālais pamats un kalpo kā svarīgs mobilizācijas resurss sabiedrības attīstībai, indivīda aktīvai pilsoniskai nostājai un gatavībai kalpot Latvijai.
2. Valsts robežsardzes koledžā īstenojamo programmu definētajos mērķos nav noteikts, ka ir jāveicina studējošo nacionālās identitātes un valstiskuma apziņu, lojalitāti Latvijas valstij, Satversmei un patriotismu, kā to paredz Ministru kabineta noteikumi.
3. Valsts robežsardzes koledžā studējošie pārsvarā ir no Latvijas austrumu reģioniem, kur atbilstoši pētījumiem, informatīvajā telpā dominē kaimiņvalsts masu mediji ar nepārprotamu faktu sagrozīšanu un propagandas saturu.
4. Valsts robežsardzes koledžā ir liels īpatsvars studējošo no krievvalodīgajām ģimenēm, savukārt, kā liecina pētījumi, 62% Latvijas mazākumtautību pārstāvju izjūt pozitīvu attieksmi pret Krieviju un uzskata, ka Krievijas federālie masu mediji objektīvi atspoguļo notikumus.
5. Topošo robežsargu iepriekšējās izglītības iegūšanas vietās Latvijas skolās līdz 2018/2019. mācību gadam netika ieviests un īstenots valstiskās audzināšanas mācību priekšmets.
6. Iepriekšminētie faktori norāda uz eventuālu varbūtību un līdz ar to nepieciešamību veicināt lojalitāti un patriotismu šajos studējošajos, ko

var veicināt ar valstiskās audzināšanas studiju kursa ieviešanu Valsts robežsardzes koledžas studijās.

7. Valstiskās audzināšanas studiju kursā ir jāparedz zināšanu veidošana par Latvijas vēsturi un vēsturiskiem faktiem, studējošo spēju attīstība objektīvi novērtēt vēsturiskos faktus un parādības, prasmes atlasīt informāciju un atšķirt viltus ziņas no patiesības veicināšana, sociālās lomas – amatpersona izskaidrošana un studējošo uzvedības brīvajā no dienesta laikā (uzvedība sociālajos tīklos, ikdienā, personīgā apģērba noformējuma izvēle, dažādu valstu simbolu lietošana, ceļojumi un kontaktu veidošana kaimiņvalstīs utt.) analīze.
8. Ņemot par piemēru citu valstu pieredzi, valstiskās audzināšanas nolūkā Valsts robežsardzes koledžā ir nepieciešams apzināt un ieviest (atjaunot) vēsturiskās robežsargu tradīcijas ikdienas sadzīvē un svētku (piemiņas) dienās.

Summary

Patriotism as a social phenomenon is the basis for development and existence of any nations and state. Patriotism is the moral basis for the country's viability and serves as an important resource for the development of society, active civil position of the individual and the readiness to serve Latvia. The study concluded that the State Border Guard College as an educational institution for prospective border guards should strengthen students' state awareness, promote their civil participation and initiative, loyalty and patriotism. Due the fact that in a militarized educational institution for teachers is not possible to cooperate with the parents of the students, it is necessary to identify the ways and methods that can promote the level of patriotism of the students, which is possible and necessary in the specific environment of the militarized educational institution. This can be achieved by providing in study programs knowledge about the history and historical facts of Latvia, developing students' ability to objectively appreciate historical facts and phenomena, developing skills to select information and distinguish false information from the truth, explaining the social role of the official in society and analyzing student behavior in their free time, including behavior in social networks, everyday life, choice of personal clothing design, use of symbols of different countries, traveling and making contacts in neighboring countries, etc. Taking an example of the experience of other countries, for the purpose of state fosterage in the State Border Guard College is necessary to identify and implement (restore) the historical traditions of border guards.

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MODULĀRAS PROFESIONĀLĀS IZGLĪTĪBAS STUDIJU PROGRAMMAS VEIDOŠANA KOMPETENCĒS BALSTĪTĀ MODELĪ

Designing of Modular Professional Education Study Programme in Competence-Based Model

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Abstract. *Competence based education is widely discussed for the development of vocational and professional schools. The main goal of professional training is to prepare students for successful integration in professional and social life. Competence approach is considered to have a good potential to transform and improve professional study process. The aim of this paper is to study designing of competence based professional curriculum in regard to making curriculum structure, models and principles. Theoretical study of the competence based approach in education, planning and creating of modular and result -oriented course programmes was made. The aims, strategies, factors, and stages for contemporary learning programme are investigated. Then the concepts and structures are analysed. The results of the research show that designing competence-based curriculum is complicated, creative and innovative process. There are a lot of factors which should be taken into consideration, such as a competence as an organizational element of the curriculum. National education and professional standards make the basis to define the aims and variety of competences. Constructural, human and holistic education theories determine main principles and content of the curriculum.*

Keywords: *competence-based, curriculum, models, principles, integrated approach.*

Ievads

Introduction

Profesionālās izglītības stratēģiskais mērķis ir izglītojamo sekmīga un kvalitatīva sagatavošana konkurētspējai un integrācijai darba vidē. Mūsdienu konkurētspējas rādītāji ir lielā mērā saistīti ar absolventa vai darbinieka kompetenču kopumu un to attīstības līmeni. Kompetenču izglītības pieeja ir nepieciešama, lai attīstītu darba un personīgajai dzīvei būtiskās kompetences. Koledžas studiju kvalitātes uzlabošana ir atkarīga no inovatīvu pieeju ieviešanas koledžas studiju procesa plānošanā, veidošanā un realizēšanā. Inovatīvu principu un elementu ieviešanai studiju programmā ir potenciāls mainīt studiju procesa struktūru, mācīšanas un mācīšanās veidus, saturu, vērtēšanas sistēmu, aktivizēt

studentu un mācībspēku darbību, pilnveidot prasmes un attīstīt kompetences. Jauna veida modulāras un integrētas programmas ir diametrāli pretējas tradicionālo programmu struktūrai un prasa to izvērtējumu un transformēšanu atbilstoši jaunajām izglītības un sabiedrības vajadzībām. Šie jautājumi joprojām rosina daudz diskusiju, tiek attīstīti un pilnveidoti, tāpēc arī paver plašu lauku pētījumiem, analīzei un vērtējumiem, jo ir nepieciešami plašāki teorētiskie skaidrojumi to mērķu, uzdevumu un struktūras izpratnei, kā arī paredz reālu modulāru programmu apspriešanu un analīzi. Kompetenču pieejā balstītas programmas centrālais mērķis ir kompetences kā rezultāts, kam pakārtoti visi pārējie studiju programmas elementi: uzdevumi, mācību saturs, metodes, formas, vērtēšanas veidi. Atbilstoši kompetenču pieejai, programmas uzdevumi ir studentcentrēta un uz rezultātu orientēta studiju procesa veidošana, kas nodrošina studentus ar kompetencēm, kas veicina integrēšanos darba dzīvē un sekmē personīgo attīstību.

Uz rezultātu orientētas studiju programmas ieviešanas problēma ir līdzsvara atrašana starp zināšanu un prasmju attīstības apjomu, mācību kursu ilguma noteikšana, novērtējamu kompetenču definēšana, vienotu vērtēšanas kritēriju izstrādāšana un vispusīgas vērtēšanas sistēmas izveide. Kompetencēs balstītas studiju programmas ir saistītas ar praktiskiem mērķiem un ir svarīgi noteikt to veidošanas stratēģijas ietekmējošos faktorus kā institucionālā līmenī, tā arī izglītības teoriju aspektā.

Kompetenču pieejā balstītas studiju programmas ir modulāras un integrētas. Moduļu programmu mērķis ir radīt pamatu kompetenču veidošanai integrētā studiju procesā. Moduļa jēdziens tiek dažādi interpretēts un pastāv dažādi integrēšanas varianti, kas padara programmu elastīgu un daudzveidīgu.

Raksta mērķis ir izpētīt kompetenču pieejas teorētisko pamatojumu studiju programmu veidošanā, analizēt programmas veidošanas modeļus, principus un struktūru, lai uzlabotu studiju procesa kvalitāti.

Pētījumā tika izmantotas teorētiskās analīzes un interpretācijas metodes.

Kompetenču pieeja profesionālās izglītības studiju programmu veidošanā *Competence approach for the design of the professional education curriculum*

Kompetenču pieejas aktualitāte profesionālajā izglītībā ir pieaugusi līdz ar jaunām darba tirgus un sabiedrības prasībām pēc inovatīvām prasmēm un kompetencēm, kas atbilstu 21.gadsimta profesionālajiem, sociālajiem un tehnoloģiskajiem izaicinājumiem. Izglītības paradigmu maiņa nosaka tradicionālo studiju programmu izvērtēšanu, pārstrukturēšanu un atjaunošanu, izmantojot kompetenču izglītības principus, kuri sniedz iespējas un definē ceļus alternatīvas izglītības koncepcijas īstenošanai. Kompetencēs balstītu studiju programmu definīcijas akcentē to orientāciju uz praktisku mērķu un rezultātu

sasniegšanu, profesionālo un sociālo kompetenču attīstību. Kompetencēs balstītā izglītības pieejā studiju programmas ir saistītas ar praktiskiem mērķiem, kuri atbilstu cilvēku un sabiedrības vajadzībām. Kompetencēs balstītas mācības fokusējas uz mācību rezultātiem un ietver skaidri formulētas būtisko kompetenču definīcijas (Voorhees, 2001; Tamblyn, 1999; Neufeld et al., 1993).

Pēdējos gados medicīnas izglītības studiju programmās visā pasaulē ir notikusi nozīmīga attīstība, jo tradicionālais programmu ietvars tiek uzskatīts par neatbilstošu sistēmu, lai sagatavotu nākotnes ārstus divdesmit pirmā gadsimta medicīnai (Cooke et al., 2006; Irby et al., 2010). Veselības politikā, veselības aprūpes sniegšanas sistēmā un starpdisciplinārā aprūpē ir pieprasīts, lai medicīnas absolventiem būtu zināšanas un prasmes, kas ir atbilstošas medicīniskās izglītības moderniem domēniem, kuros uzsvars tiek likts uz termiņiem „sabiedrība un veselība”, „profesionalitāte un līderība.”

Kompetences tiek definētas kā centrālais un noteicošais studiju programmu un studiju procesa organizēšanas elements, lai iegūtu optimālus mācību rezultātus, kā arī vērtējuma rādītājs. Kompetences demonstrēšana ir svarīgākais praktiskais rezultāts, ko var novērtēt mācību procesa jebkurā posmā un kas attiecas uz atbilstošām zināšanu, prasmju vai vērtēšanas jomām.

Kompetencēs balstītu mācību teorijas attīstītāji (Voorhees, 2001; Carraccio et al., 2002; Mylon, 2013) vienojas koncepcijā, ka kompetencēs balstīta izglītība ir uz rezultātiem balstīta pieeja, lai veidotu, ieviestu, novērtētu izglītības programmas, izmantojot kompetenču organizējošo ietvaru. Kompetence ir pieprasīto prasmju demonstrēšana visās jomās noteiktā kontekstā noteiktā izglītības vai prakses stadijā.

Studiju programmu attīstības process ir cieši saistīts ar izglītības teorijām un metodoloģiju. Studiju programmu veidošanas psiholoģiskais pamats ir mācīšanās un motivācijas teorijas; instrumentālās mācīšanās teorijas, humānistiskās teorijas, transformatīvā mācīšanās teorija, motivējošie modeļi un refleksīvie modeļi. Instrumentālās mācību teorijas iekļauj: biheiviorālās teorijas, kognitīvās teorijas, Kolba “Experiential learning” (mācīšanās no pieredzes).

Humānistisko teoriju ietekme uz izglītības procesu arvien pieaug un rod apstiprinājumu studiju mērķos un programmās. Andragogy (pieaugušo) un pašvirzītas mācības, sociālā mācīšanās, ko piedāvāja motivācijas teorija (Bandiera, Boucher, Neville, Kuper, & Hodges, 2013), kas izvirza pašvirzītu mācību ideju, attribution (pielietojuma) teorija, transformatīvās mācīšanās teorija, kas ietver kritisko refleksiju. Šīs teorijas balsta kompetencēs balstītas izglītības un studiju programmu izvirzītos mērķus, metodes un formas, kas veicina studentcentrētas, interaktīvas, pašvirzītas, ar praksi un reālo dzīvi saistītas, problēmbalstītas un refleksīvas mācības.

1. tabula. **Kompetencēs balstītas studiju programmas veidošanas stratēģija**
Table 1 Strategy of competence-based curriculum design

| Studiju programmas | Izglītības teorijas | Metodoloģija |
|-------------------------------|---------------------------------|---|
| Kompetencēs balstīta modulāra | Instrumentālā mācīšanas teorija | Biheiviorālā Kognitīvā Kolba “mācīšanās no pieredzes” |
| Integratīvā | Humānistiskā | Androgogija (pieaugušo mācības) Sociālā mācīšanās |
| | Transformatīvā | Kritiskā refleksija |
| | Motivācijas teorija | Pašvirzītas mācības |

Studiju programmu veidošanā viens no sarežģītākajiem uzdevumiem ir noteikt un skaidri definēt specialitātei atbilstošo nepieciešamo kompetenču kopumu un to vērtēšanas veidus, biežumu un formu. Izglītības un profesionālie standarti parasti ir pamats kompetenču noteikšanai un attīstībai. Kompetencēs balstīta medicīnas izglītība fokusējas uz mācību rezultātiem, jo ietver skaidri formulētas būtisko apgūstamo kompetenču definīcijas. (Voorhees, 2001; Tamblyn 1999; Neufeld et al., 1993).

Kompetenču pieejā uzsvars tiek likts uz spējām (kompetences kā mācību programmu organizējošais princips). Tā sniedz iespējas zināšanu atkārtošanai un nostiprināšanai, attīstot noteiktas kompetences katrā mācību posmā. Kompetencēs balstītas medicīniskās izglītības (KBMI) studiju programmas ir organizētas ap kompetencēm un prasmēm salīdzinot ar garajiem zināšanu mērķu sarakstiem. Kompetenču izglītības pētnieki uzskata, ka izmantojot kompetences kā organizējošu rāmi, izglītotājiem rodas izdevība plānot mācību pieredzes, kas ilgstoši iesaista iepriekšējo mācību elementus, un uzsvērt novērojamas prasmes. (Voorhees, 2001).

Kompetencēs balstīta mācību programma sākas ar rezultātu prātā, uz kura pamata tā definē prasmes, kas nepieciešamas absolventiem, tad attīstības punktus, instrukciju metodes un vērtēšanas rīkus, lai sekmētu to apgūšanu. Kompetences definīciju analīze (Tiļļa, 2005; Mylon, 2013) parāda, ka kompetences ir daudzdimensiju un dinamiskas, tās mainās laika gaitā, pieredzē un vidē, tā ir novērojama profesionāla prasme, kas integrē daudzveidīgus komponentus, tādus kā zināšanas, prasmes, vērtības un attieksmes. Tā kā kompetences ir novērojamas, tās var izmērīt un novērtēt, lai pārliecinātos, kā tās ir apgūtas. Dažādām darbības jomām ir nepieciešams atšķirīgs kompetenču kopums, ko svarīgi pēc iespējas pilnīgāk noteikt, lai sasniegtu programmas izvirzītos uzdevumus.

Rezultātu balstīta studiju programma prasa izglītības vajadzību noteikšanu un nepieciešamo prasmju identificēšanu, kas tiek organizētas ap studiju programmās iekļautajām kompetencēm.

Mācību satura organizēšana noteiktu zināšanu un kompetenču apgūšanai izvirza studiju programmu plānošanā prasību formulēt konkrētas prasmes. Zinot, ka mūsdienās ir svarīgas ne tikai profesionālās prasmes, bet arī sociālās, mūžizglītības, dzīves, personīgās un attieksmes prasmes, ir aktuāli integrēt tās studiju programmās un studiju procesā.

Modulāras studiju programmas izveides struktūra inovatīvas pieejas īstenošanai

Frame of the modular training programme design for implementation of the innovative approach

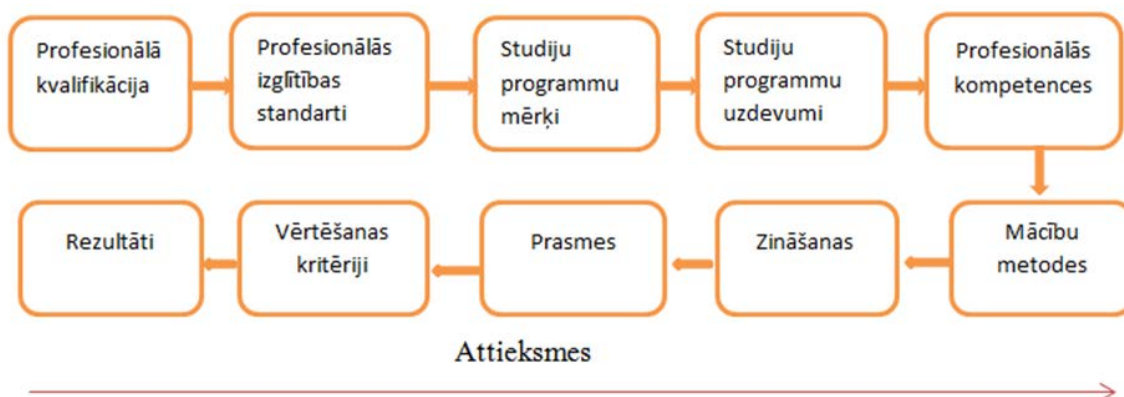
Profesionālās izglītības pilnveides procesā kļūst aktuāla modulāras un integrētas pieejas izmantošana kompetencēs balstītā izglītības modelī. Kompetenču modelis izvirza jaunus mācību programmu mērķus, uzdevumus un modificētu struktūru, kas veicinātu inovācijas studiju procesā. Mācību programmu novitātēm jāveicina tādu zināšanu sabiedrībai aktuālu kompetenču attīstību kā izziņas, pētniecības un inovāciju, zināšanu un pieredzes integrācijas prasmes, kritisko domāšanu, problēmrisināšanas un refleksijas prasmes, kā rezultātā veidojas profesionālās prasmes. E. Mailons izvirza sekojošus jauno izglītības programmu mērķus (Mylon, 2013):

- mācību rezultātu standartizācija un mācību procesa individualizācija;
- formālo zināšanu un klīniskās pieredzes integrācija;
- pētniecības un inovācijas paradumu attīstība;
- fokuss uz profesionālās identitātes veidošanu.

Modulāras izglītības programmas ir orientētas uz kompetencēm kā mācību rezultātu un integrētu struktūru, lai pilnīgāk saistītu teoriju ar praktisko darbību. Profesijas standarts veido pamatu studiju programmu plānošanai un veidošanai. Profesionālās medicīniskās izglītības standarts apraksta kompetences kā spējas. Tās attiecas uz profesionālajām, personīgajām, sociālajām, saziņas, attieksmju un mūžizglītības prasmēm, bet standartā ir iekļautas kopīgā sarakstā bez jebkādas klasifikācijas. Tāpēc profesijas kompetenču standartu var raksturot kā vispārīgu, nekonkrētu, nepietiekami detalizēti izstrādātu, kas var ietekmēt studiju programmu kvalitāti.

Apkopojot izglītības dokumentu informāciju un studiju programmu veidošanas koncepcijas, var secināt, ka to struktūra balstās profesionālo kvalifikāciju un izglītības standartos, uz kuru pamata tiek izvirzīti programmu mērķi un uzdevumi, kas vērsti uz kompetenču veidošanu, kuras nosaka mācību metodes, kā apgūt kompetenču attīstībai nepieciešamās zināšanas, prasmes un izstrādā atbilstošus vērtēšanas kritērijus, lai mācību rezultāti ir objektīvi novērtēti. Autore uzskata, ka visos studiju programmas posmos jāiekļauj attieksmes veidošanos kā priekšnosacījumu personīgai, profesionālajai un sociālai attīstībai

un mūžizglītībai. Šī programmas veidošanas hierarhija ir atspoguļota autore izveidotajā shēmā.



1.attēls. Studiju programmas veidošanas posmi
Figure 1 Stages of designing the curriculum

Profesionālās izglītības oficiālās nostādnes kalpo kā vadlīnijas studiju programmu mērķu, uzdevumu un satura izstrādāšanai, kā arī nosaka kritērijus rezultātu vērtēšanas veidam. Kompetencēs balstītu mācību programmu veidošanā ir aktuāla modulāra pieeja. Profesionālās izglītības likums nosaka, ka izglītības programmas struktūrā var izmantot divus modeļus: mācību, prakses un kvalifikācijas prakses ietvaru vai moduļu kopuma ietvaru (Profesionālās izglītības likums, 2017).

Daugavpils Medicīnas koledžas pirmā līmeņa profesionālās augstākās izglītības studiju programmas “Māszinības” pētījumā konstatēts, ka tā sastāv no trim daļām: A daļa ietver obligātos vispārizglītojošos studiju kursus un nozares teorētiskos pamatkursus, B daļa ir obligātās izvēles nozares profesionālās specializācijas kursi un C daļā ir izvēles studiju kursi. Profesionālās specializācijas kursi ir apvienoti ar praksi otrajā un trešajā studiju gadā, kas ir modulārās pieejas, kā arī darba vidē balstītu studiju demonstrējums. Taču programmā nav moduļu vai tēmu integrācijas sadaļu, kas prasa programmu pilnveidošanu.

Profesionālās izglītības likums formulē moduļa satura teorētisko pamatu un mērķi, kas ir vienas vai vairāku kompetenču apguve, bet nenorāda veidošanas principus vai struktūru. Medicīnas koledžas programmā ir paredzēta tādu profesionālo kompetenču attīstība kā dažādu slimību un vecumu pacientu aprūpe, profesionālā atbildība un ētiska attieksme, sabiedrības veselība un medicīniskā rehabilitācija, pētniecība, medicīniskās psiholoģijas un sadarbības prasmes, ko atklāj atbilstošie specializācijas kursi un prakse. Šīs izglītības programmas trūkums ir grūtības noteikt, kādu kompetenču kopumu ir iespējams apgūt katrā studiju kursā, saistot teorētiskās zināšanas ar praktisko pieredzi un vai ir iespējas

attīstīt komunikācijas, sadarbības, pētnieciskās, mūžizglītības un citas inovatīvās prasmes studiju procesā. Programma tieši neatspoguļo modulāras vai integrētas pieejas principus vai struktūru, kas raksturotu atjaunotu un pilnveidotu mācību iestādes dokumentu.

Latvijas profesionālās izglītības programmas saturu veido vispārīzglītojošie studiju kursi, profesionālie studiju kursi, izvēles studiju kursi, modulāri kursi, praktiskās mācības, prakse, kvalifikācijas prakse. Modulāru programmu veidošana vēl nav ierasta prakse profesionālās izglītības iestādēs, kaut arī izglītības paradigmu maiņa medicīnas darbinieku kompetences pilnveidošanai paredz studiju programmu izvērtēšanu un attīstīšanu, kas tiek saistīta ar modulāru un integrētu pieeju ieviešanu. Moduļu veidošana var ienest efektīvas inovācijas mūsdienīgu kompetenču attīstībai, jo orientējas uz izglītības mērķu īstenošanu kā kompetenču veidošanu un rada nepieciešamību izmantot jaunas mācību metodes un formas. Veidojot modulāras un integrētas studiju programmas, ir jāapzinās to potenciāls veicināt studentcentrētas, pašvirzītas un aktīvas studijas, kas veicina problēmrisināšanas, kritiskās domāšanas, komandas darba, līderības un refleksijas prasmes, kuras ir pieprasītas darba un sociālajā vidē. Plānojot jaunu studiju programmu, jāņem vērā mācību institūcijas misija un studiju programmas vīzija, lai, sekojot šīm vadlīnijām, transformētu studiju programmas saturu modulārā struktūrā, izmantojot integrētu pieeju. D. Brauers un K. Fergusons integrētu programmu definē kā "pilnīgi sinhronu, transdisciplināru pamatzinātņu un lietišķo zinātņu informācijas sniegšanu visos studiju programmas gados." (Brauer & Ferguson, 2015). Šī definīcija nosaka programmas komponentu apvienošanu un sakārtošanu visā studiju laikā, veidojot sintezētu kopumu, vadoties no multidisciplināriem mērķiem un kompetencēm kā paredzamajiem rezultātiem.

Izpētītie dokumentālie un teorētiskie avoti ļauj identificēt elementus, kas raksturo kompetencēs balstītu studiju programmu: izglītības iestādes stratēģiju noteicošie faktori, daudzveidīgu kompetenču attīstība, moduļu ieviešana, integrācijas modeļi, studentu un akadēmiskā personāla darbība, mācību vide.

Izveidotā kompetencēs balstītā modulāra studiju procesa plānošanas stratēģijas tabula atspoguļo, kā izglītības institūcijas stratēģiju ietekmē darba devēju un sabiedrības vajadzības, ekonomikas un globālās attīstības tendences, mobilitāte un lokālais pieprasījums. Moduļus raksturo integrēti un starpdisciplināri kursi, kā arī variatīva vērtēšanas sistēma. Studiju programmai jāsniedz studentiem un pasniedzējiem iespējas būt aktīviem un radošiem, sadarbīgiem, attīstīt profesionālās un personīgās kompetences starpdisciplinārā, pētnieciskā un interaktīvā vidē, kas rosina pilnveidošanos un mūžizglītību.

2. tabula. *Kompetencēs balstīta modulāra studiju procesa plānošanas stratēģija*
 Table 2 *Strategy of competence based curriculum plan*

| Koledžas stratēģijas faktori | Rezultāti (kompetences) | Moduļi | Mācību vide | Studentu darbība | Akadēmiskā personāla pozīcija |
|------------------------------|-------------------------|--------------------------------|------------------------|---------------------|---|
| 1.Darba devēji | 1.Kognitīvās | 1.Īsi kursi | 1.Daudzfunkcionāla | 1.Aktīva | 1.Studentcentrēta |
| 2.Sabiedrība | 2.Saziņas | 2.Integrēti | 2.Darba vidē balstīta | 2.Pašvirzīta | 2.Vadītājs nevis instruktors |
| 3.Ekonomiskie procesi | 3.Personīgās | 3.Starpdisciplināri | 3.Tehnoloģiju balstīta | 3.Sadarbīga | 3.Mijiedarbība |
| 4.Globalizācija | 4.Profesionālās | 4.Pieturas punkti | 4.Aktīva | 4.Kritiskā domāšana | 4.Radošums |
| 5.Mobilitāte | 5.Mūžizglītības | 5.Kreditpunkti | 5.Interaktīva | 5.Problēmrisināšana | 5.Motivēšana |
| 6.Lokālās vajadzības | 6.Dzīves | 6.Variatīva vērtēšanas sistēma | 6.Mijiedarbīga | 6.Refleksija | 6.Daudzveidīgas mācību formas |
| | 7.Attieksmes | | | | 7.Aktuālas izglītības pieejas |
| | | | | | 8.Izmanto jaunās atziņas izglītībā un zinātnē |
| | | | | | 9.Atgriezeniskās saites nodrošināšana |

Sekmīgas programmas veidošanā ir svarīgi ievērot sekojošus pamatprincipus: skaidrība, kapacitāte, konsekvence, saistība, (Hamza, 2012). Ietvaru studiju programmai var veidot pēc vairākiem modeļiem: uz priekšu vērstā (klasiskā) – pēc Tayler metodes, atpakaļ vērstā, kas ir kompetenču pieejas pamatā, un centrālā, kas ir satura un mācīšanas pieeju centrēts (Della & Collin, 2005). ADDIE's pamata piecu soļu modelis definē tādus modulāras programmas ieviešanas principus: analīze, plānošana, attīstība, ieviešana un novērtēšana.

Pašlaik fokusā ir alternatīvie modeļi: "SPICES" (Harden, Sowden, & Dunn, 1984), kurš apzīmē studentcentrētu, problēmbalstītu, integrētu, kopienā balstītu, efektīvu un sistēmisku studiju programmu. PRISMS (Bligh, Prideaux, & Parsell, 2001) - produktu orientēta, atbilstoša (studentiem un sabiedrībai), starpprofesionāla (un starpdisciplināra), īsāki kursi (mazas vienības), daudzās

vidēs, simbiotiska. Šīs ir aktuālas nostādnes, kuras ietekmē un vada kompetencēs balstītu modulāru studiju programmu filozofiju.

Modulāru uz rezultātu orientētu studiju programmu modeļi *Models of the modular result-directed curriculum*

Teorētisko pētījumu analīze parāda, ka kompetencēs balstītas studiju programmas raksturo modulāra struktūra un integrēts saturs. Tās mērķis ir daudzpusīgu kompetenču attīstība starpdisciplinārā studiju procesā. Modulārā profesionālās izglītības programma ir programma, kuras profesionālo saturu atkarībā no izglītības programmai izvirzītā mērķa, veido moduļu kopums un kuras apguves rezultātā var iegūt profesionālo kvalifikāciju (Profesionālās izglītības likums, 2017).

Modulis šajā pētījumā tiek izprasts kā studiju programmas apakšvienība un profesionālās kvalifikācijas sastāvdaļa. Modulāra studiju programma tiek veidota, lai attīstītu pierādāmu un integrētu zināšanu un kompetenču kopumu ar novērtējamiem mācību rezultātiem. “Moduļu attīstība nav lineārs veidojums, bet tiek izstrādāts ar precīzu tehniku palīdzību kvalitatīvā komandas darbā. Tas tiek izstrādāts saskaņā ar izvēlēto studiju programmas ietvaru un izmantots medicīnas izglītības pamatjomu problēmu risināšanā” (Torsten & Postlethwaite, 1994).

Modulārā pieeja ir pierādījusi sevi kā efektīvs rīks, kas palīdz studentiem mācīties (Butcher, Davies, & Highton, 2006). Moduļa programma - profesionālās izglītības programmas sastāvdaļa, kas ietver moduļa mērķus un uzdevumus, moduļa sasniedzamos rezultātus, moduļa saturu, apguves plānojumu, iegūtās izglītības vērtēšanas kritērijus un kārtību, kā arī programmas īstenošanai nepieciešamo metožu un līdzekļu uzskaitījumu (Profesionālās izglītības likums, 26.pants, 2017). Moduļu programmas definīcija liecina, ka tās ieviešana prasa daudzu komponentu izmaiņas, kas varētu būt svarīgs iemesls, ka pāreja uz modulāru programmu ir lēns, nepilnīgi izprasts un sarežģīts process.

Integrētām mācību programmām ir potenciāls pilnveidot kompetencēs un moduļos balstītu izglītības procesu. E.A. Džonss un A.B. Vorhes atzīst, ka kompetencēs balstītai studiju programmai ir modulārs un integrēts raksturs, kas izpaužas tādos modeļos kā horizontālā integrācija, vertikālā un spirālveida integrācija (Jones & Voorhees, 2002). Horizontālā integrācija tiek definēta kā integrācija starp disciplīnām, bet ierobežotā laika periodā. Vertikālā - integrāciju laikā, izjaucot tradicionālo barjeru starp pamata un klīniskajām zinātnēm. Spirālveida integrācija- savā labākajā veidā apvieno gan horizontālo, gan vertikālo integrāciju, apvienojot integrāciju laikā un starp disciplīnām. Spirālveida integrācija paredz teorētisko zināšanu un prakses sasaisti no studiju sākuma līdz beigām arvien augstākā līmenī, balstoties uz iepriekšējām zināšanām

un pieredzi, rezultātā veidojot dziļas zināšanas, kompetences un attieksmes (Voorhees, 2001).

Autores teorētiskais un dokumentālais pētījums liecina, ka kompetencēs balstītu, inovatīvu mācību programmu veidošana ir savstarpēji integrētu pamatzinātnes, speciālās zinātnes un prakses komponentu strukturēšana, izmantojot starpdisciplināru un modulāru pieeju. Mūsdienīga profesionālo studiju programma izvirza aktuālus kognitīvos un pragmatiskos programmas mērķus, jaunākajos pētījumos balstītu saturu, kompetenču kopumu atbilstoši darba tirgus, sabiedrības, profesionālo kompetenču, studējošo un studiju procesa uzlabošanas vajadzībām.

Secinājumi **Conclusions**

Kompetenču izglītības teoriju izpēte liecina, ka kompetencēs balstītas mācības ir aktuāla profesionālās izglītības pieeja, ko raksturo uz rezultātu orientēts studiju process, kur kompetenču attīstība un demonstrējums ir galvenais vērtēšanas kritērijs un studiju rezultāts. Kompetenču pieejas realizēšanai ir nepieciešama kompetencēs balstītas studiju programmu veidošanas izpratne un prasmes.

Mūsdienīgu studiju programmu veidošana ir atkarīga no izvēlētā modeļa, principu ievērošanas, modulāra un integrēta satura, saprotamas vērtēšanas sistēmas. Šo studiju programmu ieviešana tiek saistīta ar to elastīgo raksturu un vieglu piemērošanu dažāda līmeņa studentu vajadzībām un interesēm. Kompetencēs balstītas studiju programmas nosaka nacionālo izglītības standartu un profesijas kvalifikāciju prasības. Kompetenču pieejas programmu veidošana sastāv no vairākiem posmiem: vajadzību analīzes, diskusijas, mērķu izvirzīšanas, uzdevumu noteikšanas, kompetenču definēšanas, satura izveides, metožu un līdzekļu izvēles, vērtēšanas formu noteikšanas

Kompetencēs balstītai izglītības programmai ir potenciāls ieviest inovatīvus elementus un uzlabot profesionālās izglītības studiju procesa kvalitāti. Modulāras un integrētas studiju programmas palīdz veidot starpdisciplināru, pētniecisku un interaktīvu studiju vidi, veicina ciešāku studiju saikni ar praktisko profesionālo darbību, sniedz iespējas attīstīt dziļas mācīšanās prasmes, pašvirzītas un līdzdarbīgas mācības, problēmrisināšanas un kritiskās domāšanas spējas, sociālo un komunikācijas kompetenču attīstībai. Modulāru studiju programmu veidošana ir sarežģīts, radošs un inovatīvs process, kas paredz nākotnes perspektīvu un sagatavo izmaiņām un izaicinājumiem.

Summary

The aim of this paper is to make a theoretical study of the competence approach in education, design of the competence-based curriculum in terms of its frame, models and principles, as well as estimate modularity and integration in structuring learning programme content in order to improve professional education process.

Competence-based professional curricula are directly opposite traditional learning program conception. If designing the traditional structure the most important elements are the content and time period, the alternative formation starts with skills or competences. Competence approach means that the aim of curriculum is to define, structure, develop and evaluate competences.

The most significant task of the modern study programme is to correspond to the professional and personal needs of the students, to promote their activity and self-directed learning.

Research of the official education documents gives the evidence that in designing the curriculum it is important to take into account the educational institution vision, matching of the curriculum aims with the practical demands of the employees of the field, needs of the community and correspondence to reality.

Study of the modules in the result-oriented curriculum show that they are organized in small units, are integrated, multidisciplinary, use credit points, have multifunctional evaluation system. Study environment is positive, practice-based, multifunctional, technology-based, and interactive. Models for designing curricula frame can be several: forward directed as in traditional way, back-directed, used for competence type and central, that is focused on the content. Basic principles for designing curriculum are clarity, capacity, consistency, commitment. Modern professional education curriculum can help to implement new education paradigm, because it sets real life aims, based in scientifically proved integrated and modular content, variety of competences, that are easy to evaluate and which correspond to demands of the professional competency and labour market, as well as learning process improvement and students' needs.

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3D PRINTING TECHNOLOGY IN HUMAN ANATOMY MODERN TEACHING AND LEARNING

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Abstract. *There are various combinations of 3D printing technology and medical study process. The aim of this study was to summarize our first experience on 3D printing and outline how 3D printed models can be successfully used in Human Anatomy modern teaching and learning. In 2018 autumn semester, together with traditional methods, a three-dimensional (3D) printing has been introduced into Human Anatomy curriculum at Department of Morphology. In practical classes 39 groups of students from Faculty of Medicine 1st year together with 3 tutors used 3 different open source softwares to create anatomical models and prepared them for printing process. All anatomical models were produced using an FDM 3D printer, a Prusa i3 MK2 (Prusa Research). As methods for data collection were used our observational notes during teaching and learning, analysis of discussions between tutors and students, comments on the preparing and usability of the created and printed models. 3D printing technology offered students a powerful tool for their teaching, learning and creativity, provided possibility to show human body structures or variations. Presented data offered valuable information about current situation and these results were suitable for the further development of the Human Anatomy study course.*

Keywords: *education, Human Anatomy, models, printing.*

Introduction

Human Anatomy studies for medical undergraduates have always been hard to memorize and understand (Yaminne, 2015; Yeom, Choi-Lunberg, Fluck, & Sale, 2017). Some available anatomical books, atlases or any other resources do not meet all their needs regarding all or details of anatomical structures (Trelease, 2016). In the modern medical education the traditional teaching and learning methods are improved with new and realistic three-dimensional (3D) modeling and printing (Michalski & Ross, 2014). The last mentioned tools are becoming widely available across many industrial, scientific and daily life fields (Violante & Vezzetti, 2017). As the technologies continue to develop, 3D printing has the potential to influence and revolutionize the future of medicine (Coles-Black, Chao, & Chuen, 2017).

The anatomy teaching, learning and 3D printing play very important roles in the modern medical education. As described in several publications (Drake & Wojciech, 2014; Drake & Wojciech, 2017), the use of 3D printed reproductions in anatomy education had the potential to provide a readily available source of qualitative teaching materials. But very limited information has been published on the role of 3D printing technology in Human Anatomy education in Latvia.

In medical education teaching and learning are carried out through the utilisation of a variety of study resources and tools (Ruzycki, Desy, Lachman, & Wolanskyj-Spinner, 2018). To the existing materials, a new addition was made last year for medical students of the 1st study year at the Department of Morphology of Rīga Stradiņš University (RSU). There were offered lectures and practical classes in 3D modeling and printing.

The aim of this study was to summarize our first experience on 3D printing and outline how 3D printed models can be successfully used in Human Anatomy modern teaching and learning. As methods of data collection and analysis included our observational notes during teaching and learning, discussions between tutors and students, and comments on the preparing and usability of the created and printed models.

Material and Methods

This study was based upon the educational process and devices required in the teaching and learning environment and also the necessary using modern technologies in the Human Anatomy course. The study took place at Department of Morphology of the RSU. In 2018 autumn semester, together with traditional methods, a three-dimensional (3D) printing has been introduced into Human Anatomy curriculum. It didn't replace any teaching and learning methods that were already being delivered, and was used to support the students in study process. Students from Faculty of Medicine have been involved in the study. In 4 practical classes 39 groups of the 1st year students, aged from 18 to 25 years, together with 3 tutors used 3 different open source softwares to create anatomical models and prepared them for printing process.

The basic procedures for anatomical 3D printing consisted of several steps: introduction in 3D printing technology, overview of materials, preparing for creation and downloading of 3D file of model, pre-processing, modeling, printing and post-processing.

We started use two printers and all anatomical models were produced using Fused Deposition Modeling (FDM) 3D printers, a Prusa i3 MK2 (Prusa Research).

In the first step students looked for 3D anatomical models in free online sources and after downloaded them to personal computers. Before students moved

to next steps, they choosed models only with special format STL (standard tessellation language) or file extension. After that this file was loaded into Ultimaker Cura software and model was prepared for 3D printing.

In order to create a 3D print, there was provided special additional information (when required). In beginning of this step all students changed the anatomical model in size dimensions and optimal orientation, scaled, performed some other functions (splitting, mirroring, etc.) and positioned it in the center or corner of the build plate. After that there were generated support structures for models with overhanging parts and selected correct settings for printing process. At the end of these steps all anatomical models were sliced, annotated, saved to computer or SD memory card.

The special print code (g. code) for file of model was generated using Ultimaker Cura. Materials were the next parameters of the development process and there some models were printed using plastic materials, such as PLA (polylactic acid) or ABS (acrylonitrile butadiene styrene). The time necessary for production of 3D models varied and generally it was determinated by the size of a model and the type of material.

After modeling and printing the final step was post-processing. This included removing the physical part from the printer platform and detaching the supports. In some cases the printed model required minor cleaning and surface treatment operations to improve its quality, appearance, stability and strength.

The quality of printed anatomical models was compared with original specimens. After these steps all printed models were ready for teaching use or learning.

Later as methods for collecting data were used our observational notes and discussions between groups of students groups. At the end of each practical class the tutors performed short sessions of questions with the students about role of the 3D modeling and printing in Human Anatomy studies.

Results

We describe our experience into the current use of 3D printing and the results of a survey aimed to answer to the question: „What is the role of 3D printing technology in Human Antomy teaching and learning?“

In the 1st printing practical class students were introduced to 3D technologies, their range, current and future applications, different equipment and development in medicine. After that tutors explained the composition of printers, rules and requirements, safety, learning tasks and formed students in 6-12 groups. Students downloaded existing designs from different free online sources. Obtained 3D models represented useful educational tools as they were easily downloaded from the different links, libraries of models and manipulated,

prepared by students and/or tutors. In this way students were made aware of the technical possibilities, materials using, the design restrictions and the variety of potential application areas.

In the 2nd, 3rd and 4th practical classes period students developed their independent designs of 3D anatomical models. Tutors demonstrated to students functions of different possibilities in preparing of models, made attention to the most frequent problems on and conducted preliminary design rules of the anatomical models. Students saved their models and/or submitted their final designs for a detail design rules check. Tutors provided technical feedback. In the last practical classes students received their 3D preliminary models, assessed the problems with the tutors and prepared new design or corrected previously prepared models. After that all models were printed in a relatively short time.

During all practical classes students were introduced to main steps to producing 3D models, digital files conversion, formatting, printed models problems, artefacts and variables. Students showed the ability to design and analyze 3D printed anatomical models. Analysis of these pre- and post-processed models showed significant increasing in student's teaching and learning process.

In several activities between teams and groups students communicated more effectively and used different techniques, skills and tools for modeling and printing practice. Modeling was very useful in designing small details and it allowed printing of several models and structures in different sizes. There were a lot of bones that were reproduced in different sizes. The largest models were more easily manipulated than smaller ones and some students started use them for self-directed learning. After that majority of students reported that they found 3D printed models of bones very helpful in their overall understanding of the structures, as well as improving their learning interest. Several students printed very simple structures of the bones and/or any organs to help visualize elementary concepts in anatomy. According to this, some 3D printed models were used to explain only general structures of the bones, body parts and organs.

Our practical classes` activities were very useful in helping students gain a better understanding of surfaces of anatomical structures. Students enjoyed holding the anatomical models, examining them and even took some photos of their prepared models. They showed great possibilities to rotate 3D models and during this procedure students understood and described some anatomical structures better than before. 3D models were several times less expensive than real specimens and students could examine models without damaging any originals. All the models have obtained good anatomical details, thus demonstrating the practicality of this technology. 3D printed models most included hard structures than flexible elements.

Tutors and students discussed the potential use of 3D technology, strong and weak directions of it in teaching and learning process of Human Anatomy. The

following types of views were discussed the relevant impacts of 3D printing on teaching and learning of Human Anatomy (Table 1).

Table 1 Students` views on 3D printing technology in Human Anatomy course

| Type of view | Groups of students (n=39) |
|---|------------------------------|
| | <i>Effectiveness,%</i> |
| Promotes students independent learning | 93.0 |
| Catches students attention by learning-by-making | 100.0 |
| Visualization of theory | 75.5 |
| Understanding the relationships between structures and surfaces | 85.5 |
| Teaching via visualization | 99.0 |
| Optimization of study process and/or troubleshooting | 55.0 |
| Creative teaching and learning | 91.0 |
| Models for more in-dept studies | 100.0 |
| Level of knowledge review | 63.0 |

n - number

The most 3D printing helped catch students' attention via the learning-by-making approach (100%), easier concept teaching via visualization (99%) and promoting students' independent learning (93%).

For understanding, learning, demonstrating various useful 3D anatomical models were printed, including bones, organs or different parts with structures, shown in Figure 1.

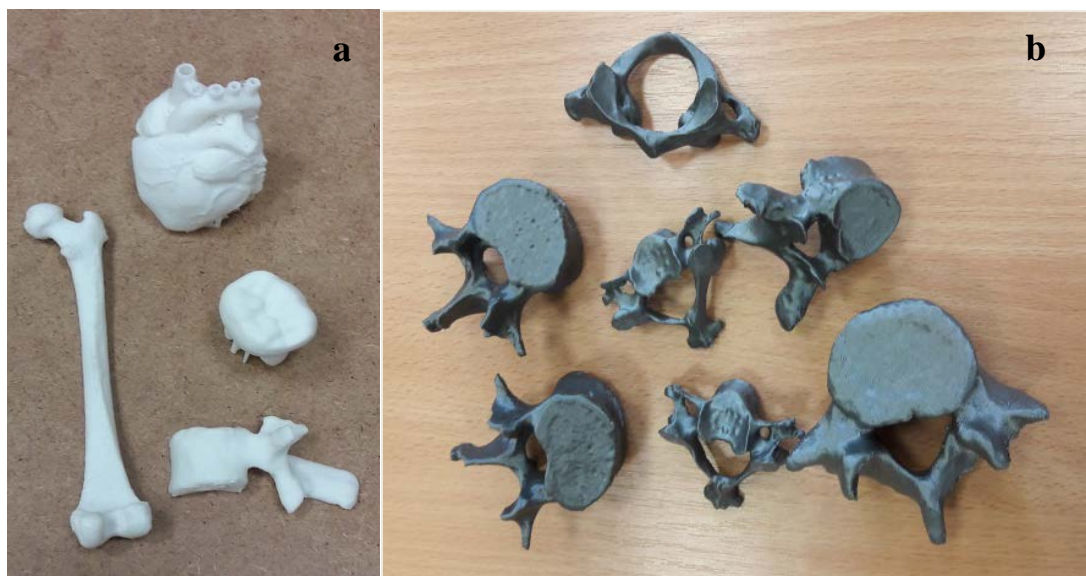


Figure 1 Various 3D-printed anatomical models by students (a) and tutors (b) for Human Anatomy applications

Students were turned into active and creative users with the possibilities and limits of the 3D printing. They gained significant experience of 3D modeling and printing together with tutors, learned how to operate direct 3D software and upload, print anatomical models.

There were students that struggled with 3D models creating, pre- and post-processing of them. Problems showed that students needed tutors support in that cases. 10% of all students mentioned that anatomical structures in printed models were less realistic compared to the real specimens.

Discussion

The findings from the different authors indicate that 3D printing process allows to create and produce objects in many areas of our life, including fields of education (McMenamin, Quayle, McHenry, & Adams, 2014). It has numerous applications and has gained much interest in the medical world (Tack, Victor, Gemmel, & Annemans, 2016). The using of 3D printing innovations directly in medical education for a number of years have already been extensively described in different studies (Kim et al., 2016; Smith, Tollemache, Covill, & Johnston, 2017).

New innovations and speed of their development, very intensive using of 3D technologies may lead to institutions beginning to regularly create and produce their own models for teaching and training purposes.

For students who are preparing to undertake Human Anatomy course, educational 3D printed models on basic anatomy can serve as a summary and available review of the material. For other students, these models can serve as a basics or helpful tools in Human Anatomy study process. 3D printed anatomical models are being successfully applied in Human Anatomy teaching and learning at Department of Morphology of Rīga Stradiņš University.

It is known that Anatomical sciences are foundational to the health professions (Schaefer et al., 2018). One of the biggest challenges in Human Anatomy teaching is being able to successfully convey theoretical and practical concepts to students who have little understanding of the topics. The comprehension of anatomical terminology, structures of different systems of human body and their detailed composition and interconnections are complicated to understand (Khalil, Eiman, Meguid, & Elkhider, 2018). It is clear, that the understanding of Human Anatomy is very important for all students in basic study courses.

Evaluation of the effectiveness of anatomy teaching is multi-factorial (Li et al., 2017). The use of 3D modeling and printing can provide training and education in either normal or complex anatomy (AbouHashem, Dayal, Savanah, & Štrkalj, 2015). Different models and/or their prototypes can be made

of any area of interest to aid in process of teaching and learning (Negi, Dhiman, & Kumar Sharma, 2014). 3D models can be acquired from a large range of sources to produce an endless variety of models that can be printed by different printers and materials (Smith & Jones, 2017). Printed models also provide an ideal format for training (Eizenberg & Chapuis, 2014). All steps and processes of creating and/or printing of 3D anatomical models can be very important for combination of medical education and research.

3D printing technology offered our students a powerful tool for their ideas and creativity, provided possibility to show human body structures or variations. It was new experience for the 1st study year students about models creating process.

Several authors (Bartikian, Ferreira, Gonçalves-Ferreira, & Neto, 2018) mentioned that 3D printing was useful for the creating anatomical models that were not available for sale and reflected real-life variability. For example, some prepared models helped our students to identify places with different variations and/or the problems. It is very important to preserve any variations, because some of them can be experienced by future generations of students.

Different technologies will continue to develop and this will increase educational requests for the preparing and development of different clinical competencies. In the beginning of medical studies some students can observe diseases only in a non-stimulating setting such as textbooks, any presentations, computer tomography (CT) slices and specially preserved samples. Further research may support the regular usage of 3D models not only in normal Human Anatomy study process. Different clinical applications can be expanded through streamlining the 3D printing process.

Some authors (Mogali et al., 2018) underline that it can reduce costs, increase access and make 3D printing resources more readily available in smaller communities. We have demonstrated that accurate 3D printed anatomical models can be rapidly and economically reproduced.

In addition, we have shown that it is possible to use multiple types to create anatomical models. One of them was to manually create useful structure in available computer software. Some structures were usually being simplified and after that there were visible only their general shapes. For example, when a bone model was designed, some students decided to present the actual shape without any additional structures. Part of students prepared very detailed anatomical model together with blood vessels or nerves. Models and their production showed several anatomical structures on a wide scale.

In Human Anatomy course our future plans regarding 3D printing together with students include scanning and printing of other anatomical structures, particularly those that are complicated and aren't easily or really visible.

Human Anatomy teaching and learning have been further improved with recent advancements in 3D printing, such as being able to print in multicolours and to prepare an even more realistic models.

Next way to create anatomical models will be combination of medical imaging with computer segmentation and visualization, using medical digital images, such as: CT, magnetic resonance imaging (MRI) and X-ray (Moore, Wilson, & Rice, 2017). This technology will offer new solutions for students to be able to study actual normal Human Anatomy with introduction in pathological Anatomy direction.

In addition, further steps are needed to develop a bioprinting direction at Department of Morphology.

Conclusions

The challenges of this running course included new strategies, problems, the need for continuous activities and the current lack of some anatomical tools and textbooks to support teaching.

The findings presented in this study suggested that the 3D printing technology was very interactive and effective tool in teaching and learning of Human Anatomy, creation of complex models (structures of bones, internal organs, nervous system, sense organs, etc.) that allowed a similar experience compared with natural specimens.

Despite potential benefits and positive things, there were some barriers to the integration of new technology into the teaching and learning of this course.

At Department of Morphology next our steps will soon involve development a bioprinting, other printers, scanner and 3D printed models with anatomical structures, particularly those that are difficult to observe and manipulate, including small structures, special, complicated and deep areas, cavities, different anatomical variations and/or pathologies.

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MEDICAL STUDENTS' PREPARATION FOR ANALYSIS OF STUDY MATERIALS IN THE CHEMICAL COURSE

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Abstract. *The ability to reproduce and assess the content of the text and its argumentation is the most important competence in any profession. Medical students' systematic approach to information analysis based on evidence-based medical principles can be already developed at the beginning of the study process in the theoretical courses. The goal of this research is to analyse the effectiveness of a didactic model that is based on critical thinking principles and includes a wide range of approaches to working with information. Learning by memorization has become dominant for medical students in Rīga Stradiņš University (RSU). The goal of the chemistry course is to shift the emphasis from fact memorization to knowledge construction, thus significantly changing students' analytic abilities. The chemistry course not only creates the conditions for understanding content but also improves skills in various methods of acquiring knowledge. When new knowledge is being constructed students learn methods for organizing and structuring information and each student has an opportunity to choose the appropriate amount of information and participation level. Study material is being analyzed sequentially from the simplest to the most complex i.e. by starting with elementary calculations and moving to integrate information from different disciplines. Didactic model based on critical thinking principles underpins "logical steps" and requirements (fact recognition, analysis, and interpretation, recognition of fallacies and concepts, the perfection of reasoning algorithms, interdisciplinary connections) orient students to critically evaluate information while searching for problem solutions. The results obtained in student surveys and final tests prove that the created model, which is based on critical thinking principles, ensures successful mastering of the chemistry course to students with any level of prior knowledge.*

Keywords: *substantiation of arguments, structuring of information, improvement of reasoning ability.*

Introduction

The aim of the described study is to analyze the effectiveness of the didactic model based on the principles of critical thinking, which provides a wide range of techniques for working with information. The practical implementation of the didactic model varies depending on the content to be acquired and the students' ability to work. Based on method evaluations in the questionnaire at the end of

the semester and student performance over six years, the most effective forms of work recognized are:

- Acquisition of science-based research methods that involve theories, their multiple practical testing, processing of statistical results, analysis and drawing of conclusions;
- Specially prepared tasks within which the student should evaluate the truthfulness, accuracy, errors or discrepancies of the offered facts;
- Learning situations where student activity is directed to an in-depth analysis of the proposed terms of the task, which includes the minimum of knowledge (facts, regularities), alternative material (which illustrates, proves an idea, general condition), informative material (to be used as a reference material for linking different sectors);
- Lecture materials that include logic-based illustrative examples;
- The study material “General Chemistry”, which is suitable for the specifics of medicine, which orient students to critically perceive information, to put forward hypotheses, to reflect, to engage in dialogue and discussions.

The developed didactic model has been adapted to specific study situations to ensure the acquisition of the study material in the chemistry course based on information analysis based on the principles of critical thinking also in situations where previous student knowledge is not sufficient. Elementary Skills of Student Critical Thinking (how to identify the problem, how to put evidence and arguments to identify contradictions and gaps in the selection and use of problems in problem-solving) are effectively developed on the basis of chemistry course material. Critical thinking methods (information analysis techniques, problem-solving, graphic information systematization options, dialogue skills and self-assessment) are useful in studying chemistry.

The created study material frees students from searching for mechanical information, thus allowing them to spend more time analyzing the illustrative facts and studying other literature. The content included in the study material “General Chemistry” fulfills the function of “work material”. Students are free to handle this electronic document by independently modifying it according to their goals and level of knowledge. The study material “General Chemistry” is designed to facilitate the creation of “personal” study materials based on both available and alternative sources of reliable information. Students get an understanding that, while observing fundamental regularities and critically approaching any issue, one can come to a deeper understanding of it. In the presentation of the content of the course of chemistry, many texts are adapted to the three-phase model of developing critical thinking: initiation (the stage of

systematizing the experience), conceptualization (the stage of forming personal images), reflection (the stage of realization of individual goals).

When the basic material is has been familiarized, the students are provided with controversial views, completely unconfirmed theories that open up a completely different perspective on solid knowledge. This is followed by discussing them, justifying and illustrating them with examples understandable by medical students.

Literature review

The peculiarity of modern higher education is that science is increasingly included in the educational process, forcing the academic staff to transform scientific information into study information. Students need to understand that the content of the chemistry course and the material provided in literature or other sources of information is not an unchangeable truth. Rather, it is just the current understanding of the structure and dynamics of matter studied by chemistry as an ever-changing discipline.

At the start of studies, the experience of young people in obtaining and analyzing information is very diverse. Often, students cannot judge whether one assumption arises from another, whether it is a prior known development, an illustration or contradiction. Reading texts often do not capture facts that are interdependent. The technical terms for students are not related to similar phenomena known in everyday life.

Critical reading is one of the proposed strategies for gaining meaningful reading experience for students (Manarin et al., 2015). Richard Paul qualifies reading as macro-abilities, as many of the microskills used are read in the reading process. Reading, contemplating vague terms, interpreting concepts. Based on personal experience, it is possible to find examples that confirm the author's statement, creating an understanding of reading (Paul, 1990). Macro-abilities is the processes involved in thinking, arranging individual elementary skills in an expanded order of thought, so that they are not fragmentary and unrelated (Fisher, 2005).

Students' basic knowledge, experience and cognitive factors influence their ability to understand the basic idea of the text. The complexity of the text is determined by five factors: vocabulary, sentence structure, coherence, organization, and background knowledge (Shanahan, Fisher, & Frey, 2012). Students' ability to understand the text depends on the unfamiliar general academic terms they encounter. It is necessary to look for the optimal ratio by combining complex texts with effective methods to perceive them. Efforts to maximize texts cannot increase students' analytical skills. Helping students learn from complex texts, introducing new general academic terms, provides the basis

for the ability to navigate future publications in their field. Scientific journals are not only the starting point of the information chain but also the "forum for specialist communication", as readers can also be authors at the same time (Weinreich, 2010).

Bringing attention to the emotional importance of teaching material, Jerom Bruner emphasizes that when faced with the reflection of personal problems in the teaching material, it becomes more attractive and important for students. Can't disagree with Jr. Bruner's opinion that the ability to spell out the essence of what is going on in the narrative requires special preparation for reading, analysis, and discussion. Only in this case can narration be made an instrument of mind (Bruner, 1996).

Information for a wide range of readers in the mass media can be emotionally attractive to an unprepared reader. As a result, text analysis deviates to the second plane.

Since facts are verifiable and verifiable information, but popular opinions are considered unreliable (Cottrell, 2017), it is not easy to distinguish them without much experience and knowledge. The text needs to find statements that can be accepted as indisputable so that they can make informed decisions on controversial issues (Brun & Hirsch-Hadorn, 2014). The principles of comprehension or understanding of text are known for centuries in the form of hermeneutic laws. Understanding the parts creates an understanding of everything and the common understanding is the consequence of understanding parts (Brun & Hirsch-Hadorn, 2014). Based on our previous understanding, we are expanding our knowledge to other (or the same) text, we are actually moving around in a circle or spiral, in a hermeneutic circle: a previous understanding, a question, a comparison with a "text," expanded understanding the context, new understanding of the text, refinement, changing the point of view (Gudjons, 2007). In the course of chemistry, the e-learning material contains not only theoretical material, examination tasks and descriptions of practical works, but also references to Internet resources. Therefore, when creating study materials, students with examples are interested in recognizing the analogy with the known theoretical material, reducing the distance between theoretical regularities and future clinical experience. Students are given the opportunity to search for and analyze popular, but erroneous opinions, as ignorant doctors are unacceptable. A trivial example (analysis of ad texts) can create the maximum contrast effect between true information and its questionable interpretation.

When reading such texts, it is important to follow the principle of favorable interpretation. To test the text, it must first be considered that one can agree with the author at least on basic questions. Only if the possible interpretations of the facts cannot be reasonably proved are the beliefs about the wrong views of the author (Brun & Hadorn, 2014). By learning the methods of text analysis, the

boundaries of their knowledge are identified, as well as general skills to express themselves clearly and to think critically. Being able to understand and evaluate texts is a good basis to be able to clearly outline and justify your position orally or in writing.

Methodology

The methodological task is to create a study environment in which intensive study methods and forms of learning, with the systematic acquisition of humanitarian, exact and clinical disciplines by prospective physicians, generate interest and deep, comprehensive understanding. Medical education combines the theoretical knowledge and practical skills acquired at the beginning of the studies, which are realized as competences in further work with patients under real clinical conditions. Acquisition of theoretical courses is subject to the acquisition of clinical courses, as the aim of medical education is not the training of highly erudite specialists. The didactic model based on critical thinking principles offers a wide range of techniques for working with information that:

- create conditions not only for understanding content but also for developing skills in using different cognitive methods to construct new knowledge;
- promote learning information exchange methods, including organization and structuring of information;
- let each student choose the appropriate level of professional growth, the amount of information and the degree of participation.

For example, the fundamental thermodynamic guidelines in the course of chemistry students learn by successively moving from general regularities to individual examples and vice versa - generalizing concrete examples to fundamental regularities. Based on the Critical Thinking Principles, the facts set out in the study material "General Chemistry" are based on the fact that the science teaching process should seek to educate students in a scientific approach characterized by curiosity, skepticism, logical reasoning and search for evidence:

- Cause - Consequence Learning and Perception of Knowledge in the Context of Existing Knowledge;
- The connection of different pieces of information for discerning the essentials from the non-essential;
- For analyzing misleading or selfish information and for sifting or rejecting ambiguous information;
- See stereotypes that can lead to wrong conclusions, avoiding categorical and prejudiced statements.

If the outcome of the work has to be understandable and well-grounded, reading without a simultaneous record of results and central considerations is largely meaningless (Brun & Hadorn, 2014). Identifying the most important ideas in reading and writing is the basis for text analysis in organizing information. Consistent writing not only allows you to gain more clarity and understanding of the text but will also allow you to respond later to your thoughts. Getting basic ideas for writing notes for students helps in the worksheet chemistry. Worksheets can be used in different stages of the lesson. They help to activate students at the initiation stage, organize a productive independent activity at the stage of understanding and synthesis, as well as analyze each error and personal contribution at the stage of reflection while receiving feedback. Individual work with worksheets is an integral part of the lessons, as it requires the need to repeat the study material and stabilize the knowledge. Worksheets are an example of selecting and analyzing factual material by creating and adapting study materials according to the peculiarities of each student's learning experience and study context.

By using assignments with different levels of difficulty and visual information (formulas, graphs, schemes) it is possible to involve students that aren't sufficiently prepared for the lesson since smaller assignments promote their self-reliance.

Although it is not possible to fully identify what students comprehend, it is important to formulate the most important goals in worksheets. Those goals being: comprehension, interpretation, evaluation (Manarin et al., 2015). Whether writing as a method will prove itself useful in other science courses within general education depends on many factors, but it does have potential (Quitadamo & Kurtz, 2007) since correctly formed writing assignments can develop higher-level thinking (Goodwin, 2014).

“Ultimately, and in an important sense, we are what we write, and we need to understand the distinctive ways our disciplines have of addressing colleagues and presenting arguments” (Hyland, 2013). In contrast to humanitarian disciplines where writing is a form of self-expression, exact science courses perceive writing as an instrument for analyzing information and presenting or interpreting facts. It must be highlighted that text analysis develop reflective thinking and compensates for deficiencies in existing knowledge.

Writing assignments must include transition from the presentation of an idea to linking multiple ideas and justifying them with well reasoned critical evidence (Bailey et al., 2015). Writing is a dynamic and multi-layered process that includes the transformation of comprehension and thinking and develops critical evaluation skills. The higher the student's level of critical thinking, the more effective is the use of newly gained skills in writing assignments.

Research results

Questionnaire results obtained over a period of six years show that students need understandable interconnections. Making information more accessible to themselves and to other students is an important precondition for comprehension. Students comprehend broad study texts better if they include a reference for the most important regularities. It isn't possible to create abstracts or notes without the selection of information source, adequate analysis of reading texts and critical evaluation of new facts. By developing critical writing skills in study process (Bailey, Zanchetta, Velasco, Pon, & Hassan, 2015) students learn to clearly and precisely analyze and evaluate ideas in texts and deepen their understanding of important concepts by finding relationships between them.

The chart summarizes the results of the survey over six years. (Fig. 1). During the study there is a tendency for students to use mostly exhaustive and concise information in the course of chemistry. Only in the study year 2013/2014 and 2013/2014, the minimum number of responses (55% - 58%) at the beginning of the semester appears on the question "I prefer summarized information and ready-made conclusions". At the end of the semester, the situation is similar throughout the years, as the large amount of material to be taught in other study courses forces students to reduce their time spent studying and use the most concise materials possible.

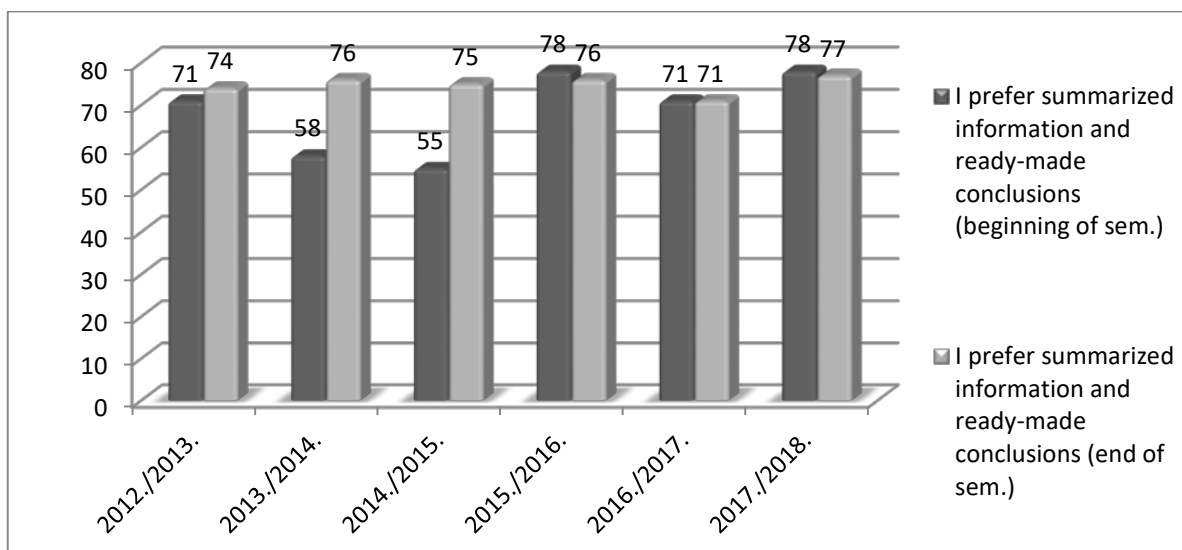


Figure 1 *The Significance of summarized information in the study process*

Students need examples of how to find connections between ideas. By focusing attention on essential aspects and their explanations transformation of information and its inclusion in education is made easier. Due to the small number

of assignments and theoretical material in worksheets, students gain self-reliance and are motivated to take part in discussions and find solutions. Such a principle of material presentation creates a concept and realization of a larger theoretical material. Student attention is directed towards the level of likeness or difference of researched objects, phenomenon or processes. The benefit of worksheets is in immediate use of theoretical knowledge either for practical or laboratory work. Student notes based on a pattern provided by worksheets integrate new knowledge and transform it into basic knowledge during lessons. It was an important point to find out via questionnaires whether notes written by students and information analyzed during lessons don't contradict. 136 students (94%) of respondents didn't see contradictions between their own notes and information interpretation provided in worksheets (Fig. 2). Questionnaires were filled in by 144 respondents in the study year 2018/2019 of whom 136 students (94%) in the study year positively evaluate the use of worksheets for analysing new study material (Fig. 3).

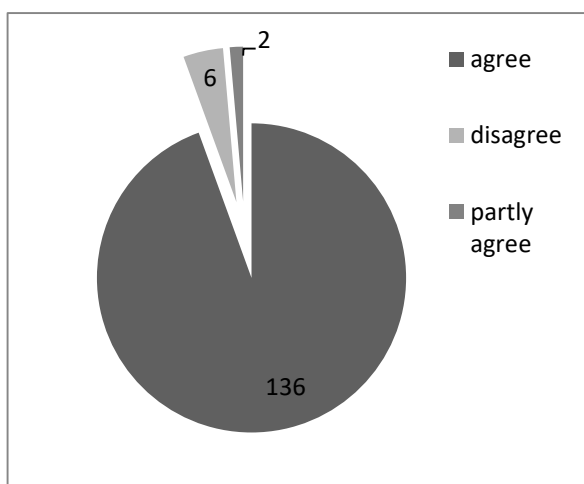


Figure 2 The worksheets do not contradict the information that is independently compiled and analyzed in the lessons

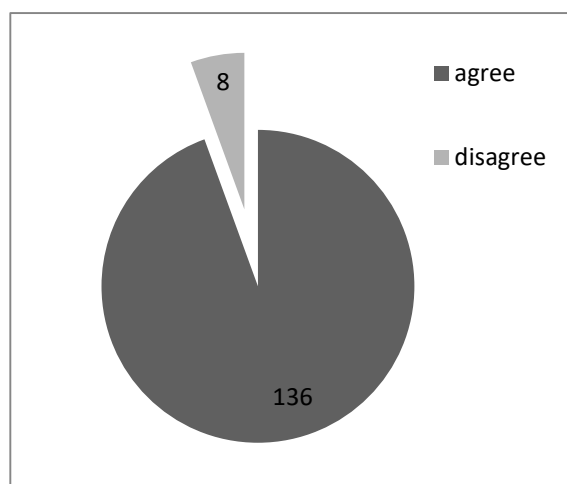


Figure 3 The worksheets offered in the lessons facilitate the capture of information

It must be noted in the end that methods based on critical thinking principles (fact recognition, analysis, and interpretation, recognition of fallacies and concepts, the perfection of reasoning algorithms, interdisciplinary connections) used within the didactic model motivate students to critically evaluate and structure new information.

Conclusions

- Analysis of chemistry course material happens while sequentially going through all study phases from the simplest to the most complex i.e. from simple calculations to the integration of information between disciplines.
- The developed study material “General chemistry” and worksheets in medical chemistry course serve as an example of selection and analysis of factual information by forming and adapting study material to conform to each student's study experience and study context.
- The study highlighted the exhaustive and concise use of information. Worksheets make the self-dependent learning process more productive by activating students in all phases of the lesson and by providing immediate feedback.
- The results of the questionnaires confirm that the didactic model based on the principles of critical thinking, which provides a wide range of techniques for working with information, is effective and can be used in different study situations.

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ИННОВАЦИОННЫЕ МЕТОДЫ В ПРОЦЕССЕ ПРЕПОДАВАНИЯ ВЫСШЕЙ МАТЕМАТИКИ ДЛЯ БУДУЩИХ ВОЕННЫХ ИНЖЕНЕРОВ

Innovative Methods in the Process of Higher Mathematics for Future Military Engineers

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Abstract. *In today's conditions, special attention is paid to ensuring the defense capability of the state, which requires from the system of higher military education the training of a future officer capable of solving military-technical problems of any complexity based on the basic knowledge that he received while studying at a higher military educational institution. As the most regulated sphere of education, military education requires the introduction of innovative technologies that will increase the interest of cadets and the degree of materials assimilation, in particular, in the academic discipline «Higher Mathematics». The problem of choosing teaching technologies in higher military educational institutions can be recognized as one of the most important, requiring theoretical and practical development at the level of teaching of each individual discipline and educational process in general. The purpose of the article is theoretical and empirical substantiation of the modern innovative technologies use in the process of studying higher mathematics in higher military educational institutions. The following methods were used during the research: theoretical – the study and analysis of literature on the introduction of innovative technologies into the educational process of higher educational institutions and higher military educational institutions; modeling; empirical – observation, conversation, testing, methods of statistical analysis for the transformation of empirical data into quantitative indicators. The purpose of our experimental study was to determine the impact of the innovative technologies use on the learning process in higher military educational institutions. The results of the experiment showed the effectiveness of the proposed innovative technologies in the process of fundamental training of future military engineers.*

Keywords: *higher mathematics, higher military education, innovative technologies, interactive technologies.*

Введение *Introduction*

Высшее военное образование тесно связано с инженерными профессиями и ориентировано, в первую очередь, на формирование профессиональной компетентности будущего офицера, обладающего умениями и навыками умственной деятельности, которые обеспечат ему возможность перерабатывать огромные объемы постоянно обновляющейся информации. И только потом – на получение конкретных знаний из разных предметов, что, в свою очередь, позволит ему решать военно-технические задачи любой сложности на основе базовых знаний, полученных во время обучения в высшем военном учебном заведении (ВВУЗ). Кроме того, изменились требования к личностным качествам, которыми должен обладать будущий военный инженер. Среди них можно выделить способность принимать обоснованные, взвешенные решения, системность, эффективность и оптимальность действий в различных ситуациях. В связи с этим возникает насущная необходимость в пересмотре технологий преподавания дисциплин, как профессиональных, так и фундаментальных, к которым относится дисциплина «Высшая математика».

Как наиболее регламентированная сфера образования, военное образование требует внедрения инновационных технологий, позволяющих повысить заинтересованность курсантов и степень усвоения ими материалов, в частности, учебной дисциплины «Высшая математика».

Таким образом, проблему выбора технологий обучения ВВУЗ можно признать одной из важнейших, что требует теоретической и практической разработки на уровне преподавания каждой отдельно взятой дисциплины и учебно-воспитательного процесса в целом.

Цель статьи – теоретическое и эмпирическое обоснование использования современных инновационных технологий в процессе изучения высшей математики в высших военных учебных заведениях.

Для достижения цели были реализованы следующие задачи: 1) охарактеризовано содержание инновационных технологий обучения в вузе; 2) охарактеризовано содержание инновационных технологий обучения на занятиях по высшей математике; 3) обоснован вопрос эффективности использования инновационных технологий на занятиях по фундаментальным дисциплинам, а именно по высшей математике.

Задачи эмпирического исследования: организация, проведение, обработка и интерпретация результатов использования инновационных технологий в процессе изучения высшей математики будущими военными инженерами.

Методы исследования: теоретические – изучение и анализ литературы по внедрению инновационных технологий в учебный процесс вузов и ВВУЗ; моделирование; эмпирические – наблюдение, беседа, тестирование, методы статистического анализа для преобразования эмпирических данных в количественные показатели.

Теоретическая основа темы *The theoretical background*

Одним из путей модернизации образования Украины является внедрение в учебный процесс инновационных технологий.

Как отмечает Н. Буга, инновация – новые формы организации деятельности и управления, новые виды технологий, охватывающих различные сферы жизнедеятельности человечества (Буга, 2006). Тогда инновационные педагогические технологии, используемые в вузе, можно трактовать как проектирование преподавателем учебного процесса, подчиненного поставленной цели с привлечением некоторых элементов новизны.

А. Пометун и Л. Пироженко выделяют четыре группы интерактивных технологий: интерактивные технологии кооперативного обучения; интерактивные технологии коллективно-группового обучения; технологии ситуационного моделирования; технологии обработки дискуссионных вопросов (Пометун & Пироженко, 2004).

Исследования по внедрению инновационных педагогических технологий в образовательный процесс военных учебных заведений осуществляла плеяда ученых. В частности, отмечается, что во время подготовки военнослужащих перспективными являются такие современные технологии обучения: программированного обучения; мультимедийная; компьютерная (информационная); модульного; дистанционного; виртуализации (имитационного моделирования); искусственного интеллекта (Иванченко & Маслій, 2018).

Учеными разработаны интерактивные технологии, которые можно использовать на занятиях по фундаментальным дисциплинам, в частности, высшей математике и физике.

1. Репродуктивные игры, направленные на формирование необходимых знаний и умений. Их цель – воссоздать в памяти, углубить, усовершенствовать знания студентов (курсантов).
2. Проблемно-поисковые обобщенные игры, которые предусматривают элементы поиска, осуществления логических операций, опираясь на имеющиеся у студентов (курсантов) знания. Эти игры строятся на противоречиях между известными

теоретическими знаниями и новыми фактами (Хом'юк & Хом'юк, 2012).

3. Творческие игры, которые готовят к познавательной деятельности в процессе выполнения заданий. Их цель – применять обобщение противоречивых явлений имитируемого процесса; использовать обобщение и систематизацию для выполнения учебных задач в стандартных и нестандартных ситуациях (Хом'юк & Хом'юк, 2013).

Применение информационно-коммуникационных технологий в процессе изучения высшей математики соответствует ряду предлагаемых научным сообществом популярных инновационных методов обучения, таких как: контекстное обучение, имитационное обучение, проблемное обучение, модульное обучение, полное усвоение знаний, дистанционное обучение (Шестопалюк, 2013).

В современных условиях информатизации высшей школы на первый план с точки зрения новизны, эффективности, целесообразности использования в учебном процессе выступают интерактивные и информационно-коммуникационные технологии.

Методы, организация и результаты исследования *Methodology, organization and results of the research*

Во время преподавания курса высшей математики в ВВУЗ применение информационно-коммуникационных технологий ограничивается использованием мультимедийных проекторов для проведения лекций. Частичное использование указанных технологий лишает курсантов и преподавателей мощного инструментария в процессе обучения высшей математике, а именно: проведение части практических занятий в компьютерных классах; применение электронных учебников во время лекционных, практических занятий и самоподготовки; возможность мгновенного контроля без существенных трудозатрат; предоставление *on-line* консультаций в удобное для курсанта и преподавателя время; применение вычислительных, учебных и оценочных *on-line* сервисов, в полной мере соответствовало бы внедрению указанных инновационных методов обучения к профессиональной подготовке офицеров в ВВУЗ.

Учебная дисциплина «Высшая математика» включает ряд модулей, в которых уместно применять встроенные возможности MS Excel, что, конечно, требует проведения практических занятий в специализированных компьютерных классах. Например:

- Модуль «Элементы линейной, векторной алгебры и аналитической геометрии». Наряду с демонстрацией действий с

матрицами, вычислением определителей и ранга матрицы, решением систем линейных уравнений на доске во время лекции, уместно предоставить курсантам навыки решения этих задач с помощью возможностей указанного редактора во время практических занятий. В дальнейшем это им пригодится во время выполнения расчетного задания по модулю «Линейное программирование. Некоторые задачи нелинейного программирования» и на практических занятиях по модулю «Теория игр».

- Модуль «Теория вероятностей». Вычисления вероятностей с помощью формул комбинаторики и вычисления, связанные с законами распределения случайных величин, значительно упростятся при использовании встроенных функций MS Excel, тем самым освободится время для решения большего количества задач, что позволит сосредоточиться на качественном анализе результатов.
- Модуль «Элементы математической статистики». Всю практическую часть желательно проводить в компьютерном классе, что позволит увеличить массивы данных и круг задач, которые курсанты смогут решать, ведь вычисления практически не занимают времени; использовать графические возможности компьютера. Специальные возможности MS Excel в задачах математической статистики можно применять на двух уровнях: использование встроенных специальных функций (подраздел «Статистические») и использование встроенного пакета «Пакет анализа». Владение этими возможностями будет полезным курсантам при решении сугубо профессиональных задач.
- Модуль «Линейное программирование. Некоторые задачи нелинейного программирования». Для этого модуля вместе с возможностями MS Excel (встроенная функция «Поиск решения» для транспортной задачи) уместно подключить вычислительные *on-line* сервисы (для решения задач симплекс-методом). Тогда можно уделить больше внимания не механическим подсчетам, а составлению математических моделей по постановке военных задач, трактовке и анализу полученных результатов.
- Модуль «Теория игр». При решении задач теории игр, в частности, для нахождения оптимальной смешанной стратегии, необходимо составить и решить двойственную задачу, которая требует использования симплекс-метода.

Основная задача преподавателя на занятиях по высшей математике не предоставить студентам (курсантам) теоретический багаж знаний, который

очень быстро обновляется, а научить их самостоятельно обновлять этот багаж. Роль преподавателя заключается в мотивации, организации, консультировании и контроле работы студентов на занятиях. Именно для обеспечения этой цели мы предлагаем использование интерактивных технологий на занятиях по высшей математике, которые, в первую очередь, позволяют сделать процесс обучения творческим, обеспечивают заинтересованность студентов (курсантов), помогают пониманию и усвоению материала.

Теоретический анализ научной литературы по проблеме исследования показал повышенное внимание ученых к поиску путей оптимизации учебно-воспитательного процесса. Это обусловило цель нашего экспериментального исследования – изучение влияния использования инновационных технологий на учебный процесс. Экспериментом было охвачено 236 студентов (курсантов) 1 курса бакалавриата. В основу диагностического исследования были взяты критерии: повышение уровня усвоения знаний студентами (курсантами) и мотивации к изучению дисциплины «Высшая математика».

По результатам первоначальных исследований были определены входные уровни остаточных знаний по элементарной математике и мотивации к изучению дисциплины «Высшая математика» будущих военных инженеров. Уровень остаточных знаний по элементарной математике определялся по результатам «нулевой» контрольной работы (входной контроль), которая проводилась на первых занятиях по дисциплине. При этом уровень остаточных знаний считался низким при оценке 1-3 балла, удовлетворительным – 4-6 баллов, достаточным – 7-9 баллов и высоким – 10-12 баллов. Результаты распределения испытуемых по уровням представлены на рисунке 1.



*Рисунок 1. Диаграмма результатов «нулевой» контрольной работы:
а) контрольная группа, б) экспериментальная группа
Figure 1 Diagram of the «zero control» work results:
a) control group, b) experimental group*

Данные диаграмм засвидетельствовали, практически отсутствие отличий в уровнях знаний элементарной математики и их достаточно низкий уровень.

Уровень мотивации к изучению дисциплины «Высшая математика» диагностировался по авторской методике, состоящей из 24 высказываний. Например, 1) обучение высшей математики предоставляет мне возможности узнать много важного для себя, проявить свои способности в будущей профессиональной деятельности; 2) учебный материал по высшей математике с удовольствием обсуждаю в свободное время (на перемене, дома) с одноклассниками, друзьями. К каждому высказыванию необходимо было выразить свое отношение, проставляя баллы от 1 (не согласен) до 12 (полностью согласен). При этом уровень отношения к высказыванию считался низким при оценке 1-3 балла, удовлетворительным – 4-6 баллов, достаточным – 7-9 баллов и высоким – 10-12 баллов.

Результаты представлены на диаграмме (рисунок 2).

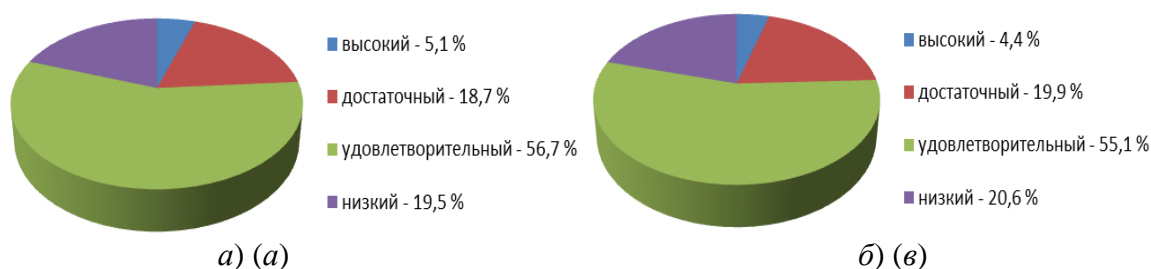


Рисунок 2. Диаграмма входного уровня мотивации будущих военных инженеров:

а) контрольная группа, б) экспериментальная группа

Figure 2 Diagram of the entry level of future military engineers motivation:

a) control group, b) experimental group

Данные диаграмм засвидетельствовали, практически отсутствие отличий в уровнях мотивации к изучению высшей математики и удовлетворительный (56,7 % КГ и 55,1 % ЭГ) уровень такой мотивации.

Для подтверждения однородности групп использован критерий согласия К. Пирсона (χ^2) (Brandt, 1970), который позволяет выявить различия в сравниваемых выборках. Нами были выдвинуты гипотезы: 1) H_0 : выбранные для эксперимента группы однородные и принадлежат одной генеральной совокупности; 2) альтернативная H_1 : выбранные для эксперимента группы неоднородны и не принадлежат одной генеральной совокупности.

Для проверки гипотезы H_0 вычислено значение статистики критерия по формуле 1 (Brandt, 1970):

$$\chi^2 = \sum_{i=1}^N \frac{(n_{e_i} - n_{k_i})^2}{n_{k_i}}, \quad (1)$$

где n_e , n_k – относительные частоты остаточных знаний (мотивации) экспериментальной и контрольной групп соответственно,
 N – количество уровней остаточных знаний (мотивации).

Рассчитав значения критерия по эмпирическим данным, мы получили значения $\chi^2_{\text{эксп 1}} \approx 0,00076$ и $\chi^2_{\text{эксп 2}} \approx 0,0029$ для уровней остаточных знаний и мотивации соответственно. Критическое значение критерия по степени свободы $k - r = 2$ ($k = 4$ – количество интервалов, $r = 2$ – количество установленных связей) и уровнем значимости $\alpha = 0,05$ (надежная вероятность 95%) находим по таблицам значений критерия (Brandt, 1970) $\chi^2_{\text{кр}} = 0,103$. Итак, $\chi^2_{\text{экс}} < \chi^2_{\text{кр}}$. То есть, гипотезу H_0 надо принять. Группы, выбранные для эксперимента, принадлежат одной генеральной совокупности, вероятность распределения студентов по уровням остаточных знаний и мотивации в группах одинаковы. Это дает основание подтвердить наличие влияния независимой переменной (использование в процессе обучения высшей математике инновационных технологий обучения) на уровень развития успеваемости и мотивации.

В эксперименте были использованы разработанные интерактивная и информационно-коммуникационная методики проведения лекционных и практических занятий в процессе изучения «Высшей математики», которые сравнивались с традиционной. После изучения курса «Высшей математики» была проведена повторная диагностика. Для фиксации уровня усвоения знаний использовались результаты комплексной контрольной работы, уровень мотивации диагностировался аналогично входной диагностике.

Динамика уровней усвоения знаний по высшей математике представлено в виде гистограммы (рис. 3).

Анализируя гистограмму (рис. 3), видим, что прослеживается динамика роста уровня усвоения знаний в экспериментальной группе по сравнению с контрольной. Так, высокий и достаточный уровни на 9% и 15% соответственно выше, а удовлетворительный и низкий уровни на 14% и 10% соответственно ниже в экспериментальной группе по сравнению с контрольной после эксперимента. Вместе с этим, можно наблюдать и повышение уровня усвоения знаний в группах после эксперимента, однако в контрольной группе они не являются статистически значимыми.

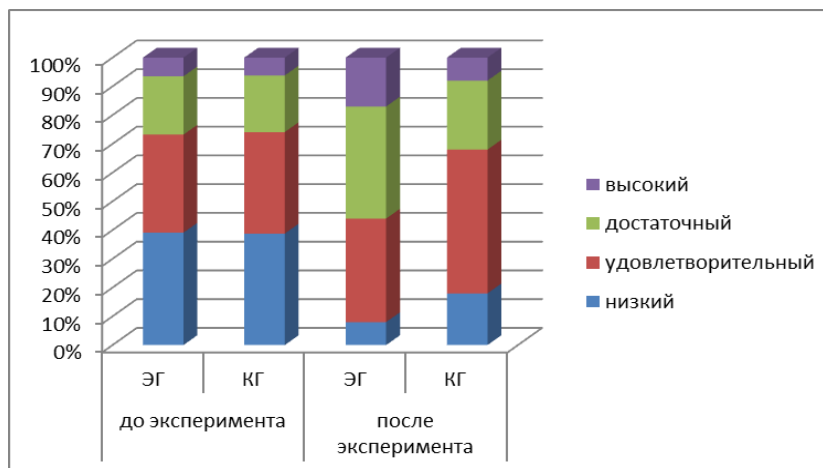


Рисунок 3. Динамика уровней усвоения знаний по высшей математике студентами (курсантами) экспериментальной и контрольной групп до и после эксперимента
Figure 3 The dynamics of the mastering knowledge levels on higher mathematics by students (cadets) of the experimental and control groups before and after the experiment

Динамика уровней предметной мотивации представлена в виде гистограммы (рис. 4).

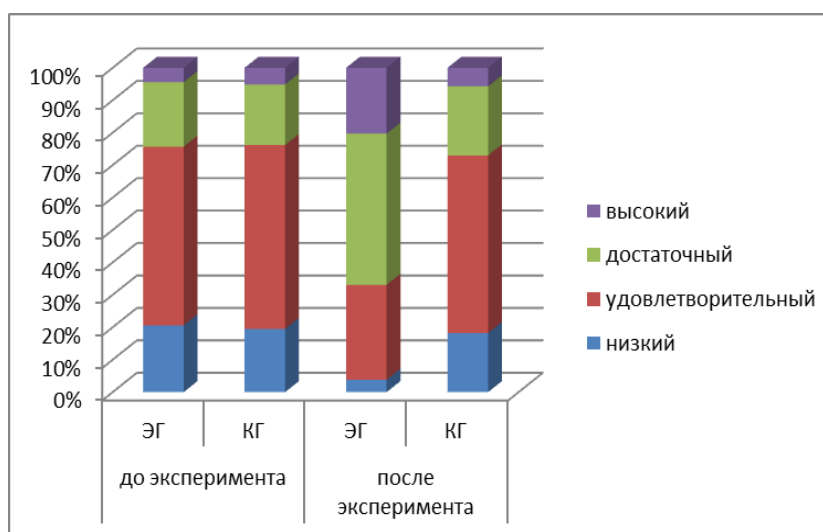


Рисунок 4. Динамика уровней предметной мотивации студентов (курсантов) экспериментальной и контрольной групп до и после эксперимента
Figure 4 The dynamics of the subject motivation levels among students (cadets) of the experimental and control groups before and after the experiment

Для статистической оценки результатов педагогического эксперимента нами использован критерий Стьюдента (Brandt, 1970), исходя из которого с 95-% вероятностью можно утверждать, что произошедшие изменения достоверны, статистически значимые и

произошли в результате внедрения системы обучения с использованием инновационных методов, что является доказательством целесообразности их применения при обучении будущих военных инженеров.

Обобщение **Conclusions**

Таким образом, владея процессом «изнутри» (объяснение на лекции содержания операции или действия), студент (курсант) осознанно будет применять информационно-коммуникационные технологии для решения профессиональных задач. Тогда математика действительно станет мощным инструментом для будущего офицера, а не «лишней» дисциплиной, на которую не стоит обращать внимания. Применение системы обучения с использованием инновационных методов во время педагогического эксперимента, продемонстрировали свою эффективность в процессе фундаментальной подготовки будущих военных инженеров, т.е. привело к повышению уровня усвоения знаний студентов и мотивации к изучению дисциплины «Высшая математика», что было подтверждено методами статистической обработки наблюдений.

Summary

One of the ways the military education modernizing in Ukraine is the introduction of innovative technologies into the educational process.

Under innovation, we understand new forms of organization and management, new types of technologies that cover various spheres of human life, and innovative teaching technologies are interpreted as designing by teacher of educational process that is subordinated to the goal with the involvement of some elements of novelty.

Scientists have developed a series of interactive technologies that can be used in classes on fundamental disciplines, in particular, from higher mathematics and physics. For us, there are topical reproductive games aimed at creating the necessary knowledge and skills; problem-searching generalized games that include search elements, logical operations, based on knowledge available to students; creative games that prepare for cognitive activity in the process of performing tasks; information and communication technologies.

The experiment on the innovative technologies use influence on the educational process is described. The experiment covered 236 students and cadets of the first year of the bachelor's degree, and math lessons were conducted using innovative technologies. The basis for the diagnostic study was the following criteria: increasing the level of assimilation of students' knowledge and the motivation to study the discipline "Higher Mathematics".

The developed interactive and informational and communication methods of

conducting lectures and practical classes in the process fundamental disciplines studying were used in the experiment. These methods were compared with the traditional one.

After studying the course "Higher Mathematics" diagnostics was repeated.

Statistical and computational methods of post experimental data analysis confirmed that the changes occurred are reliable, statistically significant and occurred as a result of the training system using innovative methods introduction.

So, the use of the proposed innovative technologies has proven its effectiveness in the process of future military engineers' fundamental training.

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СИСТЕМА НАЦИОНАЛЬНО-ПАТРИОТИЧЕСКОГО ВОСПИТАНИЯ СТУДЕНЧЕСКОЙ И КУРСАНТСКОЙ МОЛОДЕЖИ В НОВЫХ СОЦИОПОЛИТИЧЕСКИХ УСЛОВИЯХ

System of National-Patriotic Education of Students and Cadets Youth in New Sociopolitical Conditions

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Abstract. *The article deals with the implementation of the national-patriotic education of student and cadet youth that is especially important in the sociopolitical conditions of development of modern society. Due to this the purpose of the article is the disclosure of the objectives, purpose, principles, content, forms and methods of national-patriotic education, features of its implementation and improvement path in the system of higher education. In the article such research methods were used: theoretical – analysis, systematization, comparison of scientific approaches and definitions, generalization of the main characteristics of concept (to study the theoretical issues of the nature and structure of national-patriotic education, its implementation, the selection of criteria, indicators and levels of the studied education); empirical – observation, testing, questioning, experiment (to determine the level of national-patriotic education of students/cadets, the formulation of recommendations for its improvement); statistical – methods of statistical processing of results. The system of national-patriotic education of students/cadets development by the authors was experimentally verified and its effectiveness was proved. The main tasks that should be solved by higher education institutions with the aim of raising to a qualitatively new level the system of national-patriotic education of student and cadet youth, namely: development and planning of the concept of national-patriotic education for the entire period of study; preparation of methodological recommendation and didactic materials for the teaching staff, aimed at the national-patriotic education of students/cadets; unity of class and out-of-class work on national-patriotic education.*

Keywords: *the national-patriotic education, aim, objectives, principles, content, forms, methods of national-patriotic education, criteria, indicators, levels of national-patriotic education, students, cadets.*

Введение ***Introduction***

Сегодня перед высшими учебными заведениями встают серьезные задачи, связанные с подготовкой специалистов, которые в сложное для Украинского государства время возьмут на себя ответственность за его социально-политическое и экономическое развитие, обеспечение внутренней и внешней безопасности. Решение этих и других вопросов требует формирования у молодёжи высокой культуры, духовности, любви и уважения к своему языку, истории, культуре в целом, верности своему народу, стремления к защите своего государства, обеспечения его суверенитета, территориальной неприкосновенности и обороноспособности. В этом аспекте важное место занимает национально-патриотическое воспитание студентов всех специальностей и, в частности, курсантов, будущих правозащитников. Особенно остро данная проблема стоит в восточных регионах Украины, где долгое время наблюдалось пренебрежение и неурегулированность вопросов национально-патриотического воспитания, что, в свою очередь, способствовало распространению антиукраинской пропаганды, спекуляции на тему языка, распространению сепаратистских настроений.

В связи с вышеизложенным *целью* статьи является раскрытие сущности, цели, задач, принципов, содержания, форм и методов национально-патриотического воспитания студенческой/курсантской молодёжи, особенностей его реализации и путей усовершенствования в новых социополитических условиях.

В процессе исследования были использованы следующие *методы*: теоретические – анализ, систематизация, сравнение научных подходов, положений, определений, обобщение основных характеристик понятий (позволившие изучить теоретические вопросы сущности и структуры национально-патриотического воспитания, его реализации в системе высшего образования, выделения критериев, показателей и уровней исследуемой воспитанности); эмпирические – наблюдение, тестирование, анкетирование, эксперимент (способствовавшие определению уровня национально-патриотической воспитанности студентов/курсантов, формулированию рекомендаций по его усовершенствованию); статистические – методы статистической обработки результатов.

Обзор литературы *Literature review*

Вопросы национально-патриотического воспитания всегда привлекали внимание философов, историков, политиков, педагогов, писателей. В частности, выдающиеся украинские педагоги прошлого Г. Ващенко (1976), А. Духнович (1857), С. Русова (1929), К. Ушинский (1983) и другие в своих трудах отмечали необходимость воспитания у подрастающего поколения любви к своей Родине, её культурному наследию, родному языку, уважения к своему историческому прошлому. Историки, политики, писатели М. Грушевский (1991), Н. Драгоманов (1892), П. Кулиш (Куліш, 1910), И. Франко (1953) и другие обосновывали основу и составляющие национально-патриотического воспитания. Современные ученые О. Абрамчук и М. Фицула (Абрамчук & Фіцула, 2008), И. Бех (2014), Е. Вишневский (2010), А. Гевко (2003), В. Дзюба (2002), Е. Жаровская (2015), В. Мирошниченко (Мірошніченко, 2017), О. Стёпина (Стьопіна, 2007), М. Стельмахович (1996) и многие другие также занимались проблемами национально-патриотического воспитания.

Однако студенты/курсанты нередко демонстрируют недостаточный уровень национально-патриотической воспитанности, что обуславливает необходимость усовершенствования системы национально-патриотического воспитания в учреждениях высшего образования.

Результаты исследования *Research results*

Проанализируем сущность понятия „национально-патриотическое воспитание” в научно-педагогической литературе. Изучение соответствующих источников (диссертационных исследований, научных статей, материалов конференций) свидетельствует о том, что в последнее время существуют определенные противоречия в определении и применении понятия „национально-патриотическое воспитание студентов/курсантов”. Одни учёные предлагают разграничить такие направления воспитания, как национальное воспитание и патриотическое воспитание. Другие настаивают на том, что эти два направления органично переплетены по своей сути и задачам, и поэтому их следует объединить и реализовывать параллельно.

Сторонником первой точки зрения является Е. Жаровская, которая настаивает на том, что патриотическое воспитание является отдельным направлением воспитательной работы в вузе. При этом учёный предлагает такое его определение: „Патриотическое воспитание будущих учителей – это педагогический процесс становления личности гражданина и патриота

своего Отечества на основе принятия демократических ценностей, соблюдения закона, норм права, общечеловеческой нравственности и участия человека в демократических процессах, подготовки его к осуществлению патриотического воспитания молодежи” (Жаровська, 2015).

Разграничивает данные направления воспитания и украинский учёный В. Дзюба, предлагая следующее определение патриотического воспитания: „Патриотическое воспитание – это процесс выработки в личности чёткого представления о закономерностях развития патриотических идей, осознания ею роли и значения знаний о своей стране, народе, его традиций и обычаях, обретение человеком устойчивых патриотических чувств, убеждений и умений отстаивать их в условиях реальной действительности”. Патриотическое воспитание, по его мнению, начинается с усвоения личностью духовного достояния украинского народа, целостного познания его духовно-творческих традиций на занятиях по отдельным предметам и перерастает в стратегическое направление деятельности учебных учреждений (Дзюба, 2002). Однако из представленного определения становится очевидным, что учёный так же смешивает понятия национального и патриотического воспитания, по крайней мере в части выделения задач ознакомления студентов/курсантов с традициями и обычаями украинского народа, усвоения его духовных достижений.

Проанализируем толкование понятия „патриотическое воспитание офицеров-пограничников”, данное В. Мирошніченко: „Патриотическое воспитание будущих офицеров-пограничников мы определяем как деятельность, которая вытекает из потребностей национальной жизни, процессов, которые происходят в государстве, в том числе в пограничном ведомстве. Его результатом является патриотическая воспитанность как интегральное качество личности офицера-пограничника, проявляющееся в его действиях на основе национально-патриотических ценностей, верности Военной присяге, уважении к национальным и пограничным символам, учёте принципов верховенства права, готовности защищать суверенитет и территориальную целостность Украины” (Мірошніченко, 2017). Как видим, в этом определении также присутствуют такие задачи национального воспитания, как формирование национальных ценностей, уважения к национальным символам.

Учитывая то, что названные два направления воспитания действительно тесно взаимосвязаны, большинство исследователей (И. Бех, Ю. Загуменная, В. Кириченко, Ж. Петрочко, И. Репко, В. Ряшко и другие) интегрируют их в одно понятие „национально-патриотическое воспитание”. В частности, В. Ряшко под национально-патриотическим воспитанием студентов/курсантов учреждений высшего образования понимает организованный учебно-воспитательный процесс, направленный на

формирование у будущих специалистов чувства любви к Родине, ее истории, культуре, родному языку, традициям, обрядам и обычаям, формирование патриотических убеждений, морально-психологической готовности защищать конституционный строй и правопорядок государства, своими действиями способствовать его укреплению и процветанию, росту авторитета на международной арене (Ряшко, 2010).

Мы склоняемся к мысли, что национальное и патриотическое воспитание действительно имеют много общего и поэтому более целесообразным будет употребление термина „национально-патриотическое воспитание”, под которым понимается система скоординированной, целенаправленной работы государства, общественности, педагогов, студентов/курсантов, направленная на овладение последними совокупностью знаний, умений и навыков, ценностных установок, необходимых для осознания своей национальной идентичности, формирование потребности и готовности как к познанию духовно-культурного наследия своего и других народов, так и к его защите и приумножению, обороне государственного суверенитета, защите конституционных прав и свобод граждан, закона и правопорядка.

Нельзя не согласиться с В. Ряшко, который характерными недостатками национально-патриотического воспитания студентов/курсантов Украины называет недостаточное использование содержания социально-гуманитарных дисциплин в учебно-воспитательном процессе; отношение значительной части студентов/курсантов к этим дисциплинам как к второстепенным; недостаточную связанность внеаудиторных воспитательных мероприятий с учебным процессом; недостаточное привлечение студентов/курсантов к патриотической деятельности; недостаточную подготовленность преподавателей к реализации воспитательного процесса (Ряшко, 2010).

На наш взгляд, мощные возможности в реализации национально-патриотического воспитания видны не только в блоке социально-гуманитарных, но и в блоке специальных профессиональных дисциплин. Отсюда четко продуманная система национально-патриотического воспитания, в которую будут вовлечены все компоненты и участники учебно-воспитательного процесса, способна поднять на качественно новый уровень это направление воспитания в отечественных вузах. Проанализируем главные компоненты названной системы.

Целью национально-патриотического воспитания студентов/курсантов является формирование молодого человека – активного гражданина и патриота Украины. Реализации поставленной цели будет способствовать решение следующих *задач*: воспитание правовой культуры, уважения к Конституции и Законам Украины, государственной символике; глубокое

ознакомление с историческим и культурным наследием Украины; формирование языковой культуры, духовных ценностей украинского патриота; развитие мотивации молодежи к государственной и военной службам; создание условий для развития гражданской активности; воспитание способности противодействовать проявлениям аморальности, правонарушений, бездуховности; распространение информации о весомых достижениях наших соотечественников в сферах образования, науки, культуры, искусства, спорта; формирование толерантного отношения к представителям других этносов и культур.

Эффективность решения указанных задач будет зависеть от соблюдения ряда *принципов воспитания*, к которым относим: принцип национальной направленности воспитания, культуросообразности, гуманизации воспитательного процесса, субъект-субъектного взаимодействия, жизненной творческой самодеятельности, толерантности, исторической и социальной памяти, преемственности между поколениями.

Выполнению поставленных целей и задач будет способствовать целесообразно отобранное *содержание воспитательной работы*, которое должно включать следующие компоненты: украиноведческий, историко-патриотический, межкультурный. Украиноведческий и историко-патриотический компоненты национально-патриотического воспитания должны обеспечиваться при преподавании всех без исключения учебных дисциплин, а также во время внеаудиторной работы. Так, во время преподавания курсов „Украинский язык профессиональной направленности” и „История и культура Украины” студенты\курсанты знакомятся с культурным и историческим наследием своего государства, оттачивают уровень владения государственным языком. Прямым продолжением данных занятий должна стать внеаудиторная работа. Украиноведческий и историко-патриотический компоненты в содержании социально-гуманитарных дисциплин помогают студентам/курсантам чувствовать себя субъектами истории и общенациональной культуры, формируют их эмоционально-оценочную, духовную культуру. Кроме украиноведческого компонента, учебные занятия и внеаудиторная работа должны быть также направлены на формирование межкультурной компетентности, которая понимается нами как готовность личности к межкультурному взаимодействию на основе толерантности, взаимоуважения, к адекватному восприятию „чужого”.

Реализации названных компонентов содержания национально-патриотического воспитания будут способствовать такие *формы и методы воспитания*, как участие студентов/курсантов в различных конкурсах и турнирах (например, Всеукраинский студенческий турнир по истории, Международный литературно-языковой конкурс ученической и

студенческой молодежи имени Тараса Шевченко и т.п.). Во время этих мероприятий, а также подготовки к ним, студенты/курсанты учатся толковать исторические события и личности, выступая в качестве докладчиков, оппонентов, рецензентов, глубже погружаются в творчество выдающихся украинских писателей, откровенно выражавших свою гражданскую позицию. Воспитанию толерантности будет способствовать применение инновационных методов и форм учебных и внеаудиторных занятий (деловые/ролевые игры, диспуты, дискуссии, дебаты, моделирование, симуляции и т.п.), внедрение которых создает условия для формирования активной личности, гражданина-патриота, развития критического мышления, толерантного отношения к другим народам и культурам.

Нами на протяжении 2018 календарного года был осуществлён эксперимент по внедрению разработанной системы национально-патриотического воспитания на базе Донецкого юридического института МВД Украины (далее – ДЮИ) и Мариупольского государственного университета (далее – МГУ), в котором приняло участие 207 человек: 48 студентов и 69 курсантов специальностей „Право”, „Правоохранительная деятельность” (ДЮИ), 90 студентов специальностей „Язык и литература (с указанием языка)”, „История”, „Физическая культура” (МГУ).

Определение уровня национально-патриотической воспитанности студентов/курсантов происходило согласно нескольким критериям. Изучение украинской и зарубежной научно-педагогической литературы (Стьопіна, 2007; Зубцова, 2012; Мірошніченко, 2012) позволило выделить такие критерии национально-патриотической воспитанности, как когнитивный, мотивационный, деятельностный и ценностно-мировоззренческий. Показателями *когнитивного* критерия являются: знание истории Украины; владение украинским языком; знание народных традиций и обычаев, истории государственной символики; знание своих прав и обязанностей, отраженных в законах Украины; знание основных государственных институтов и принципов демократии, патриотические мировоззренческие знания. *Мотивационный* критерий отображает основные мотивы патриотичности молодежи, способность к патриотической самореализации; характеризует уровень национально-патриотической направленности студента/курсанта, его ориентации, цели, установки, которые формируют целеустремленность субъекта как гражданина и патриота Украины. *Деятельностный* критерий определяет готовность личности к полноценной самореализации как гражданина и патриота Отечества в одной или нескольких сферах социально значимой деятельности, конкретные результаты, достижения в процессе ее осуществления, основные качества, которые проявляются на поведенческом

уровне. Среди показателей *ценностно-мировоззренческого* критерия выделяются: осознание своей национальной принадлежности; понимание и осознание своего места и роли в жизни Украины, уважение к государственным атрибутам и традициям украинского народа; степень сформированности системы взглядов и убеждений, основанных на осознании важных проблем, ценностей, приоритетов государства; толерантное отношение к представителям разных культур; способность к эмпатии; уважительное отношение к национальному и мировому культурному наследию.

Каждый из критериев оценивался по дескриптивной шкале, согласно которой показатели каждого из критериев имеют три уровня проявления: высокий, средний и низкий. *Высокий уровень* национально-патриотической воспитанности студентов/курсантов характеризуется глубоким пониманием сущности патриотизма; наличием четко аргументированной патриотической позиции; устойчивыми ценностными ориентациями; глубокими знаниями национально-культурного наследия народа; патриотическим и национальным стремлением в личной и социально-общественной жизни. *Среднему уровню* свойственны имеющаяся четкая патриотическая позиция и сформированные патриотически-ценностные ориентации, убеждения и идеалы. Однако при этом личность затрудняется конкретизировать национальные потребности, демонстрирует эпизодичное проявление национально-патриотического долга, несколько поверхностные знания народных традиций и обычаев. На *низком уровне* национально-патриотической воспитанности отмечается пассивное отношение студентов/курсантов к вопросам патриотизма, отсутствие четкой патриотической позиции, несформированные ценностные ориентации, отсутствие толерантности к представителям других культур, искаженное представление о ценностных национально-патриотических отношениях и национально-культурных достижениях народа, поверхностное понимание общественных проблем.

Для проверки эффективности предложенной нами системы была разработана анкета-тест, которая была составлена согласно выделенных критериев национально-патриотической воспитанности. Для каждого критерия было выбрано по 10 вопросов разного типа: открытых, закрытых, множественного выбора. Ответы оценивались по двухбалльной шкале – от 0 до 2, где 0 баллов соответствовало такому показателю – ответ неправильный или низкий уровень сформированности исследуемого качества, 1 балл – ответ неполный или средний уровень сформированности исследуемого качества, 2 балла – ответ правильный, полный, высокий уровень сформированности исследуемого качества. Приведём примеры предлагаемых вопросов.

I. Ценностно-мировоззренческий критерий. 1. Вызывают ли у Вас чувство гордости политические и экономические успехи, спортивные достижения Украины? а) да, всегда; б) часто; в) почти никогда; г) иногда; д) нет, никогда. 2. Испытываете ли Вы чувство гордости, когда звучит гимн Украины и развевается флаг государства? а) да, всегда; б) часто; в) почти никогда; г) иногда; д) нет, никогда. 3. Есть ли смысл в национально-патриотическом воспитании в наше время? а) да, сейчас, как никогда; б) я не вижу сейчас в этом смысла; в) не имею представления, что это такое. 4. Как Вы относитесь к представителям различных национальностей, проживающих в Украине: а) горжусь тем, что Украина многонациональное государство; б) считаю, что без них было бы лучше; в) мне все равно; г) сложно ответить. 5. Согласны ли Вы с тем, что многонациональность Украины способствует обогащению ее культуры: а) да, конечно; б) нет, никоим образом; в) многонациональность мешает развитию нашего государства; г) мне все равно.

II. Когнитивный критерий. 1. Оцените Ваши знания по истории родного города по двухбалльной шкале, где 2 – знаю в совершенстве, 1 – знаю достаточно, 0 – почти не знаю. 2. Оцените Ваши знания по истории Украины по двухбалльной шкале, где 2 – знаю в совершенстве, а 1 – знаю достаточно, 0 – почти не знаю. 3. Первую конституцию Украины написал: а) Ф. Орлик; б) И. Сирко; в) Е. Коновалец. 4. Орфографическая ошибка допущена в слове: а) кровавими; б) біснுவато; в) бридливо; г) несподіване. 5. Как называется обрядовый хлеб, который использовался во время вечерниц на Андрея? а) калита; б) каравай; в) кутья.

III. Деятельностный критерий. 1. Интересуетесь ли Вы культурными ценностями (литература, искусство, архитектура и др.) своей страны? а) да, всегда; б) часто; в) почти никогда; г) иногда; д) нет, никогда. 2. Вы принимаете участие в общественной жизни учебного заведения (города, страны). Если да, напишите где: а) да, всегда; б) часто; в) почти никогда; г) иногда; д) нет, никогда. 3. Как Вы считаете, кем и где должно проводиться национально-патриотическое воспитание? а) в семье; б) в учебном заведении; в) в семье и в учебном заведении; г) в семье, в учебном заведении, в обществе в целом. 4. Ведете ли Вы с родителями, сверстниками беседы о национально-патриотическом воспитании? а) да; б) нет; в) иногда. 5. Станете ли Вы в защиту несправедливо обиженного человека, даже если это чем-то может Вам повредить? а) да, конечно; б) нет, не стану; в) затрудняюсь ответить.

IV. Мотивационный критерий. 1. Желаете ли Вы принимать участие в конференции/семинаре/кружке по проблемам национально-патриотического воспитания? а) да, с удовольствием; б) да, если за это я буду получать дополнительные баллы по предмету; в) нет, мне это не интересно;

г) никогда, считаю это лишним и ненужным для себя. 2. Считаете ли вы что в университете/институте должен быть отдельный учебный предмет, связанный с национально-патриотическим воспитанием? а) да, считаю; б) нет, такой предмет в рамках вузовской программы не нужен; в) считаю, что национально-патриотическое воспитание необходимо проводить в комплексе, а не только в рамках одного предмета. 3. Стимулом для Вашего участия в мероприятиях национально-патриотической направленности является: а) желание узнать что-то новое о своей стране; б) желание получить бонусный балл; в) желание лучше узнать друг друга; г) я не участвую в подобных мероприятиях. 4. Хотели бы Вы стать полицейским? Если да, то почему? а) да, потому что хочу преданно служить своему народу; б) да, так хотели бы мои родители; в) да, потому что у полицейских сейчас хорошая заработная плата и соцпакет; г) нет, никогда. 5. Я считаю, что национально-патриотическое воспитание необходимо: а) для общего развития; б) для становления личности; в) Родине; д) никому не нужно.

Уровень национально-патриотической воспитанности определялся по среднему показателю. По каждому критерию максимальное количество баллов равнялось двадцати. 16-20 набранных баллов – показатель высокого уровня данной воспитанности по каждому критерию, 8-15 баллов – средний уровень, 0-7 баллов – низкий уровень, соответственно. Максимальное количество баллов, которое мог набрать респондент, ответив на все вопросы тест-анкеты, равнялось восьмидесяти. Исходя из этого респонденты, набравшие 64-80 баллов, имеют высокий уровень сформированности национально-патриотической воспитанности, те, кто набрали 32-63 балла – средний уровень, и респонденты, набравшие менее 32 баллов, демонстрируют низкий уровень исследуемого качества.

Согласно результатам входящего тестирования низкий уровень национально-патриотической воспитанности имеют 27% респондентов, средний уровень выявлен у 61% респондентов и только 12% респондентов свойственен высокий уровень национально-патриотической воспитанности. В течение 2018 года со студентами/курсантами был проведен ряд мероприятий, направленных на повышение уровня национально-патриотической воспитанности.

В ДЮИ для реализации украиноведческого и историко-патриотического компонентов профессорско-преподавательским составом были организованы и проведены: IX Международный литературно-языковой конкурс студенческой молодежи имени Тараса Шевченко, XIX Международный конкурс по украинскому языку имени Петра Яцыка, празднование Дня украинской письменности и языка, Всеукраинская акция „Андреевы вечерницы”, посещение музея под открытым небом „Обереги Украины”, VII Всеукраинский студенческий турнир по истории, заседание

научной секции „Мир вокруг нас” на тему „Государственные деятели Украины”, чествование памяти жертв голодомора, празднование Дня достоинства и свободы и т.д.

В целях формирования правовой культуры представителями правоохранительных органов регулярно проводились лекции; студенты/курсанты были привлечены к работе Всеукраинской научно-практической конференции „Правовое государство: междисциплинарный подход”, празднованию 70-летия принятия Генеральной Ассамблеей ООН „Общей декларации прав человека”. Ко Дню борьбы с коррупцией была проведена тренинг-лекция „Коррупция внутри и вне”, направленная на воспитание у молодёжи гражданского сознания, развитие института гражданского общества. Повышению престижа и развитию мотивации молодежи к государственной и военной службам, безусловно, способствовали такие мероприятия, как вручение курсантам первого курса набора погонов курсанта, принятие ими Клятвы курсанта и позже присяги работника Национальной полиции Украины, празднование дня Вооружённых сил Украины, Дня Защитника Отечества и т.д.

Формированию межкультурной компетентности, воспитанию толерантности и милосердия способствовали также участие в волонтерских благотворительных акциях, заседания научной секции „Мир вокруг нас” на темы „Гендерные стереотипы в современном обществе” и „Все разные – все едины”, познавательное мероприятие на английском языке „Studentsallovertheworld” и другие.

В МГУ студенты принимали активное участие в следующих мероприятиях: кураторский час, посвященный Дню Военных Сил Украины; расширенное заседание студенческого научного общества, посвященное пятой годовщине Революции Чести; форум карьеры „Живи и работай в Украине”; акция „Зажги свечу”, посвященная 85 годовщине Голодомора; благотворительная акция „Угощения для детей”, которая проводилась для детей с особенными потребностями; Всеукраинский радиодиктант национального единения „Крылья Украины”; неделя украинской письменности; заседание дискуссионного клуба „22 года под защитой государства”; конкурс-эссе на тему „Чернобыль: мы помним”. В рамках дисциплины „Теория воспитания и методика организации воспитательной работы” активно использовались такие методы и формы работы, как кейс-стади, дебаты, метод проектов, метод „займи позицию”, метод „за и против”. Так же студентам было предложено выполнить индивидуально-исследовательское задание, целью которого было создание и проведение воспитательного мероприятия национально-патриотической направленности в заведениях общего среднего образования.

Результаты конечного тестирования показали, что число респондентов с высоким уровнем национально-патриотической воспитанности увеличилось почти в пять раз (12% – 58%), студентов/курсантов с низким уровнем национально-патриотической воспитанности практически не осталось (27% – 2%). Сравнительные данные входящего и исходящего тестирования показаны на рисунке 1.

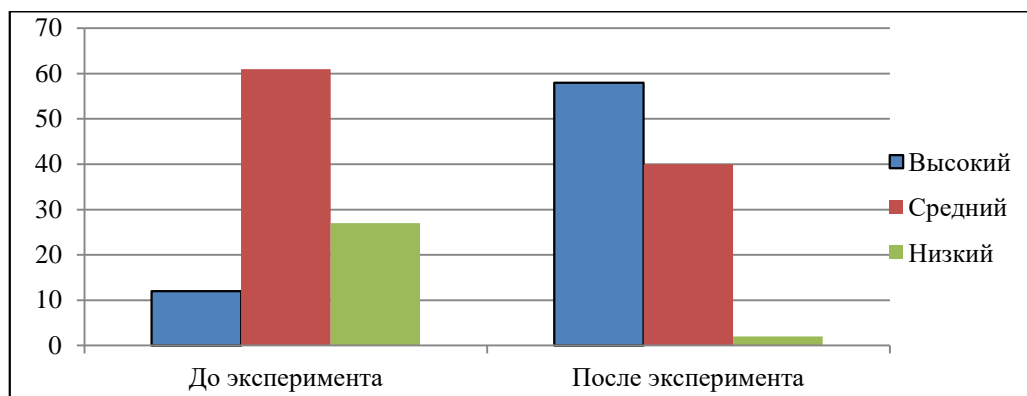


Рисунок 1. Уровень национально-патриотической воспитанности до и после эксперимента

Figure 1 The level of national-patriotic education before and after the experiment

Выводы **Conclusions**

Таким образом, национально-патриотическое воспитание рассматривается как система скоординированной, целенаправленной работы государства, общественности, педагогов, студентов/курсантов, направленная на овладение последними совокупностью знаний, умений и навыков, ценностных установок, необходимых для осознания своей национальной идентичности, формирование потребности и готовности как к познанию духовно-культурного наследия своего и других народов, так и к его защите и приумножению, обороне государственного суверенитета, защите конституционных прав и свобод граждан, закона и правопорядка. Эффективность решения указанных задач будет зависеть от соблюдения ряда принципов воспитания (принцип национальной направленности воспитания, культуросообразности, гуманизации воспитательного процесса, субъект-субъектного взаимодействия, жизненной творческой самодетельности, толерантности, исторической и социальной памяти, преемственности между поколениями); правильного отбора компонентов содержания воспитательной работы (украиноведческий, историко-патриотический, межкультурный); целесообразного использования

традиционных и инновационных форм и методов воспитания (конкурсы, турниры, тренинги, деловые/ролевые игры, диспуты, дискуссии, дебаты, моделирование, симуляции). Кроме этого, путями усовершенствования системы национально-патриотического воспитания в высшем учебном заведении выделены: а) научно обоснованное коллективное планирование воспитательной работы (перспективное, оперативное, поточное); б) максимальное использование воспитательных возможностей всех учебных дисциплин подготовки специалистов; в) разработка методических рекомендаций и дидактических материалов, направленных на национально-патриотическое воспитание студентов/курсантов; г) единство аудиторной и внеаудиторной работы по национально-патриотическому воспитанию.

Summary

The article deals with topical issues of ensuring the national-patriotic education of student and cadet youth. The national-patriotic education is viewed in the article as a system of coordinated, purposeful work of the state, the public, teachers, students / cadets, aimed at mastering of students by the totality of knowledge, skills and values that are necessary for the realization of their national identity, the formation of need and readiness as knowledge of the spiritual and cultural heritage of their own and other peoples, and to its protection and augmentation, the protection of state sovereignty, constitutional equal and freedoms of citizens, law and order. It is proved that the fulfillment of the goal and tasks will be facilitated by expediently selected content of educational work, which should include the following components: Ukrainian studies, historical-patriotic, intercultural. The implementation of these components of the content of national-patriotic education should be provided during the teaching of all academic disciplines, as well as during extracurricular work by using of traditional and innovative forms and methods of educational work. The developed system of national-patriotic education of students / cadets was experimentally verified and its effectiveness was proved. The main tasks that should be solved by institutions of higher education with the aim of raising to a qualitatively new level the system of national-patriotic education of student and cadet youth are defined, namely: development and planning of the concept of national-patriotic education for the entire period of study; preparation by the teaching staff of methodological recommendations and didactic materials aimed at the national-patriotic education of students / cadets; the unity of classroom and extracurricular work on national patriotic education.

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CURRENT PROBLEMS AND ACHIEVEMENTS OF INTERNATIONALIZATION OF HIGHER EDUCATION IN POLAND

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Abstract. *Internationalization of universities is one of the most important processes which development can be observed in the first decade of the 21st century. This process existed all over the world for many years, and it always was one of the engines which stimulated development of research as well as education. Many European countries entered the international market of higher education just about 30 years ago when some European projects started. It boomed especially after the enlargement of EU in 2004 and participation of many countries in the creation of EHEA and ERA. However, despite many activities and programmes performed, the level of internationalization of higher education institutions in Poland is still disappointing. Effective methods of increasing internationalization of HEIs should therefore be sought. The paper presents an approach to the intensification of the internationalization process. The main goals for the activities in this field were determined. The current state of existing programs of international exchange available for students and some other activities as summer schools, double diploma programmes, foreign language courses and international accreditations were also discussed. Current national and university programmes aiming in intensification of development of the international exchange were also described. Among operational goals of these strategies the following needs were indicated: increasing attractiveness of different universities as partners in international educational and research fields; giving international character for educational and research activities; improving the image of European higher education.*

Keywords: *Higher Education, Internationalization, Exchange Programmes.*

Introduction

In Poland, the number of foreign students is increasing year by year. At present, there are 72.743 foreign students studying here, including 37.918 (54.6%) at public and 33.025 (45.4%) at non-public universities. It means that Poland's share in the global market of international students (5 million) is 1.45%. Internationalization is one of the challenges for Polish universities. That is why it is so important for the position of our country in international exchange to grow.

The proper strategy for acquiring foreign students, competitive to other countries and based on a number of solutions facilitating their stay in Poland, serves this purpose. Achieving success in this field without intense, multidirectional activities of all participants and partners of the education market, can be difficult.

Internationalization of research and education has been one of the most important strategic goals for Polish universities since the turn of the 20th century (Hofman, 2015; PDHES, 2015; PIHE, 2015; Woźnicki, 2010). Poland entered the international market of higher education when it has begun to participate in many European educational projects (e.g. TEMPUS), but especially after joining EU in 2004 and taking part in the creation of EHEA and ERA. For all that, Polish universities still have to overcome quite a large distance in this field that separates them from both European and international universities (Martyniuk, 2011; PDHES, 2015; Siwińska, 2017).

Many interesting programmes have been developed and are being implemented into action (Berkowski & Kosior-Kazberuk, 2015; Berkowski & Kosior-Kazberuk, 2018; Ławicka, 2016; Siwińska, 2014). Some of them are temporary (eg scholarship programmes), others are long-term (eg international accreditations). Some initiatives are centrally supported by the Polish government, eg NAWA, or by the European Union, eg Erasmus+. The initiatives of the universities themselves, such as educational programmes in foreign languages (long-term commitment of students) or summer schools (short-term student involvement) are also important and conducive to internationalization of HEIs.

The paper presents an analysis of the activities undertaken for the internationalization of HEIs due to the educational process. The goals whose implementation is taken to strengthen internationalization were also indicated.

Foreign students in Poland

As it can be seen in Figs 1 and 2, since 2005 the growth of the number of foreign students in Poland has been increasing to more than 72 000 in the last year.

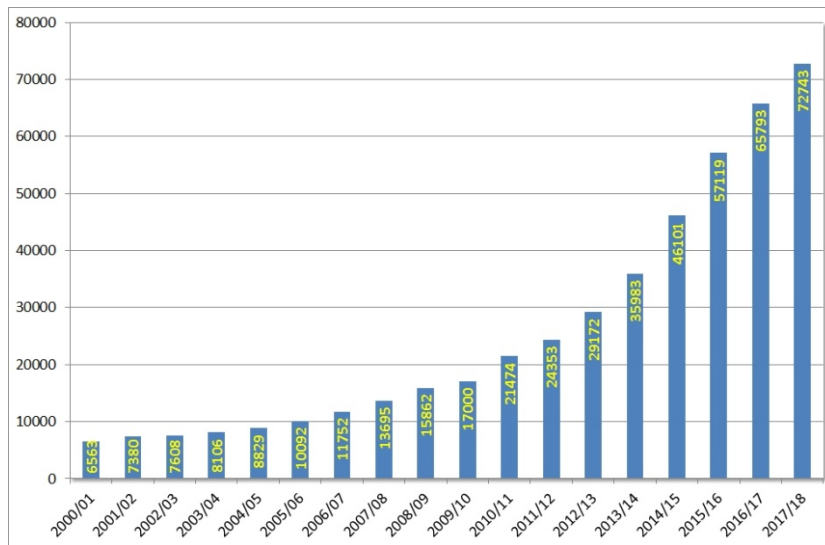


Figure 1 Number of foreign students in Poland 2010-2018 (source: www.studyinpoland.pl)

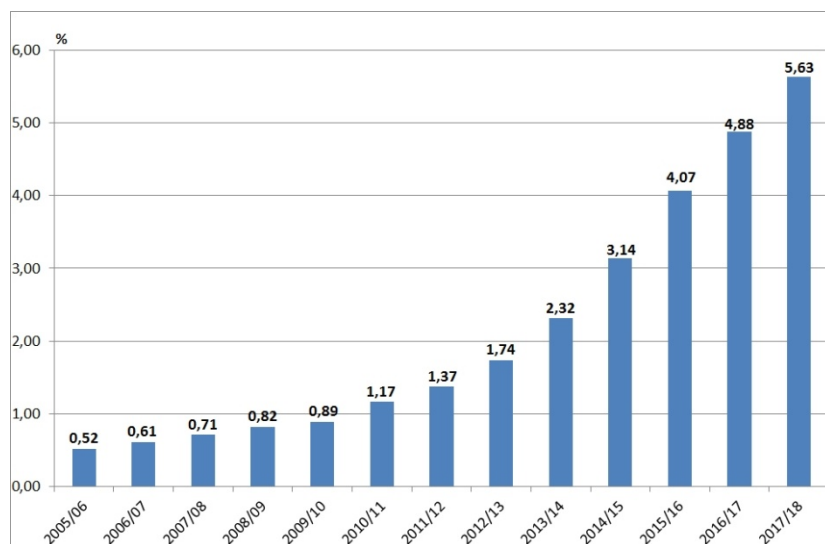


Figure 2 Internationalization factor of Polish universities (source: www.studyinpoland.pl)

Currently, they constitute 5.63% of all students in Poland, while 12 years ago this number was only 0.52%, and in the academic year 2016/17 it was 4.88%. It means a growth of 10.56% in the total number of foreign students year after year. However, the change in this percentages also due to decrease in the total number of students in Poland, which was 4.22% comparing the academic years 2016/17 and 2017/18 (Fig. 3). The foreign students in Poland still constitute a small percentage in comparison even to the neighbouring states such as Czech Republic, Hungary, Slovakia or Lithuania.

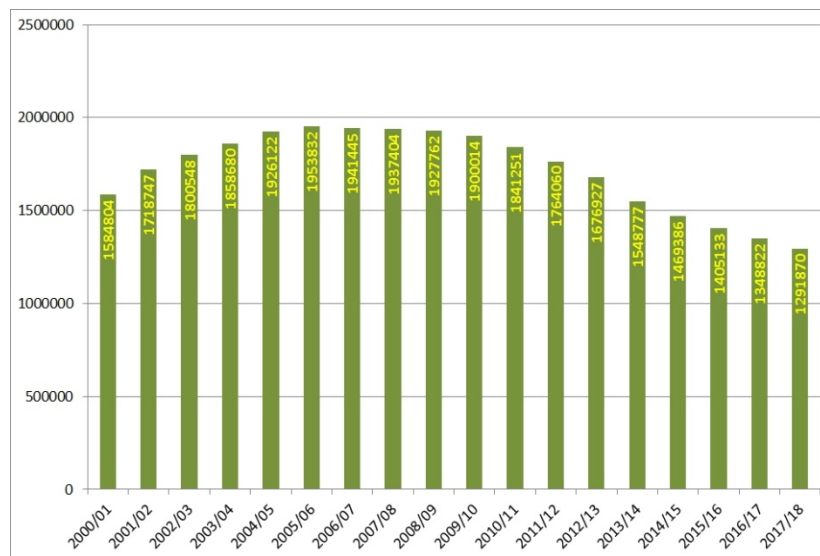


Figure 3 Total number of students in Poland in 2000-2018 (source: www.studyinpoland.pl)

The main goals for stimulation of internationalization

In *The Strategy for the Development of Higher Education: 2010–2020*, commissioned in 2009 and 2014 by the Conference of Rectors of Academic Schools in Poland and the Polish Rectors Foundation (Woźnicki, 2010), the following activities were indicated: increasing the attractiveness of Polish HE institutions as partners in international ERA; giving international character to educational and research activities carried out at Polish universities, as well as improving the global international image of Polish higher education. At the same time, strategic programmes supporting the internationalization have also been developed under the auspices of the Polish Ministry of Science and Higher Education (PDHES, 2015; PIHE, 2015). The main goals for the activities in this field are as follows:

- developing activities that will allow the best universities to advance in international rankings which can increase the interest of foreign young people in studying or performing the academic work in Poland;
- launching and supporting a programme of international accreditations;
- creating courses and study programmes conducted entirely in English;
- expanding scholarship programmes financing mobility;
- implementing active policy to promote studying in Poland and facilitating the adaptation of foreigners in Poland.

More detailed aims are described as follows (PDHES, 2015):

- helping higher education institutions to get international accreditations;
- promoting creation of first and second cycle programmes in foreign languages as well as developing joint educational projects;

- extending doctoral programmes to international scale and developing career paths for post-doctoral candidates;
- increasing the number of foreign scientists involved in academic and scientific work in Poland;
- increasing the offer of e-learning study, including MOOC;
- developing better support system for foreign students, developing competencies of administrative employees (e.g. language and cultural competences);
- financial support for graduates and academic staff working abroad at their return to Poland;
- increasing the participation of universities in the implementation of the *Ready, Study, Go!* programme;
- using of state support marketing activities.

It should be mentioned that most of the undertaken activities are in line with European tendencies.

Study in Poland institutional programme

The *Study in Poland* (www.studyinpoland.pl) project was created by the *Conference of Rectors of the Academic Schools in Poland* and the *Perspektywy Educational Foundation* in 2005. It is a long-term initiative for promoting Polish higher education and studying in Poland, and is dedicated to all students who want to spend some part of their life in Poland. It is a long-term programme, based mainly on information and promotion activities, or implementation of projects aimed at increasing the number of study programmes in English. Some activities are also dedicated to analysing the process of internationalization of studies in Poland in a statistical way.

Polish National Agency for Academic Exchange NAWA

Polish National Agency for Academic Exchange (NAWA) was initiated in 2017 with the aim to coordinate all activities connected with the process of internationalization of Polish academic institutions at the national level by:

- supporting international mobility of students, academics and researchers;
- supporting the process of internationalization of Polish HEIs;
- promoting Polish science and higher education in the world;
- promoting and popularizing teaching of Polish language.

The mission of the Agency is to help the development of academic exchange and international cooperation in order to strengthen the potential of Polish science and higher education. Its main aim is to introduce a long-term policy to support

academic mobility and to improve the internationalization of the Polish universities offer, by implementing quality-based programmes addressed to students and academic staff from Poland, as well as from abroad.

Existing programmes of international cooperation in the EA at Polish universities

ERASMUS+ programme

The ERASMUS Programmes have been carried out in Poland since 1987. Despite broadening their scope and objectives over almost 30 years, the main idea remains the same - the development of international co-operation among universities. Currently, ERASMUS+ is the most popular programme for international exchange of students and academic and administrative staff. The following types of “ERASMUS+ studies” (KA103) activities are conducted at Polish universities: Action 1: Learning mobility and Action 2: Cooperation for innovation and good practices. Action 1 includes: Mobility of university students and employees (programme countries); Mobility of university students and employees (partner countries); Joint Erasmus Mundus master programmes; Loans for students studying at Master's studies abroad. Action 1 includes: Strategic partnerships; Alliances for knowledge; Creating capacity in the higher education sector. The other type of cooperation are “ERASMUS+” trainings and internships, “ERASMUS+” with partner non-EU countries (KA107).

Study programmes and courses in foreign languages

Many Polish universities already offer study programmes entirely in English (Berkowski & Kosior-Kazberuk, 2015), dedicated to foreign students (both the full-time, and Erasmus exchange ones) as well as to Polish students interested in studying in English. Usually, the courses offered are the same as in Polish. However, the Polish Ministry of Science and Higher Education financially supports the development of innovative inter-disciplinary studies.

Student exchange programmes within bilateral or multilateral cooperation agreements between HE institutions

The Student Exchange programme offers the opportunity for students to go to one of the partner universities with whom we have signed an exchange agreement for one or two semesters (other than ERASMUS+). A student qualified for exchange at a partner university may participate in all courses offered by this university, both in English and in the native language of a given country.

Double diploma (DD) and T.I.M.E. programmes

The best example of the DD programme is the T.I.M.E. programme. It was implemented by the well-recognized European universities with an excellent international teaching and scientific reputation. The programme is based on the mutual trust, reciprocity and equal benefits for both partners. The students are awarded with two diplomas that increase their employment opportunities on the European labour market. The programme assumes extending standard study time by one year (e.g., 4 years at the home university and 2 at a partner one), studying in the partner's language and treating foreign students equally with their own students.

Summer schools

One of the best ways to acquire foreign students to study at the universities are summer schools (Mroczek, 2016). Summer schools have experienced a huge development in recent years - this is very often the result of the need to search for foreign candidates for studies, especially from Asia or South America. In addition, summer schools, very often with very narrow but high quality profiles, allow to fetch the most talented students, promising the opportunity to carry out scientific work. The undeniable advantage of these schools is cooperation between students coming from many different countries and continents.

For example, at Wroclaw University of Science and Technology the following summer schools are organized: TECHSummer2018 (especially dedicated to students from India); Energy, Excellence, Excitement 3E+; Summer School of Architecture; GUT Summer School (dedicated to students from Guilin University of Technology). Bialystok University of Technology has organized the following summer schools: Polish-German-Belarusian Summer School for students from BUT, Belarusian National Technical University, and Eberswalde University for Sustainable Development (3 editions in Poland, Germany and Belarus); Polish-Chinese Summer School (2016, 2017, 2018) for students from BUT, School of Management of Zhejiang University Ningbo Institute of Technology from China; Summer Schools VIPSKILLS (Virtual and Intensive Course Developing Practical Skills of Future Engineers) dedicated for civil and environmental engineering students from BUT, University of Cordoba and Vilnius Gediminas Technical University.

Other programmes useful for internationalization:

➤ International Visegrad Fund

International Visegrad Fund was created under the agreement concluded in 2000 by the Visegrad Group, a project aimed at financially supporting international initiatives, between the Czech Republic, the Republic of Hungary, the Republic of Poland and the Slovak Republic. There can be distinguished:

Intra-Visegrad Scholarships - intended for students from the Visegrad Group countries; Out-Going Scholarships - students from the countries of the Visegrad Group who want to study in a country that is friendly to the Group; In-coming Scholarships - students from outside the Group who want to study in the Group countries.

➤ **Central European Exchange Programme for University Studies (CEEPUS)**

The CEEPUS aims to support academic exchange in the field of education and professional development of students and academic teachers. The programme offers:

- ✓ short-term scholarships within Academic Networks;
- ✓ short-term scholarships as part of the "Freemover" internships; short-term scholarships as part of summer schools and intensive courses.

➤ **DAAD Fund**

Although the main task of DAAD is the internationalization of German universities and supporting international academic exchange the fund also offers information on educational opportunities in the Federal Republic of Germany and gives financial support for students, graduates, PhD students and researchers - both Germans and foreigners - as part of scholarship programmes.

➤ **GFPS Fund**

Scientific and Cultural Association in Central and Eastern Europe GFPS-POLAND offers a special scholarship programme financed by the Foundation for Polish-German Cooperation, awarded to students and doctoral students of all faculties, enables the implementation of their own research project at a German university.

➤ **Campus France Programme**

Scholarship programmes allow Polish students to finance studies in France at the Master 2 level (BGF Master 2nd year) or Double Doctorate (BGF Doctorat en cotutelle) implemented between France and Poland.

➤ **Fulbright Award**

One of the oldest (in Poland since 1959) and the most prestigious programmes of international cooperation is offered by the Polish-U.S. Fulbright Commission. Students and doctoral students are offered the scholarships for studies, and academics for research stays, for a total of 9 months of study trips.

➤ **GE Foundation Scholar-Leaders Programme**

The GE Foundation Scholar-Leaders Programme in Poland is a prestigious programme that offers financial support and development opportunities for talented second-year undergraduate students, who are educated in economics, management, engineering and technology. The programme also offers the development of personal, social and managerial competences under the guidance of specialists from General Electric. Five universities (Gdańsk University of

Technology, Lodz University of Technology, Rzeszów University of Technology, Warsaw Polytechnic and Wrocław University of Science and Technology) take part in the Polish edition of this programme.

➤ **Visiting professors**

Visiting professors is a programme of visits university by eminent scholars and popularizers of science. It is one of the examples of cooperation between the universities, that supports the mobility of researches.

**Polish-Chinese international cooperation in higher education
- Belt & Road initiative**

Intensive cooperation with Chinese universities takes place mainly within the Belt & Road initiative. Polish and Chinese technical universities established a university consortium, with the aim of conducting joint scientific research *The Sino-Polish University Consortium 'One Belt One Road'*. The consortium consists 23 universities, including 9 Polish universities. The latest initiatives were as follows: Training Programme for Senior Administrative Staff and Art & Design Competition for students.

Other initiative is Confucius Class, launched in October 2017 in Bialystok University of Technology as a part of the project starting the national network of Confucius classes, established at Polish universities as a support to One Belt One Road programme. These classes are meant to teach Chinese to the engineering staff, and are going to become new Confucius Institutes in the future.

International accreditation of study programmes

The Polish Accreditation Committee (PKA) has operated in Poland since 2002. It is an independent institution working with the aim of improving education quality. The primary objective of the PKA is to support Polish public and non-public higher education institutions in the developing educational standards matching the best models adopted in the European and global academic area. In 2008 PKA entered the European Quality Assurance Register (EQAR) and since 2009 has had the status of a full member of the European Association for Quality Assurance in Higher Education (ENQA).

Another institution dedicated exclusively to assessment of technical fields of studies is the Accreditation Commission of Universities of Technology (KAUT). In September 2013 KAUT was authorized by the European Network for Accreditation of Engineering Education (ENAE) to award, along with standard KAUT accreditation, the European EUR-ACE® Label certificate. Since 2016, KAUT has also been a member of ENAE.

However, there is a great tendency among foreign students who come to Poland to select universities or faculties which have a well-known international accreditation. Currently, the Polish Ministry of Higher Education and Science, has opened a project dedicated to support Polish higher education institution in obtaining international accreditations.

Conclusions

Our chances of improving the position on the international student market derive mainly from the fact that a suitably large group of universities recognized internationalization as one of the key goals of their development. This was reflected both in the development strategies of those universities, and in the practice of their divisions of science, education, international cooperation and promotion.

Although the main asset of Poland as a country offering academic education is primarily the high academic level of most universities, making the educational process more attractive through new methods of presenting issues, including students in the process of preparing experiments and research, activating practice groups, and replacing demonstration methods with problem solving enables constant increasing of attractiveness of classes. The cost of living in Poland is still attractive for foreigners' pockets.

The positive influence exerted by international groups on both lecturers and native students is also important. The understanding of the positive impact of various aspects of mobility on the whole of the study process is increasing. Specific changes indicated by lecturers include: the need for better preparation of the classes - selection of reading material for discussion, better reaction to presenting unexpected points of view and ways of argumentation, bringing experiences and knowledge a bit different than in the case of Polish students, implementing global systems of control and assessment, etc.

The most popular student exchange is organized as a part of the long-established ERASMUS+ programme activities, however it is limited by the granted funds. Three other forms of action are nowadays becoming very important: study programmes in foreign languages, double diploma agreements and summer schools. Together with them, the development of full BSc and MSc programmes offered in foreign languages, and obtained international accreditations, seem to be the best solution for increasing the internationalization level of Polish HEIs.

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OUTLIERS OF ACTION RESEARCH – THE IDENTITY CONSTRUCT OF FUTURE TEACHERS

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Abstract. *Queries, activities and those sufficient solutions of teaching and learning situations are daily bread of the teaching profession. Thus, in learning of future teachers exist possibilities how to influence the progress of the teachers' identity construction with self-creative and critical tools which are connected to the complexity of the personality. However, action research helps to deeply understand techniques which are behind the line of the traditional point of view and helps to understand the situations from the pragmatic way of natural learning in the process of preparation at the university. The research aim is focused on the support of integration of the action research as a tool for the teachers' preparation in the good practice of the university environment. Mixed research methods are based on the narrative corpus which consists of the coded interviews and specific tasks connected to the educational preparation. Results reflect the current various ways of developing future teachers and their impact on future teachers' identities.*

Keywords: *action research, identity construction, inquiry learning, self-development, teaching approaches.*

Introduction

The classic application of action research comes from a non-pedagogical environment. It is necessary to mention that the initial occurrence was in areas related to corporate and ordinary life, where undesirable phenomena and problems must be addressed efficiently, flexibly and must lead to the results. The research aim is focused on the support of integration of the action research as a tool for the teachers' preparation in the good practice of the university environment. The concept of approaching action research in current conditions is still based on the pillars of Lewin's ideology (Lewin, 1946) and his vision of improving the process and the benefits of effective results. Action research in the concept of education finds an indefinite place. On the one hand, it is cursed by ones and on the other hand adored by others (Friedman & Rogers, 2009; Corey, 1954; Herr & Anderson, 2006). This ambivalence is amplified by the uncertainty and inconsistency of the consensus in the academic sphere, to categorize the action research and how to

approach it from the point of view of science because it does not meet the traditional conservative academic demands (Kerlinger, 1972) for grounding in the methodological hierarchy of science. Mixed research methods are based on the narrative corpus which consists of the coded interviews and specific tasks connected to the educational preparation.

Action research and the current situation at education institutions

In many ways, action research is still a very narrow part of the teacher training content in the profiled teaching base at the Czech universities. The teacher meets after successful graduation with factual reality in the form of everyday challenges and questions that the educational environment offers. In the preparation of a future teacher, we see the importance of connecting the theoretical components that shape his / her personality, contribute to his / her professional and personal growth. In spite of the benefits that action research brings through direct inquiry topology continued, it is in many respects less popular throughout the academic sphere, and its application to the preparation of future teachers is rather rare. The categorical classification of this type of subject is still confronted with misunderstanding in interdisciplinary areas of academic preparation. This is mainly due to its atypical way of proving the theoretical knowledge at the expense of practical experience of events and self-development because there is no unified instrument to measure and demonstrate this progress. The academic concept and verification of research approaches can be selected in a traditional approach to familiar and well-known methodological approaches. Their typology is intertwined with various variations of quantitative and qualitative designs. However, action research can offer a solution that does not have to reveal these approaches, and last but not least, it is a short-term revelation with absolute effects.

There is no uniform definition of the relationship between what is the meaning of action research in the education field. When comparing more authors, we find interesting contradictions in the relation of application and interpretation of the action research given use. By comparison, authors (Lewin, 1946; Stenhouse, 1975; McNiff & Whitehead, 2006,) select action research as process development, analytical tool, an effective attitude to the situation, and a verifier of progressive change.

The cornerstone of the approach to action research is advocacy (defending one's own view of what is happening) and reflection through the elementary questions queried in an effort to effectively move the situation to a progressive solution.

Thus, action research can be understood as an action on a given situation in relation to a phenomenon that has occurred in real time, also as an inquiry-based

solving of a particular problem and, last but not least, as a complete self-reflexive tool to reveal limitations in places where the individual doubts whether his/her actions lead to progressive changes in what he/she does and what he/she could do better.

Stenhouse (1975) speaks of the significance of action research as an application of tools in ontological conception and testing of reality through interrogation. Action research can also be applied as a way of grasping and linking practical benefits with a theoretical interpretation of what an individual should manage and control in practice.

Action research in the service of good faith

The great potential of action research on a pragmatic scale is discussed by authors (Janík, 2004; Nezvalová, 2003; McNiff & Whitehead 2006). The implementation of the pragmatic approach is implemented to the education system in the Czech Republic with a documented legitimacy around the year 2003. The changes in the use of the action research instrument as a reform super tool with the aim of changing the curricular afflictions (caused by the inefficiency of the policymakers) have plunged into education and teacher training dark times. The improvement has come soon after teachers' pressure, which was made possible by the adoption of a law¹ (MŠMT, 2019) that allowed autonomous intervention at school level. As a result of the implementation of the FEP (*Framework Educational Program*), which categorically defined autonomy according to the type of school, it is possible to focus on the introduction of direct curricular changes in the form of SEP (*School Educational Program*). During their implementation, the schools could be involved and take advantage of the effective tools from action research, as they were absolutely free to deal with problematic integration influencing teachers, pupils and parents. The primary applications of action research were focused on addressing practical educational processes and making teaching, didactic preparation, and teacher professional growth more effective at the local levels of the institution.

In the current situation, there is no diction that action research should be part of the compulsory implementation of SEP. In this connection, universities are voluntary and offer a competitive advantage in the field of education to include this type of vocational training in the preparation of a future teacher. Universities in their own environment can intervene effectively and flexibly only under the circumstances of interpreting the diction of the legislative agreement² (MŠMT, 2019) of a valid accreditation that guarantees the professional preparation of the

¹ Act (2004). No. 561/2004 Collection of Law, on Pre-school, Basic, Secondary, Tertiary Professional and Other Education (the Education Act), as amended.

² Act (1998). No. 111/1998 Collection of Law, on Higher Education Institutions, as amended.

individual in the given institution. It's not a trivial matter. The timely change of policymakers and their curriculum changes can make the future teacher's preparation more effective. We would find a high number of examples of the importance and benefits of action research on self-development. The main advantage of action research is the professional preparation of the teacher outside of the university environment, not only in preparation on faculties of education where it is seen as an elementary and key ability to be consistently prepared for the requirements and needs of the conditions of the 21st century.

By comparing the various interpretations of the cyclical application of action research for better clarity, we summed up these gently different attitudes from the authors to the table.

Table 1 Uroboros of action research cycle phases

| | <i>McNiff & Whitehead (2006: 91)</i> | <i>Nezvalová (2003)</i> | <i>Chudý & Kropáč (2019)</i> |
|------------------|--|-------------------------|---|
| Cycle n.1 | I experience a concern when some of my educational values are denied in my practice. | Problem formulation | Situation imagination |
| Cycle n.2 | I imagine a solution to the concern. | Data collecting | Empathy to situation |
| Cycle n.3 | I act in the direction of the imagined solution. | Data evaluation | Reactive solution |
| Cycle n.4 | I evaluate the outcome of the solution. | Result presentation | Application of the procedure in practice |
| Cycle n.5 | I modify my practice, plans and ideas in light of the evaluation. | Action plan | Continuous escalation of the solution in practice |

Below is a selection of McNiff & Whitehead (2006: 8-9) fictitious partial steps approach:

Action research aims to be a disciplined, systematic process. A notional action plan is:

- take stock of what is going on,
- identify a concern,
- think of a possible way forward,
- try it out,
- monitor the action by gathering data to show what is happening,
- evaluate progress by establishing procedures for making judgements about
- what is happening,
- test the validity of accounts of learning,

- modify practice in the light of the evaluation.

Methodological part

We draw from our own proven conceptual framework to demonstrate the effectiveness and contribution of action research on the influence of the formation of the future teacher's identity, which is verified in the sequence of the individual steps. The mixed methodology is based on the concepts of the Creswell (2009) narrative approach, which was modified and applied to our research needs in the context of action research and elaborated on a partial and more precise element - the narrative corpus (interrogation of the author), which was supported by interview, text analysis, categorical selection of the coded variables and their count, and, last but not least, the evaluation and self-reflexive essays. Postproduction of data was evaluated by a phenomenological concept based on a subjective and effective conception of approaches to the specifics of the students' work, as well as by objective assessment within the group discussion and acceptance of consensus for social satisfaction. The content analysis of data was carried out through modern transcriptions converted to statistical variables using analytical methodological programs (Nvivo with own code matrix), which were able to define the statistical variable – count.

We focused on 103 respondents aged 20-23 were involved in our research, represented by 55% of women, 45% by men. It was a deliberately chosen sample of future teachers who are continually preparing for the profession of a teacher in an accredited university environment.

The actual action research application process consisted of long-term research based on the mix of individual approaches that were gradually escalated to develop the personality and professional identity of the individual and his / her practical skills, using the phased application of the methods and forms that action research brings.

Findings

The composition of the framework matrix based on the partial steps corresponded to the continuous steps leading to the development of the student's knowledge in the field of action research and the current demands on levels of critical thinking, abstraction, application, communication, emotional maturity and professional ethos.

1. First Phase (Stage) Ex-Ante Reflection of Knowledge (Teachers oriented fiction)

This part brings findings mainly in the field of perceptions of teachers' conflict in the pedagogical part, which the student is experiencing in the preparation (Chudý, Balaban, Koribská, & Kropáč, 2018; Kropáč & Peng, 2018).

Simulation of pre-teacher fiction abstraction situation reflects what student expects in the future role of the teacher.

Contribution to teaching v. long-term benefit for the student in the direction of awareness of his / her own barriers and deficiencies. The student thinks over the solutions based on his / her current concepts on the topic of the problem and is able to evaluate the situation in order to integrate his / her own teaching approach to the solution of the whole issue. Purely naturalistic self-development is improved effectively in a short time horizon. The scope of the solution was determined by 250 words for a more perceptive imagination of the perceived problem of self-reflection.

The initial level of the applied method in terms of action research was based on the explanation of a fictitious example, in which the student expressed his / her own opinion through his / her own experience by questioning the given phenomenon, and he/she elaborated this opinion into a short reflection that was analysed and evaluated over the next hours. From this stage, each student immediately had his / her own preconceptual overview of the knowledge gained on the subject of action research and could improve the potential failures.

2. Second Phase (Stage) - Please, do it better in the fictional service conditions

The following phase has been cooperatively focused on the development of didactic, communication, and crisis areas with which an individual can meet at school and professional level. Students were selectively defined in working groups, and each group was assigned an identity that supervised the development of the situation based on continuous questioning about the thematic issue. It is a case study that students have the task of solving together in a short period of time and then reflecting and defending their vision at the expense of other groups that compete with each other and try to bring the most effective way out of the whole situation that would help the whole thing, so that the benefits of school-level action meet the expectations effectively, quickly and positively. The outcome was the concept of rules that the individual groups retained in the future and subsequently followed up in the development of the situational solution and completed their findings in the project worksheets.

Students were divided into groups according to different approvals. The optimized group size ranges from 12-15 people. In the first phase of the project approach to action research, representatives were selected in each group, who represented the role of the head of institution, representative and educational

counsellor (*Autonomous Administrator of the Institution*) the rest of the participants from the group were active teachers (*their roles*). The purpose was to create a pact of solution procedures so that they could best capture their natural view of the situation. There were no wrong ideas. Since they were students who have a different degree of knowledge and experience from practice and industry, it was necessary to let the students think about the situation and lead them from a mentor position. Individuals representing the institutional component were invited to present the results at the end of the exercise. The theme of cooperative group work brought results within 45 minutes even with frontal evaluation of variance assignment. In our case, the students dealt with the situation of problematic integration of the pupil with dysfunction and complicated life situation in the family, which profoundly and socially influenced its working at the school. This case originated from a real casuistic situation that was verified in practice and had a template for the right solution by external supervision of pedagogical-psychological institutions that provided expert consultation in the individual procedures of the solution.

E.g. Assignment Group Learning – Action Research Component Project (worksheets from students - narrative transcript).

- *Group A Student 1.*
[...] *You are not right in your inquiry in relation to the situation. Imagine that you are a child but you must solve it from the teachers' perception.*
- *Group B Student 2. (in the role position)*
[...] *Well, I understand what you feel to this child but we are school workers with expectations from supervising institutions. You must push yourself to the uncomfortable zone. If not you will suffer in practice later.*
- *Mentor and student's council*
[...] *Please, both of you are right. There are no bad or good questions. You did or you will have to do what is sometimes unpredictable and unfair or uncomfortable to each of the partial members of the educational environment as teachers (your colleagues), students (your pupils) and parents or supervising institutions which influence quality. You will have to find the same speech and effective way of the output. You are teachers.*

Students get deeper into the gradation of the solution to the phenomenon and work consistently in upcoming meetings and elaborate on their own strategic educational approaches based on group work. Their evaluation is done in real time from the point of view of the supervisor, the mentor and the respondents' own point of view.

3. Third Phase (Stage) – Conceptual evaluating of the role of narration essay and application of the action research rules on student's professional development.

At the end of our work students reflected and defended themselves through a written work on the topic of the reasons for choosing a teaching profession. The

essay has been critically defined to include history, complete awareness of current preparations and its risks, own failures, and, last but not least, the imagination of the future. This methodology has provided students with answers to their own questions about their own concepts of teacher's profession, their own identity, their own expectations, deficiencies, threats and challenges that can be met in pedagogical practice.

Table 2 *Results of the outliers in the framework usage*

| Problematic field | Count | Weighted Percentage (%) |
|--------------------------|-------|-------------------------|
| Expectations | 121 | 5,81 |
| Future improvement | 124 | 5,95 |
| Lack of practice | 351 | 16,84 |
| Professional development | 109 | 5,23 |
| Self -inquiry | 343 | 16,46 |
| Shall I do it better? | 195 | 9,36 |
| Sharing knowledge | 70 | 3,36 |
| Work impact | 771 | 37,00 |

n=2084

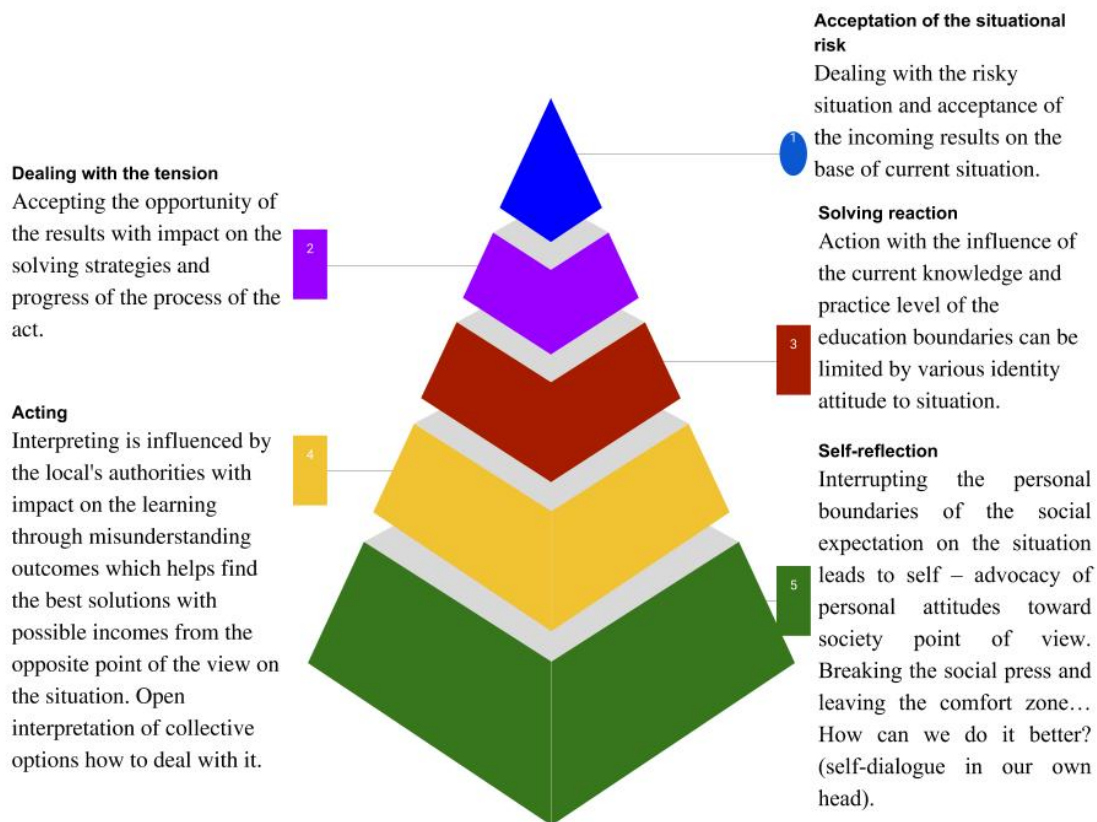


Figure 1 *Action research inquiring framework*

In the contextual interpretation of table above, we see the relation of action research in a broad spectrum, which can be defined as:

- The imagination of the situation influencing the challenges and concerns in teacher training,
- Empathy and perceiving of the situation as a part of common behaviour,
- Reactive solution based on continual improvement and inquiry,
- Application of the practice in the purpose of the natural development of the student,
- Continuous escalation of the solution in practice in preparing the future teacher and influencing his / her identical and professional component.

Conclusion

Action research brings analytical and beneficial findings of our developmental and professional knowledge in a short time horizon. In spite of the various contempt for this approach in the academic environment (Norton, 2009), we see the predominantly enriching effects of this method, which diversifies the everyday teacher's dogma and stereotype (Fenstermacher & Soltis, 1998; Schön, 1983). However, what is certain, action research does not address the theoretical background in order to create new theoretical findings that have been verified through aged approaches to the research hypothetical knowledge of the daily reality of teacher professionalism. From a teleological point of view, action research can bring more beneficial results in the areas of exploration of identical parts of personality, where compact, measurable, standardized tests may no longer be enough to fill the too conservative gap in the classical approach to research and its limitations in the teaching environment.

Recommendation for the preparation of the future teachers is to implement the action research to the study programme on the universities where students can test and practice their own strategies under the supervisions of the teachers which is helpful and encourages the student's carrier.

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ADAPTATION OF THE MAPLE SYSTEM FOR EFFECTIVE STUDENT'S INDEPENDENT WORK IN HIGH MATHEMATICS

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Abstract. *The significance of the material presented in the article is due to the necessity of developing and implementing the latest information technologies at the study of higher mathematics using the systems of computer mathematics. The solution of the standard tasks of higher mathematics on the topic of differential equations involves the execution of bulky, similar arithmetic calculations and records. If there is an error in the calculation, its localization takes a lot of time, which leads to the student's quick fatigue. The concept of adaptation of SCM Maple to higher mathematics is suggested by creating a training Maple simulator on the topic "Linear homogeneous differential equations" in order to more effectively master students' material, as well as to enhance students' learning and cognitive activity. The main results of the authors are presented in the field of development of the educational complex in higher mathematics, the main element of which are procedural simulators as well as procedure generators.*

Keywords: *Maple-training simulators, higher mathematics, the independent work of the student.*

Introduction

In the modern period of the mankind development, the goal of higher education is the formation of high-level creative thinking specialists, which in turn requires the creation of a new model of higher education, the development of creative abilities, the cooperation of teachers and students in the educational process.

The most important goal of the modern school is to give the student at all levels of university education not only general and professional training, but also

the necessary basis for self-education, develop the ability to use the acquired knowledge actively to solve scientific and practical problems. The realization of this goal implies that in the modern high school the educational process should acquire the character of independent work of students, organized and managed by the teacher using the latest methods and means of study.

One of the conditions for improving mathematical education in a technical university is the active use of modern information technology, as well as systems of computer mathematics (SCM).

After analyzing the works by S.A. Rakov (2011), S.O. Semerikov (2008), O.V. Spivakovskiy (2006), O.M. Spirin (2006), Yu.V. Trius (2005, 2010), M.I. Zhaldak (2003, 2004), one can identify trends in the use of information technology (IT) in education, as well as in these works, attention is drawn to the problems of developing skills of independent work of students using IT.

While studying higher mathematics by students the use SCM gives a possibility to provide visualization, graphical interpretation, mathematical modeling of processes, complex calculations, as well as the opportunity to use SCM as one of the means for organizing independent work of students.

To organize a systematic, individual and systematic process of studying in a high school, optimization of the educational process, which should combine traditional methods and new forms of learning using information technology, is required. These technologies are implemented at all stages: the study of the theoretical course at lectures - a combination of lectures, manuals and information computer technology (ICT); practical classes and independent work of the student - solving individual tasks using algorithms for solving problems with comments and examples and their computer visualization; execution of calculation and graphic works - application of automated complexes to solve research and creative tasks.

Implementation of educational innovative technologies in higher education is always relevant. Problems of the use of ICT as well as computer algebra systems are highlighted in the works by O.B.I.M. Zhaldak (2004), V.I. Klochko (1997), N.V. Morse (Morse, 2003). In the considered works it is noted the search of necessary methods for increasing the efficiency of the educational process and the coefficient of useful activity of the system "student - teacher". The need to combine traditional teaching methods, which are mostly explanatory, with new forms of learning, including the use of modern multimedia technologies, is dictated by the limited time of material mastery, in particular higher mathematics, poor student educational level and ineffective organization of the educational process.

Optimization of the educational process with the use of modern information technologies can be achieved by combining verbal and visual presentation of the

material, independent work at all stages of obtaining knowledge and skills and organization of the system, individual and systematic training.

The purpose of this article is to introduce readers with the experience of teaching higher mathematics to students of Vinnytsia National Technical University, who study in the field of computer science.

In the course of the work, the analysis of scientific and methodological literature on the research problem was conducted, as well as in practice, the computer support of the course for higher mathematics in the unit of linear homogeneous differential equations was implemented and the computerized approach to the methodology of higher mathematics student training at the Technical University.

Experience of the higher mathematics university course organization and realization Body of the Article

By means of SCM it is possible to provide individual learning "in mass order" especially in the process of choosing an educational action (explanation, hint, encouragement), taking into account the ability of each particular student to study. Using a computer provides an opportunity to take into account the peculiarities of the student's cognitive processes - perception, thinking, memory, and also to provide assistance to the student based on his individual abilities.

According to many experts, the availability of modern mathematical packages, in particular, SCM creates conditions for radical review of the content, goals, forms, means and methods of teaching higher mathematics of future engineers. The number of papers on the use of mathematical packages during the study of higher mathematics increases with each passing year.

When using systems of computer mathematics in the study of higher mathematics it is necessary to carry out considerable work on the adaptation of such systems. After all, they were created, first of all, to provide professional activities of a specialist. Work (Mikhalevich, 2008) shows the perspective direction of adaptation of SCM Maple for the study of higher mathematics of students of technical and economic specialties is the creation and use of training simulators for the automated reproduction of the step-by-step approach to solving typical problems of higher mathematics (TPM).

The Department of Higher Mathematics of Vinnitsa National Technical University during the organization of the educational process in studying the subject "Higher Mathematics" uses a wide set of teaching tools, which requires the use of a variety of methods and tools for managing the cognitive activity of each student at different levels of learning knowledge and skills development.

1. Lecture course is one of the main forms of knowledge transfer and is a combination of the presentation of theoretical material by the lecturer and the use of information technology in the audience.

2. Practical classes are focused on teaching methods for solving typical problems of higher mathematics, in the structure of practical classes the independent work of students dominates.

Practical classes are a combination of: individual tasks, - algorithms for solving problems from all sections of practical classes with comments and examples illustrating their use, which allow to study methods for solving problems with the student's direct participation in logical considerations, the construction of variants of drawings, the choice of paths solution;

3. Typical student calculations are one of the forms of solving students' problems of higher complexity.

4. Student's independent work (SIW). Independent work is the main means of mastering the student material at time, free of compulsory training. Therefore, in order to increase the SIW, the student must himself realize the need to acquire new knowledge and skills. In order to implement and help the student during independent study of the material, it is expedient to use the training Maple simulators (TMS) (Mikhalevich, 2008) which provide an opportunity to get the course of the solution of mathematical problems in detail. In addition, the use of TMS stimulates the cognitive activity of students, contributing to the intellectual development of the individual. The availability of TMS will enable students to test their abilities and skills or, in case of difficulties, the program will tell you the next step.

According to O. V. Spivakovsky generating programs are intended for presentation of sets of tasks of a certain type from a given topic. Their use provides the opportunity conduct test or independent work in the classroom, providing each student with a specific task that corresponds to his individual abilities (Spivakovsky, 2006). Therefore, for the selection of tasks for practical work on the topic of linear homogeneous differential equations, an author's generator of the tasks of higher mathematics on the subject of linear homogeneous differential equations(LHDE) was developed, which allows the teacher in a short time to provide each student with an individual task (Fig. 1), the teacher should just specify the required number of examples, as well as the complexity of the examples (currently, there are only two levels of complexity) (Fig. 2). In addition to the task generator itself, the author's TMS, on the teacher's choice, has the ability to write the answer to each task (Fig. 3). The work of the generator is aimed in such a way that during the calculations there are no complicated irrational coefficients in finding solutions.

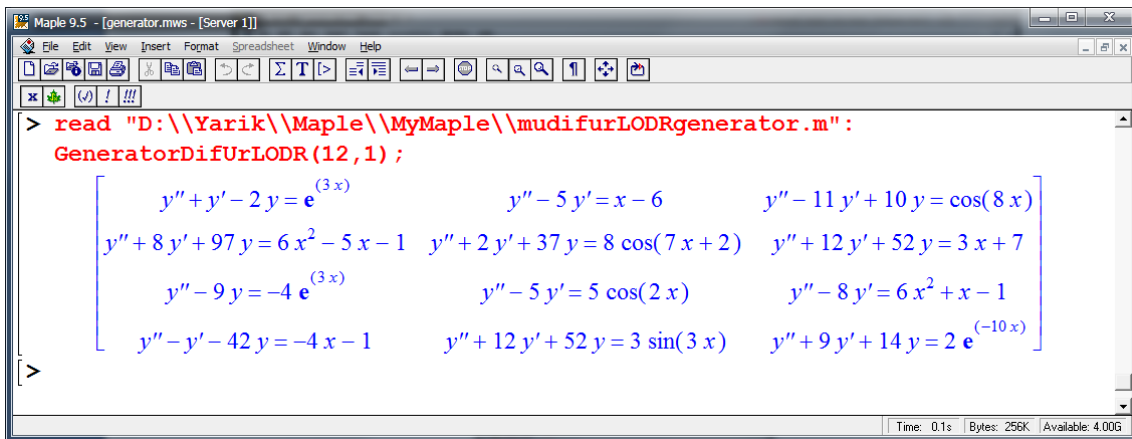


Figure 1 Generation of individual tasks, level of difficulty 1

Using the system of computer mathematics during practical classes greatly improves the educational process, helps control and self-control the correctness of the solution of the tasks, and visualization of the results gives the opportunity to clearly demonstrate the results obtained, to conduct their comprehensive analysis. The abovementioned opportunities can also be demonstrated when at lectures using multimedia learning aids. It is necessary to note the importance of using the Maple package when conducting research work with students.

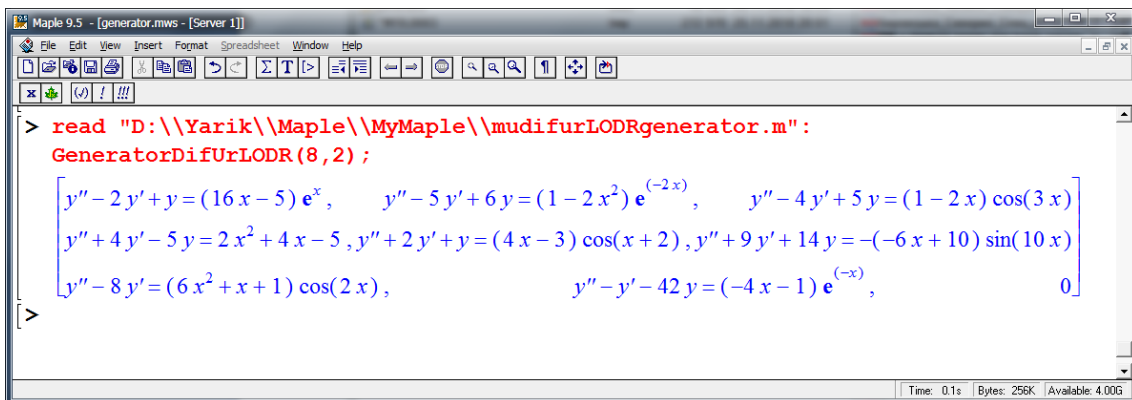


Figure 2 Generation of individual tasks, level of difficulty 2

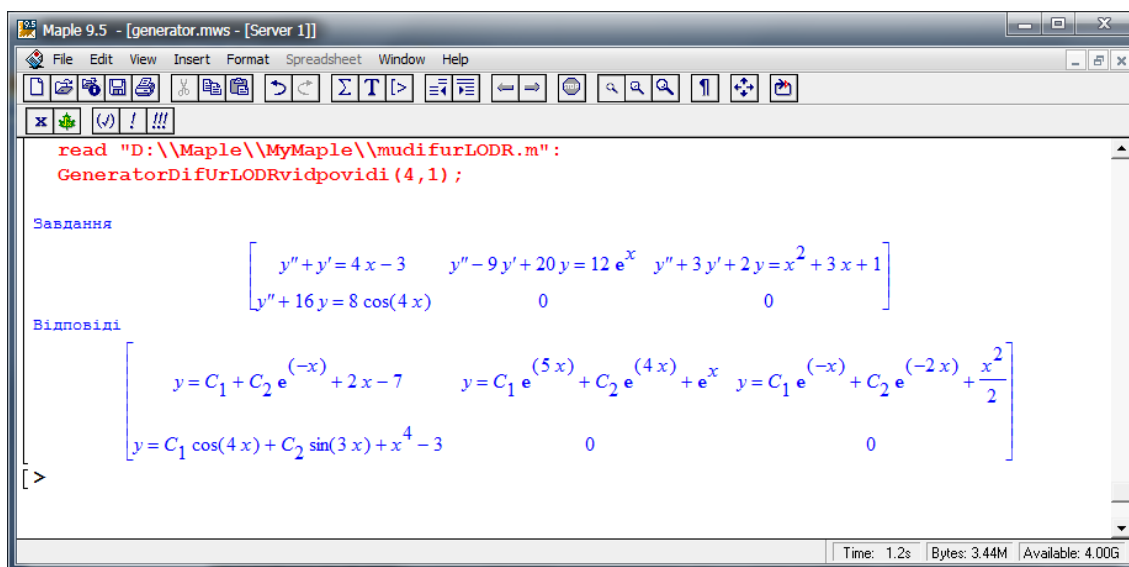


Figure 3 Result of generation of individual tasks with answers

To improve the efficiency of independent work of students during the study of the topic LHDE was developed educational Maple simulator. Let's consider the description of the developed author's TMS in the subject of LHDE and the results of work on the solution of problems of higher mathematics. Procedure simulator "mydifurlodr (`y'' - 2 * `y' + y = (16 * x - 5) * exp(x));" step by step decodes LHDE (Fig. 4.). It is enough for the student to connect and carry out the author's procedure "mydifurlodr (*****);", where instead of the asterisks it is necessary to insert its equation. The purpose of creating this simulator is to ensure a high level of higher mathematics education, as well as to reduce the routine load on the teacher. With the simulator, the student's independent work becomes more effective. The role of the teacher is to provide advisory assistance. Also, the student has the opportunity to independently solve the problems, and the simulator to use as a check of their steps and, in case of an error, without the teacher's assistance, to localize the error also change the condition of the problem, the initial data and observe how the solution is changing.

```

read "D:\\Yarik\\Maple\\MyMaple\\mylodr.m";
mydifurlodr('y''`-2*'y'`+y = (16*x-5)*exp(x));

      y''-2y'+y=(16x-5)ex
Складемо характеристичне рівняння
      y''-2y'+y=0
Складемо та розв'яжемо квадратне рівняння
      p2-2p+1=0
      D=0
      p1=1
      p2=1
      y30=(C1+C2x)ex
Запишемо частинне неоднорідне рівняння
      yчн=(ax3+bx2)ex
Знайдемо першу та другу похідну
      y'чн=(3ax2+2bx)ex+(ax3+bx2)ex
      y''чн=(6ax+2b)ex+2(3ax2+2bx)ex+(ax3+bx2)ex
Підставимо отримані значення в початкове рівняння. Матимемо:
((6ax+2b)ex+2(3ax2+2bx)ex+(ax3+bx2)ex)
-2((3ax2+2bx)ex+(ax3+bx2)ex)+(ax3+bx2)ex=(16x-5)ex
      6exax+2exb=(16x-5)ex
Складемо та розв'яжемо рівняння
      6ax+2b=16x-5
      6a=16
      2b=-5
      a=8/3
      b=-5/2
Отже:
      yчн=(8/3x3-5/2x2)ex
      y=(C1+C2x)ex+(8/3x3-5/2x2)ex

```

Figure 4 Work of TMS on the theme of LHDE

According to the traditional technology of learning, during the ISW, in case of questions from the student, he must wait for the teacher to get advice on his question. In the case of the use of TMS for the organization of the class and extracurricular activities ISW, the teacher has the opportunity to part routine for the teacher functions related, in particular, to finding the place of error in the

process of solving problems of higher mathematics, to pass to the student who can perform these functions by TMS, which, in turn, enables the student to independently receive answers to a number of questions. In case of a student's questions, he does not address himself to the teacher, but he tries to solve his own question by means of TMS. In case the problem is solved by means of NMT the student continues to work independently, in case when the student is unable to get an answer to his question with NMT he expects the teacher to consult. Of course, the use of TMS is not able to replace the teacher, which remains the main guideline of the educational process.

With TMS, practical classes actually turn into independent work of students under the control of a teacher. The role of the teacher is to select tasks and consult. It is important that the teacher is largely exempted from most of the routine checks, partially passing this work on the students themselves. Students, in their turn, receive a greater degree of independence.

The use of author's NMT in the process of organizing the independent work has several advantages:

- educational products are performed at a high level, and are adapted to the teaching methodology at a technical university;
- the possibility of choosing a student individual work mode;
- unlimited variability (diversity) of tasks taking into account potential possibilities and abilities of students;
- increase professional motivation of students.

Thus, the use of author training simulators in the organization of independent work of students provides an opportunity not only to intensify the work of students, but also provides the basis for their further continuous self-education, therefore, the pedagogical information and educational environment, which is created by integrating the totality of software and hardware and traditional forms of education, and determines the independent work of the student as more independent and creative.

Conclusions

Thus, it can be concluded SCM Maple is particularly suitable for organizing student independent work to strengthen material learned at classes and preparing for classroom exercises. The use of ICT aids is one way for optimizing the educational process by creating the conditions for a personal approach at teaching the students. When developing tasks for the student independent work using computer training programs, the teacher focuses on the individual work of students with well-prepared structural material. Researches show that the use of SCM in the current conditions significantly changes the role and functions of

teachers and students, greatly affects all components of the educational process: the environment, features and methods are changing themselves.

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DEVELOPMENT OF LEADERSHIP POTENTIAL OF DEPARTMENTS AS AN INSTRUMENT FOR INSTITUTIONAL LEADERSHIP IMPLEMENTATION OF THE UNIVERSITY

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Abstract. *The current development of higher education in Ukraine is conditioned by such key requirements as professionalization of university management and staff development of the university (new staff policy). Purpose of the article: to research and to justify the development system of departments leadership potential as an instrument for professional management of higher education. Methods: theoretical methods: theoretical and terminological analysis, strategic sessions, interviews, Thomas PPI method (International Certified Test) by R. Belbin; mathematical methods for analyzing empirical data.*

The development system of University departments leadership potential includes the following vectors: designing of the departments development strategy; analysing of internal and external resources; team - building; strategy implementing; results monitoring. Planning, implementing, evaluating and reflecting are the stages of departments leadership development. Planning: defining of strategic and operational goals; implementing: analysing of PESTLE and human resources; evaluating: identifying of strengths and weaknesses, responses to changes, cohesion; reflecting: educational quality assesing by round-up survey. Leadership's potential development of departments of the university is a complex and non-linear educational system related to the university's leadership potential. The attempt to explore it is made in our research. The units, goals, values and university development are realized by developing the leadership's potential. The leadership's potential of the university is an actual product of the article. It is determined that the scientific basis of the problem underlined in the research is sufficient to select the appropriate methodology (systematic approach), definition of the content, stages of the research, conclusions formation. The readiness to change, subordinate personal goals to team tasks, learn new and form actual competencies, help others, destroy stereotypes and accept challenges need the development. It is possible in terms of team leadership. It is grounded that the professionalization of university management is an actual and unresolved problem. It requires further research and implementation of European experience in the practice of higher education in Ukraine.

*The professionalization of university management is an urgent and unresolved problem. It requires further research and implementation of European experience in the practice of higher education in Ukraine. The presented development system of departments leadership potential in higher educational institutions is value-oriented. It is based on trust and responsibility. The implementation in university practice will provide the institutional leadership of higher education of Ukraine and its further integration into the European space. **Keywords:** development of leadership potential, educational space, institutional leadership, leadership management, leadership potential.*

Introduction

The beginning of the XXI century is determined by the dominant tendencies of social ontogenesis, the vast majority of scientists from different countries reduced to the following ones: globalization, integration, democratization, informatization, technology, urbanization, priority of the role of the personality. Among the decisive determinants and trends in social life, the rise of the personality role is especially highlighted. It requires the creation of a new person – responsible, active, creative, prognostically conscious. It is a super task for the educational industry, not all countries of the world are working on creating a modern model.

Leadership is being actualized in the educational sphere by the fact that it is a sphere of public life to which all citizens are involved in the same way regardless of age, gender, ethnic or religious affiliation, place of residence or any other criteria. Scientists are construed the essence of educational leadership quite broadly: „The leader in education is a person or institution that carries out activities in the field of education, aimed at its development, achievements and results of this activity are a guide for others” (Кремень, 2008). In our opinion, the leader’s personality potential is a socio-psychological characteristic of a person who reflects and situates the individual’s ability to succeed in leadership (Аарна, Гудонієне, & Гузар, 2014).

We will try to investigate the development of the leadership potential of the University units – a complex and non-linear educational system. Today it is determined not only as an educational and cultural system, but also as the underlying ground for social progress, scientific, technological, socio-political, forecasting, research institution, without which social progress has no meaning and no mechanism for development on a global scale. In turn, the university’s leadership potential is the vector that defines the goals, values and mechanisms of development at a certain stage in its functioning.

The purpose of our article: to research and to justify the development system of departments leadership potential as an instrument for professional management of higher education. A set of theoretical and empirical **methods**

was used to achieve the aim: theoretical – analysis (theoretical, terminological) – to determine the basic theoretical positions and concepts. Abstraction and concretization – to establish the laws and principles of development of leadership potential of the university units; empirical – strategic sessions, interviews, rankings, Thomas PPI method (International Certified Test Thomas International); mathematical – for quantitative and qualitative methods for analyzing empirical data.

Theoretical basis of the research

Summarizing the research findings of the problem of leadership, the researchers state that the fundamentally important personality features correlate with the essence of leadership. It includes: „The integrity of the individual, responsibility for their own behavior and deeds, spirituality and morality; purposefulness and focus on development (incl. self-development and development of others)” (Калашнікова, 2011). Educational leadership is interpreted in present days as a „new management”. It is directed primarily to change the essence. It concerns content rather than forms. It is grounded at the disclosure of the potential of each personality in order to achieve such goals that would meet the expectations of both the public and the individual.

The research of many scholars are devoted to investigation the essence and disclosure of the leadership content. Thus, H. Owen, W. Hodgson and N. Haszard compare and analyze management („old management”) and leadership („new management”). They state that „Management is a way of guiding order and control in existing organizations. Leadership is defined by person’s trying to challenge the surrounding reality and changing it” (Оуен, Ходжсон, & Газзард, 2005).

According to W. Birley and T. Kozub, changes of the paradigm from management to leadership are demonstrated at different levels: from obstacles to opportunities; from control over the team – to productive processes; from competition – to cooperation; from complacency – to complicity; from directions – to participation; from „or – or” (linear thinking) to inclusive (comprehension) thinking; from homogeneity – to heterogeneity; from quality control – to continuous development; from the structure – to the reduction of restrictions (Козуб, Бирли, & Джонс, 2009).

Evolution of leadership is justified by R. Daft. He distinguishes seven stages of its formation: 1. The Theories of a great person. 2. Theories of personal qualities. 3. Behavioral Theory. 4. Situational Theories. 5. Theories of Influence. 6. Theories of Relationships. 7. Modern Theories of Leadership: special importance is attached to the study of leadership in conditions and for change at the beginning of the XXI century (Дафт, 2008).

P. Drucker explores the essence of leadership, the etymology of the concepts of „leadership” and „leader”. He believe that „Leadership is a vision,, (Друкер, 2004). For his part, R. Stogdill presents a series of definitions of leadership, focusing on its versatility, concluding that leadership is „a center of group interest, manifestation of personal qualities, an art of reaching agreement, action and behavior, an instrument for achieving the goal and desired result, interaction, the ability to persuade, influence ...” (Аарна et al., 2014).

S. Kalashnikova investigates the problem of forming managers-leaders, identifies two main types of leadership: an individual – the subject of the leadership manifestation is a separate personality; institutional (or organizational) – the subject of the manifestation of leadership is the organization. The manifestation can be carried out both directly in relation to itself (self-development of the organization), as well as in relation to other organizations (Калашнікова, 2011). The necessity of the development of institutional leadership of universities is grounded in her publications. It is caused today by a number of challenges:

- the implementing impossibility of a new paradigm for the development of higher education based on the old culture of governance;
- the critical need for the formation of a management model on a new ideological basis – the principles and values of leadership;
- the need to develop the leadership potential of the units as an instrument for the institutional leadership implementation of the University.

We agree that addressing these challenges is important for ensuring the steady progress of higher education in Ukraine towards the improvement and European integration. Therefore, our publication deals with the research on the problem of leadership potential development and the system of leadership potential development of units as an instrument for implementing institutional leadership of the University.

Methodology

The basis of the research conducted and presented in the proposed publication was the systematic approach as a method of theoretical and practical study. It assumes each process is considered as a system with its internal connections between individual elements and the analysis of external links with other systems and objects. Taking into account the stage-by-stage development of leadership potential of units: planning, implementation; evaluation; reflection; the relevant four steps were identified.

- 1) *The planning* included defining the strategic goal and operational objectives of the unit.
- 2) At the *implementation* stage, PESTLE analysis and human resources were analyzed using the Thomas PPI diagnostic program.
- 3) At the *evaluation* stage, the strengths and weaknesses of the team of lecturers were determined.
- 4) *Reflection* included a round-trip survey to assess the team's ability to accomplish tasks.

We also identified two research blocks: *diagnostic and prognostic*. Task of the diagnostic block is testing of the toolkit for analyzes the leadership potential of the unit (department); the task of the prognostic unit is the allocation of basic vectors and the introduction of a system of leadership units development in the practice of institutional implementation of the University.

System and stage-by-stage, as the basic methodological principles of the research were reflected in the process of analysis, synthesis and interpretation of empirical data. The research was conducted during 2016–2018 academic years at the Borys Grinchenko Kyiv University, Ivan Franko National University of Lviv, Drohobych Ivan Franko State Pedagogical University. In each of the universities, one department was identified on the voluntary basis with the participation of various research units: the diagnostic unit – Department „1” (n = 24) of Borys Grinchenko Kyiv University; prognostic – Department „2” (n = 26) Ivan Franko National University of Lviv and Department of „3” (n = 25) of Drohobych Ivan Franko State Pedagogical University. In total, 75 lecturers from the age of 27 to 60 years were the members of the research.

The results of the implementation of all stages of the diagnostic unit of research will be presented below. The definition of the strategic goal and operational objectives of the department was carried out during strategic sessions with the participation of all staff members of the department. Strategic goal is the effective implementation of educational programs and research through the development of leadership capacity of the department.

- Operational goal 1. Optimization of organizational work of the department.
- Operational goal 2. Ensuring the quality of the educational process.
- Operational goal 3. Implementation of effective vocational guidance work.

To accomplish the tasks of each operational objective, teams also were formed from the staff of the faculty, deadlines were defined, tasks and methods of monitoring the results were implemented, etc.

In order to achieve the strategic goal and implementation of operational objectives, the analysis of external resources was conducted (by the PESTLE

method) and human resources through the diagnostic program of Thomas PPI (Thomas International).

As a result, PESTLE analysis identified a number of *inconsistencies*:

- P – educational policy in Ukraine is in a transformation state, that is reflected in the relevant regulatory documents. But most of the envisaged transformational changes include contradictions and uncertain ways of overcoming them.
- E – budget resources for the development of Ukrainian education envisage the financial autonomy of universities, the mechanisms haven't been developed yet.
- S – the attitude to higher education as a social value is questionable.
- T – technological changes, innovations that the high school needs today; It's not equipped with technical capabilities in most universities.
- L – regulatory framework of the educational process, in particular, the Law of Ukraine on Higher Education (2014) needs to be updated.
- E – ethics relationship, values, individual and team leadership are actively implemented at the university corporate culture level, but this process is slow enough.

The results of human resources analysis using the Thomas PPI diagnostic program are shown in Figure 1.

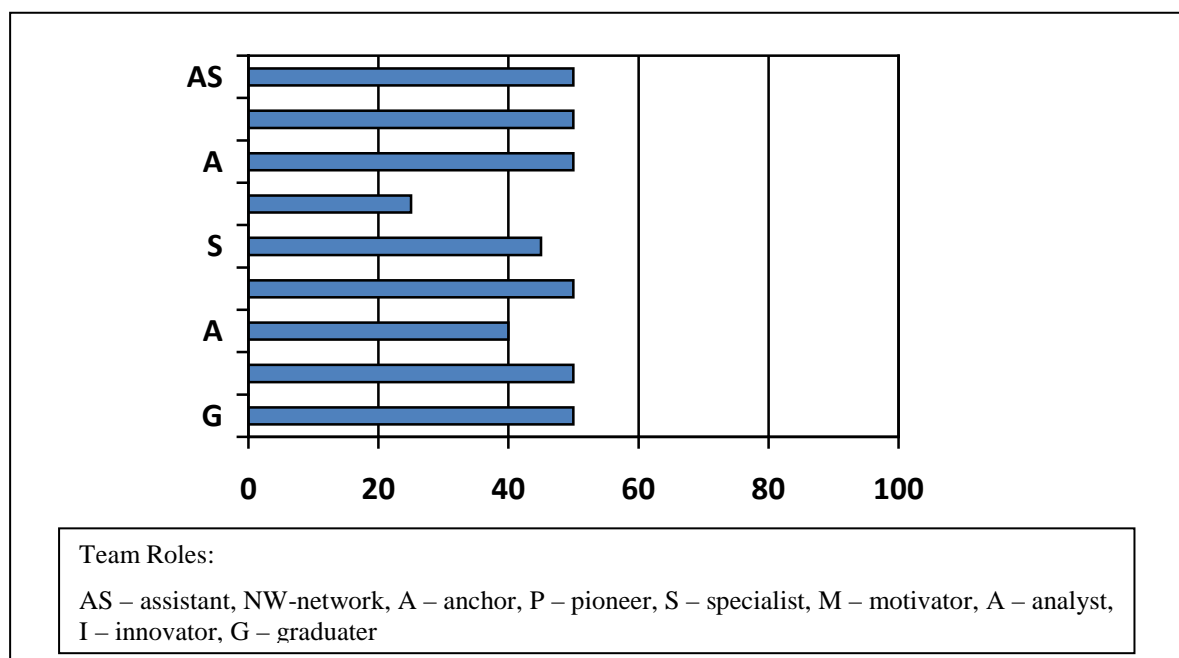


Figure 1 Results of staff testing of the department «1» according to Thomas PPI method

The indicators of identifying team role carriers are presented in the figure (assistant, networker, anchor, pioneer, specialist, motivator and analyst). These employees' features can be demonstrated in their professional behavior (Marston, 1928). It helps the manager-leader to understand better the employees: their motivation, the key strengths and limitations and their potential to realize the strategic goal of the unit.

The diagnosis revealed the strengths, evaluation the response to the changes and limitations establishments of the team of the department staff "1". The obtained data showed the strengths of the department „1”: effective communication; priority of professional activity; the ability to exercise influence; excellence, accuracy, striving for a high quality and standards level.

Response to changes: the department's team takes any changes with caution; needs detailed information about the future; adheres to the developed plan and the established terms.

Team limitation: team members are extremely optimistic about their goals (can overestimate themselves); need constant attention and approval (unready for independent decision-making, drafting plans, setting deadlines); can stop at the stage of discussing ideas (oriented on the process, not on the result).

A number of discrepancies were found at the evaluation stage between the existing potential and the opportunity to realize the strategic goal and operational goals of the department „1”:

- the strengths of the team ensure its effectiveness in the context of stabilizing the professional environment (it does not currently happen);
- the reaction to changes is characterized by a certain rigor, personal non-readiness for innovation;
- the potential of the department was limited due to the lack of team communication, inadequate self-evaluation and unreadiness for the distribution of responsibility for the result.

A circular survey (in the form of questionnaires) and individual interviews with pedagogues were conducted at the stage of reflection. As a result, a number of tasks were identified. It has to be implemented at the strategic goal of the department „1”. Reducing the volume of auditorium work of pedagogues and student's load; opportunity increasing for the implementation of an individual trajectory for the development of pedagogues and an individual trajectory for student's learning; determination of the need for the improvement of the skills of pedagogues, the formation of individual professional development schedules; fulfillment of accreditation requirements of educational programs in the part of personnel and methodical support; participation in international projects; preparation of publications; creation of educational coworking (stakeholders, employers, community); expanding the implementation of e-learning courses

and distance education modules are among them. Reflection was the last stage of the diagnostic block of our research. It was conducted on the sample of the department „1”. It included testing of the diagnostic tools of the leadership potential of the unit (department).

Results

Let's dwell on the characteristics of the prognostic unit. It relates to the results of our research. The implementation of the prognostic unit took place on the general sample of the study ($n = 75$). The basic vectors of the development of leadership potential of subdivisions were identified and further implementation of the system was implemented into the practice of institutional leadership of the universities participated in the study.

According to the results of the diagnostic unit, we have established that the system of development of the leadership potential of the units (departments) of the university includes the following basic vectors:

- development of a unit development strategy (leadership potential);
- analysis of internal resources and environmental conditions;
- team formation;
- implementation of the strategy;
- monitoring results.

It is necessary to ensure the involvement of as many participants as possible (pedagogues, students, administration, stakeholders); create a kind of strategic coworking, develop through the relationship of the coworking participants, introduce any innovations through systematic practice; to promote the implementation of a strategic goal through productive activities and recognition; to evaluate the process through learning and development as a result; to introduce novelty through participation in active research in order to ensure effective development and implementation of the strategy for development the leadership potential of the unit (department).

Qualitative analysis of internal resources and environmental conditions requires the implementation of proved methods and techniques. In particular, we used the PESTLE method and the Thomas PPI technique. It can be recommended for this. Thanks to the received results, the department managers tried to understand better their subordinates and changed their leadership style to maximize the productivity of the units. Formation of the team is the most important vector in the development of the department leadership potential. The given process should take place taking into account the best domestic and world practices (Ипoxop, 2016) on the basis of the following values: trust, leadership culture, respect, recognition, encouragement of change, building relationships and cooperation.

Implementation of the strategy is the most difficult to realize as a vector of development of the leader's potential of the unit (department). We have identified a number of features and recommendations on this occasion. The general algorithm for implementing the strategy (based on the results of our research) is presented in Table 1.

Table 1 Strategy realization of development of department's leadership potential as an instrument of professional management of higher education

| The task of implementing the strategy | The indicators of the effective implementation of the strategy |
|--|--|
| To involve a wide range of participants in the realization of the potential. | Academic staff multiplies expert participation through the self-nomination and collegial nomination. Administrative staff multiplies through the self-nomination and collegial nomination. |
| To give opportunity to be realized through trust, respect, partnership. | The tasks for realization of the taken decisions are distributed among the participants on the basis of analysis of their strengths. The process of implementing decisions is common and is provided on the basis of professional development, facilitation and mentoring support. |
| To increase resources, engagement, to develop leadership capacity. | Participants' obligations are growing on the basis of their recognition and rewards, expanding the boundaries of cooperation. |
| To ensure the sustainability of the results | Active research is being conducted, a continuous improvement of results is taken place through the input from each participant of the strategy implementation at each stage. |

Reflection is an obligatory element of development monitoring of leadership potential of the unit (department). The results of our research showed that feedback (reflection) has a complex, non-linear character and should be provided at the following levels:

- team (for interaction);
- unit (to ensure the quality of the educational process);
- university (to increase position in the rating);
- cross-institutional (to increase the value of education in society).

The research results and the afore-mentioned base vectors are the basis of the leadership potential development of the units (departments) as an instrument for professional management of higher education. But the research does not exhaust all aspects of the problem. Link's establishment between the conditions, laws, principles and effectiveness of the system of professional management of higher education on the basis of leadership require additional analysis and separate research.

Conclusions

The attempt to explore leadership's potential development of departments of the university as a complex and non-linear educational system related to the university's leadership potential is made in our research. The units, goals, values and university development as a whole are realized by developing the leadership's potential. The leadership's potential development of departments of the university presented in the article is an actual product of the research.

Theoretical investigations of the article is made by the authors and showed that the scientific basis of the problem underlined in the research is sufficient to select the appropriate methodology (systematic approach); definition of the content, stages of the research; conclusions formation. We would like to note the following items among the most important: psychological diagnosis revealed that the personal potential of pedagogue is not corresponded to the strategic goals of the department – the reaction to changes is characterized by a certain rigidity, personal non-readiness for adoption of innovations; characteristic features of the respondents can provide the efficiency of the department only under the condition of stabilization. It is problematic in the present day situation. The readiness to change, subordinate personal goals to team tasks, learn new and form actual competencies, help others, destroy stereotypes and accept challenges need the development. It is possible in terms of team leadership. The professionalization of university management is an actual and unresolved problem. It requires further research and implementation of European experience in the practice of higher education in Ukraine. The system for leadership's potential development of departments of higher educational institutions have been presented by the authors of the article, is value-oriented and based on trust and responsibility; the introduction of the system of development of leadership potential in university practice will provide institutional leadership of higher education of Ukraine and its further integration into the European space.

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TRADITIONAL VALUES IN THE ERA OF TECHNOLOGY AND INNOVATION

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Abstract. *Several factors, such as international trends of globalisation, technological innovation, changing learning environments as well as internal developments in socio-cultural contexts and educational policy-making are constantly shaping values of people and causing difficulties with specification of their identity building. Our study is based on comparative research carried out in Estonia and Finland in 2015-2018 (N = 217) with future music teachers, who were asked to write essays where they highlighted and explained meaningful for them cultural landmarks in their countries. The method used was hermeneutical analysis, as this allows to focus on the text produced according to the question asked as an expression of the respondents' personal experiences and accepted values.*

The information presented in texts was analyzed at multiple levels and different viewpoints. Parallel analyses by authors were carried out in order to guarantee the validity of the overall results. Finally, the results were grouped, which allowed to draw preliminary conclusions what the common cultural landmarks were and why they have been accepted and recognised as meaningful and valuable by future music teachers both in Estonia and Finland and what their potential could be developing cultural cohesion in society.

Keywords: *identity building, cultural landmarks, socialisation, cohesion of society, teacher professionalism and education.*

Introduction

The problems of people in the 21st century are often related to their processes of socialization – becoming a member and a citizen of a particular society – which actually means difficulties when aspiring for their identity building. There is too much information and contradictory values make decision making hard. Multiplicity of identities people may find worth sharing have to be organised into some kind of hierarchies, but for that people need knowledge

about their environments, ideas and values. What is more, all the three above mentioned are never static in the modern rapidly changing world, and inability to choose from so many offered as new values may lead to an identity crisis at individual level (Erikson, 1968). Critical thinking skills for informed decision-making has become one of the modern key competences (Key competences, 2018), which in turn, takes us back to acquisition of knowledge, which can be used as tools for adequate specification and acceptance of values. The innovative environments made available by development of different technologies have greatly widened access to diverse sources of information, but we have to be aware of the need for critical analysis, when looking for trustworthy data.

The aim of this study was to specify, how teacher education (focused in particular on music teacher training) could be updated, considering its culture related content, and how to help students become good professionals equipped with wide cultural horizons and modern competences, which would allow them to meaningfully integrate traditional and modern values.

Education, culture, schools and teachers

The most crucial issue for people of the modern times is the ability to distinguish between the old and valuable and the old and outdated. The same goes with innovative ideas and developments. New may be something well forgotten, an idea or achievement from the past, and if we do not know the history and the historic heritage of particular ethnic and social cultures, we are unable to analyse and estimate the potential of new ideas for development. The mentioned heritage means reliable knowledge and comprehension of a specific culture and its landmarks, accepted, acknowledged and shared in a particular society in its uniting function for cohesion of an ethnic group or state. According to Peeter Torop, „culture is a collective intellect, shared by its bearers“ (Torop, 1999, p. 375) and schools (including universities) are institutions established to preserve and develop culture. It makes the role of a teacher especially significant, who, as a professional has to be a trustworthy intellectual himself/herself, who masters all the culturally relevant information and is able to guide students to the values and meanings characterising this culture as a particular way of life in this society.

The same idea was expressed by Hilda Taba (1962) who said:

There is relatively little disagreement also about the idea that schools function on behalf of the culture in which they exist. The school is created by a society for the purpose of reproducing in the learner the knowledge, attitudes, values and techniques (today skills) that have cultural relevancy... There is generally also no quarrel with the idea that of the many educative agencies of

society, the school is the one which specializes in inducting youth the culture and is thus responsible for the continuity of that culture. (17).

She also said: “Curriculum, after all, is a way of preparing young people to participate as productive members of our culture.” (*ibid.*, 10)

Also Lev Vygotsky specified education for the new generation as a process of enculturation, in which parents and teachers act as examples to follow and support the young to understand and accept the culture they will be living in. Schools as institutions for transferring cultural information follow after home education and they have the function to help young people comprehend, why something must or can be considered meaningful for development of a personality and deserves to be accepted and recognized as valuable (Vygotsky, 2014).

Accordingly, Juri Lotman, an outstanding scholar of semiotics, often discussed issues related to teacher education and he considered training of their professional skills a specific mission of universities most meaningful for sustainability of any culture. Lotman recommended to teach those young people today, who are going to teach young people of tomorrow, so that we could expect this generation to live their lives as personalities based on what they have learnt. Lotman compared the process of teaching to “the air for culture” and teaching itself a precondition for the natural development of human spirituality. School is a place for communication, where generations meet and where sustainability of culture is created. That is why Lotman was respectfully called “teachers’ teacher” (Torop, 1999, 378)

The research problem for this study cropped up considering the media articles criticising the decrease of expected knowledge and skills of student candidates intending to start their studies at universities, in many fields of human culture. In addition, they were often considered to be poor observers of life around us and not very much interested in environments – social, political, natural or cultural.

It goes without saying that future teachers have to be culturally widely and well informed people, if they want to be professionals in the true sense of the word.

The Finnish analyst Pasi Sahlberg has called this competence – and accountability based and – led Global Education Reform Movement abbreviated as GERM, a “virus, killing education” (Sahlberg, 2011). Finnish PISA (Programme for International Student Assessment) success of all the 21st century studies has never been explained by focusing on outcomes, control, assessment industry requirements or competence orientation. They have followed a different ideology and the experience of their own school culture. Their success has been based on wisely selected and meaningful content of education and professionally sound organisation of process of studies carried out by professional teachers,

often specified as trustworthy intellectuals, leading students to learning with comprehension (Autio, 2017). Estonia has also been successful in recent PISA studies, which probably can be explained by survival of the traditional achievement-oriented school culture, experienced teachers, and students' good ICT skills. Three PISA competences, demonstrated so well by 15 year-olds tend to diminish by the end of upper secondary schools, so universities are worried about their student candidates, especially about those intending to become teachers.

It has to be admitted that we all interpret and comprehend the world around us differently, nevertheless knowledge and skills have become the currency of modern life, especially when thinking about shaping the modern digital turn. We also have to learn to become critical consumers of information (Schleicher, 2018; Schleicher, 2018a). True, education is no longer about reproducing what we know, but our knowledge has to become an informed understanding of the big picture of the world we live in. The amount of knowledge we possess, always characterises our relationship to multiple environments around us, showing how well we are informed about them (Wild & Hochberg, 2018). Any person, participating in formal, informal or non-formal learning acquires knowledge, skills and values, which establish a basis for human decision-making characterising the competence of how to act in different life situations, or solving problems. Different people use differently structured competences, based on different knowledge and experience for performing their everyday jobs or solving conflicts.

Accordingly, knowledge will always remain the basis for development of skills and further on – competences as meta-level capabilities uniting and integrating different cognitive and non-cognitive aspects. That is why William Pinar has described education as a moral enterprise (Pinar, 2012), individual in its essence. The same can be found in the works of Russian educationists, e.g. Chechlova et al., 2018; Guseva, 2017.

Methods and data collection

The main aim of the study was to find ideas for improvement of school music teacher training curricula at Estonian Academy of Music and Theatre. This study is a comparative research where influences of macro-level phenomena are analysed on the collected research materials created by two target groups of future music teachers (Estonian and Finnish students), representing young people from similar and close cultural contexts but from rather different historical background. (Esser & Hanitzsch, 2012) One way of a qualitative study – hermeneutical analysis – is focused primarily on the meaning of a text for a person in the time, and not that much on the objective meaning of

the expressed. (Kalamees-Ruubel, 2014, 17). It means that the researchers were interested in the manifested content the respondents had provided, their ideas and arguments and the meanings these contained and explained. (Ezzy, 2002; Flick, 2011). When carrying out such an analysis, it is possible according to Lotman (Lotman, 2006, 95) to realise specific cultural functions and convey a particular holistic meaning.

The research material (sample) was collected in the period of 2015–2018 from students' – future Estonian music teachers and those Finnish class teachers expected to teach music in future (N=217, of those Estonian students 157 and Finnish students 59) including all Estonian students trained in this period at the Estonian Academy of Music and Theatre and the sample from Finland was a convenience sampling, collected in cooperation with Helsinki University Teachers Training Department and University of Lapland. As music teachers for Finnish basic schools are not trained as music specialists, the group was needed for drawing preliminary comparisons. The students were asked to write essays on a given topic (Cultural landmarks in Estonia/Finland all people accept and recognize as shared values characterising something specifically Estonian /Finnish).

The collected essays were analysed by all authors by parallel open or inductive coding, followed by creating categories and finally by grouping the ideas expressed to provide validity. After the mentioned procedures the results were analysed and interpreted and after that some preliminary generalisations could be made. The results presented are specified by the gender of a respondent (M or F) and the year the essay was written.

During the analysis of the material three categories were established: culture, nature and persons (people). Considering the unequal amount of material belonging to the first category, six subcategories had to be established, and namely: cultural events, national cultural heritage, literature, education, cultural objects, technology.

Results and discussion

Results of the analysis will be presented by criteria and sub-criteria as follows. Opinions of students have been marked with F=female or M =male, followed by the year.

Estonian students usually stressed the significance of cultural landmarks, for example: *it is important to understand the meaning of cultural landmarks in the same way, because otherwise they would not be able to fulfil their main function of uniting people* (F 2015). Quite often relations between cultural landmarks and traditions have been highlighted: *it is important to know and understand them, how they cropped up in their time.* (F 2015) Or: *cultural*

landmarks are created by ordinary, common Estonian people, they develop them silently, without much noise and publicity in many nice local places all over Estonia. Not all cultural landmarks are clearly visible, they are more often hidden in the hearts of people, where they are just felt as something one's very own and sacred. I am a cultural landmark of Estonia as well. (F 2017)

There are also some critical remarks that deserve attention: *Media usually characterises cultural landmarks as phenomena that can be exported or sold abroad, and generally known as a "good Estonian product". It has also been assumed that we too often underestimate our real and valuable cultural landmarks and we do not pay enough attention to those phenomena, which make us really unique.* (F 2015) Sometimes a question was asked: *Cultural landmarks, but for whom? When my foreign friend comes to visit me, I will definitely take him /her to those wonderful places, but how often do we visit these places ourselves? That is why I would like to stress the responsibility of teachers. Excursions and study trips are usually organised by teachers only these days.* (F 2017) Unfortunately, the Finnish students did not use the opportunity to widely discuss the meaning of highlighted landmarks, still there were short comments (*it is really Finnish, 19*), or (*it can be seen and experienced only in Finland, 21*).

1. Culture

It can be said that cultural landmarks highlighted by Estonian and Finnish students are different. For Estonians the absolute dominant (102) among landmarks was the Song Festival (celebrated since 1869 and considered the main event of choir music and national culture), followed by the Estonian language (52). *The language preserves our origin and our past and is the litmus paper for our adjustment to the future* (M, 2015), pristine Estonian nature (38), traditional Estonian folk heritage, including runo-songs (the older monophonic folksongs) and one of the biggest collection folk poetry and songs in the world (28).

The Finnish students bring the pristine Finnish nature to the foreground, (48), followed by the Finnish sauna (30). They also highlighted different Finnish national dishes (27), and Father Christmas or Santa Claus as a particular Finnish cultural landmark, who lives in Northern Finland – Rovaniemi (17). The Finnish language has been considered an important cultural landmark by 6 respondents. Estonian as mother tongue has become a more meaningful cultural landmark for Estonian students, considering the different history of the 20th century of the two neighbouring countries.

Estonian students have characterised their most important cultural landmark – the Song Festival – in several ways: *the song Festival is a multilevel cultural landmark covering both development of folk culture and memory as well as the feeling of all people belonging together, which cannot be compared*

to anything else (F 2015). *The song Festival is a manifestation of being an independent nation with their own culture, a viewpoint expressed for all the world to understand the meaning and value of our language, life philosophy and originality.* (M 2015)

Cultural events have acquired a status of landmarks only in essays of written by Estonian students. They have highlighted the events (music and film festivals) organised in Estonia that already enjoy their international image, such as Opera Days on the island Saaremaa, Birgitta Festival, Tallinn Music Week, Jazz Festival, Tallinn Black Nights film festival. Estonian professional music culture has been most often highlighted as well as internationally well known ensembles, choirs and performers (e.g. Tallinn Chamber Choir, Estonian Symphony Orchestra), choir music and composers – Arvo Pärt (29), Veljo Tormis (15): *Works by Veljo Tormis preserve our history and tell us about it, which is just a collection of memories and knowledge to be remembered and known.* (M 2016) The Finnish students have mentioned Jean Sibelius or his compositions 12 times.

Considering the subcategory of national heritage Estonian students have often mentioned national costumes (there are about 40 of them representing different parish customs), island cultures and the Seto (an indigenous ethnic and linguistic minority) culture from the Estonian border region to Russia, especially their particular way of singing; Estonian farm buildings (e.g. cottage-cum thrashing barns), but also folk skills of using herbs for healing. The Finnish students highlight the customs followed on St John Day (Midsummer), folk tales and songs, dwarfs and fairies.

Literary landmarks as core classical texts have been considered cultural landmarks by both Finnish and Estonian students, starting with national epic "Kalevala" (Finnish) and "Kalevipoeg" (Estonian). Estonian students have highlighted most often the pentalogy "The Right and Justice" by Anton Hansen-Tammsaare, which is followed by a historical school story "Spring" by Oskar Luts. Finnish students consider most important their epic "Kalevala" with illustrations by Akseli Gallen-Gallela and the novel "Seven brothers" by Aleksis Kivi.

When talking about **education** as a cultural landmark, characterising a specific commonly recognised value, 28 of Estonian students mention Tartu University (from 1632) and Estonian Academy of Music and Theatre (from 1919), Estonian music education as a widely spread type of education among the population (12) and profession of a teacher (9), then the Finnish respondents have highlighted their excellent basic education and high results in the PISA study from 2000 onwards (9). It can be explained by the fact that Finnish educational experience has become a widely popular export article in the world.

There are numerous **cultural objects**/buildings/monuments considered as cultural landmarks mentioned by students of both countries. There are several architectural masterpieces mentioned by the Estonian students, such as the medieval Tallinn Old Town (28), Estonia theatre and concert hall (15), also KUMU (Estonian Art Museum), Toompea Castle. The Finnish students have mentioned Helsinki Dome Church and Ateneum art museum.

The subcategory of **technology** as a new/emerging field of culture describing changes in lifestyle also deserves attention. The Estonian students have mentioned e-state, development of ICT in general (20), Skype and start-up enterprises (4), the Finnish students have mentioned Nokia Corporation (2).

2. Nature

The Finnish students seem to have been especially influenced by their nature (48). They have highlighted their clean natural environments of different kind – lakes, Nordic lights, white nights, but also summer cottages somewhere near the water and the tranquillity people can enjoy when away from everyday hectic activities. Lapland, midnight sun, spending time in the woods and countryside is considered really Finnish way of life: *Winter in northern Finland, which you cannot escape, has formed the character of Finnish people* (M 2018) However, a sad fact has been mentioned: *our connection with our real roots has been broken – Lutheran religion has destroyed almost all the ancient beliefs and folk culture* (M 2016). Such a manifestation can be explained by increasing popularity of folk mythology and the lack of wider comprehension of the role of Lutheranism on education at large and music education in particular. The Estonian students have highlighted sea as a cultural landmark (38), they have also mentioned swamps, woods and sacred groves *carrying the wisdom of our predecessors* (M 2017).

3. Persons (people)

The greatest differences appeared when Estonian and Finnish students presented people, whose role in local cultures has been considered of greatest importance. The Finnish students have highlighted the essence of a Finnish character as something special (N = 33): *Finnish stubbornness and ambition belong together* (F 2016); *Finnish people communicate with people they really care about; they never enter a meaningless discussion, they never ask polite questions* (F 2016). *It is acceptable to keep silent, even in a company; it is especially common not to talk in public transport, in lifts, etc.* (F 2016). *When in sauna, people talk only, when necessary* (F 2016). *Finns often offer help to people, even when not asked, but they are usually shy to ask for help* (F 2018). *Finnish people still try to follow the old peasants' common sense approach – think simple and take your time for deciding* (F 2016). *Finns often compare*

themselves with other cultures and people and tend to accept their inferiority (F 2017). The essence of a Finnish character can be summarised with a phrase: *hard cover, soft core*. The Finnish students have also mentioned coffee, "Koskenkorva" spirits and liquorice.

The Estonian students have characterised themselves by cohesive social approach, diligence (19), atheism (6), and their habit to read books. There are no special features mentioned characterising an Estonian person. They say: *Estonians as people, or as a mixture of different ancestors, who at a particular time started to understand their belonging to a territory as a nation, is a cultural landmark as such* (F 2015). What is more, they highlight *being an Estonian as a membership to a secret society, which is guaranteed, if you have the skills of a secret language* used for communication in this organisation (F 2015). A strong manifestation about the national flag was also there: *Estonian tri-color symbolises a strong will and aspirations to be free and independent – these two ideals are the main aims of education* (F 2015).

Conclusion and recommendations

When interpreting the results, we observed that the cultural landmarks students had highlighted, were rather diverse. It can be concluded that the basis for specifying cultural landmarks by students of two countries is different: the Estonian students highlight them at the level of national culture and ethnicity whereas the Finnish students do it at the level of individuals and (natural) environments. "Finnish" means for Finnish students first of all living in Finland and be ethnically Finnish, whereas Estonian students understood their cultural landmarks as something uniting the people, preserving traditions and feel themselves as cultural agents of the national culture responsible for its sustainability. In addition, some fields of culture remained uncovered. There were practically no landmarks representing fine or applied arts, some architectural landmarks were probably mentioned due to public national events organised there and often televised. Understandably, the participating students, aspiring for becoming future music teachers, were more informed about music culture at large. However, the highlighted cultural landmarks clearly reflect the cultural information and observation skills, the students have taken along from their studies at upper secondary schools or gymnasia. They also demonstrated, what kind of knowledge, skills and values had become meaningful for them and how systematic or wide their cultural horizons were. These data deserve attention for future curriculum development both for teacher training, and for institutions of general education as well.

Practice has proved that all competences people develop, regardless of their age, are individual in character and consist of different components, obtained by

highly diverse personal experience, and always contain knowledge accompanied by some moral judgement. As development of these competences in the processes of learning cannot be precisely prescribed, or assessed, or measured in detail, so it is probably time to start thinking again more professionally about the content of learning and the knowledge it can provide for learning in different societies.

The message “Back to real learning!” manifested in 2016 at the annual conference of IGIP (International Society for Engineering Pedagogy) sounds adequate to present times, bringing back to the focus and foreground the content of learning, primarily different types of knowledge, according to which adequate methodologies and supportive learning environments can be designed and established, all together contributing to the desired aims for the 21st century education at all levels.

The data collected by this study show that students’, observation skills, perception of cultural landmarks as shared values and critical thinking skills are greatly diverse in both countries and reflect the environments they have acquired their comprehension of the world around them. It needs to be ascertained, what they have acquired at upper secondary schools already and what should be added at university level for teacher training. However, the results obtained allow to offer preliminary recommendations for developing teacher education at large by adding an integrated and systematised course(s) of culture, providing knowledge, skills and values for better comprehension of the social, political natural and cultural environments around us. This is badly needed, if we want future teachers to be trusted intellectuals capable of working at schools as good professionals.

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LABORATORY EXERCISE TO DETERMINE CONTRAST IN LASER MARKING OF ARTICLES

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***Abstract.** The laser marking has been established in recent years as one of the modern innovative methods for marking many industrial products. The report examines a new laboratory exercise for the subject Laser Technology, studied in some technical universities. A new approach is proposed to determine the contrast of the laser marking process. Described is the purpose and the main tasks as well as the new skills and knowledge that students can exercise through this laboratory exercise. Students implement a test matrix consisting of squares of a certain size using the raster marking method. Through the new laboratory exercise, students can explore and analyze the dependencies of the contrast of laser markings on different dimensions influencing the technological process. The capabilities of the new approach allow learners to become more familiar with the factors that influence the modern process of laser marking widely used in modern industry. The results of the experiments the students summarize using a new modern digital approach to analyze the contrast against the background of the marked surface. From the experimental graphical dependencies of the variation of the power and speed contrast, they draw conclusions about the optimal process parameters.*

***Keywords:** laser marking, laboratory exercises, software, contrast, power density, frequency, speed words.*

Introduction

In recent decades, various studies have found that training in higher education institutions has been torn off apart from production and labor market

requirements. At Technical Universities, students do not have enough practical classes to obtain the necessary knowledge and skills to work under real production conditions. This necessitates permanent improvement of the laboratory practices in the technical disciplines according to the constantly changing requirements of the companies in different branches of industry. A new laboratory exercise is offered for Masters students in Physics or Laser Technic and Technologies for the Laser Technology discipline. In the general course of physics they are familiar with the principle of laser action and their device. The technological process of laser marking of different materials is studied.

Laser technology has been undergoing rapid growth in recent years. Optech Consulting (the world's leading laser systems and technology company) is giving an 11-12% annual increase in laser system sales over the period 2008 to 2018. Laser marking is a dynamically developing technology. Progress in electronics and programming over the last decades has greatly increased the possibilities of laser marking compared to traditional marking methods - impact-mechanical, electro-erosion, electrochemical, screen printing, tampon printing, by labels (Pauli, 2010; Pan et al., 1998; Kapur et al., 2013). The emergence of new types of lasers with the necessary characteristics and parameters has contributed to the creation of high-tech marking systems. The positions of laser marking are shown in the studies of (Sobotova & Demec, 2015). It is seen that laser marking is at the forefront with laser cutting compared to other laser technologies (Figure 1).

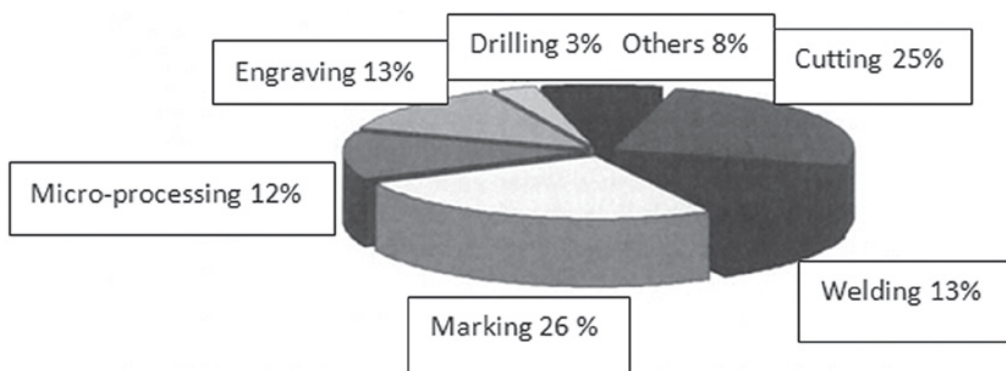


Figure 1 Percent distribution of laser technologies (Sobotova et al., 2015)

Recently, the use of 1D and 2D barcodes has increased considerably. Marking of this type is applied directly to the product. It allows to automate the process of reporting and controlling production, to protect the product from forgery. With laser technology of barcode marking, a high density of information is achieved. In Fig. 2 examples of bar codes are given.

Laser marking is applied to various materials - metals, alloys (including steels), semiconductors, marble, granite, ceramics, plastics, leather, wood, glass, cardboard and others. For each new product, investigating should be done to optimize the laser marking process (Qi et al., 2003; Валиулин et al., 2003; Sobotova et al., 2015; Wang et al., 2015; Ангелов, 2011).

The purpose of the report is to show the possibilities of the new laboratory exercise for optimization of the laser marking process by examining the dependence of the contrast on the power density and speed.



Figure 2 Marking of barcodes: a) 1D; b) 2D.
(Sources: Pontius, 2012; Adams, 2014)

Exposition

Graduate engineers in the specialty "Laser Technology and Technologies" must have a good theoretical and practical training from the student bench. This laboratory exercise examines a modern technology. It helps students to keep up with industry innovation and appears to be a good asset for their recognition as specialists.

Quality criteria for laser marking

A basic requirement of the obtained laser marking is to be of high quality. Knowing the quality criteria of the marking is of paramount importance for optimizing the laser marking process. In the publications of company Trumpf GmbH Co KG define the following criteria for assessing the quality of the marking:

- Contrast – the resulting mark on the product must be clearly distinguished from the background surface;
- Homogeneity - the marking must be of uniform density along the entire inscription, bar code, matrix code or logo;
- Clarity and sharpness of the image contour - to see even the smallest details of it;

- Wear resistance - the marking must remain unchanged for a long time during operation of the tool or measuring device and be resistant to external influences.

Each of these criteria has its relative weight in optimizing the research process.

Method of experiments

The contrast k^* of the laser marking is a basic criterion for determining its quality. Determined by the ratio of the difference between the brightness of the background J_f and the image J_x onto the background brightness

$$k^* = \frac{J_f - J_x}{J_f} \cdot 100\% . \quad (1)$$

The contrast k^* in the laser marking is measured indirectly as follows:

- A test field consisting of squares measuring 5 mm, 15 mm or 20 mm is drawn (Figure 3);
- Marking is applied to the selected sample using a laser marking system;
- A black and white photo of the marked test fields with a digital camera is made.
- The contrast is determined by the reference scale in relative units or percentages. Under the gray tinge of the raster graphics, each image can be represented as a number between 0 (black) and 255 (white). Benchmark number N_f for the surface image around the marked area is determined. For a specific gray scale image by comparison (when merged with a reference image) the corresponding value of N_x is measured. The contrast k_x^* is determined by linear interpolation of the expression

$$k_x^* = \frac{N_f - N_x}{N_f} \cdot 100\% . \quad (2)$$

The contrast k_x^* on an oxidized surface is determined by the expression

$$k_x^* = \frac{N_x - N_f}{N_w - N_f} \cdot 100\% , \quad (3)$$

where N_w is a reference number for the image of the brightest possible marking.

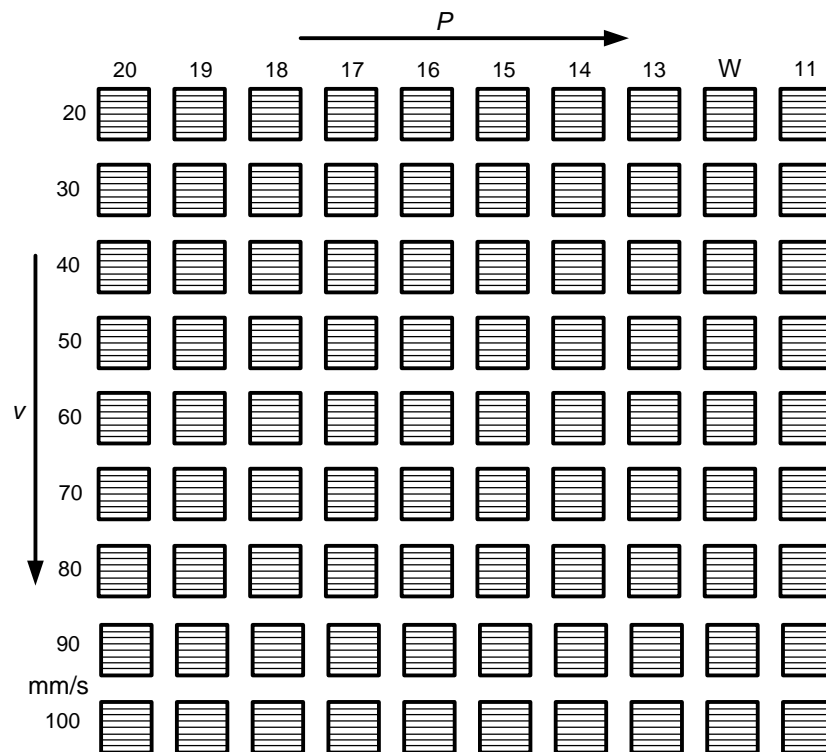


Figure 3 Test field for experiments

Theoretical rationale

Laser marking is a complex technological process. Onto the quality of laser marking influence a number of physical quantities such as power density and speed which are one of the most important.

- Power density of laser radiation

The power density q_s is determined by the formula

$$q_s = \frac{P}{S}, \tag{4}$$

where S is the surface of the working spot.

Knowing that $S = \frac{\pi d^2}{4}$, it is obtaining

$$q_s = \frac{4P}{\pi d^2}, \tag{5}$$

where d is the diameter of the working spot.

The upper power limit (and therefore the power density) of each laser source is predetermined, and it is necessary to determine the optimal range of power density variation to achieve good marking quality.

In order to obtain a marking, the laser power density must be sufficient to melt the material in the treatment zone or partial to evaporate. In the studies it is

necessary to take into account the fact that with its increase the absorption of metals and alloys increases.

- Speed

The speed of marking is one of the most important parameters of the process. It depends on the time of impact on the sample and the energy that is absorbed in the material in the impact area. It is decisive when selecting the marking method.

The speed requirements in the laser marking process are contradictory: on the one hand, the velocity must be high in order to reduce the time taken for the operation to achieve greater efficiency in the manufacture of the article; on the other hand, it must be relatively small so that the necessary amount of energy can be absorbed by the impact in order to reach the required temperature and contrast of the marking. By taking into account the other factors influencing the process, a balance must be found between these contradictory requirements and optimal technological parameters are obtained to achieve the laser marking with the required contrast.

Pre-requisition of the students

Before starting the practical exercise, students should be familiar with the theory of exercise and lasers and laser marking technological systems. They fill in an introductory test located in the MOODLE and Web based system. The teacher assesses the students' tests.

At the beginning of the hour, they answer the following questions:

- ✓ What is the principle of action of laser?
- ✓ What are the main components of each laser?
- ✓ Which types of lasers are suitable for marking (for different materials)?
- ✓ What is the laser marking system?
- ✓ What are the basic parameters of the laser and the laser technological marking system?
- ✓ What are the rules for safe operation of laser technology systems?
- ✓ If both test results are positive, they are allowed to work out the exercise.

Required appliances and materials

The laboratory exercises are selected samples from metals (aluminum, copper, zinc), steels (structural, tool, stainless), colored alloys (bronze, brass), plastics. The teacher selects the specific material for the hours.

The experiments are performed with a laser technological system with fiber laser (Figure 4). Its main parameters are given in table. 1. The fiber optic laser is a modern laser operating in the near infrared region. It has extremely high radiation quality and high efficiency. The laser system is with high positioning accuracy and maintains stable performance during operation. It can provide the

necessary parameters for realization of the process of laser marking of metals and alloys.

Table 1 Basic parameters of the laser technological system for marking

| Parameter | Value |
|-------------------------------------|-------|
| Wavelength λ , nm | 1 062 |
| Power P , W | 20,0 |
| Frequency ν , kHz | 20,0 |
| Pulse duration τ , ns | 100 |
| Pulse energy E_p , mJ | 1,00 |
| Pulse power P_p , kW | 10,0 |
| Beam quality M^2 | < 1,1 |
| Positioning accuracy, μm | 2,5 |
| Efficiency, % | 40 |



*Figure 4 Laser technological system for marking with fiber laser
(Source: www.spilasers.com)*

Performance tasks

1. Investigation of the dependence of contrast from the power density in the laser marking of a fiber laser

The exemplary experimental studies refer to C60 carbon steel having a wide application in industry. The power of laser radiation varies in the interval $P \in [11.0; 20.0]$ W with step 1.00 W. The power density q_s is determined by formula (5).

Squares are marked by the raster mode with a certain step that is kept constant. When selecting each square, only the power P is changed and the speed v is kept constant. After performing the experiments and capturing the specimen according to the described methodology, the contrast k^* of the

markings for each marked square is determined. Absolute and percentage errors for each measurement are also determined. The results will be filled in one Excel table. Plotting a graph of the contrast k^* from the power density q_s ($k^* = k^*(q_s)$) using the program Excel. The experimental results obtained are analyzed by the student.

2. Investigation of the dependence of contrast from the speed in the laser marking of a fiber laser

Experiments are performed on the selected sample. The marking speed changes in the range of $v \in [20, 110]$ mm/s with step 10 mm/s. These refer to two laser power density densities, which are maintained constant at speed change.

After committing the experiments, a photograph of the test field consisting of two columns with 10 squares with a 20 mm side is taken. The contrast of the markings for each square is determined. The obtained results are applied by the student in the Excel table. Plotting a graph of the experimental dependence of the contrast k^* from the velocity v ($k^* = k^*(v)$), for the two power densities q_s at which the experiment was performed.

Achieved results

In a discussion form with the teacher, the student analyzes: the type of the obtained graphs, the errors and the precision in the determination of the contrast, the intervals for optimal contrast in function of which the two technological parameters studied (power density q_s and velocity v).

The developed laboratory work allows students to achieve:

- Validation of the knowledge of lecture material from the laser marking technology and the factors that influence the process;
- Practical habits and skills for working with a laser marking system;
- Creating a scientific approach to solving research tasks by examining the impact of power density and speed on the contrast of the laser marking;

Conclusion

The proposed lab exercise can be done using a variety of laser marking systems. Thus, by comparing the results obtained, it is possible indirectly to assess the influence of the wavelength of the laser radiation on the absorption capacity and the contrast of the markings.

The acquisition of knowledge for the optimization of the laser marking process of articles from different materials implies the creation of other new laboratory exercises examining the influence of other magnitudes such as

frequency and duration of impulses, defocusing, etc. on the contrast of the marking.

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РЕАЛИЗАЦИЯ ТРЕБОВАНИЙ ЕВРОПЕЙСКОГО СЕРТИФИКАТА ПО ПСИХОЛОГИИ В ПОДГОТОВКЕ ПРАКТИЧЕСКОГО ПСИХОЛОГА В УКРАИНЕ

Realization of the Requirements of European Certificate in Psychology in Preparing Practical Psychologists in Ukraine

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Abstract. *The article examines the experience of implementation of requirements of the «European Certificate in Psychology» in educational programs of Borys Grinchenko Kyiv University. The upgrade of educational programs is described in the context of unification with European standards for future psychologists training. Programmatic innovations designed to provide for necessary qualifications and competitiveness of future MA holders. Program consist of modules which include: compulsory subjects aimed at creating general and professional competences, optional subjects, different practices and the final student examination. The purpose of the article is to present the experience of practical implementation of educational and professional training program for practical psychologists as the first one in Ukraine that meets the requirements of EuroPsy. The method of proving the effectiveness of the Program was a statistical comparison of performance indicators and quality of students' knowledge conducted in 2016-2017 and 2018-2019 academic years. A comparative analysis of students' marks obtained during two academic years showed the effectiveness of the program. Estimates show a positive trend with the number of «excellent» and «good» marks increasing by 12.64 % and 4.59 % respectively, and «satisfactorily» marks decreasing by 8.05 %. It was concluded that the main contributing factor in the improvement was the students' training in the program.*

Keywords: *educational program; psychologist; the European Certificate in Psychology.*

Введение **Introduction**

Проблемы психологического благополучия человека мотивируют высшую школу многих стран к созданию образовательных программ подготовки практического психолога, который способен оказывать качественную психологическую поддержку личности, помогать ей в поиске собственной индивидуальности, развития самоуважения и

самодисциплины, формировании способности к ориентации в общественных процессах.

В связи с присоединением Украины к Болонской декларации сегодня подготовка психологов в нашей стране сталкивается с проблемами адаптации отечественных образовательных программ к западным образцам. Учитывая это, мы впервые в нашей стране поставили цель унифицировать стандарты подготовки студентов специализации «практическая психология» с европейским аналогом. Научно-педагогическим коллективом кафедры практической психологии Института человека Киевского университета имени Бориса Гринченко с целью инкорпорации в образовательное пространство Украины стандарта «European Certificate in Psychology» (EuroPsy, 1997) была разработана новая образовательная программа (Лозова, 2016).

Целью этой статьи является представление опыта практической реализации образовательно-профессиональной программы подготовки практического психолога (далее – Программа) как первой в Украине программы, которая отвечает требованиям Европейского стандарта. Методом верификации эффективности Программы стал сравнительный анализ результатов обучения путём количественного оценивания двух параметров – абсолютной успеваемости и качества знаний студентов.

Обзор литературы *Literature review*

Проблема профессиональной подготовки психологов многоаспектна. В частности, «Обзор учебных курсов по клинической и педагогической психологии», подготовленный в Великобритании в 2016 году (Review of clinical and educational psychology training arrangements report, 2016), констатирует, что в этой стране действуют семь защищенных названий сферы деятельности практикующего психолога: клиническая, педагогическая, спортивная, судебно-медицинская, консультативная, медицинская и профессиональная психология. Компетенции четырёх из них позволяют работать с детьми и молодежью – клинической, образовательной, судебно-медицинской и консультационной. Программы подготовки этих специалистов охватывают разнообразные модули: нейропсихологию, психодинамические подходы, работу с детьми, молодыми людьми и семьями, пожилыми людьми, работу в кризисных ситуациях.

D. Dunn исследует варианты и возможности учебной программы подготовки студентов психологии, предлагая практические указания для преподавателей, стремящихся улучшить обучение путем практики

оценивания (Dunn, 2013). Дж. Данлоски и коллеги видят способы улучшения подготовки студентов с помощью эффективных методов обучения (Dunlosky, Rawson, Marsh, Nathan, & Willingham, 2013). Авторами рассмотрены несколько методов обучения, относительно простые в использовании и, следовательно, приемлемые для многих студентов. К таковым авторы относят: поясняющий опрос, обобщение, подчеркивание, мнемоника, использование изображений для обучающего текста, перечитывание, тестирование практики. Другие авторы видят способ улучшения образования психологов в преодолении трудностей, стресса и барьеров для хорошего самочувствия студентов (El-Ghoroury, Galper, Sawaqdeh, & Bufka, 2012); в создании дидактических оснований для формирования профессиональной компетентности (Riskulova, 2016).

Результаты исследования

Research results

Методологическим базисом для создания образовательной программы магистра практической психологии в Киевском университете имени Бориса Гринченко стал Европейский сертификат по психологии – стандарт академического образования, профессиональной подготовки и профессиональной мобильности психолога, который регламентирует требования к академической и практической подготовки психологов, соблюдение ими профессиональных этических норм, поддержание высокого уровня компетентности психологов.

Концепция *EuroPsy* была официально сформулирована Европейской Федерацией профессиональных психологических ассоциаций (EFPPA) в 1997 году. Цель *EuroPsy* – унификация стандарта компетенций во всех странах Евросоюза, где выдается диплом психолога, способствует свободному передвижению специалистов-психологов странами ЕС. Европейский диплом по психологии включает в себя требования к: академической и практической подготовки психологов; соблюдение ими профессиональных этических норм; поддержания высокого уровня компетентности психологов, уже сертифицированных по *EuroPsy* (EuroPsy, 1997). Этот стандарт дает понять клиенту, работодателю или коллегам, что дипломированный психолог может рассматриваться как специалист, обладающий достаточным количеством компетенций для оказания профессиональных услуг (Лунт, 2012). На сегодня страны Евросоюза, а также некоторые отдельные университеты европейских стран, не входящих в Евросоюз, присоединились к стандарту EuroPsy.

В образовательной программе подготовки магистров практической психологии определяется содержание обучения, устанавливаются

требования к содержанию, объему и уровню образовательной и профессиональной подготовки специалиста, а также определены условия, методы и формы обучения. Программа ориентирована на реализацию основной стратегии обучения – предоставление выпускникам широкого спектра знаний по фундаментальным и специальным дисциплинам, возможности усвоения навыков самообразования, научно-исследовательской работы, развития творческих способностей, своевременной адаптации к сложным обстоятельствам будущей практической деятельности в рыночных условиях.

Согласно структуре Программы, срок подготовки магистров составляет 1 год и 4 месяца. Объем программы – 2700/90 (часов / кредитов), из которых 45,5 % отведено на изучение учебных дисциплин дополнительных специализаций. Практическая подготовка с отрывом от учебы составляет 36,7% от общего объема; по содержанию Программа обновлена на 60 %.

Содержание Программы направлено на овладение студентами способностями: решать сложные задачи и проблемы с помощью специализированных умений и навыков в сфере предоставления психоконсультационной помощи как профессиональной деятельности; проводить исследования и / или осуществлять инновации в процессе обучения.

В соответствии с Программой, образовательный процесс построен на принципах студентоцентрированного, лично ориентированного обучения на основе компетентностного, системного, интегративного подходов. Формы обучения, предусмотренные Программой: аудиторные (лекции, практические, семинарские занятия) и внеаудиторные (индивидуальные консультации, написание и защита выпускных квалификационных работ, практика, самостоятельная работа).

Учебный план включает дисциплины, направленные на формирование профессиональных (специальных) компетенций, практической подготовки и выборочной части, которая состоит из дисциплин самостоятельного выбора студента. Разработанные компетенции будущего специалиста отражают основные функции психолога и готовит выпускника к самостоятельной профессиональной деятельности и продолжению образования.

Изучение психологических дисциплин, содержащиеся в учебном плане, предусматривает сочетание общегуманитарной, профессиональной и практической составляющих, обеспечивая глубокое знание студентами практической психологии, современных психологических концепций, практико-ориентированных техник и актуальных психологических первоисточников (рис.1.).

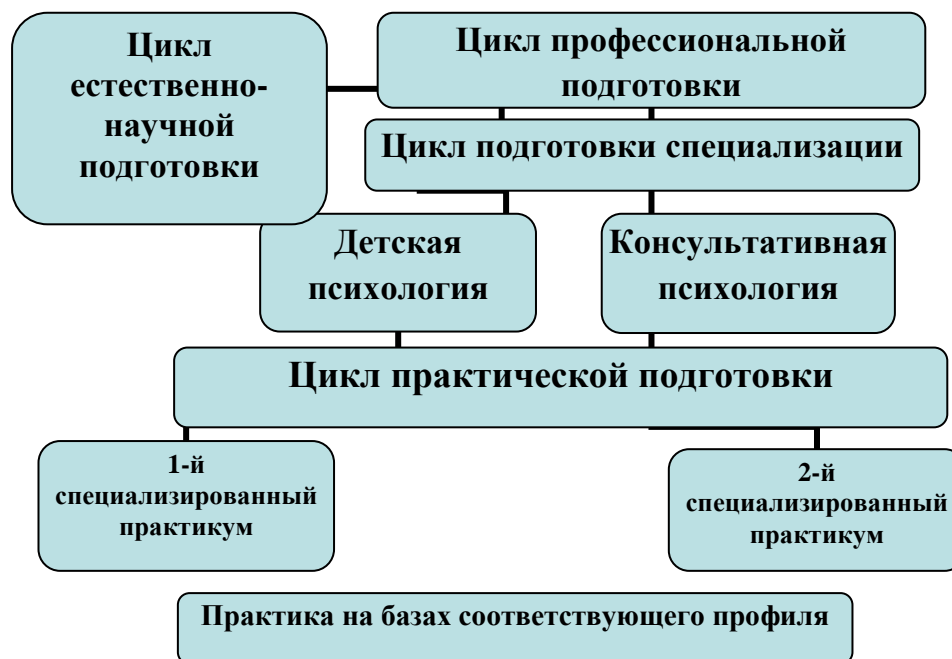


Рисунок 1. Общая схема подготовки магистров практической психологии
Figure 1 The general scheme of preparation of masters of practical psychology

Программа предусматривает преподавание дисциплин общенаучного («Методология и организация научно-психологических исследований»), «Профессиональное общение на иностранном языке»), научно-психологического («Теории развития человека») и профессионального профиля («Основы психосоматики»). Учитывая кризисные явления в обществе, в Программу заложены дисциплины, которые помогают студенту более основательно овладеть навыками кризисной интервенции и преодоления стрессовых и травматических явлений: «Психология стресса и посттравматического стрессового расстройства», «Психокоррекционная групповая работа», «Теория и практика психотренинга». Динамические изменения в ментальности современного человека требуют преподавания блока новых дисциплин, в который входят: «Психология ментальности клиента», «Психология обыденного сознания». Дисциплины, вошедшие в новую программу из предыдущей, были охарактеризованы студентами как важные.

Программа основывается на передовых научных результатах современной психологической науки и практики, поэтому обучение магистра образовательно-профессионального профиля предусматривает возможность специализации по двум направлениям: «Детская психология» и «Консультативная психология». Указанные специализации предлагают перечень дисциплин, представляющих собой уникальное предложение в

образовательном пространстве Украины: «Основы кратковременной психотерапии», «Многоуровневость коммуникаций в профессиональном психологическом сопровождении», «Практикум по консультированию», «Консультирование лиц с виктимным поведением», «Консультирование по проблемам родительско-детских отношений».

Следует заметить, что Программа включает в себя интегративные спецкурсы и практикумы, целью которых является содействие получению практического опыта личностной психокоррекции и овладению навыками ведения консультативного процесса с клиентами различных возрастных категорий. Заслуживает внимания направленность Программы на практическую работу со студентами в формате тренинга, малых психокоррекционных групп и самостоятельной психологической практики под наставничеством преподавателей-практиков.

Несмотря на то, что ориентация Программы профессиональная, она неразрывно связана с научно-исследовательской деятельностью, поскольку разработка стратегии психологической помощи является своеобразным исследованием, основанной на научных принципах (Magnusson, 1997). В связи с этим учебным планом предусмотрена защита магистерской квалификационной работы, в которой присутствует весомый психопрактический компонент.

Одним из условий, предусмотренных Болонским соглашением в сфере образования, является контроль качества учебного процесса. Следовательно, основной составной частью системы контроля качества учебного процесса является контроль знаний студентов (Рашкевич, 2014). Поэтому с целью апробации Программы в течение 2016 – 2019 годов были проанализированы оценки студентов, полученных за выполнение комплексных контрольных работ.

Методология исследования ***Research methodology***

Выборку исследования составили 76 студентов магистерской программы «Практическая психология»: 37 студентов в 2016-2017 учебном году и 39 студентов в 2018-2019 учебном году. Комплексные контрольные работы проводились для проверки знаний по учебным дисциплинам, изучение которых закончено в предыдущих семестрах. Комплект контрольных работ по каждой дисциплине насчитывал не менее 30 вариантов формализованных задач равнозначной сложности, решение которых предусматривало умение применять интегрированные знания программного материала. Все задачи контрольных работ имели

профессиональную направленность, а их решение требовало от студентов интегрированного применения знаний.

Способом верификации достигнутых результатов обучения стало применение средств количественного оценивания степени знаний студентов – абсолютной успеваемости (отношение суммы полученных оценок «отлично», «хорошо» и «удовлетворительно» к общему количеству студентов), а также качества знаний (отношение суммы полученных оценок «отлично», «хорошо» к общему количеству студентов).

Приводим показатели успеваемости и качества знаний студентов, полученных в течение 2016-2017 учебного года.

Таблица 1. Результаты сдачи зимней зачетно-экзаменационной сессии в 2016-2017 учебном году студентами дневной формы обучения специализации «Практическая психология»

Table 1 Results of passing the winter examination session in the 2016-2017 academic year by day students at «Practical Psychology» specialization program

| № | Дисциплина | Получили оценки на зачетах и экзаменах (количество, %) | | | | | | | | Успешность, % | Качество, % |
|--------------|---|---|-------------|-----------|--------------|-----------|--------------|----------|----------|---------------|--------------|
| | | «5» | | «4» | | «3» | | «2» | | | |
| | | <i>n</i> | % | <i>n</i> | % | <i>n</i> | % | <i>n</i> | % | | |
| 1 | Профессиональное общение на иностранном языке | 6 | 27,3 | 11 | 50 | 5 | 22,7 | 0 | 0 | 100 | 77,3 |
| 2 | Психология стресса и посттравматическое стрессовое расстройство | 5 | 31,25 | 8 | 50 | 3 | 18,75 | 0 | 0 | 100,00 | 81,25 |
| 3. | Психосоматика | 5 | 22,7 | 9 | 40,9 | 8 | 36,4 | 0 | 0 | 100 | 63,6 |
| 4. | Теории развития человека | 3 | 13,6 | 10 | 45,5 | 9 | 40,9 | 0 | 0 | 100 | 59,1 |
| 5. | Психология обыденного сознания | 5 | 22,7 | 10 | 45,5 | 7 | 31,8 | 0 | 0 | 100 | 68,2 |
| 6. | Психокоррекционная групповая работа | 7 | 31,8 | 10 | 45,5 | 5 | 22,7 | 0 | 0 | 100 | 77,3 |
| Всего | | 37 | 28,0 | 61 | 46,25 | 34 | 25,75 | 0 | 0 | 100 | 74,25 |

Показатели успеваемости и качества знаний студентов, сделанных в течение 2018-2019 учебного года, представлен в таблице 2.

Таблица 2. Результаты сдачи зимней зачетно-экзаменационной сессии в 2018-2019 учебном году студентами дневной формы обучения специализации «Практическая психология»

Table 1 Results of passing the winter examination session in the 2018-2019 academic year by day students at «Practical Psychology» specialization program

| № | Дисциплина | Получили оценки на зачетах и экзаменах (количество, %) | | | | | | | | Успешность, % | Качество, % |
|--------------|---|---|--------------|-----------|--------------|-----------|-------------|----------|-------------|---------------|--------------|
| | | «5» | | «4» | | «3» | | «2» | | | |
| | | n | % | n | % | n | % | n | % | | |
| 1 | Профессиональное общение на иностранном языке | 5 | 31,25 | 10 | 62,5 | 1 | 6,25 | 0 | 0 | 100,00 | 93,75 |
| 2 | Психология стресса и посттравматическое стрессовое расстройство | 5 | 31,25 | 8 | 50 | 3 | 18,75 | 0 | 0 | 100,00 | 81,25 |
| 3. | Психосоматика | 8 | 50 | 4 | 25 | 4 | 25 | 0 | 0 | 100,00 | 75 |
| 4. | Теории развития человека | 10 | 62,5 | 1 | 6,25 | 5 | 31,25 | 0 | 0 | 100,00 | 68,75 |
| 5. | Психология обыденного сознания | 6 | 37,5 | 7 | 43,75 | 3 | 18,75 | 0 | 0 | 100,00 | 81,25 |
| 6. | Психокоррекционная групповая работа | 5 | 31,25 | 10 | 62,5 | 1 | 6,25 | 0 | 0 | 100,00 | 93,75 |
| Всего | | 39 | 40,64 | 40 | 41,66 | 17 | 17,7 | 0 | 0,00 | 100,00 | 82,30 |

Статистическое сравнение показателей успеваемости и качества знаний студентов, полученных в течение 2016-2017 (табл.1) и 2018-2019 (табл.1) учебных годов, представлено на диаграмме (рис.2).

Сравнение двух срезов позволяет сделать вывод о том, что в течение двух лет обучения студентов по Программе их оценки показывают позитивную динамику: количество оценок «отлично» увеличилась на 12,64%, «хорошо» – на 4,59%, «удовлетворительно» уменьшилась на 8,05%. Учитывая стандартные критерии оценки знаний, можно сделать вывод о том, что ведущим фактором улучшения стало обучение студентов по вышеописанной Программе.

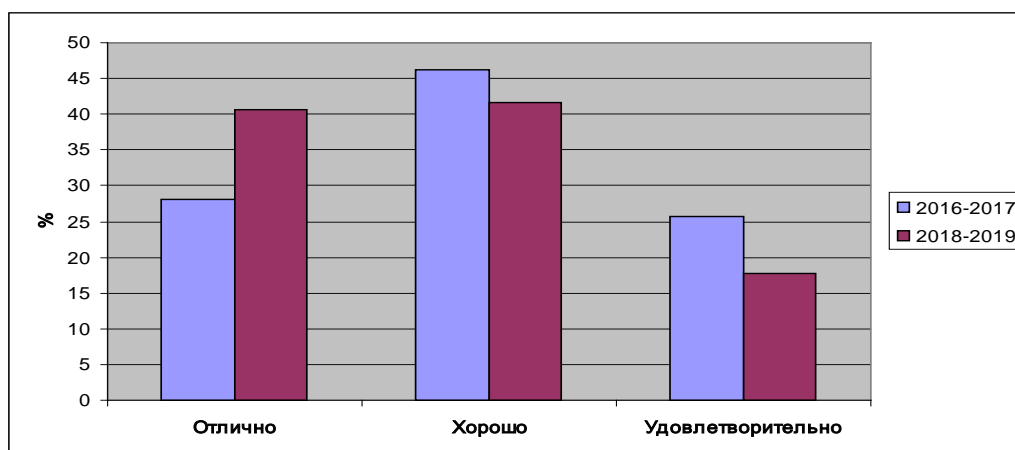


Рисунок 2. Динамика успеваемости студентов в период с 2016 до 2019 года
Figure 2 Dynamics of student grades in the period from 2016 to 2019

По окончании обучения у магистров формируется способность выполнять должностные обязанности психолога в системе образовательных учреждений, преподавателя психологических дисциплин, психолога-консультанта в консультативных центрах, психолога в отделах управления персоналом предприятий, специалиста по профориентации, консультанта центральной психолого-медико-педагогической комиссии, эксперта, ведущего тренинговых групп, менеджера психологических проектов в сфере детской и консультативной психологии.

Выводы *Conclusions*

В Киевском университете имени Бориса Гринченко впервые в Украине была создана и реализована «Образовательно-профессиональная программа подготовки практического психолога». Высокое качество подготовки специалиста обеспечивается методологическим базисом Программы – стандартом Европейского сертификата по психологии *EuroPsy*.

В Программе определено нормативное содержание обучения, установлены требования к содержанию, объему и уровню образовательной и профессиональной подготовки будущего специалиста. Также определены условия, методы и формы обучения в соответствии с положениями об организации образовательного процесса, описана внутренняя система обеспечения качества. В новой программе усилена научно-прикладная компонента подготовки, увеличено количество практико-ориентированных дисциплин. Сравнительный анализ показателей успеваемости и качества

знаний студентов, полученных в течение двух учебных лет, показал эффективность обучения по Программе.

Таким образом, охват широкого спектра современных академических и профессиональных дисциплин обеспечивает для выпускников возможности составить достойную конкуренцию среди специалистов этого направления и занять соответствующее место в профессиональной среде. Перспектива дальнейших исследований состоит в поиске дополнительных факторов, обеспечивших повышение общей успеваемости и качества знаний студентов, обучающихся по вышеописанной Программе.

Summary

The article examines the dynamics of changes in higher education of psychologists in Ukraine. It is argued that practical psychology in Ukraine has accumulated a great methodological potential during the three decades of its development, in order to understand psychological support practices and became an extensive and well-structured field of research.

The necessity to update the content of professional training of psychologists is presented in the context of the prospects of Ukraine's membership in the European Union. This update should be done not by blindly copying foreign educational programs, but via adapting the experience of other countries with the best traditions of national higher education.

The experience of strategic development and implementation of requirements of the European standard (EuroPsy) and the «Harmonisation of European Educational Structures» project in educational programs of Borys Grinchenko Kyiv University is presented. The upgrade of educational programs is described in the context of unification with European standards for future psychologists training.

Programmatic innovations designed to provide qualifications and competitiveness to bachelors and masters were described. Programs consist of modules which include: compulsory subjects aimed at creating general and professional competences, optional subjects, different practices and the final student examination.

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МОНИТОРИНГ СФОРМИРОВАННОСТИ ОБЩЕКУЛЬТУРНЫХ КОМПЕТЕНЦИЙ СТУДЕНТОВ

Monitoring the Formation of Universal Competences of Students

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Abstract. *Monitoring the quality of students' mastering educational programs is an important component of the educational process. Monitoring achieved learning outcomes is the collection, processing and analysis of competence level data in order to make management decisions in the field of education quality. Currently in Russia there are not enough scientifically based methods for assessing and monitoring students' competences.*

The staff of the Laboratory of quality problems in higher education at Pskov State University has been conducting research in the field of assessment and monitoring students' competences, including universal ones, for more than ten years. The assessment center, the students' self-assessment, the students' portfolio evaluation, the expert assessment during Internship and during the final exams are held on different courses of study.

The purpose of this article is to analyze the experience of monitoring the formation of universal students' competences of the Faculty of Physics and Mathematics of Pskov State University during the entire period of study. The article contains a model of monitoring universal students' competences.

The research used the following methods: analysis of the scientific literature, assessment center, questioning, observation, expert evaluation.

Keywords: *competence, evaluation, learning outcomes, monitoring.*

Введение *Introduction*

Растущая обеспокоенность в связи с потенциальными экономическими и глобальными кризисами заставляет задуматься над тем, обладают ли

сегодняшние обучающиеся сочетанием навыков критического мышления, творческого подхода и навыков совместной работы и общения, необходимых для преодоления будущих изменений на рынке. Для того чтобы нынешние школьники и студенты были успешны во взрослой жизни, необходимо формировать у них компетенции XXI века, которые большинство международных исследований выделяет как наиболее важные для современной жизни: критическое мышление, креативность, коммуникацию и кооперацию (Scott, 2015; Learnovation, 2009). В настоящее время эксперименты по формированию компетенций двадцать первого века активно развиваются в разных странах, осуществляются совместные международные исследования, посвященные анализу глобального контекста, в котором происходит обновление содержания и технологий образования (Фруммин, Добрякова, Баранников, & Реморенко, 2018). Проведен всесторонний обзор литературы, на основании которого анализируются факторы, способствующие изменениям в образовании учащихся, освещаются ключевые элементы для обучения в XXI веке, включая персонализацию, сотрудничество, общение и др. (Scott, 2015).

Необходимость формирования компетенций, которые помогут ориентироваться в постоянно меняющемся мире, больших потоках информации и обеспечат умение учиться на протяжении всей жизни, признается в России: в результаты обучения школьников основной и средней школы включены метапредметные и личностные результаты. Среди результатов обучения, которыми должен обладать выпускник любого вуза России, в федеральных государственных образовательных стандартах выделены общекультурные/универсальные компетенции, описывающие способность осуществлять поиск и критический анализ информации, осуществлять социальное взаимодействие и исполнять свою роль в команде, реализовывать траекторию саморазвития на основе принципов образования в течение всей жизни и др. Необходим поиск современных средств и технологий, позволяющих оценивать компетенции, методов мониторинга сформированности компетенций студентов. В связи с этим представленное исследование является актуальным.

Сотрудниками лаборатории проблем качества высшего образования Псковского государственного университета более десяти лет ведутся исследования в области мониторинга и оценки сформированности компетенций студентов, в том числе общекультурных (Медведева, Мартынюк, Панькова, & Соловьева, 2017). В статье «Оценивание общекультурных компетенций студентов» (Медведева, Мартынюк, Панькова, & Соловьева, 2018) проанализирован опыт оценивания общекультурных компетенций студентов первого года обучения с использованием центра оценки. Целью данной статьи является анализ

опыта персонализированного мониторинга сформированности общекультурных компетенций студентов физико-математического факультета Псковского государственного университета в течение всего периода обучения.

В ходе исследования были использованы следующие методы: анализ научной литературы по проблеме исследования, центр оценки, анкетирование, наблюдение, экспертная оценка.

Методология *Methodology*

Под мониторингом достигнутых результатов обучения мы понимаем сбор данных о сформированности компетенций, их обработку и анализ с целью принятия управленческих решений в области качества образования.

Авторами предложена модель мониторинга сформированности компетенций студентов в течение всего периода обучения (рисунок 1).



Рисунок 1. Модель мониторинга общекультурных компетенций
Figure 1 The model of monitoring universal competences

Из перечня общекультурных компетенций федеральных государственных образовательных стандартов для исследования их сформированности у студентов авторами были выделены компетенции, относящиеся к межличностному взаимодействию (коммуникация), анализу и обработке информации (критическое мышление), умению работать в коллективе (кооперация), генерации идей (креативность). По каждой компетенции были определены показатели, характеризующие ее проявления, и уровни сформированности (в таблице 1 представлены некоторые показатели).

Для оценивания общекультурных компетенций студентов на первом курсе применяется центр оценки (Hermelin, Lievens, & Robertson, 2007;

Вучетич и др., 2013; Медведева, Мартынюк, Панькова, & Соловьева, 2014, 2018), включающий групповые и индивидуальные упражнения. Он позволяет оценить все выделенные компетенции: групповая дискуссия и упражнение на командообразование – коммуникацию, кооперацию и креативность, индивидуальные упражнения – коммуникацию, критическое мышление и креативность. В групповых упражнениях участвуют все студенты факультета, для индивидуальных упражнений случайным образом отбираются около 20% первокурсников.

Таблица 1. Показатели сформированности общекультурных компетенций
Table 1 Indicators of the formation of universal competences

| | Показатель | Уровни сформированности | | |
|----------------------|--------------------------------------|--|---|---|
| | | Низкий | Средний | Высокий |
| Коммуникация | Участие в диалоге | Участвует в обсуждении, но не пытается понять чужую точку зрения | Пытается понять чужую точку зрения | Активно участвует в обсуждении, ищет точки соприкосновения |
| | Корректность поведения | Не всегда корректен в общении | Общается в основном в дружелюбной манере | Общается в доверительной и дружелюбной манере |
| | ... | | | |
| Кооперация | Лидерские качества | Избегает роли организатора | Не всегда успешно организует группу | Мотивирует других, организует группу для работы над задачей |
| | Принятие совместных решений в группе | Не участвует в принятии совместных решений | Пытается участвовать в принятии совместных решений | Активно участвует в принятии совместных решений в группе |
| | ... | | | |
| Критическое мышление | Аргументация | Не пытается аргументировать | Недостаточно аргументирует, обосновывает | Предлагает аргументы в поддержку утверждения |
| | Оценка информации | Использует информацию, не оценивая ее | Не всегда оценивает информацию | Использует информацию, предварительно оценив ее |
| | ... | | | |
| Креативность | Генерация идей | Не предлагает идей | Иногда пытается предлагать идеи | Предлагает результативные идеи |
| | Оригинальность выступления | Стереотипное выступление, очевидные аргументы | Выступление стереотипное, но присутствуют оригинальные элементы | Оригинальное выступление |
| | ... | | | |

По итогам центра оценки готовятся персонализированные отчеты по каждому студенту, отобранному для индивидуального мониторинга, в которых описываются проявления оцениваемых компетенций, делается вывод об их сформированности, даются рекомендации по развитию отдельных показателей оцениваемых компетенций.

Для самооценки уровня сформированности компетенций используется анкетирование студентов, в ходе которого они отмечают степень выраженности у себя каждого из показателей: «хорошо», «средне», «слабо».

На втором курсе экспертное оценивание компетенций проводится в ходе защиты электронного портфолио, анализа представленных в нем документов, а также в ходе производственной практики (Medvedeva, Martynyuk, Pan'kova, & Solovyova, 2017).

На третьем курсе проводится самооценка студентов по тем же показателям, что и на первом курсе, причем, студентам надо оценить сформированность этих показателей на первом курсе и на момент анкетирования. В ходе защит курсовых работ и производственной практики проводится экспертная оценка компетенций, относящихся к коммуникации, критическому мышлению, креативности.

На четвертом курсе центр оценки проводится повторно, причем студенты выполняют те же индивидуальные упражнения, что и на первом курсе. В ходе производственной практики экспертная оценка осуществляется руководителями практики от университета и работодателями. Во время государственной итоговой аттестации общекультурные компетенции оцениваются в ходе защиты выпускной квалификационной работы, представления итогового варианта портфолио.

Результаты исследования ***Research results***

Предложенная модель мониторинга общекультурных компетенций позволяет отследить динамику сформированности компетенций конкретного студента в период обучения. Проанализируем результаты мониторинга выделенных общекультурных компетенций на примере студентки А.

На первом курсе по результатам оценки коммуникации было выявлено, что студентка А. грамотно и логично выражает свои мысли, аргументирует сделанные выводы, умеет выбрать правильную позицию для выступления. В то же время студентка А. не может увлечь аудиторию, так как ее речь монотонная, с минимумом интонации, хотя студентка считает, что показатель «я стараюсь в выступлении использовать интонацию для лучшей подачи информации» сформирован у нее хорошо.

Результаты оценивания готовности к кооперации показали, что студентка А. ответственна, общалась с окружающими в доброжелательной манере, внимательно слушала других, имела претензии на лидерство. Вместе с тем при обсуждении проблем, она не высказывала своего мнения, а обсуждала только предложения других, чувствовала себя неуверенно, когда к ней обращались с вопросом. Результаты экспертной оценки этой компетенции совпадают с самооценкой студентки.

По результатам оценивания критического мышления в ходе выполнения индивидуального упражнения «Работа с текстом» и психодиагностического теста выявлено, что студентка обладает способностью к анализу и обобщению материала, однако ей свойственна инертность мыслительных процессов, наблюдается эмоциональная деструкция.

В ходе упражнения на командообразование студентка А. пыталась предлагать идеи, которые группа не всегда принимала, представляла результаты работы группы, проявив при этом средний уровень креативности.

По завершении оценивания со студенткой было проведено индивидуальное собеседование, ей были прокомментированы итоговые результаты экспертной оценки и даны рекомендации по развитию отдельных показателей общекультурных компетенций.

На втором курсе оценивание коммуникации, креативности и кооперации осуществляется сначала в ходе квазипрофессиональной деятельности во время педагогического практикума, основная идея которого – творческое сотрудничество преподавателей и студентов по созданию образовательного продукта. В ходе практикума студенты разрабатывают и проводят различные мероприятия, акции, которые в последующем могли бы самостоятельно организовывать в школе. Студентка А. активно участвовала в мероприятиях, проявляя себя в различных ролях: организатора, генератора идей, актера, созерцателя (на рисунке 2 представлен фрагмент зачетного листа практикума).

Принимала участие в КТД

1. Визитная карточка отряда.
2. КТД – «Суд истории». 775-летие Ледового побоища
3. КТД – Бал «Литературные юбилеи»
4. КТД – Социально-экологическое
5. КТД – Карнавал «Минута славы»
6. КТД – «Калейдоскоп педагогического практикума». Капустник
7. «Трудовой десант».

Не участвовала в КТД

1. КТД – Фотокросс «Россия начинается здесь»
2. КТД – Спартакиада «Веселые старты»

Участвовала в качестве:

- Организатора
- Актера
- Видео оператора
- Фотографа
- Генератора идей (работа в творческой группе)
- Созерцателя



*Рисунок 2. Фрагмент зачетного листа практикума
Figure 2 The part of the workshop sheet*

В ходе прохождения производственной практики на втором курсе оценивание указанных компетенций продолжалось в реальной профессиональной деятельности, студентка проявила навыки организации детского коллектива, но испытывала трудности в решении особых ситуаций с детьми, во взаимоотношениях с родителями детей.

При анализе документов, представленных в портфолио, а также в процессе защиты портфолио оценивались компетенции, связанные с критическим мышлением, кооперацией, коммуникацией. Студентка проявила грамотность речи, логичность выступления, выделение главного, контакт с аудиторией, представляла работы, выполненные в соавторстве. Вместе с тем, анализ текстов работ, представленных в портфолио, свидетельствует о том, что студентке необходимо развивать навыки аргументации излагаемого материала, следить за ясностью и чёткостью формулировок, их логичностью, т.к. выводы в работах не всегда следуют из их содержания.

В начале третьего курса проходила самооценка сформированности компетенций. Экспертная оценка осуществлялась в период подготовки и защиты курсовой работы, в ходе педагогической практики. В ходе самооценки студентам предлагалось оценить показатели компетенций у себя как первокурсника и как третьекурсника (Медведева и др., 2018). Оценкам «хорошо», «средне», «слабо» были присвоены баллы 3, 2, 1 соответственно. Сравнительные результаты самооценки компетенций представлены на диаграмме (рис. 3).

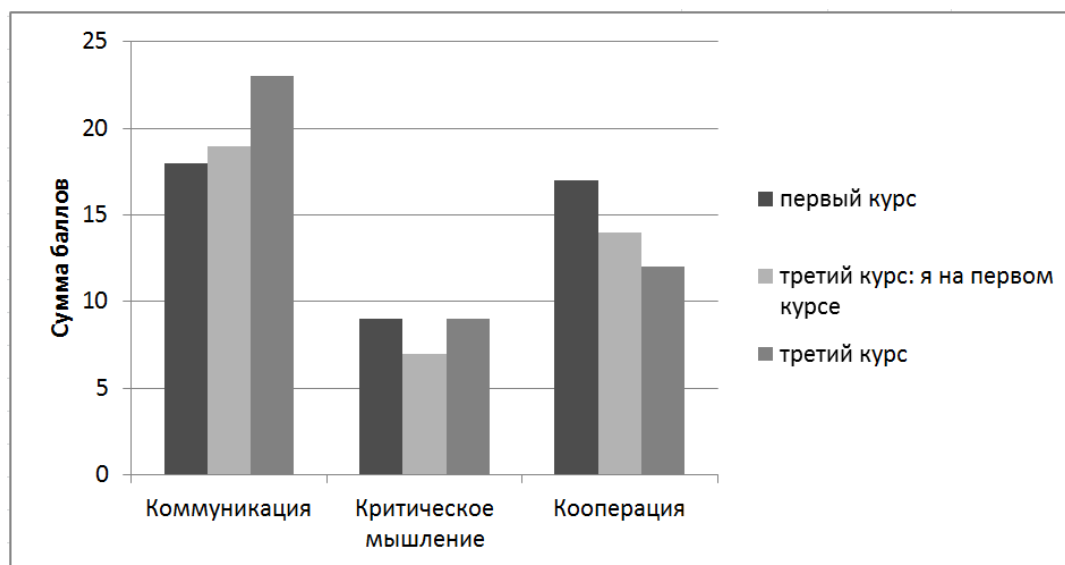


Рисунок 3. Сравнительные результаты самооценки компетенций
Figure 3 Comparative results of self-assessment of competences

По результатам самооценки студентки нетрудно заметить, что у нее наблюдается положительная динамика сформированности коммуникации, изменилось отношение к собственным достижениям по показателям критического мышления (студентка стала более требовательна к себе), а самооценка способности к кооперации имеет отрицательную динамику. Проанализируем результаты самооценки компетенции «Кооперация» (табл. 2).

Самооценка выявила, что студентка переосмыслила своё участие в работе группы на первом курсе, она оценила уровень сформированности четырех показателей данной компетенции более низкими баллами. Самооценка сформированности показателей «Я внимательно отношусь к чувствам и мыслям других людей», «Я заинтересован(а) в качественном результате работы группы» на третьем курсе стала еще ниже, выбрана оценка «слабо». Экспертные наблюдения позволяют сделать вывод, что это связано с переосмыслением межличностных отношений и неудовлетворенностью работой в группе.

*Таблица 2. Результаты самооценки компетенции «Кооперация»
 Table 2 Results of self-assessment of cooperation competence*

| | 1 курс | 3 курс | |
|---|-----------|-------------------|-----------|
| | | я на первом курсе | я сейчас |
| 3. Кооперация | | | |
| 3.1. Я участвую в обсуждении и планировании работы группы | 2 | 3 | 3 |
| 3.2. Я вношу свой вклад в работу группы, стараясь качественно выполнять свою часть работы | 3 | 3 | 3 |
| 3.3. Я прислушиваюсь к мнению других участников группы | 3 | 2 | 2 |
| 3.4. Я внимательно отношусь к чувствам и мыслям других людей | 3 | 2 | 1 |
| 3.5. Я заинтересован(а) в качественном результате работы группы | 3 | 2 | 1 |
| 3.6. Я корректно веду себя, работая в группе | 3 | 2 | 2 |
| Сумма баллов | 17 | 14 | 12 |

Впоследствии в период педагогической практики студентка А. организовала учащихся средней школы для проведения факультативных занятий, сумела заинтересовать ребят, проявила организаторские способности. По мнению работодателей, она проявила увлеченность своим делом, творческий подход к делу, смогла найти педагогический контакт с детьми, проявила креативные способности при проведении внеклассного мероприятия. В ходе защит курсовых работ студентка продемонстрировала критическое мышление: обосновала цели и задачи своих исследований, показала пути решения поставленных задач, сделала выводы, ответила на вопросы. При этом демонстрировала грамотную речь, уверенное владение материалом, держалась спокойно и уверенно. Таким образом, к концу третьего курса у студентки А. в основном наблюдалась положительная динамика сформированности общекультурных компетенций.

На четвертом курсе были проведены центр оценки и психодиагностическое тестирование. Результаты показали, что студентка А. все еще обладает инертностью мыслительных процессов, у нее присутствует эмоциональная деструкция, но она стала менее выраженной по сравнению с первым курсом.

На четвертом курсе студентка А. активно занимается исследовательской деятельностью, успешно проводит апробацию выпускной квалификационной работы, представляет результаты исследований на научных студенческих конференциях, демонстрирует хорошо сформированные аналитические навыки, свободно выступает перед аудиторией. Ею подготовлены три научные публикации, одна из них издана за рубежом.

Студентка демонстрирует научный стиль изложения, материал статей выстроен логично и аргументированно.

Таким образом, проведенный мониторинг сформированности выделенных общекультурных компетенций студентки А. позволяет оценить уровень сформированности компетенций на каждом этапе обучения, выявить проблемы, принять соответствующие решения.

Выводы *Conclusions*

Предложенная модель мониторинга позволяет оценить динамику сформированности общекультурных компетенций, относящихся к межличностному взаимодействию (коммуникация), анализу и обработке информации (критическое мышление), умению работать в коллективе (кооперация), генерации идей (креативность) в период обучения в университете.

Фокусировка мониторинга на отдельных студентах позволяет оперативно выявить у них проблемы, связанные с коммуникацией, способностью работать в команде и т.д., позволяет помочь им стать успешными в современной жизни, быть готовыми к работе в условиях вызовов сегодня и в будущем.

Следует отметить большие временные затраты таких исследований, необходимость привлечения большого количества экспертов, эффективное решение поставленных задач возможно только при условии длительных и целенаправленных усилий всех участников образовательного процесса.

Summary

In order for current students to succeed in life, it is necessary to form their 21st century competences, which most international studies identify as the most important: critical thinking, creativity, communication and cooperation. It is necessary to search for modern scientifically based methods for assessing and monitoring the formation of universal students' competences.

The article proposes a model of monitoring the universal students' competences, describes the indicators of the selected competences, suggests assessment tools for each stage of monitoring, analyzes the experience of personalized monitoring. In addition, a comparative analysis of self-evaluations, which were conducted twice (in the first and third years of study), is given in the article.

Focusing monitoring on individual students allows to quickly identify their problems related to communication, the ability to work in a team, etc., helps them to develop individual components of universal competences, to become successful in modern life, to be ready to work in the face of challenges today and the future.

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КЛАСТЕРНЫЙ ПОДХОД И РОЛЬ УНИВЕРСИТЕТА В ПОДГОТОВКЕ КАДРОВ ДЛЯ ИННОВАЦИОННОЙ ЭКОНОМИКИ

Cluster Approach and the Role of the University in Training for Innovative Economy

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Abstract. *In recent years, there are more and more research and educational initiatives on the topic of regional innovation development. A similar initiative is the result of reflection mechanisms and possible outcomes of the integration processes that are gaining momentum in the modern economy.*

One of the «answers» to integration challenges is the creation of regional clusters and the development of regional cluster policy.

The problem is to find answers to new, specific questions concerning the composition, characteristics and parameters of potential participants in regional clusters, the initial conditions and mechanisms for building clusters, creating cluster management systems: what is the role of universities in regional clusters, what is the model of this University, what is the program of its transformation, which University can correspond to this role.

In the context of global changes in the system of higher education, universities themselves, we propose to rethink the role of universities in the modern world, the territory where it is located, its development and related changes in the purpose and functions of modern universities.

We believe that the active involvement of universities in the formation of a regional innovation ecosystem, training is extremely important for the implementation of their third mission – to act as a driver of regional development, to take a subjective position in the region.

Such challenges as globalization and massification of higher education, migration of talented students, the lack of strong research centers focused on the regional research agenda, the concentration of master's degree in urban agglomerations, the lack of drivers of positive changes in the urban and regional environment can lead to the fact that the University will lose its region of activity and its students.

In our paper we propose a model of creating a sustainable chain of reproduction of personnel and technology in the region and on this basis the organization of production of high-tech products in the format of startups.

The conceptual basis of such a model can be the unification of science, business, education into a unified integrated complexes in the form of innovative regional development clusters.

Partnership between universities, business, government and other educational and scientific organizations will contribute to the quality of training for the innovative economy of the countries.

Keywords: *cluster, educational program model, integration, regional economy, university.*

Введение ***Introduction***

В последнее время появляется все больше научно-исследовательских и образовательных инициатив на тему регионального инновационного развития. Подобные инициативы – это следствие рефлексии механизмов и возможных результатов интеграционных процессов, набирающих силу в современной экономике.

Проблема заключается в поиске ответов на новые, конкретные вопросы, касающиеся состава, характеристик и параметров потенциальных участников региональных кластеров, исходных условий и механизмов построения кластеров, создания систем управления кластерами: какова роль университетов в региональных кластерах, какова модель этого университета, какова программа его трансформации, какой университет может соответствовать этой роли.

В контексте глобальных изменений системы высшего образования, самих университетов мы предлагаем переосмыслить роль университетов в современном мире, территории, где он располагается, ее развитию и связанного с этим изменением назначения и функций современных университетов.

Полагаем, что активное вовлечение университетов в формирование региональной инновационной экосистемы, подготовку кадров является крайне важно для реализации их третьей миссии – выступать драйвером регионального развития, занимать субъектную позицию в регионе.

Такие вызовы, как глобализация и массовизация высшего образования, миграция талантливых абитуриентов, отсутствие сильных научно-исследовательских центров, ориентированных на региональную исследовательскую повестку, концентрация магистратуры в городских агломерациях, отсутствие драйверов позитивных изменений городской и региональных среды могут привести к тому, что университет потеряет свой регион деятельности и своих студентов.

Вышесказанное обусловило цели и задачи нашего исследования – сформировать модель создания устойчивой цепочки воспроизводства кадров и технологий в масштабах региона и на этой основе организацию выпуска высокотехнологичной продукции в формате стартапов.

Концептуальной основой такой модели может служить объединение науки, производства и образования в единые интегрированные комплексы в форме инновационных региональных кластеров развития.

Методологическую основу исследования составили проектный подход в процессах разработки и реализации образовательных программ высшего образования, кластерная теория и теория интеграции; в качестве методов исследования применялся теоретический анализ источников по проблеме, системный анализ.

Анализ проблемы и постановка задачи *Solving the problem*

Сегодня все университеты мира подвержены влиянию академической революции, о которой говорится, в частности, Ф. Альтбахом (Mihut, 2017; Altbach, 2018; Альтбах, 2018), как в части массовизации, так и в части формирования экономики знания, цифровизации. Эти вызовы разнонаправлены, сложно поддаются формализации, что не дает возможности выстраивать достаточно эффективные модели управления университетом.

В России сложилась уникальная модель высшего образования по образу некоего холдинга, где роль материнской компании играет Министерство науки и высшего образования Российской Федерации, а «дочек» – образовательные учреждения. Какие-то из дочек являются ярко выраженными лидерами (Высшая школа экономики, Московский государственный университет, Санкт-Петербургский государственный университет, ИТМО и пр.), однако большинство – это университеты регионального уровня. Некоторые из региональных университетов участвуют с 2016 г. в проекте создания опорных (Flagship) региональных университетов. Ключевые вызовы такого проекта это:

- отток талантливых абитуриентов в федеральные центры и городские агломерации (Москва, Санкт-Петербург, Казань);
- концентрация магистратуры и аспирантуры в федеральных центрах;
- отсутствие сильных R&D центров, ориентированных на региональную исследовательскую повестку;
- отсутствие драйверов позитивных изменений городской и региональной среды.

Такие университеты, которых кстати множество и в Соединенных Штатах Америки, Европе, с разной степенью успешности в данный момент проходят сложные процедуры трансформации своих базовых процессов,

политик и моделей функционирования. Трансформационные риски несут и возможности. Возможности, связанные со свободой определения своей идентичности и оптимизации, реинжиниринга базовых процессов. Проблема здесь, как представляется, это четко занять позицию в контексте академической революции, не забывая о фокусе на решении проблем региона, территории, где находится университет (Crosier, Purser, & Schmidt, 2007; Duderstadt, 2000; Lambert & Butler, 2006).

Если говорить о базовом процессе – образовании, то, конечно, уровень подготовки современных абитуриентов снижается, что является общей тенденцией. Возможно, предназначение региональных университетов состоит в массовой подготовке по программам прикладного бакалавриата, что вызвано конкурентным давлением со стороны ведущих университетов мира и достаточно свободной «миграцией» сильных абитуриентов в поисках лучших образовательных программ (Richards, 2001). Тем не менее, региональным университетам, на которые возложена флагманская роль (опорная, в терминологии российской системы высшего образования) жизненно необходимо пересматривать свою идентичность и активно включаться в программы территориального развития.

Прежде всего, такие университеты обязаны иметь и серьезные, в первую очередь, прикладные исследования, направленные на решение региональных проблем. Но из этого следует, так как вуз все-таки экстерриториальный институт, он должен иметь представление и о мировой научной повестке, чтобы быть способным нести передовые идеи в свой регион через различные программы и проекты (Segal Quince Wicksteed, 1985).

Это не означает, что региональный университет должен совершать резкие с точки зрения затрачиваемых ресурсов рывки в своем развитии, догоняя признанных лидеров, во-первых, это невозможно, во-вторых, это ненужно. Главное, что нужно себе представлять – это роль университета в регионе и использование его потенциала, внешних связей, коллабораций, исследований, качественных образовательных программ на благо развития региона его нахождения.

На данный момент, многие университеты испытывают сложности с четким позиционированием себя с учетом современных глобальных вызовов, конкурируя по всем направлениям и распыляя ресурсы.

Экономическая, политическая карта регионов России и стран Центральной Азии очень разнородная, продолжается крайне неравномерное развитие регионов и территорий – сильные становятся сильнее, слабые – слабее. Отсюда социальная напряженность, миграция и пр. Усложняется это нехваткой управленческих кадров для публичной власти. В таких условиях крайне важно формировать интеллектуальное ядро с фундаментальной

базовой подготовкой. Это, конечно, не исключает в дальнейшем специализацию студента в соответствии с его предпочтениями.

Одним из «ответов» на интеграционные вызовы не только в России, но и в мире является создание региональных кластеров и развитие региональной кластерной политики. Но этот ответ, как водится, сопровождается постановкой новых, уже более конкретных, вопросов, касающихся состава, характеристик и параметров потенциальных участников региональных кластеров, исходных условий и механизмов построения кластеров, создания систем управления кластерами.

Это вопросы относительно ядерного элемента регионального кластера, модели университета и что он должен делать, того, любой университет может активно реализовывать свою третью миссию, связанную с развитием региона своего функционирования, или нет.

Важнейшая роль современного регионального университета в развитии региона представлена нами на рисунке 1.



Рисунок 1. Уровни и показатели взаимодействия университета и основных стейкхолдеров

Figure 1 Levels and indicators of interaction between the university and the main stakeholders

Полагаем, что необходимость активного вовлечения вузов в формирование региональной инновационной экосистемы, подготовку кадров является осознанным фактом, но пока государственные меры по стимулированию этого процесса не носят систематического характера. Во-первых, региональные и городские администрации не видят прямых эффектов от инвестиций в вузы, во-вторых, коммуникация с работодателями, бизнесом носит фрагментарный характер.

Результаты исследования, проведенного Высшей школой экономики (Альтбах, 2018) показало, что в соответствии с современными реалиями предприятие в большей степени заинтересовано в работниках «широкого профиля» с навыками последующего обучения на рабочем месте, при найме которых предприятию предпочтительнее искать специалиста на рынке труда, а не по целевому договору с вузом. Далее, существующее разное изначальное положение и характеристики регионов требуют разных треков развития вузов в регионах и разных метрик их оценки.

Поэтому крайне важно университету с выраженной третьей миссией драйвера регионального развития, занять субъектную позицию в регионе, пользуясь не совсем корректной английской терминологией, быть по отношению к региону «TO Region», а не «IN Region». Такие вызовы, как отток талантливых абитуриентов, отсутствие сильных R&D центров, ориентированных на региональную исследовательскую повестку, концентрация магистратуры в федеральных центрах, отсутствие драйверов позитивных изменений городской и региональной среды могут привести к тому, что университет потеряет свой регион деятельности.

При этом мы отчетливо понимаем, что развитие, как университета, так и региона возможно только через проекты стратегического развития. Соответственно функция университета в регионе на данном этапе – стать координатором компетенций, ресурсов и деятельности стейкхолдеров регионального развития.

Результаты *Results*

Что может и должен предложить университет региону?

Это создание устойчивого процесса воспроизводства кадров и технологий в масштабах региона и на этой основе организация инновационного производства (стартапы), формирование основ инновационной культуры в регионе (инновационная экосистема) (Друкер, 2007; Чесбро, 2007).

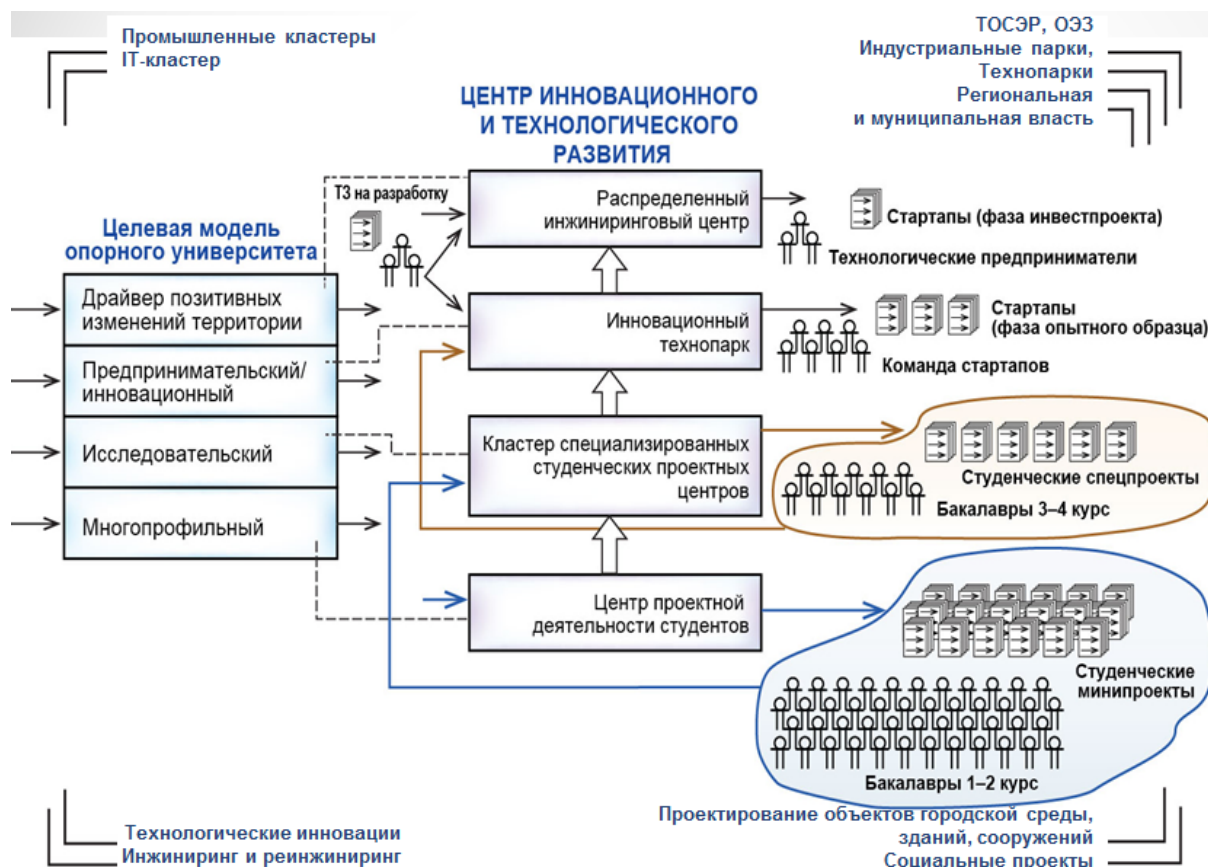
Университет традиционно является основным поставщиком кадров для региона и потенциально может стать основным поставщиком научно-

технических разработок для региона (тенденции университетов к развитию собственного научно-технического потенциала и тесному сотрудничеству с научными учреждениями). В кластерной цепочке «образование / наука» - «инновации» - «среда» университет выполняет, фактически, роль системного центра трансфера знаний, технологий и ценностей инновационной культуры в регионе.

Одним из подходов к решению проблем формирования инновационной экономики и подготовки кадров может быть объединение науки, производства и образования в единые интегрированные комплексы. Организовать взаимодействие можно в форме инновационных региональных кластеров развития. Модель их экономического взаимодействия можно представить на рисунке 2.

Модель предусматривает активную проектную подготовку студентов образовательных программ бакалавриата и магистратуры. В процессе обучения абсолютно все студенты университета подключается к реальным проектам, часть которых по мере проработки станут коммерческими стартапами. На рисунке модель представлена в виде воронки с максимальным охватом студентов и преподавателей проектной работой и включением университетской инновационной инфраструктуры. По мере повышения иерархии и качества проектов, проектные команды, сформировавшиеся на начальном этапе, ведут работу над своими проектами в инновационных технопарках и инжиниринговых центрах региона. Конечным итогом проектной работы являются стартапы на фазе инвестиционного проекта и подготовка технологических предпринимателей для инновационной экономики.

В подобной модели университет является центром инновационного и технологического развития региона. Более того, данная модель может быть масштабируема и стать сетью, объединяющей центры компетенций региона и различных стран. В этом заключается одно из основных преимуществ университета как института развития – только университет может выступать в качестве хаба по привлечению ресурсов в регион своего нахождения благодаря своим международным связям, коллаборациям, гибкости и открытости.



* Разработано в рамках проектной работы в МШУ «Сколково» совместно с участниками сети опорных университетов

Рисунок 2. Схема экономического взаимодействия участников инновационно-образовательных кластеров

Figure 2 Scheme of the economic interaction of participants in innovative educational clusters

Конечно, необходимы и внешние для университетов решения. Эти решения должны включать работу по разработке и/или встраиванию в региональные и федеральные программы (например, менее 25% регионов России имеют зафиксированные в региональных стратегиях направления развития высшего образования), кооперацию или расширение сетевых образовательных и исследовательских программ, а также вхождение в научные и технологические консорциумы и платформы.

Необходимо отметить, что реализация инновационной интеграции предприятий и университетов должна основываться на открытости партнеров в рамках совместной деятельности. Университет, имеющий инновационные разработки, оформленные в виде интеллектуальной собственности и обладающие высоким потенциалом коммерциализации, передает их партнеру в виде проекта или концепта инновационного изделия

с указанием конкретной стоимости (размер инвестиций университета). Университет, раскрывая финансовую информацию о своих вложениях в фундаментальные, прикладные исследования и стадию НИОКР, позволяет партнеру увидеть порядок денежных средств, которые затрачены в разработку инновационного продукта.

В свою очередь, корпорация открывает партнеру финансовую информацию о стоимости всех своих активов, вовлекаемых в производство продукции. Также представляя информацию о своих сбытовых сетях показать возможности охвата потребительского рынка. Полученная партнерами информация позволяет определять порядок себестоимости продукции, и более сбалансировано подойти к определению объема выпускаемой и реализуемой совместной продукции. Это позволяет разработать и утвердить такой механизм распределения прибыли для окупаемости инвестиций партнеров в исследования и производство, который позволит удовлетворить партнеров в правах на обладание интеллектуальной собственности при распределении ренты.

В случае если риски партнеров достаточно высоки, то возможно привлечение третьей стороны для их снижения – государственные (негосударственные) венчурные фонды (финансирование, продвижение на рынке, экспертиза, и т.д.). Участие фондов может дать правильную экспертную оценку совместному инновационному проекту предприятия и университета или даже выступить поручителем или самим агентом при страховании рисков неуспеха партнеров.

Выводы *Conclusions*

Одним из вариантов интеграции, способных дать реальный эффект является ситуация, когда университет имеет инновационные разработки, оформленные в виде интеллектуальной собственности и обладающие высоким потенциалом коммерциализации. В этом случае возможен механизм взаимодействия между предприятием и вузом без участия государства, обеспечивающий при этом экономические интересы обеих сторон.

Таким образом, тесное партнерство между университетами, работодателями и другими образовательными, научными организациями будет способствовать и качественной подготовке кадров. Поэтому инновационные кластеры с университетским ядром позволят, на наш взгляд, активизировать интерес как предприятий, так и вузов к инновационной работе. Кроме того, расширение практических исследований по заказу производства в университетах позволит преподавательскому составу

повысить реализацию творческих замыслов, стимулировать получение новых научных знаний и профессиональных навыков, а также активнее привлекать к выполнению проектов студентов, что, во-первых, обеспечивает повышение качества подготовки специалистов, и, во-вторых, ускорит процессы передачи научных результатов в практику, давая при этом существенные конкурентные преимущества национальному бизнесу.

Summary

One of the main reasons for the activation of the integration processes of the University and industry – rethinking the role of universities in the modern world, the region and its development and associated changes in the purpose and functions of modern universities.

The University forms the basis of innovative culture in the region, is traditionally the main supplier of personnel for the region and can potentially become the main supplier of scientific and technical developments for the region. The University serves as a system center for the transfer of knowledge, technology and values of innovative culture in the cluster chain "education/science" – "innovation" – "environment" of the region.

This system center can be organized in the form of an innovative regional cluster.

The system of integration links in the cluster provides for active project preparation of students of undergraduate and graduate educational programs. In the learning process, absolutely all students of the University are connected to real projects, some of which will become commercial start-UPS. As the hierarchy and quality of projects increase, project teams work on their projects in innovative technology parks and engineering centers of the region. The final result of the project work is startups at the investment project phase and preparation of technological entrepreneurs for the innovative economy.

This model can be scalable and become a network of competence centers of the region and different countries. This is one of the main advantages of the University as a development institution – only the University can act as a hub to attract resources to the region of its location thanks to its international relations, collaborations, flexibility and openness.

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НАРОДНАЯ РЕЧЬ И КУЛЬТУРА РЕГИОНА В РЕПРЕЗЕНТАЦИИ ИНОЯЗЫЧНЫМ СТУДЕНТАМ- РУСИСТАМ В РАМКАХ ОЗНАКОМИТЕЛЬНОГО КУРСА

Folk Speech and Culture of the Region in Representation to the Foreign Students of Philological Department

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Abstract. *This article considers an actual problem of modern lingvometrics which is the formation of lingvoregional knowledge and skills of foreign student-philologists. The main goal of this article is grounding and development of teaching materials which will form the lingvoregional knowledge and skills of the foreign students basing on the Pskov regional material.*

The article describes the following issues: students learn the peculiarities of local Pskov dialects, folk holidays of Pskov region, works of philologists and ethnographers devoted to the language and culture of Pskov. Main textual and lexicographical resources of the teaching materials are also covered, as well as the description of the introducing lingvoregional information methods. We also present the results of ascertaining and control experiment stages, during which the foreign students of the department of Russian Philology and Foreign languages were educated according to the introductory lingvoregional training program. During the experiment, we used the methods of linguistic-cultural analysis of words and text, the method of pedagogical experiment, mathematical method of processing the results obtained. The results of the tests showed that foreign students had significantly increased the level of linguistic and lingvoregional knowledge and skills, formed on the Pskov regional material.

Keywords: *regional cultural linguistics, regional cultural linguistic competence, language and culture of Pskov, foreign student-philologists.*

Введение **Introduction**

В методике обучения русскому языку как иностранному (РКИ), ориентирующейся сегодня на коммуникативно-культуроведческую парадигму, значительно возросла роль принципов соизучения языка и культуры в их взаимодействии. Успешное овладение неродным языком позволяет глубже проникнуть в культуру и традиции того или иного народа. Особенно это важно для иноязычных студентов-филологов, в программу

обучения которых на основном этапе включается региональный фольклорный и диалектный материал, к восприятию которого иностранные студенты оказываются неготовыми. В такой ситуации целесообразным было бы введение в программу их предвузовской подготовки или в учебный план 1-го курса (1 семестр) факультативного ознакомительного лингвокраеведческого курса, который подготовит иностранных студентов к восприятию регионального компонента таких дисциплин, как устное народное творчество и русская диалектология, позволит повысить эффективность диалектологической практики, которая для студентов, в том числе иностранных, обучающихся по профилям «Филологическое образование», «Русский язык и английский язык», организуется в зоне функционирования псковских говоров или в научно-образовательной лаборатории региональных филологических исследований Псковского государственного университета. Что касается профиля «Русский язык как иностранный», то его программой не предусмотрено изучение данных дисциплин, поэтому обращение к региональному языковому и текстовому материалу в рамках лингвокраеведческого факультативного курса – единственная возможность ознакомить иностранных студентов-первокурсников данного профиля с особенностями народной речи псковичей и фольклором региона. Изучение иностранными студентами-русистами народной речи и культуры региона необходимо в целях повышения уровня их лингвокраеведческой компетентности, что, в свою очередь, позволит им успешно осваивать регионально ориентированные учебные дисциплины и достигать взаимопонимания с носителями русского языка в коммуникативном пространстве региона обучения. Таким образом, нам представляется очевидной необходимость разработки ознакомительного факультативного курса, который, помимо решения отмеченных выше преподавательских задач будет способствовать совершенствованию речевых навыков студентов-инофонов, расширению их лингвострановедческого и лингвокраеведческого кругозора, обогащению словарного запаса этнокультурно маркированной лексикой. Целью нашего исследования стало обоснование научно-методической концепции этого ознакомительного факультативного курса. При разработке концепции данного курса мы использовали приемы лингвокультурологического анализа слова и текста, метод педагогического эксперимента, математические методы обработки полученных результатов.

Цель данной статьи – представить концепцию ознакомительного факультативного курса. В соответствии с этим, нами определены задачи: познакомить читателя с используемыми приемами, материалами, результатами, доказывающими эффективность разработанной методической концепции.

**Лингвокраеведческие разработки для иностранных
студентов-русистов: опыт российских регионов**
*Regional cultural linguistic development for foreign students Russianists: the
experience of Russian regions*

Лингвокраеведение как отрасль языкознания и учебная дисциплина рассматривает разнообразные и сложные лингвистические факты в связи с историей и культурой определенного локального социума. Лингвокраеведение дает учащимся возможность посредством местного языкового материала, регионально актуальной языковой и внеязыковой информации ближе познакомиться с окружающей их действительностью в процессе изучения языка, повышает их общекультурный уровень, расширяет лингвистический кругозор.

Вопросам учета региональных особенностей в процессе обучения русскому языку как иностранному посвящены работы Ю. А. Ендольцева (1988, 2000), Г. О. Некипеловой (2001), О. А. Сенаторовой (2003, 2011), Т. Н. Доминовой (2012), И. Н. Анисимовой (2015), О. А. Петровой (2015) и др.

В каждом регионе, где обучаются иностранные студенты, разрабатываются лингвокраеведческие пособия, решающие ряд задач по формированию лингвокраеведческой компетенции. Такая работа ведется, например, во Владимирском государственном университете, где было издано несколько пособий по краеведению для иностранных студентов. Рассмотрим некоторые из них. Пособие «Белопамятная весть» (Сенаторова, 2014) предлагает иностранным гражданам из стран дальнего и ближнего зарубежья, изучающим русский язык и проживающим на территории Владимирской области, познакомиться с географией, историей и культурой Владимирского края. Пособие предназначено для иностранных граждан, владеющих русским языком на I сертификационном уровне (B1), и может быть рекомендовано как для работы в аудитории под руководством преподавателя, так и для самостоятельного чтения. Цель пособия – формирование краеведческой составляющей коммуникативной компетенции данной категории граждан, которая является необходимым и важным условием их лингвокультурной адаптации. Пособие включает пять разделов, организованных по тематическому принципу, каждый раздел включает информационные, публицистические и художественные тексты, каждому тексту предшествуют комментарий и задания, направленные на усвоение тематической лексики и снятие лексических трудностей при чтении и восприятии текстового материала. Включение в круг источников публицистических и оригинальных художественных текстов способствует художественно-образному восприятию предъявляемой краеведческой

информации, более прочному ее усвоению. Некоторые комментарии представляют собой микротексты, дающие достаточно полное представление о культурно значимой реалии. Притекстовые задания направлены на формирование умений просмотрового, аналитического и прогнозирующего чтения, послетекстовые – на проверку понимания и усвоения информации, а также на развитие навыков и умений речевого общения. В каждой теме есть задания на выявление и осмысление универсального и специфического в русской и национальной культуре обучающихся, без чего невозможно говорить о межкультурной коммуникации. Эти задания прививают учащимся умение вести диалог культур, что является одной из главных методических задач в преподавании иностранных языков. Пособие содержит таблицы, схемы, планы и карты, работа с которыми формирует навыки извлечения, анализа и вербальной передачи информации графических источников. Пособие может сопровождать изучение целостного лингвокраеведческого курса, а также использоваться для ознакомления обучающихся с отдельными реалиями лингвокультуры Владимирского края.

Еще одно пособие, разработанное коллективом кафедры РКИ Владимирского университета – «Владимир: Лингвострановедческое пособие по русскому языку для иностранных студентов» (Бордяшова, Асессорова, & Щербаков, 1995). Данное лингвострановедческое пособие рассчитано на работу под руководством преподавателя. Цель пособия – развитие речевых навыков, прежде всего, говорения. Отобранный минимум краеведческой информации должен помочь сформировать у студентов фоновые знания об истории г. Владимира, культурно-исторических ценностях и его современном облике. В 1999 году во Владимирском государственном университете коллективом авторов под редакцией Е. В. Ковальчук издано пособие «Традиции русского народа: Лингвострановедческое пособие по русскому языку для иностранных студентов» (Лепарская, Казнина, & Ледащева, 1999). Пособие состоит из трех разделов, содержащих материалы о традициях русского быта, кухни и декоративно-прикладного искусства. Приведены тексты и задания для аудиторной и домашней проработки, вопросы для самоподготовки, тексты для дополнительного чтения на основе художественных произведений.

Большое количество учебных пособий, включающих региональный компонент, издается в Санкт-Петербурге. Сборник текстов для развития речи и аудирования «Санкт-Петербург – культурная столица России» (Малышев, Малышева, & Свидинская, 2011) включает 16 текстов, рассказывающих о главных достопримечательностях города («Петропавловская крепость», «Невский проспект», «Зимний дворец и Дворцовая площадь», «Медный всадник и Исаакиевский собор» и др.), известных

петербуржцах («Пётр I – основатель Петербурга», «А. С. Пушкин и Петербург», «П. И. Чайковский и Петербург»), произведениях, посвященных городу («Композитор Д. Д. Шостакович и его Ленинградская симфония», «Петербург в поэме А. С. Пушкина «Медный всадник»), о фактах истории, культуры и науки, связанных с городом («Санкт-Петербург – культурная столица России», «Три имени города», «Город в годы войны»). Работа с текстами включает знакомство с лексическими единицами, отработку определенных лексико-грамматических конструкций. Речевые навыки развиваются при выполнении предтекстовых, притекстовых и послетекстовых упражнений, творческих заданий.

Лингвокраеведческий подход во внеаудиторной работе реализуют методические руководства для проведения учебных экскурсий по Санкт-Петербургу (Капитонова, 1993), (Капитонова & Малышева, 1992). Целью пособий является подготовка иностранных студентов к пониманию содержания экскурсии на русском языке. Экскурсии посвящены важным историко-культурным темам: «Петропавловская крепость», «Русский музей», «Петродворец», «Пушкин» и др. Разработки экскурсий включают в себя список ключевых слов, тексты для чтения, сценарий слайдфильмов к экскурсиям, контрольные вопросы на понимание лингвокраеведческой информации, словарь-минимум и комментарии, а также песни и стихи о Петербурге. Каждая экскурсия состоит из вводной части (чтение текста, просмотр слайдфильма, работа с лексикой и комментариями) и работы после экскурсии (чтение дополнительных текстов, аудирование).

Лингвометодическая концепция ознакомительного курса «Народная речь и культура Псковщины»

Lingvo-methodical concept of the introductory course «Folk speech and culture of the Pskov region»

Ознакомительный курс «Народная речь и культура Псковщины» был разработан авторами с целью формирования у иноязычных студентов-русистов лингвокраеведческой компетенции. Данный курс был апробирован в ходе опытно-экспериментальной работы с группой студентов 2 курса (20 человек – граждане Туркменистана), обучающихся на факультете русской филологии и иностранных языков по профилю «Русский язык как иностранный». Для выявления уровня сформированности параметров лингвокраеведческой компетенции иностранных студентов им была дана анкета, состоящая из 5 вопросов и заданий. Выполнение каждого из них оценивалось из 4 или 5 баллов. Оценочный максимум составил 24 балла. Приведем примеры вопросов анкеты: 1. Что Вам известно о направлениях региональных филологических исследований? Какие словари и сборники

отражают результаты этих исследований? 2. Что Вам известно о празднике Масленицы? Почему этот праздник так называется? Как его празднуют на Псковщине? 3. Известно ли Вам имя Бориса Александровича Ларина? Как оно связано с изучением языка Псковского региона? и др.

Результаты констатирующего эксперимента показали, что 19 из 20 студентов находятся на низком и один на среднем уровне сформированности лингвокраеведческих знаний и навыков. Следовательно, необходимо было провести ряд мероприятий, направленных на формирование этих знаний и навыков на псковском региональном материале.

Объем аудиторной работы (18 часов) был реализован на практических занятиях. Данный курс предусматривал формирование следующих параметров лингвокраеведческой компетенции:

- владение теоретическими знаниями об основных направлениях региональных филологических исследований, о результатах этих исследований;
- владение регионально маркированным лексическим материалом (этнографизмы, ономастика, фольклоризмы);
- навыки семантизации и лингвокультурологического комментирования таких единиц;
- навыки оперирования лингвокраеведчески маркированной лексикой в разных видах речевой деятельности (при рецепции и продуцировании речи).

Исходя из этого, авторами были сформулированы следующие задачи ознакомительного курса «Народная речь и культура Псковщины»:

1/ ознакомить обучающихся с основными направлениями изучения народной речи и фольклора региона, с деятельностью научно-образовательной лаборатории региональных филологических исследований, с содержанием наиболее значимых работ, отражающих результаты исследования народной речи и народной культуры псковичей (Псковский областной словарь с историческими данными, сборник сказок «Народные сказки Псковского края», Этнолингвистический словарь «Традиционный быт псковских крестьян»);

2/ сформировать навыки оперирования лингвокраеведчески маркированной лексикой в разных видах речевой деятельности – при рецепции (аудирование) и продуцировании речи (письмо).

3/ сформировать навыки лингвокультурологической интерпретации регионально маркированного лексического материала (этнографизмы, фольклоризмы).

В результате освоения курса студент должен получить представление о языке и традиционной народной культуре Псковского региона. В рамках

курса студенты знакомятся с тремя темами «Псковские говоры и их исследователи», «Русская Масленица», «Псковская сказка» (на освоение каждой темы отводилось по 6 часов аудиторной работы).

Для разработанного авторами ознакомительного курса «Народная речь и культура Псковщины» мы использовали материалы этнолингвистического словаря «Традиционный быт псковских крестьян» (2012), сборника сказок «Народные сказки псковского края» (2016), монографии «Псковская Масленица. Образы. Символы. Коммуникация» (2015), материалы Псковского областного словаря (ПОС), картотеки ПОС и другие материалы из фондов научно-образовательной лаборатории региональных филологических исследований Псковского государственного университета.

В рамках первой темы «Псковские говоры и их исследователи» студенты знакомятся: с основными понятиями и терминами диалектологии, с основной информацией о псковских говорах, с деятельностью Б. А. Ларина, с картотекой Псковского областного словаря и опубликованными выпусками словаря. Эту информацию они получают из рассказа преподавателя и в ходе работы с научными текстами. Контроль понимания прочитанного осуществляется с помощью вопросов и заданий. Приведем примеры заданий, направленных на формирование навыков работы со словарями:

Задание 1. Найдите в ПОС значение следующих диалектных слов: *брыкса, бурак, гутарить, девка, загибнуть, издохнуть, капор, катанки, кичка, ледянка, малец, лязготать, мясоед, набирка, отираться, охобень, охлынец.*

Задание 2. Какие слова в приведенных парах являются диалектными? Встречаются ли эти диалектизмы в псковских говорах? В каких районах области они зафиксированы?

Картофель – картоха, петух – певун, морковь – морква, лук – цыбуля, бурак – свекла, лалаки – десны, корзина – набирка, зубок – зуб, ножницы – ноженки, долгий – длинный, деянки – варезки, говорить – гутарить.

Задание 3. Прочитайте следующие цитаты из произведений художественной литературы. Найдите в тексте диалектизмы, при помощи словаря дайте им определения.

- *Не ходи так часто на дорогу
В старомодном ветхом шушуне.*
(С. А. Есенин «Письмо к матери»).
- «Из всего класса в **чирках** ходил только я».
(В. Г. Распутин «Уроки французского»).
- – Ну, ступайте теперь к папа, дети, да скажите ему, чтобы он непременно ко мне зашёл, прежде чем пойдёт на **гумно**».

(Л. Н. Толстой «Детство. Отрочество. Юность.»).

Занятия по теме «Русская Масленица» были направлены на формирование навыков:

- владения регионально маркированным лексическим материалом (этнографизмы, фольклоризмы);
- семантизации и лингвокультурологического комментирования регионально маркированной лексики;
- оперирования лингвокраеведчески маркированной лексикой в разных видах речевой деятельности (говорение – монолог, аудирование, письмо).

В ходе занятий студенты работали с ключевыми понятиями, отражающими масленичные обычаи, запреты, предписания и традиционные развлечения. Каждый концепт был описан нами в лингвострановедческом мини-тексте. В затекстовых комментариях пояснялись незнакомые реалии, которые встречаются в тексте. Ниже представлены тексты, которые были предложены студентам для чтения. Они сопровождалась визуальным материалом, способствующим пониманию.

Текст 1. Катание (на лошадях).

Катание на лошадях – одно из важных действий масленичного обряда. В Масленичную неделю жители из одной деревни ездили в другую. Жители *псковского Поозерья* устраивали катание на санях по льду Псковского озера. Для выезда лошадей специально украшали. Парни катали девушек, за которыми они ухаживали, взрослые катали детей.

Псковское Поозерье – территория побережья Псковского озера.

Текст 2. Супрядка.

Супрядка – вечеринка, где собиралась молодежь. Парни и девушки одной деревни по договоренности с хозяевами (часто одинокими) снимали на определенное время *избу* и проводили там по вечерам гулянья. Супрядка делилась на две части: вначале собравшиеся девушки занимались рукоделием: вышивали, вязали, а также пряли (отсюда – название супрядка). Парни в это время играли на гармошке, пели, шутили. Затем начиналось собственно гулянье: пение песен, *частушек*, танцы, игры. Обычно посиделки проводились по воскресеньям, а в Масленичную неделю на супрядки собирались каждый вечер до четверга.

Изба – деревенский крестьянский дом.

Частушка – жанр русского фольклора. Частушки создаются преимущественно сельской молодежью, исполняются под гармонь или без музыкального сопровождения. (Комментарий сопровождается аудио-иллюстрацией – студенты слушают псковские частушки, записанные в фольклорных экспедициях ПсковГУ)

Текст 3. Прощёное воскресенье.

Воскресенье накануне Великого поста, завершающее Масленичную неделю, называется Прощёным воскресеньем. В этот день по традиции все православные просят друг у друга прощение, чтобы во время поста сосредоточиться на духовной жизни. В этот день последний раз употребляется *скоромная пища*.

Скоромная пища – мясо, молоко, яйца, масло и другая пища от теплокровных животных.

Также для чтения были предложены адаптированные фрагменты текстов из монографии «Псковская Масленица. Образы. Символы. Коммуникация» (2015). На занятиях студенты познакомились с произведениями русской живописи, посвященными празднику («Масленица» Б. Кустодиев, «Взятие снежного городка» В. Суриков, «Масленица» П. Н. Грузинский и др.), а также посмотрели видеофрагмент «провода Масленицы» из оперы «Снегурочка» Н. А. Римского-Корсакова и эпизод празднования Масленицы из художественного фильма «Сибирский цирюльник».

На занятиях по теме «Псковская сказка» студенты знакомились с текстами народных сказок, записанных в экспедициях на территории Псковской области и опубликованных в сборнике «Народные сказки псковского края» (2016). Студенты работали с распечатанными вводными комментариями к этнокультурно маркированной лексике, которую они встречали затем в текстах сказок, уточняли в толковых, диалектных, этнографических словарях значения незнакомых слов. Приведем примеры таких комментариев.

Амбар. Крестьянская постройка, предназначенная для хранения, сушки и молотбы зерна, а также для хранения других сельскохозяйственных продуктов и инструментов. В амбаре часто совершались магические действия, связанные преимущественно с новогодней, иногда свадебной обрядностью. Существует поверье о духе, вроде домового, живущем в амбаре.

Корыто. Большой открытый продолговатый деревянный сосуд с округленными стенками, изготовленный из половины расколотого бревна. В корыте хозяйки стирали белье. Корыто использовали также для хранения яблок, капусты и т. д., для заготовки солений, купания, для кормления скота и птицы. В перевёрнутом виде корыто использовали как большую крышку, то есть в хозяйстве оно имело самое разнообразное назначение. Широко известен фразеологизм у *разбитого корыта* (в значении 'остаться ни с чем'), благодаря «Сказке о золотой рыбке» А. С. Пушкина.

Лапти. Крестьянская обувь, сплетенная из лыка, бересты (верхний слой коры берёзы) или веревок. Для прочности подошву подплетали лозой,

лыком, веревкой или подшивали кожей. Лапоть привязывался к ноге шнурками из лыка. Плетение лаптей было на Руси зимним занятием крестьян, когда не было полевых работ. Заготовкой лыка занимались в определенное летнее время года. Поскольку кожаная обувь всегда стоила дорого, беднота ходила в лаптях, поэтому лапти стали символизировать нищету и низкое происхождение. Сейчас лапти – один из важнейших символов традиционного национального быта.

Данные комментарии сопровождалась фотографиями.

Для самостоятельной семантизации с помощью ПОС, этнолингвистического и толкового словарей студентам были предложены следующие слова: *крыльцо, печь, изба, оборы, сени, портянки, тесемки*.

На завершающем этапе обучающимся были предложены речевые задания на базе лексики, изученной в рамках темы.

На контрольном этапе эксперимента иностранным студентам были снова предложены вопросы и задания анкеты, направленные на выявление уровня сформированности лингвокраеведческих знаний и навыков. Результаты контрольного среза показали, что у 10-и иноязычных студентов уровень лингвокраеведческих знаний и навыков, сформированных на псковском региональном материале, поднялся до высокого, 10 студентов достигли среднего уровня. Представим результаты двух срезов в виде диаграммы (Рис. 1).

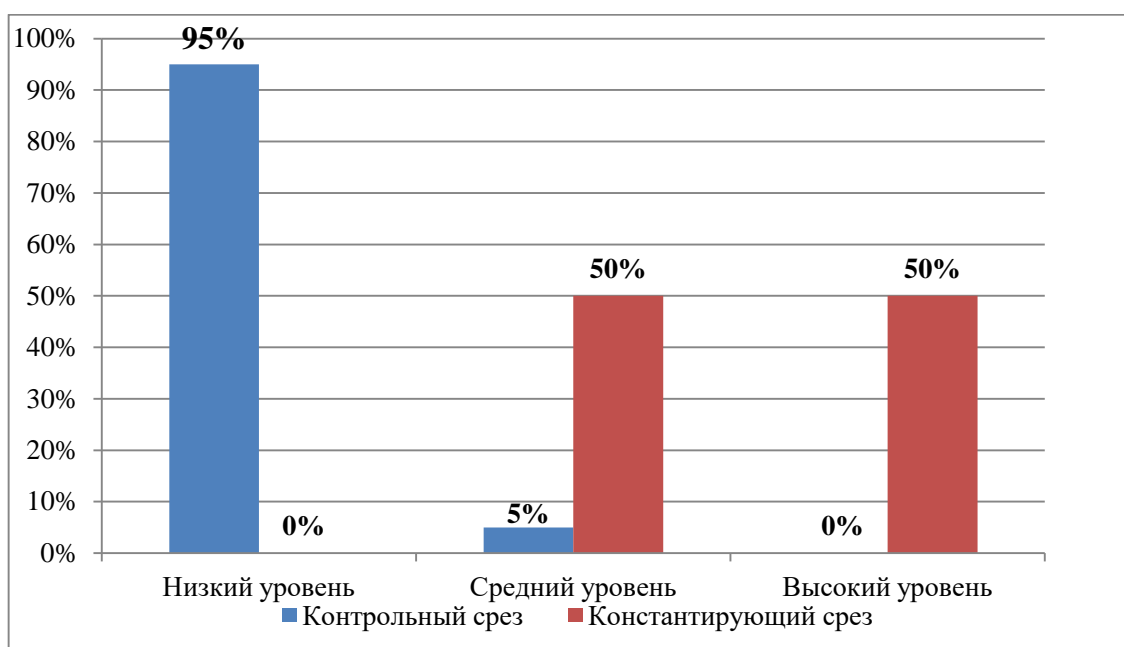


Рис.1. Динамика сформированности лингвокраеведческих знаний и навыков студентов-иностранцев на псковском региональном материале (по данным констатирующего и контрольного этапов эксперимента)

Figure 1 The dynamics of the formation of linguistic knowledge and skills of foreign students on the Pskov regional material (according to the ascertaining and control stages of the experiment)

Из диаграммы видим, что у иноязычных студентов значительно повысился уровень лингвокраеведческих знаний и навыков, сформированных на псковском региональном материале. Исходя из этого, мы можем утверждать следующее: учебная репрезентация народной речи и культуры региона иностранным студентам-русистам в рамках ознакомительного курса «Народная речь и культура Псковщины» позволит повысить эффективность формирования их лингвокраеведческой компетенции.

Выводы *Conclusions*

Разработанный авторами ознакомительный курс «Народная речь и культура Псковщины» включает в себя комплекс учебных материалов, направленных на формирование следующих компонентов лингвокраеведческой компетенции иностранных студентов: владение теоретическими знаниями об основных направлениях региональных филологических исследований, о результатах этих исследований; владение регионально маркированным лексическим материалом (этнографизмы, ономастика, фольклоризмы); навыки семантизации и лингвокультурологического комментирования таких единиц; навыки оперирования лингвокраеведчески маркированной лексикой в разных видах речевой деятельности (при рецепции и продуцировании речи).

Задания были разработаны авторами на материале псковских говоров и псковского фольклора. Были выявлены оптимальные методы и приемы, а также принципы организации работы с данным материалом; проведен методический эксперимент по формированию лингвокраеведческих знаний и навыков иностранных студентов и проанализированы его результаты с целью проверки эффективности предлагаемого методического комплекса.

Результаты контрольного среза по завершении экспериментального обучения показали значительное повышение уровня сформированности лингвокраеведческих знаний и навыков иностранных студентов. Таким образом, подтвердилось предположение о том, что введение в программу обучения ознакомительного курса «Народная речь и культура Псковщины» позволит повысить эффективность формирования лингвокраеведческой компетенции иностранных студентов.

Summary

The main goals of the research are the grounding and development of teaching materials which are directed to the formation of the following components of the lingvoregional skills: theoretical knowledge of the main regional philological researches and the results of these researches; acquisition of the regionally marked vocabulary (ethnographic, onomastic, folklorisms); skills of semantization and ability to comment these units taking into consideration lingvoregional component; skills to use lingvoregionally marked vocabulary in different language skills (reception and perception of speech).

According to our goal we had to solve the following tasks: to analyze the scientific literature and materials on the problem of research; to ground the expediency of folk culture studies among foreign students; to select the material which reflects the peculiarity of folk speech and cultural realities for presenting among foreign student; to work out the set of exercises based on the materials of Pskov dialect and Pskov folklore for the introductory course “Folk Speech and Culture of Pskov land”, which are oriented to the formation of lingvoregional knowledge and skills among foreign students; to find out the best methods, techniques and principals of work with this material; to conduct methodological experiment which is oriented to the formation of lingvoregional skills and knowledge of foreign students and analyze its results to check the effectiveness of the following course.

The results of final tests after the course showed the significant growth of lingvoregional knowledge and skills formation among foreign students. So the results proved our stated idea that the including of introductory course “Folk speech and culture of Pskov land” will assist in the development of students’ further formation of the lingvoregional competence.

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FORMATION OF VALUES IN ACTIVITIES OF THE FUTURE LAWYERS AND LAW ENFORCEMENT OFFICERS: HOW TO LEARN ETHICS WHILE STUDYING

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Abstract. *This article presents the relevance of values and steps for the formation of ethical principles for the future legal profession. The aim is focused on analysis of formation process of values for a lawyer and police by analyzing law and police study programs. The assessment scale of the public confidence in different law enforcement institutions (courts, the prosecutor's office, police, lawyers) shows that the society is watchful, indifferent and active evaluating the quality of law enforcement institutions as well as behavior of the officials. It means conceptual and consistent formation of values would ensure the efficiency of practical ethical model. Nine law and police study programs of higher schools in Lithuanian and four codes of professional ethics of law enforcement institutions were examined during the research. Also four lecturers were interviewed. The results of the research showed that in Lithuania the provisions of ethics are not taught in all higher schools preparing future lawyers and police officers. The provisions of professional ethics in different areas of lawyer's and police activities are clearly defined in codes of professional ethics as well as in recommendations applying these ethical provisions. However the pragmatic application of ethical provisions would be strengthened studying particular disciplines.*

Keywords: *codes of professional ethics; professional ethics; law studies; law enforcement studies.*

Introduction

Relevance and novelty of the research. While looking at this topic, first of all we would like to encourage a discussion – what is the place of professional ethics in the context of professionalism, can ethics be interesting in general and how to make it interesting in the studies to have a clear and tangible praxological (adaptive) character in further professional activity? In the classical expression of

professionalism personal characteristics are identified as an integral part of competence. However, in the direction of the innovative approach, these qualities are evident as a targeted, independent and reasonable component of professionalism (Evans, 2015). It allows us to purposeful emphasize the importance of behavioral principles and personal characteristics and to analyze them in the general expression of professionalism. Therefore, apart from the two components of professionalism - qualifications and competencies - an integral part of professionalism is personal and business qualities, compliance with professional ethics. In the opinion of E. Gudavičius, “professionalism is not just knowledge and skills. It is the level of work and behavioral norms of this level” (Gudavičius, 2015). By monitoring the activity to assess the performance of individual institutions and representatives of different professions, it is clear that professionalism is increasingly becoming an indicator of public satisfaction with the performance of a particular profession, such as lawyers (judges, prosecutors, lawyers) and ethical behavior. Therefore, it is not surprising that in the field of human resource management, the category of professionalism is important not only in practical activities but also in the learning process, deliberately preparing to become a professional (Neve et al., 2017).

While analyzing the concept of ethics authors emphasize the different nature of ethics. Aristotle says that object of ethics is a virtue (Žemaitis, 2005), and justice is named as one of the four classical virtues given by both the Stoics and the philosophers – Plato, Aristotle and other philosophers. Values are closely related to the concept of virtues. Authors treat it as a distinct expression. The historian of philosophy R. Plečkaitis examines them as an ontical basis of tolerance and defines a person as "self-worth" (Plečkaitis, 1998). According to V. Targamadžė, “values has to be associated with virtues, because it gives a moral backbone to state politics and a person's life and can become a state-to-people relationship by strengthening statehood and citizenship, which helps to avoid self-loss in a often dynamic and chaotic environment” (Targamadžė, 2017). It means that virtues are identify as a reference values, a guarantee of ethical behavior in order to achieve a right, fair and impartial practice. Recently, the actualization of responsibility ethics in specific areas of activity has been observed. It is seen that the application of ethical provisions in specific areas obliges individuals to behave responsibly in relation to the environment and others and to justify certain rules of conduct (Halder, 2002). The value integrity dilemma raised in axiology allows us to state that the implementation of professional ethics is inherent in the general image of the profession, allows the public to assess the trust of the representatives of a particular profession (not only in terms of performance but also in the respect of professional ethics: actions, behavior, qualities available). The purpose of this article is to reveal: firstly, whether the preparation of lawyers in the study process is a discipline of professional ethics, and secondly, when studying separate

teaching disciplines, the peculiarities of application of the provisions of professional ethics are analyzed in different topics.

The object of this research is the value provisions in the activities of a future lawyer, and **the aim** of this research is to analyze and evaluate values of a future lawyer or law enforcement officer in the context of law or police studies and the content of individual study disciplines.

The methodology of this research. The following research methods were used in the study: methods of comparison, analysis of documents and legal content and interviews. During the study, 9 law and law enforcement study programs and 4 codes of ethics were analyzed. The study included descriptions of the subjects of undergraduate study programs for lawyers or law enforcement officers in Lithuania, as well as the provisions of professional ethics codes for individual legal fields - judges, prosecutors, police, lawyers. The interview was taken from four lecturers of forensics, criminal proceedings and lecturers of disciplines of Lithuanian law enforcement institutions. The purpose of the interview is to identify the importance of professional ethics in the content of other disciplines related to law enforcement activities and investigation of criminal offenses: to determine whether teachers, when teaching the above mentioned disciplines, actualize the ethical attitudes and apply them in practice in specific situations analyzed in the subject taught.

Guidelines for the Formation of Value Provision in Studying Ethics

When analyzing the beginning of the formation of lawyers' value provisions, it is appropriate to identify the starting point that shows the beginning of professional ethics training. This is, of course, the skills and knowledge of professional ethics that are formed while studying and are needed to further activities as a lawyer. The Constitutional Court of the Republic of Lithuania, when defining the qualification requirements of judges, noted that university education is necessary, not only with the abundance of knowledge, but also with the wide range of fundamental knowledge necessary for making responsible decisions. On the other hand, we can also agree with the position expressed by scientists that professional studies of ethics are important for a future lawyer, although this is not the only way to develop personal values (Kiršienė & Szymanski, 2012). Scientists' research shows that the perception of the ethical dimension should be assessed more broadly and should include several links: the inclusion of ethical disciplines in curricula, the dissemination of literary ethics, and the development of a clear national ethics strategy (Paliduskaitė & Didžiulienė, 2002). In the author's opinion, apart from the before mentioned links, the practical application of professional ethics is important as well and it could be the dissemination,

helping the lawyer or police officer himself to become familiar with the existing ethical practice and to formally model his ethical behavior.

Nine law study programs were analyzed during the study¹. Analysis of their content has shown that prospective lawyers (law enforcement officers) learn the basics of professional ethics during their studies, but this subject is not studied in all legal study programs (see Table 1). It should be noted that professional ethics is studied both as a separate discipline of studies and in the context of other disciplines. The most widespread expression of professional ethics is dealt with in four study programs (see Table 1). The Law Integrated Study Program at the Faculty of Law of Vilnius University focuses on the basic legal professions and ethical requirements for them. Mykolas Romeris University (hereinafter – MRU) Public Security Academy's Bachelor's Degree Program in Law and Police deals analyzes questions such as professional ethics as part of ethics science, ethics theories, professional ethics challenges and functions, and ethical problems of civil servants. The Law and Finance Bachelor's Degree Program at the Law Faculty of Vytautas Magnus University examines issues such as the regulation of legal ethics, the rules of ethics of individual categories of lawyers - judges, attorneys, prosecutors, notaries, bailiffs. In other law study programs some issues of values are analyzed in the content of philosophy or other discipline. Some study programs, such as the Law (Law School of MRU), Law and Customs (Law School of MRU) or Law and Penitentiary (Law School of MRU) study, has a discipline called “Lawyer's Career” and in this discipline they spend only 2 academic hours for a topic “Legal Ethics, Operational Risk and Management Methods”.

Table 1 Expressions of professional ethics in the context of various undergraduate study programs

| The name of the study program | Study cycle | An independent discipline or discipline that includes professional ethics | Semester | Credits |
|--------------------------------------|--------------------|--|-----------------|----------------|
| Law (MRU) | Bachelor | Ethics in another discipline: “Lawyers Career“ | 1 | 6 |
| Law and Customs Activities (MRU) | Bachelor | Ethics in another discipline: “Lawyers Career“ | 1 | 6 |
| Law and Penitentiary Activity (MRU) | Bachelor | Ethics in another discipline: “Lawyers Career“ | 1 | 6 |

¹During the study these study programs of 2018-2019 were analyzed: Bachelor of Law, Law and Customs Activities, Law and Penitentiary Studies in Mykolas Romeris University Law School. Also Bachelor's Degree Program in Law and Management at the Law School of Mykolas Romeris University (accession of 2016). Also Bachelor's Degree Program in Law and Police Activities at the Public Security Academy of Mykolas Romeris University. Also Bachelor's Degree Program in Law and Pre-trial Process at the Public Security Academy of Mykolas Romeris University. Also Vilnius University Law Faculty Law Integrated Study Program. Also Bachelor's Degree Program in Law and Finance at Vytautas Magnus University, Faculty of Law. Also Utena University of Applied Science (Utena College) Law Study Program.

| | | | | |
|--|---------------------|---|---|---|
| Law and Management (MRU) (accession of 2016) | Bachelor | Ethics in another discipline: “Philosophy“ | 3 | 3 |
| Law and Police Activity (MRU) | Bachelor | A separate discipline: “Professional Ethics“ and also in another discipline: “Philosophy and Science Methodology“ | 1 | 3 |
| Law and pre-trial process (MRU) | Bachelor | Ethics in another discipline: “Philosophy“ | 2 | 6 |
| Law (VU) | Solid | Ethics in another discipline: “Lawyers Career“ | 1 | 3 |
| Law and Finance (VDU) | Bachelor | Ethics in separate discipline: “Lawyers Career“ | 5 | 4 |
| Law (Utena University of Applied Science /Utena College) | Profession Bachelor | Ethics in another discipline: “Introduction to Philosophy“ | 3 | 3 |

So we can see that in the training of future lawyers, two directions dominate in the context of professional ethics. In some law study programs there are basically no educational tools (or they are very weak) that help to prepare for practical realization of values in the future work of judge, lawyer, prosecutor, notary, pre-trial investigation officer (investigator), etc. The other already mentioned legal study programs have formed a fundamental piece of professional ethics knowledge, presenting the principles of both professional ethics for lawyers and for other individual categories thus facilitating the preparation of the future lawyer for practical implementation of the values in the future. So in the preparation of a future lawyer (including a judge) it is important to form conceptual educational theoretical and practical basics of professional ethics, so that the judge who started working would not rely solely on empirical own perception and life experience about the fundamental values. The practice of foreign countries shows that the discipline of professional ethics can be integral, covering both the theoretical foundations of professional ethics and the practical aspects of the future lawyer's values in shaping his critical thinking about the practical application of values (Moliterno, 1996). So in principle, the integrity of professional ethics is recognized and necessary in legal studies. The analysis of the study programs made it possible to highlight the dilemma: when to start learning ethics of individual law fields? Is it important to learn only after starting work? And is it appropriate to study the provisions of specific codes of professional ethics in the course of law studies and thus to prepare in advance for the activities of a lawyer or law enforcement officer based on values?

So How to Learn Professional Ethics While Studying?

The study carried out in the course of the analysis of the norms of behavioral codes of ethics in law and law enforcement confirmed that the application of the most important ethical provisions (respect for human rights and freedoms, impartiality, justice, courtesy, etc.) is inherent in the provision of legal services, as it constitutes a valuable asset for the profession (The Code of Judicial Conduct of the Republic of Lithuania, 2006; The Code of Prosecutors Conduct of the Republic of Lithuania, 2012; The Code of Police Ethics approved by the General Police Commissioner of Lithuania, 2018; The Code of Lawyers Conduct of the Republic of Lithuania, 2016). We can agree with the position of scientists dealing with the issues of professional ethics that the study of professional ethics in the training of future lawyers is relevant, therefore it is necessary to include the discipline of professional ethics in the law study programs (Whitecross, 2016). As already mentioned, in our opinion, in studies that prepares lawyers or law enforcement officers, there are three possible chains of professional ethics development: 1. Discipline of professional ethics in all study programs of law, where the general ethics of lawyers would be examined. 2. Studying general cognitive sciences: philosophy, legal profession, lawyer career, etc. 3. When studying separate teaching disciplines and analyzing professional ethics regulations in different fields of law, for example criminal proceedings or forensic science. It would be expedient to study in mentioned way because it would ensure the full significance of professional ethics in the work of a lawyer. In our opinion, only the study of general legal professional ethics does not ensure the creation of a valuable base for future lawyer's activities. This could be the first stage of professional ethics studies, during which ethics could be studied, general ethical traits of lawyers, the importance of professional ethics in the activities of a lawyer, the lawyer's individual activities - judges, prosecutors, lawyers, notaries, bailiffs, etc. When studying individual teaching disciplines, such as criminal proceedings, forensics, civil law, psychology, etc., it would be appropriate to pay attention to the application of legal provisions and analysis of practical situations while discussing the issues of specific ethical behavior, such as the ethics of pre-trial action in criminal law and forensics, ethics of lawyer communication with the client, ethics of advocate activity, etc.

In order to ascertain whether studying separate teaching disciplines, peculiarities of application of professional ethics regulations in separate fields of law are analyzed, we have chosen several teaching disciplines: forensic science, criminal proceedings, Lithuanian law enforcement institutions - those teaching disciplines that have links with investigation of criminal offenses. Three basic links between hypothetical teaching discipline and professional ethics were identified during the interview process:

1. Relevance of professional ethics in the context of teaching discipline (reality).
2. Application of specific professional ethics provisions in specific parts of the discipline, topics (situations) (specificity).
3. The importance of professional ethics in teaching discipline (importance).

Table 2 Relevance of the application of professional ethics provisions in teaching other disciplines: forensics, criminal proceedings and activities of law enforcement institutions

| Questions | 1st teacher (forensic/ criminalistics) | 2nd teacher (criminal proceedings) | 3rd teacher (forensic/ criminalistics) | 4th teacher (Lithuanian law enforcement institutions) |
|--|---|--|--|--|
| Are the ethical provisions relevant to the discipline you teach? And are you analyze questions related to ethics in your discipline? | Yes, it is particularly relevant in teaching forensic science. In accordance with the ethics of the specific topic taught, I always emphasize to students the the importance of ethics in the process of proof. | Yes, it is very relevant in teaching the criminal proceedings. They are also important in other teaching disciplines. Professional ethics are analyzed by presenting specific questions or topics. | Yes, these provisions are relevant. This is one of the constituent parts of teaching forensic science. This is important because it shows erudition, competence, level of education. | Yes, relevant to the discipline of Lithuanian law enforcement institutions, the provisions of professional ethics are examined. |
| If these provisions are relevant, in what specific parts and topics of the subject you teach these are relevant? | Particularly relevant while teaching techniques and tactics of forensic studies. That would be more from the practical side. Though ethical topics could become an integral part of general forensic theory. | The provisions of professional ethics are relevant when examining the powers of pre-trial investigation subjects, pre-trial investigation actions; as well as the peculiarities of the judicial process. | This is relevant in surveys, including in making a statement, and in other actions that are mostly communicated with citizens. This is especially true when communicating with the victim. | This is while investigating a specific law enforcement institution and its activities, functions: Judicial, police, prosecutorial, and other institutions. |
| How and why are professional ethics provisions | In my opinion, ethical provisions are important not only in the disciplines of | The provisions of professional ethics are important in the teaching of | This is very important because in the investigation of criminal offenses | This is important because a student should understand the pattern of acceptable ethical |

| | | | | |
|-------------------------------------|--|---|---|--|
| <p>relevant to your discipline?</p> | <p>Forensic, but also in other disciplines. It is important that future lawyers are formed and educated (in this case, usually pre-trial investigation officers), to receive not only legal knowledge, but also the foundation of ethical knowledge which would make them more professional and capable to form (influence) both personal and professional competences by raising them to a higher level of morality. This would contribute to a more transparent and fairer lawyer.</p> | <p>criminal proceedings, as they are an integral part of the activities of a future lawyer or official. Integrated study of professional legal subjects and ethics emphasizes professions in this field - judges, prosecutors, police officers, lawyers and others. In addition, it pre-forms the future model of ethical activity of a lawyer or police officer.</p> | <p>with individuals, knowledge of professional ethics establishes a better relationship with the communicator, as well as encourages more trust in the officials, law enforcement. This guarantees better interpersonal relationships and better results.</p> | <p>behavior in a particular law enforcement institution in preparation for future professional activity. It is very important to understand the standards of general and professional ethics of law enforcement institutions in the study process.</p> |
|-------------------------------------|--|---|---|--|

The results of the interviews showed that the ethics of professional ethics are important in the study process for the future lawyer or law enforcement officer. The significance of these provisions is evidenced by the fact that all teachers during the interview emphasized that the content of the subject taught also emphasizes the specific provisions of professional ethics, thus linking the relation between the subject taught and ethics. During the interviews the teachers confirmed that it is very important to assess the fact that representatives of this profession, such as judges, prosecutors, police officers, has more requirements: impeccable reputation, transparent, fair and courteous activity based on critical thinking and responsibility while making important decisions and protecting human rights and legitimate expectations. In addition, compliance of ethical provisions promotes mutual trust between law enforcement and citizens, creates effective communication and guarantees the effective investigation of criminal offenses.

Conclusions

In Lithuania there is no solid professional law formation model in the future lawyer (law enforcement officer) activities: in some study programs professional ethics is studied as an independent discipline, in some - as an integral part of the content of other study subjects. Therefore, the dilemma arises: does the different model of professional ethics in the process of the above mentioned studies preclude the application of fragmented knowledge and skills in the field of professional ethics at a later stage of professional activity? Therefore, it is advisable to incorporate a professional ethics discipline into the legal study programs of higher education institutions that are preparing lawyers (law enforcement officers), thus enabling a future lawyer to receive a basic knowledge of professional ethics.

The results of the interviews showed that the ethical provisions in various legal as well as police study programs are important for studying specific teaching disciplines such as forensic science, criminal proceedings or Lithuanian law enforcement institutions. When teachers are giving specific lectures, they are linking practical questions with the provisions of professional ethics. Such application of professional ethics in specific study disciplines should be encouraged: the practical importance of professional ethics in the course of studying the practical model of ethical activity of a future lawyer or law enforcement officer. It would ensure a conscientious and impeccable activity of a future lawyer or law enforcement officer while making important decisions and protecting human rights and legitimate expectations.

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STUDY PROGRAM SELECTION FACTORS: ANALYSIS OF SOCIAL SENSITIVE PROFESSIONS

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Abstract. Nowadays situation requires professionals, who are open-minded, flexible, sensitive to other people and the environment, tolerant, able to establish contacts, and to improve these competences. This can be expressed by socially sensitive and attentive, ethically and responsibly behaving professionals. Thus, the selection of study programs of police officers and social educators as representatives of social sensitive professions is becoming critical important. This leads to the aim of this research: to analyse the study program selection factors of social sensitive professions. The research was based on systematic and comparative scientific literature analysis and statistical data analysis. The study was conducted in 2015 in two Lithuanian universities, where future police officers and future social educators are educated. 109 recipients of the study program “Law and Police Activities” and 40 students of the study program “Social pedagogics” have participated in the survey. Performed analysis has indicated the following main reasons determining students joining to the study program “Law and Police Activities”: the desire to serve and help people (71 %), good employment opportunities (52 %), the chance to reveal their best features (44 %), the desire to acquire the status of a police officer (39 %). The respondents of “Social pedagogics” study program revealed their desire to gain the status of a social educator (56 %), to serve and help people (51 %) and to reveal their best features (36 %) as the most important reasons for the selection of this study program.

Keywords: Police Officers, Social Educators, Social Sensitive Professions.

Introduction

The relevance of the social sensitive professionals' education is determined by the country's current economic, cultural, demographic and criminological situation. Today's situation requires professionals, who are open-minded, flexible, sensitive to other people and the environment, tolerant, able to establish contacts, and to improve these competences. This can be expressed by social sensitive and attentive, ethically and responsibly behaving professionals (Nedzinskas & Nedzinskienė, 2017). There are a lot of discussions regarding the place of specific subjects in education of professionals. Scott (2014) and Girard (2015) state that today's society is called a knowledge society and it is based on the professionalism of any specialist, who needs to have newly-identified

competences. Thus, it is important to educate social sensitive professionals who are able to solve global issues of modern society and understand them in the context of other sciences, who have communication and collaboration skills, are able to think critically and creatively and may manage the risks, who are active and social and are able to change their professional identity (Nedzinskienė & Nedzinskas, 2018). The aim of this education is the development of a qualified professional who is able to deal with the different types of social problems.

However, choosing a profession is one of the most actual solutions which influences the quality and meaning of personal life (Jurevičiūtė, 2004; Pukelis, 2004). It is also the most important task at the end of adolescence and the development of youth, which determines the further life of a person. According to Owie (2003), the most important reason why a person chooses a particular profession is that a person feels an intrinsic interest in a particular area. There is a possibility that an interest may be driven by prior academic achievements. Therefore, it can be assumed that a student may have a reason to continue studying at the university because he had a favourite subject at school. However, Ogowewo (2010) notes, that the choice of studies is influenced by a wide range of factors.

Social sensitive professions and the education of social sensitive professionals were investigated by the researchers of Lithuania (Lileikis, 2007; Jovaiša, 2011) and other countries (Walker & Crawford, 2014; Chechak, 2015; Spencer, Charbonneau, & Glaser, 2016). However, there is a lack of scientific researches with a specific focus to the factors that influence the decision of study program selection of these professionals.

The goal of this article is to analyse the study program selection factors of social sensitive professions. The article aims to highlight the main activities of social sensitive professions, to justify empirical research methodology and to analyse empirically the study program selection factors.

The research was based on systematic and comparative scientific literature analysis and statistical data analysis.

Theoretical framework

Positive attitude to a professional, who has not only professional knowledge, but also possesses personal and social readiness is emphasized in today's society. Social sensitivity is the ability of people to recognize the vulnerability of other people, to properly understand discrimination and to feel the duty to restore equal rights. According to Walker and Crawford (2014), only the correct adjustment of social behaviour can help to achieve a positive result. Jovaiša (2011) argues that moral and social sensitivity helps to understand the other people and to correctly assess the situation.

Mohamed, Donkers, Wajid, & Van Merrienboer (2014), Kalantari et al. (2014), Chechak (2015), Spencer et al. (2016) argue that social sensitive

professionals must be sensitive to ethical and social responsibility. Thus police officers and social educators are a good example of social sensitive professions. It is therefore appropriate to define the roles and responsibilities of these professions.

A police officer is a person with special state authority, who must follow not only law but also his human qualities. According to Tidikis (2003), the police, as a state institution serving the public, perform the function of social control, law and public order. Police implement law enforcement, protecting people and property, transferring offenders to law enforcement agencies, detaining offenders and fighting with crime, providing specific services to the public. It is based on the law and the norms of behaviour in the society.

Rosenbaum & McCarty (2017) emphasize the need to retain highly qualified officers who can function fairly and effectively in a democratic society. Kohlström, Rantatalo, Karp, & Padyab (2017) note the importance of police training, while Cox & Kirby (2018) highlight the value of a university-based degree programme, tailored to a future police career.

Vila, James, & James (2018) highlight police officer behaviours during an encounter with the public. Smalskys (2008) argues that the police is a rather conservative static public sector organization, but is linked to the concept of service to citizens. Chatthong, Kovitaya, & Kongjaroen (2014) argue that the police must be focused on providing emergency assistance to people and providing services to the public. Thus, the principle of universality and community work is promoted in the area of police training.

A social educator is the other example of a social sensitive profession. The main purpose of the social educator's professional activity is the aspiration of a child's well-being, early prevention, the development of social skills, the provision of social services necessary for the child, creating preconditions for the successful socialization and civic maturity of a successful person. A social educator seeks to compensate the inadequate socialization and education of a person in different ways and most often uses the child's own empowerment to initiate his or her life (Korbeck, 2002).

The purpose of a social educator is to be a child's lawyer in all critical situations. However, helping children and parents is one element of the work, but assessing risk across large numbers of referrals and identifying those that require involvement is equally important. Furthermore, the social work role requires complex considerations around liberty and the rights of parents and children (Forrester, 2017).

Crowe, Mooney, & Hawley (2018) emphasize the importance of social educators study programs. As Leliūgienė (2002) points out, a social educator is a representative of a delicate, special and humane profession. It is argued that social work has a key role to play in co-located, multi-disciplinary child welfare practice,

and indeed can be a leading profession in this context (Frost, 2017). That is why the quality of the service provided is very important and based on education.

It is to notice that social educators and police officers provide different types of social services. The content of the professional activities of social educators and police officers is distinguished by comparing areas of their activity, roles, assessing the importance and relevance of competencies, and the personal qualities realized in professional activity. Thus it is expected these specialists have different reasons for choosing their study programs and professions.

Methodology

Data set. A written survey was conducted in 2015 in two Lithuanian universities, where future police officers and future social educators are educated. 109 recipients of the study program “Law and Police Activities” and 40 students of the study program “Social pedagogics” have participated in the survey. These two professions were chosen for the investigation, because both of them are social sensitive and represents social sciences.

The research instrument. In order perform empirical research and analyse the most important reasons for the selection of police and social pedagogics study programs, the written survey was used as the main research instrument. Respondents were asked why they have chosen to study in the relevant study program. Students had to score the factors for their study program selection according to their importance from 1 (a completely irrelevant factor) to 4 (a particularly important factor).

The following study program selection factors were determined by the scientific literature review and were used in the questionnaire:

I want to obtain a status of a professional in my field. According to Misiūnas (2010), many professionals are motivated to serve their chosen profession, because they like the specifics of their job.

I desire to serve and help people. According to Bitinas (2004), the education of a citizen includes the perception of the country, the formation of a civic duty, the love for his homeland, the desire to acquire a good education and the practical preparation to act for the benefit of his country.

I chose this program and future profession on ideal basis. The ideal basis can be understood as serving society, altruism, self-realization. Students choose other internal motives, knowing clearly that the financial side of the future profession is not motivating. According to Šlapkauskas (2008), three occupational ideas are distinguished: 1) the idea of a professional community, an association of people who are committed to the activity and who share common values and interests; 2) the idea of a professional occupation, service orientation rather than profit; 3) the idea of a special expertise and specialized knowledge.

This profession will help me to reveal my best personal qualities. While developing the idea of personality and profession compatibility, Holland (1973) noticed that a person is trying to choose a job that matches his personal qualities. The typology presented by this researcher describes the key personality orientations and their influence on the choice of a profession. It can help to understand the individual's career direction, the development of his work activity, satisfaction with it and his achievements.

I can't imagine myself working something different. Eliot & Turns (2011) argue that the need for a student to acquire professional knowledge comes with life career planning and the attraction of desired work.

The university provides me a dormitory and better conditions than other universities. Studies conducted by Misiūnas (2010) have shown that social guarantees, although they are quite numerous, do not motivate professionals in the same way, so it is important to investigate whether this is important when choosing a university.

I think it will be easy to get a job after graduation. According to research conducted by Garnienė (2006), a quarter of pupils expect to find a job in the chosen profession. This also should be tested by the questionnaire of study program selection factors.

This work is well paid. According to research conducted by Misiūnas (2010), the majority of professionals would not change their chosen profession for the same salary and would re-choose their profession again, but there are some professionals who are not motivated or weak motivated to choose the appropriate profession because of their salary. So this factor of study programs selection may reveal different trends.

Statistical data analysis techniques allowed quantitative processing of students written survey results. The equality of average values between the study program selection factors' assessments of future police officers and future social educators were tested and conclusions made. Data processing was carried out using IBM SPSS 23.0.

Results

The performed analysis has indicated the following main reasons (scored by 4 – particularly important factor) determining students joining the study programs “Law and Police Activities” and “Social pedagogics” (Figure 1).

The respondents of the study program “Law and Police Activities” highlighted the desire to serve and help people (71 %), good employment opportunities (52 %), the chance to reveal their best features (44 %), the desire to acquire the status of a police officer (39 %).

The respondents of “Social pedagogics” study program revealed their desire to gain the status of a social educator (56 %), to serve and help people (51 %) and

to reveal their best features (36 %) as the most important reasons for the selection of this study program.

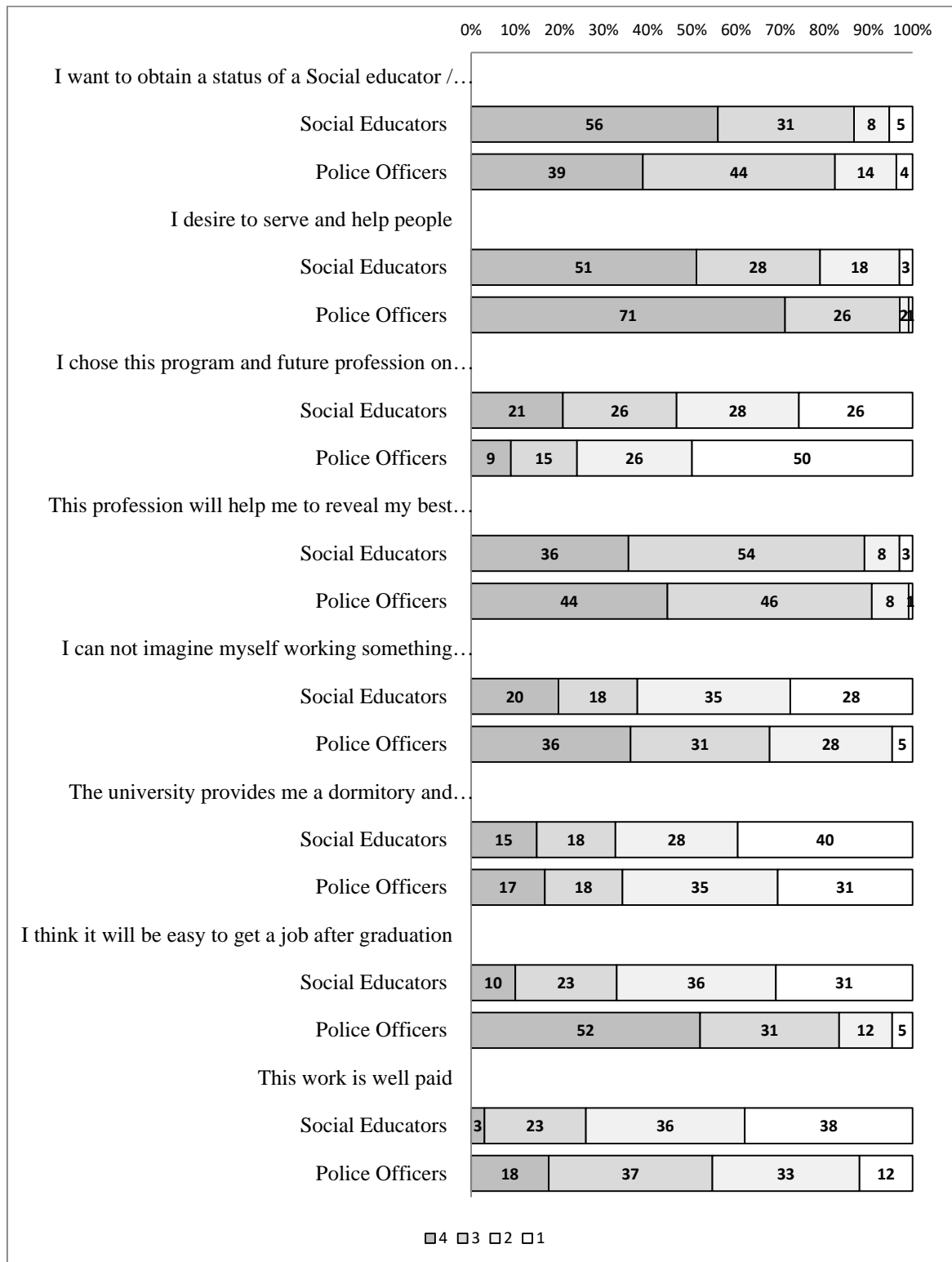


Figure 1 Study programs selection factors

The results of comparative analysis of the reasons why future police officers and social educators were joining the study programs are presented in Table 1.

Table 1 Comparative analysis of study programs selection factors

| Statement | Profession | Mean | t | df | p-value |
|--|------------------|------|--------|-----|---------|
| I want to obtain a status of a Social Educator / Police Officer | Social Educators | 3,38 | 1,336 | 65 | 0,186 |
| | Police Officers | 3,18 | | | |
| I desire to serve and help people | Social Educators | 3,28 | -3,236 | 145 | 0,002 |
| | Police Officers | 3,68 | | | |
| I chose this program and future profession on ideal basis | Social Educators | 2,41 | 2,888 | 62 | 0,005 |
| | Police Officers | 1,83 | | | |
| This profession will help me to reveal my best personal qualities | Social Educators | 3,23 | -0,859 | 65 | 0,394 |
| | Police Officers | 3,34 | | | |
| I can't imagine myself working something different | Social Educators | 2,30 | -3,570 | 60 | 0,001 |
| | Police Officers | 2,99 | | | |
| The university provides me a dormitory and better conditions than other universities | Social Educators | 2,08 | -0,641 | 68 | 0,524 |
| | Police Officers | 2,20 | | | |
| I think it will be easy to get a job after graduation | Social Educators | 2,13 | -6,648 | 60 | 0,000 |
| | Police Officers | 3,31 | | | |
| This work is well paid | Social Educators | 1,90 | -4,336 | 72 | 0,000 |
| | Police Officers | 2,60 | | | |

The comparative analysis has shown that future police officers prefer their studies according to their wish to serve and to help people; they can't imagine themselves working something different, but also hoping to get a job easy and to be well paid for it. Meanwhile, the future social educators more often choose their future profession on ideal basis. The other study program selection reasons (*I want to obtain a status of a Social Educator / Police Officer; This profession will help*

me to reveal my best personal qualities; The university provides me a dormitory and better conditions than other universities) indicated by future police officers and social educators were not significantly different with a significance level 0.05.

Conclusions

Social educators and police officers are both social sensitive professions. The work of a social educator and a police officer is extremely important for the proper functioning of society. It is to notice that these professionals provide different types of social services. The content of the professional activities of social educators and police officers is distinguished by comparing areas of their activity. Police officers implement law enforcement, protect people and property, fight against crime. Social educators take care of a child's well-being, early prevention, the development of social skills, the provision of social services necessary for the child.

According to the results of empirical research the comparative analysis was made and it has shown that future police officers more often prefer their studies according to their wish to serve and to help people; they can't imagine themselves working something different, but also hoping to get a job easy and to be well paid for it. It can be said that future police officers choose their profession having a strong attitude to responsibility and determined to realise themselves in this profession. A police officer has high professional requirements according to the interests of the individual, society and the country. Thus they are hoping for a guaranteed job and an appropriate salary for their work. Meanwhile, the future social educators more often choose their profession on ideal basis. Thus, it can be said that future social educators seek self-realization, choose a profession because of the noble goals and motives, such as altruism, serving the public, not emphasizing the salary for the work done.

It is to summarise that the main study program selection reasons for both future police officers as well as future social educators are the desire to serve and help people, a chance to reveal their best personal qualities, the desire to acquire a status of a social educator / police officer. Thus it can be concluded that future social educators and future police officers choose their profession because they see themselves as professionals, properly and responsibly performing their duties.

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СОВЕРШЕНСТВОВАНИЕ ПРОФЕССИОНАЛЬНОЙ КОМПЕТЕНТНОСТИ СТУДЕНТОВ-ФИЛОЛОГОВ В РАМКАХ ЛЕКСИКОГРАФИЧЕСКОГО ПРАКТИКУМА

Improving the Professional Competence of Students - Philologists in the Lexicographical Workshop

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Abstract. *The article presents the concept of improving the professional competence of students-philologists within the framework of lexicographical workshop. The potential of dictionaries as a means of forming professional competence of students-philologists, in our opinion, is not fully realized in the practice of University teaching of linguistic disciplines. Dictionary materials as a linguistic and methodological resource are used mainly in the formation and improvement of "user" skills in the field of lexicography. Students are rarely involved in the compilation of vocabulary materials. The novelty of our concept is that we offer a comprehensive improvement of professional competence of the student-philologist on lexicographical material, and not only the skills of using dictionaries. The purpose of our study, implemented on the basis of Pskov University, was to substantiate this concept, to implement it in the framework of experimental training of students-philologists, to conduct a qualitative and quantitative analysis of the results of the experiment. This article presents the theoretical foundations of the concept, shows the specific methods of formation of various components of linguistic and cultural competence of students on lexicographical material. The results of experimental training, which are also given in the article, showed a significant increase in the level of professional competence of students, and thus confirmed the effectiveness of the developed model of lexicographic workshop.*

Keywords: *Higher education pedagogy, lexicographic workshop, linguistic competence, linguo-culturological competence, phraseological dictionary, professional competence of the student-philologist.*

Введение

Introduction

Потенциал словарей как средства формирования профессиональной компетентности студентов-филологов, на наш взгляд, явно недооценивается

методистами и не реализуется в полной мере в практике вузовского преподавания лингвистических дисциплин. Словарные материалы как лингвометодический ресурс используются в основном при формировании и совершенствовании «пользовательских» навыков в сфере лексикографии. К составлению словарных материалов студенты привлекаются крайне редко. Согласно нашей концепции, студент-филолог может получить навыки составления полноценных словарных статей в рамках лексикографического практикума, который будет способствовать совершенствованию не только лексикографической, но и других профессиональных компетенций будущего лингвиста-исследователя или учителя-словесника и позволит внести определенный вклад в решение актуальной проблемы повышения качества высшего профессионального образования. Целью нашего исследования, реализованного на базе Экспериментальной лаборатории учебной лексикографии Псковского университета, было обоснование концепции совершенствования различных профессиональных компетенций студентов-филологов на лексикографическом материале, реализация данной концепции в рамках экспериментального лексикографического практикума. В ходе исследования использовались традиционные методы сбора данных: педагогический эксперимент, педагогическое наблюдение, анкетирование, тестирование; методы обработки данных - количественно-математические (ранжирование, шкалирование) и качественно-теоретические (группировка, систематизация, обобщение данных). Методики лингвистического анализа и учебной репрезентации языкового материала обеспечили решение задачи исследования в лингвометодическом плане (лингвокультурологический анализ и этимологический анализ фразеологизмов, компонентный анализ толкований, контекстуальный анализ употребления фразеологических единиц и др.). Не имеющими аналогов в отечественной учебной лексикографии стали авторские методики лексикографического гипертекстового моделирования, дискурсивные тактики учебной лексикографии, использованные при разработке лингвометодического обеспечения проекта. Цель данной статьи – представить концепцию лексикографического практикума и показать реализованные в ходе эксперимента возможности использования лингвометодического и лингвокультурологического потенциала «Полного словаря народной фразеологии» как эффективного средства совершенствования профессиональной компетентности студентов-филологов, под которой, вслед за А. В. Хуторским, мы понимаем совокупность личных качеств обучаемого, необходимых и достаточных для осуществления продуктивной деятельности в определенной сфере, т.е. владение соответствующей компетенцией, а под компетенцией – «нормативное требование к образовательной подготовке обучаемого, необходимой для его

эффективной и продуктивной деятельности в данной сфере» (Хуторской, 2017, 86).

Профессиональная компетентность студента-филолога и ее лексикографическая составляющая
Professional competence of the student-philologist and its lexicographical component

Объем понятия и структура профессиональной компетентности анализируется в педагогических и психолого-педагогических исследованиях в деятельностной, личностно-деятельной, акмеологической, социологической парадигмах (Алдашева, 2012; Ермолаева, 2008; Колбасова, 2008). При этом в компетентностной модели специалиста выделяется технологические и надпрофессиональные (внепрофессиональные) компоненты – коммуникабельность, креативность, обучаемость, толерантность, инициативность и др. (Алдашева, 2012, 122; Новиков, 2002, 23).

Технологическая (собственно профессиональная) составляющая компетентностной модели специалиста структурируется с учетом специфики профессиональной сферы. Содержание понятия «профессиональная компетентность» в сфере филологии (филолог-исследователь, учитель-словесник), по мнению авторов коллективной монографии «Компетентностная модель филолога», до сих пор остается дискуссионным (Каменская, Бузинская, Каменский, Картавая, & Шевченко, 2017, 9).

О. М. Семенов определяет профессиональную компетентность филолога как интегральное качество личности, включающее педагогическую, психологическую, лингвистическую, литературную, фольклорную и этнокультуроведческую, а также методическую, информационную, коммуникативную, исследовательскую компетенции (Семенов, 2005, 32).

Г. И. Канакина относит культуроведческую, коммуникативную и информационную компетенции филолога к ключевым, психолого-педагогическую и методическую компетенции включает в группу общепредметных, а лингвистическую компетенцию квалифицирует как узкопредметную, которым в ее концепции относятся также лексикографическая и лингвокраеведческая компетенции (Канакина, 2009, 36). На наш взгляд, целесообразнее было бы говорить о лингвострановедческой компетенции, предполагающей готовность филолога работать, в том числе, и с языковым материалом «местного страноведения», т.е. лингвокраеведческим. Рассмотрение лингвистической и лексикографической компетенции как одноуровневых также представляется необоснованным, если лексикография наряду с фонетикой, лексикологией, грамматикой считается разделом лингвистики. (Тем не менее, нельзя не отметить как

положительный факт то особое внимание, которое автор классификации уделяет лексикографии. Как будет показано ниже, словарь является эффективным средством формирования самых разных параметров профессиональной компетентности филолога.) В большинстве же работ, посвященных структурированию лингвистической компетенции филолога, мы не встречаем никаких указаний на ее лексикографическую составляющую.

Обобщая теоретические наработки в области содержательного наполнения лингвистической компетенции филолога, И. Б. Каменская, Я. М. Бузинская, А. И. Каменский, Ю. К. Картавая и А. Н. Шевченко включают в ее состав следующие компоненты: профессиональное владение русским языком, стратегиями и тактиками речевого поведения, высокую культуру речевого поведения, владение целостным представлением о лингвистике как науке, методикой лингвистического анализа языковых фактов фонетики, лексикологии, фразеологии, морфологии, синтаксиса, стилистики (Каменская и др., 2017, 50).

На наш взгляд, лексикографическая компетенция может быть субкомпетенцией (подкомпетенцией) лингвистической компетенции при уровне подходе к структурированию этого понятия, реализуемом в исследованиях российских и зарубежных педагогов (Карыбаева, 2017; Ленартович, 2011).

Работа, проводимая с материалом лексикографических источников в студенческой аудитории и представленная в статьях преподавателей вузов (Богачева & Ольховская, 2016; Гриднева, 2009; Юхименко, 2016), в основном обеспечивает формирование знаний и навыков, входящих в содержание лексикографической компетенции, согласно точке зрения И. А. Абрамовой: знание традиций русской лексикографии, типологии лингвистических словарей, основных принципов лексикографирования языковых единиц разных типов, навыки пользования словарями разных типов с целью извлечения необходимой информации из словарной статьи (Абрамова, 2011, 84–85). Этим теоретических предметных знаний и навыков пользования словарями, при соответствующей методической подготовке, может быть достаточно будущему учителю-словеснику, который, в соответствии с программой курса русского языка должен научить школьников «использованию словарей, в том числе мультимедийных, учитывая сведения о назначении конкретного вида словаря»: толкового, фразеологического, этимологического, словаря синонимов, антонимов; словаря эпитетов, метафор и сравнений и др. (Программа, 2018, 11).

Филологу, занимающемуся научной деятельностью в сфере лексикографии, помимо навыков пользования словарями необходимы и исследовательские навыки. В этой связи нельзя не отметить реализуемые в

рамках научной работы студентов проекты лексикографического портретирования слова, когда в результате анализа его репрезентации в разных словарях создается интегральное описание в виде эссе, научной статьи и т.п. (Федорова, 2013; Шерстяных, 2011).

Что касается навыков практического лексикографирования языкового материала, т.е. непосредственного составления полноценных словарных статей, то специально такие навыки не формируются, хотя «подводящие» упражнения выполняются: составление тематических словариков при изучении иностранного языка, списков терминов с толкованиями по разделам изучаемых специальных дисциплин, создание корпусов учебных словников и конкордансов к определенным текстам при их контент-анализе (Воронова, 2018; Сивенкова, 2015). Тем не менее, навыки составления традиционной словарной статьи могут быть полезными как будущим ученым-лексикографам, так и тем студентам-филологам, которые станут учителями-словесниками или преподавателями русского языка как иностранного. Не всегда в их распоряжении окажется словарь, ориентированный на определенный уровень владения языком, на пользователя определенной этнокультурной принадлежности. В такой ситуации оперативно созданные учителем словарные статьи могут стать эффективным средством обучения языку. К тому же составление словарной статьи потребует от разработчика реализации самых разных профессиональных компетенций. Их совершенствование у студентов-филологов и может осуществляться в рамках лексикографического практикума, концепция которого будет представлена ниже.

**Лексикографический практикум для студентов-филологов:
совершенствование профессиональной компетентности на
фразеологическом материале**

***Lexicographical workshop for philology students: improvement of
professional competence on the material of phraseology***

Экспериментальное обучение, в ходе которого реализовалась концепция лексикографического практикума, было организовано в группе студентов 2-го курса филологического факультета Псковского государственного университета. Студенты – участники эксперимента на протяжении 20 часов самостоятельной исследовательской работы и 16 часов аудиторных занятий работали с материалами готовящегося к изданию «Полного словаря народной фразеологии» – масштабного лексикографического проекта, разрабатываемого нами при поддержке Российского научного фонда совместно с учеными Санкт-Петербургского университета. Словарь объединит фразеологизмы разных российских регионов и по

объему материала (150 тысяч единиц) не будет иметь аналогов в России. Приобщение студентов к реальному лексикографическому проекту позволило им наблюдать процесс работы профессиональных лексикографов и испытать свои силы в разработке пробных словарных статей.

Использование материалов «Полного словаря народной фразеологии» (ПСНФ) как ресурса формирования профессиональных компетенций студентов-филологов обусловлено еще и тем, что фразеологизмы обладают сложной структурно-семантической организацией и богатым этнокультурным фоном. Реализация их мощного лингвокульту-рологического и лингводидактического потенциала повысит эффективность экспериментального обучения.

Прежде всего, это касается фразеологического компонента лингвистической компетенции (параметрами которого являются: владение знаниями о структуре, семантике и способах образования фразеологических единиц (ФЕ), умение определять эти характеристики ФЕ и комментировать их. Формировать эти параметры в рамках аналитического блока лексикографического практикума на материале «Полного словаря народной фразеологии» позволяет структура его макростатьи, которая объединяет под заголовком-образным стержнем фразеологизмы-идиомы и образные народные сравнения, большая часть которых ранее была разработана составителями ПСНФ в «Большом словаре русских поговорок» (Мокиенко & Никитина, 2013) и «Большом словаре русских народных сравнений» (Мокиенко & Никитина, 2009).

Так, анализируя лингвистические характеристики отобранного для ПСНФ материала, студенты смогли найти новые иллюстративные примеры различных типов фразеологизмов к изученным классификациям, например, в макете макростатьи «ПРЯНИК», содержащей описание 22 фразеологизмов:

– общенародные выражения (*ломаться как пряник* – ‘о важничающем, или капризничающем привередливом человеке, кривляке.’), территориально ограниченные обороты – псковские, новгородские, владимирские, сибирские – зафиксированные различными областными словарями (*перебирать пряники* – ‘заниматься чем-либо несерьезным, незначительным’, *заработать на пряники* – ‘быть побитым’ и другие), а также социально обособленные единицы, свойственные молодежному сленгу (*печатать умный пряник* – ‘учиться; делать умный вид’);

– фразеологизмы со структурой словосочетания (единицы предметной номинации): глагольные (*гнутья как сдобный пряник* – ‘жеманиться, заставлять себя упрашивать’), именные (*красивый как расписной пряник* – ‘о красивом, нарядном человеке’) и коммуникативные ФЕ со структурой

предложения (событийная номинация): *жизнь не пряники* у кого – ‘о чьей-либо трудной, тяжёлой, безрадостной жизни’;

– метафорические фразеологизмы (*вломить на пряник* – ‘сильно избить, наказать кого-либо’) и обороты, образованные посредством механизма метонимии (*бить пряники* – наименование старинной детской игры, элементом которой является разбивание пряников ударами пальцев).

Объединение материала в такие макростатьи позволило студентам проанализировать фразеологическую активность стержневого слова и усовершенствовать навыки структурно-семантического моделирования в сфере фразеологии. Так, на материале данной макростатьи они наполнили новым материалом выявленную В. М. Мокиенко структурно-семантическую модель фразеологизмов *задать на лапти, задать на орехи: дать + [денег] на что* = ‘избить, побить кого-либо’ (Мокиенко, 1980, 50). Ср. диалектные ФЕ *задать на пряники, вломить на пряник*, употребляемые в этом же значении, и фразеологизмы-конверсивы, которые описаны в этой же макростатье «Полного словаря народной фразеологии»: *получить на пряники, заработать на пряники* – ‘быть побитым, подвергнуться избиению’.

Совершенствуя на данном материале навыки историко-этимологического анализа, которые также включаются в содержание фразеологического компонента лингвистической компетенции, студенты, что особенно важно для студентов-иностранцев, пополнили объем своих фоновых знаний, ведь происхождение русских фразеологизмов связано с такими сферами, как история страны, ее природные условия, народный быт и культура. Таким образом, можно говорить и о совершенствовании лингвокультурологической компетенции студентов-филологов, важным знанием параметром которой является понимание культурного фона языковых единиц, сосредоточенного в их значении и мотивировке.

Рассматриваемая макростатья ПСНФ может быть полезна и как объект комплексного лингвокультурологического анализа, источник информации о русской кухне и гастрономических предпочтениях русских: пряники, традиционное русское кушанье, изготавливались из муки разных сортов, о чем свидетельствуют компоненты ФЕ: *ржаной, ячменный*; в зависимости от рецептуры и качества они были упругими (*гнуться как сдобный пряник*) или легко ломались: *ломаться как ржаной пряник; ломаться как пресный (ячменный) пряник* (все ФЕ употребляются в народной речи в значении ‘важничать; капризничать, привередничать’); могли быть недорогим повседневным лакомством или изысканным праздничным блюдом: *ломаться как копеечный пряник; красивый как расписной пряник*. Пряник был любимым кушаньем русских, не случайна ассоциация: *пряник* → *хорошая жизнь* и соответственно: *жизнь – не пряник* (о тяжелой,

безрадостной жизни). Показательна в этом смысле и этимологическая версия фразеологизма *доволен как пряник*: вероятно, он образован сжатием более развернутого сочетания *доволен, словно ему пряник дали (подарили)* (Мокиенко & Никитина, 2008, 544).

Анализ ассоциаций, выходящих за пределы кулинарной сферы, выводит студентов-исследователей на культурологически ценную информацию о народных играх и традиционной крестьянской обуви: *ломать пряники* – ‘вид детской игры: встав спинами друг к другу и сцепившись руками около локтей, поочередно поднимать друг друга, взвалив на спину’ (Мокиенко & Никитина, 2013, 541); *на пятидесяти пяти пряниках* – ‘в лаптях – плетеной из лыка старинной обуви (переплетения напоминают небольшие квадратные пряники)’ (Мокиенко & Никитина, 2013, 541). Упоминание в ФЕ тульских пряников (*ломаться как тульский пряник*) дает лексикографам возможность ввести лингвострановедческие сведения о традиционной хозяйственной деятельности российских регионов. *Тульские пряники считались одними из лучших в России* – такой комментарий сопровождает рассматриваемый фразеологизм в словаре В. И. Зимина и А. С. Спирина (Зимин & Спирин, 1996, 413). Эта историко-этимологическая справка сохраняется и в макростатье «Полного словаря народной фразеологии». На занятиях лексикографического практикума эта лаконичная страноведческая информация расширяется до объемного лингвокультурологического комментария к данному фразеологизму, а макростатья в целом служит материалом для лингвокультурологического описания этнокультурно маркированного слова *пряник*. Таким образом, реализуется потенциал «Полного словаря народной фразеологии» как ресурса совершенствования технологического компонента лингвокультурологической компетенции студентов-филологов, а именно навыков лингвокультурологического анализа слова и фразеологизма и лингвокультурологического комментирования этих языковых единиц.

Микростатья – описание отдельного фразеологизма – в ПСНФ традиционно включает заголовочную единицу, пометы, отражающие ареал оборота и эмотивно-оценочные коннотации, толкование, указание на фиксирующие данную единицу источники и (под знаком <) комментарии семантического или историко-этимологического плана. Анализ структуры микростатьи и особенностей каждой параметрической зоны, который выполняется студентами в рамках лексикографического практикума, способствует совершенствованию профессиональных знаний в сфере лексикографии, а при практической ориентации такого анализа и выполнении последующих творческих лексикографических заданий студенты овладевают практическими навыками составления словарных статей (технологический блок лексикографического практикума).

Поскольку ПСНФ является сводным словарем, особое внимание его составители уделяют ареальным характеристикам материала и оформлению заголовочной единицы (леммы), в которой должны быть отражены все варианты оборота. Отрабатывая этот навык, студенты отбирают из областных словарей все варианты фразеологизма, оформляют заголовки статьи в соответствии с требованиями концепции – лексические варианты компонентов в круглых скобках, количественные – в квадратных, а также выстраивают в алфавитном порядке географические пометы:

Вить (завивать, завязывать, заплетать) броду [Илье]. *Арх., Ворон., Костром., Сиб., Твер., Яросл.* (Сокращения известны студентам из курса диалектологии: *Арх. – архангельские говоры, Ворон. – воронежские говоры, Костром. – костромские говоры, Сиб. – народные говоры Сибири, Твер. – тверские говоры, Яросл. – ярославские говоры*).

Навык лексикографической семантизации базируется на знании типов словарных дефиниций, которые выбираются с учетом специфики фразеологического значения. Работая над статьей сводного словаря, студенты отбирают наиболее удачные дефиниции фразеологизма в областных словарях или, анализируя эксплицируемые в дефинициях семантические компоненты, выводят оптимальный вариант значения. Если фразема оказывается многозначной, система значений выстраивается с учетом их развития, как в данном случае, когда сначала оборот *вить (завивать, завязывать, заплетать) бороду [Илье]* означал определенный ритуал, совершаемый по окончании сбора урожая, затем шире – праздник завершения полевых работ и наконец – сам факт окончания этих работ:

Вить (завивать, завязывать, заплетать) броду [Илье]. *Арх., Ворон., Костром., Твер., Яросл.* 1. В старинном народном обычае окончания жатвы: завязывать колосья узлом, делая последний сноп урожая. 2. Праздновать окончание сельскохозяйственных работ. 3. Заканчивать полевые работы. АОС 15, 347–348, 369; СРНГ 3, 109; ЯОС 4, 58. < *Илья* – библейский пророк, почитаемый в христианстве святой, у древних славян – покровитель грома, молнии, дождя, урожая и плодородия, поэтому не случайно появление его имени в составе фразеологизма.

Эта словарная статья, составленная студентами и представленная на зачете, свидетельствует и о сформированности у них лексикографического навыка паспортизации материала: они корректно указывают сокращения источников: АОС (Архангельский областной словарь, 1980–2017), СРНГ (Словарь русских народных говоров, 1965–2016), ЯОС (Ярославский областной словарь, 1981–1991).

Под знаком < представлена лингвокультурологическая справка, которая дает основания констатировать достаточно высокий уровень

сформированности у студентов навыка словарного лингвокультурологического комментирования языкового материала.

Выполняя задания, формирующие данный навык, студенты разрабатывают комментарии самых разных типов:

– историко-этимологические, например, к фразеологизму *умывать руки* ('снимать с себя ответственность за что-либо'): < В древности существовал обряд: перед вынесением приговора судьбы умывали руки, что символизировало их объективность, чистоту и честность;

– семантические (толкуются устаревшие и диалектные слова), например, к алтайскому фразеологизму *променять кержачков на лешаков* ('отказаться от старых традиций, обычаев'): < *Кержак* – старообрядец, представитель религиозного направления, сторонники которого придерживаются православных норм, существовавших на Руси до XVII века; *лешак* – леший, в народных верованиях: дух, хозяин леса;

– межъязыковые (приводятся параллели из других языков, как иллюстрация общности происхождения фразеологизмов), например, к фразеологизму *как в воду канул* ('бесследно исчез, пропал' < В разных индоевропейских языках имеются фразеологизмы с тем же значением и образом, например, в немецком: *er ist wie ins Wasser gefallen*, (буквально: он будто бы упал в воду), во французском: фр. *tomber a l'eau* (буквально: упасть в воду).

Таким образом, можно говорить и о совершенствовании в рамках лексикографического практикума межъязыковой компетенции студентов, а именно такого ее параметра, как навык межъязыковой эквивалентизации фразеологизмов.

На констатирующем и контрольном этапах нашего педагогического эксперимента студентам контрольной и экспериментальной групп, в каждую из которых входило по 18 обучающихся, были предложены комплексы заданий для выявления уровня сформированности у них рассмотренных выше параметров лингвистической компетенции (и, прежде всего, ее лексикографической субкомпетенции), а также лингвокультурологической и межкультурной компетенций. Студентам предлагалось (1) разграничить общеупотребительные и диалектные фразеологизмы, (2) определить способ их образования, (3) изложить историю происхождения фразеологизма в этимологическом комментарии, (4) определить образный стержень фразеологизма и дать его лингвокультурологическую характеристику, (5) подобрать к русским фразеологизмам функциональные и образные эквиваленты в изучаемом иностранном языке, (6) отредактировать статью, подготовленную для фразеологического словаря: уточнить толкование фразеологизма, расположить в нужном порядке параметрические зоны словарной статьи, дополнить недостающие в статье

характеристики фразеологизма. Как показал анализ результатов эксперимента, уровень сформированности фразеологического компонента лингвистической компетенции (1–2) у студентов экспериментальной группы по сравнению со студентами контрольной группы повысился на 40 %, мониторинг сформированности лингвокультурологической компетенции (3–4) показал ее повышение в экспериментальной группе на 56 %, тогда как в контрольной всего на 8 %. Свою межъязыковую компетентность (5) также в большей степени повысили участники экспериментального обучения, на 48 % опередив контрольную группу по этому показателю. Особенно высокие результаты студенты экспериментальной группы показали при выполнении практических заданий по лексикографии (6). Здесь они на 82 % обошли по показателям студентов контрольной группы. К тому же в качестве зачетной работы они самостоятельно составили словарные статьи, которые соответствовали всем требованиям, предъявляемым к материалам «Полного словаря народной фразеологии», в соответствии с концепцией его разработчиков.

Таким образом, можно говорить о целесообразности использования лексикографического практикума как эффективного средства совершенствования профессиональной компетентности будущих филологов-исследователей и учителей-словесников.

Заключение *Conclusions*

1. Лексикографический материал может с успехом использоваться в практике обучения студентов-филологов не только как ресурс формирования навыков пользования словарями, но и с целью совершенствования других лингвистических и лингвокультурологических параметров профессиональной компетентности. Оптимальной формой организации обучения в таком случае является лексикографический практикум.
2. Эффективным средством совершенствования профессиональной компетентности студентов-филологов в рамках лексикографического практикума могут стать материалы «Полного словаря народной фразеологии» в силу того, что фразеологизмы обладают мощным лингвокультурологическим и лингводидактическим потенциалом, а отбор материала в данном словаре, его макро- и микроструктура позволяют глубже осмыслить специфику материала и особенности его лексикографирования.

3. В рамках аналитического блока практикума совершенствуются такие параметры фразеологического компонента лингвистической компетенции, как навыки семантического, фразеологического анализа и структурно-семантического моделирования в сфере фразеологии, а также навыки лингвокультурологического анализа и лингвокультурологического комментирования фразеологизмов, представляющие лингвокультурологическую компетенцию. В рамках технологического блока практикума совершенствуются необходимые составителю словарей лексикографические навыки отбора материала и его параметризации: структурирования заголовка, толкования, ареальной характеристики и паспортизации, а также комментирования культурного фона фразеологизма в словарном формате, чему обычно не уделяется должного внимания в профессиональной подготовке студентов-филологов.
4. Результаты экспериментального обучения бакалавров профиля «Филологическое образование» в Псковском государственном университете показали, что реализация представленной модели лексикографического практикума обеспечила значительное повышение уровня сформированности профессиональной компетентности студентов, что доказывает эффективность разработанной методической концепции.

Summary

The purpose of this article was to represent the author's methodological concept of the formation of professional competence of students-philologists on lexicographical material. According to this concept, students should be involved not only in the use of dictionaries in their educational activities, but also in the compilation of vocabulary materials. We suggested that this idea could be realized within the lexicographical workshop and developed its program. The workshop was offered to a group of 2nd year students-philologists of the Pskov state University as an experiential training. Experimental materials, methods and techniques of training, as well as the results of the experiment are presented in the article.

The materials of the "Complete dictionary of folk phraseology", which is prepared for printing by lexicographers of Pskov and St. Petersburg universities, were used as a linguo-methodological and linguo-cultural resource in the framework of the workshop. The reference to this phraseological dictionary is due to the fact, that phraseological units have a powerful linguo-culturological and linguo-didactic potential, and the construction of the articles of this dictionary allows a deeper understanding of the specifics of the material and the peculiarities of its lexicographical description.

The lexicographical workshop, presented in the article, consisted of two blocks, each of the blocks formed certain components of professional competence of students.

The analytical block of the workshop allowed to improve such parameters of linguistic competence as the skills of semantic and etymological analysis of phraseological units and structural-semantic modeling in the field of phraseology, as well as the skills of linguistic-cultural analysis and linguistic-cultural commenting of phraseological units related to linguistic-cultural competence. Practical lexicographical skills of material selection, title structuring, interpretation, areal characteristics and certification were improved within the technological block of the workshop.

At the ascertaining and control stages of our pedagogical experiment, to the students of control and experimental groups was offered a set of tasks to identify the level of formation of the above-mentioned parameters of linguistic and linguistic-cultural competencies. The students differentiated literary and dialect phraseological material, they developed linguocultural and interlingual comments, edited dictionary articles, and presented their own dictionary materials.

The results of experimental training show, that the level of professional competence of students of the experimental group, taking into account all the parameters, more than twice exceeded the indicators of the control group. Thus, the implementation of the presented model of lexicographic workshop provided a significant increase in the level of professional competence of students. These results prove the effectiveness of our methodological concept.

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VALUES OF PROFESSIONAL ACTIVITY OF FUTURE TEACHERS IN CHANGING SOCIAL AND POLITICAL CONDITIONS

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Abstract. *The training of a future specialist involves not only the acquisition of professionally oriented knowledge, skills and habits, but also the formation of a system of professional values as regulators of future professional activities, the basis for professional growth and improvement. The social and political condition of society in general and the country in particular affects the formation of professional values of future specialists, which, in particular, is manifested in the conditions of modern Ukraine, which fights for state independence and territorial integrity. The purpose of the study is to monitor the dynamics of changes in the professional values of future teachers over the past five years. A survey was conducted, as well as testing of future teachers according to M. Rokich's methods "Valuable orientations" (N = 710). Some products of students' activities (essays, creative works, etc.) were also of some information importance, which made it possible to diagnose the professional values and their hierarchy in the consciousness of the personality of future specialists. Changes in the dynamics of the professional values of future teachers from the prevalence of the material factor, the desire to obtain a profession that would provide the opportunity to emigrate from the country to the values of development, cognition and patriotism were revealed. The obtained results can become the basis for the search for mechanisms and tools of the formation of professional values in future teachers in the process of their professional training in social and political conditions that constantly change.*

Keywords: *future teacher, professional activity, professional training, professional values, social and political conditions, specialist, values.*

Introduction

The state of modern world civilization is defined as a crisis, which prompts the search for ways to get out of this situation. Obviously, one of the most important factors in overcoming the crisis phenomena is education, which is an important characteristic and transformative force of each society. Pride of place

in the structure of the education system goes to the teacher.

It is difficult to overestimate the role of the teacher in the modern world. Indeed, the social progress often depends directly on him/her and his/her level of professional training. The teacher is meant to be a mediator between a society and a growing up person, by passing on his/her experience which was gained over the centuries. He/she has the ability to influence the life of society by preparing the younger generation to solve the current global or local problems, teaching them to predict the outcome of their actions and prevent their negative consequences. He/she is able to form models of human relationships by on the basis of his/her own experience. Therefore, the introduction of children into the world of values is also an important task of the teacher, which he/she implements daily in his/her professional activities.

The basis of the teachers training today is the competence approach, which states the relevance of the competence formation as an individual's ability to implement professional functions. According to the Ukrainian educationalist O. Dubaseniuk "competence is an integral characteristic of a person that determines his/her ability to solve problems and common tasks that arise in real life situations in various spheres of human activities by using knowledge, educational and life experience according to the acquired system of ultimate values" (Дубасенюк, 2010). This approach contributes to the formation of a coherent personality of a professional, as opposed to a specialist formed within the knowledge paradigm. The latter, having profound professional knowledge and pedagogical technique, is not always able to apply them at the practical level in each particular situation. Alternatively, mastering pedagogical competence enables a person to realize his/her professional activity in general.

Taking the above mentioned into consideration, we can state that the system of values acquired by a future teacher will affect not only the professional sphere of a personality but also all aspects of life which is changing rapidly. From this perspective, it is important to establish the dynamics of the values of future teachers in modern conditions, which has become the aim of our study.

The methods of the research are the following: theoretical (analysis, synthesis, comparison, generalization, etc.) and empirical (observation of the activities of students of the educational institution of higher education, content analysis of creative student works, the method of "Valuable orientations" (Rokich, 1973), etc.).

Theoretical framework

The problem of forming the values of professional activity of future teachers in Ukraine is being actualized by socio-political events (globalization

processes, military actions in eastern Ukraine, integration into European space, etc.), economic realities, in particular, changes in the structure of the labor market, achievements of pedagogy and psychology, etc. Today more and more emphasis is placed on the increased requirements of the personality of the teacher, who is called to form a person of a new type, able to live and work in a rapidly changing information society. Obviously, this circumstance makes a new look at the personality of the teacher, his/her professional values, which underlie the implementation of daily professional tasks.

Values of pedagogical activity were the subject of research by many scholars (Вишневецький, 2003; Ігнатенко, 1997; Равкин, 1995а, 1995б; Слостенін & Шиянов, 1996; Сухомлинська, 1996; Ткачова, 2006; Слостенін & Чижакова, 2003).

Values of pedagogical activity are considered to be the guidelines of the social and professional activity of the teacher, aimed at achieving the goal of professional activity.

Traditionally, educational values (related to the pedagogical values of the educational system) and pedagogical values (conditionally correspond to the values of teacher's pedagogical activity) are distinguished in Ukrainian pedagogical thought.

Educational values embody humanistic priorities of society, which serve as the main reference points for the development of the educational system as a whole. They are considered as a system of leading social values that by means of pedagogical process of educational institutions should be transferred into the level of personal values of each student (Ткачова, 2006). The system of educational values includes the following components: 1) absolute eternal values (faith, hope, love, dignity, conscience, truth, compassion, mercy, nobility, wisdom, justice, etc.); 2) national values (Ukrainian idea, state independence of Ukraine, patriotism, readiness to protect the Motherland, national dignity, love of native culture, language, national holidays and traditions, etc.); 3) civic values (freedom, culture of social and political relations, respect for the law, equality of opportunity, freedom of speech, the sovereignty of a person, human rights, etc.); 4) values of family life (marital fidelity, child care, parental care, family harmony, large families, etc.); 5) values of personal life (internal freedom, self-respect, will, wisdom, courage, adherence to principles, moderation, optimism, hard work, etc.); 6) value-ecological values (caring for health, commitment to sports and physical labor, healthy lifestyle, love and careful attitude towards all living creatures on earth, careful attitude to natural resources, etc.) (Вишневецький, 2003).

Pedagogical values are a system of educational means, social norms, and pedagogical tools that ensure the effective transferring of certain educational values into the individual level of a personality, that is, the formation of his/her

personal values priorities (Ткачова, 2006).

Undoubtedly, pedagogical activity is based on both educational and pedagogical values. In addition, the professional activity is largely influenced by personal teacher's instructions, which make impact on the style of pedagogical activity.

There are different approaches to classifying the values of pedagogical activity.

In particular, V. Slastyonin and G. Chyzhakova distinguish the following groups of values of educational activities related to: 1) the self affirmation in society, the closest social environment (social significance of the work of the teacher, the prestige of professional activity, etc.); 2) satisfaction of the need for communication (the possibility of communicating with children, parents, other interesting people, etc.); 3) self-improvement (development of creative abilities, constant replenishment of luggage of knowledge, etc.); 4) self-expression (the creative nature of the work of the teacher, the correspondence of the pedagogical activity to the interests and abilities of the teacher); 5) utilitarian pragmatic requests (professional growth, career growth, long vacation, etc.).

Values of a self-sufficient type are target values (the creative and diverse nature of the work of the teacher, its prestige and social significance, responsibility to society, love for children, etc.). Values of the instrumental type are a means of achieving target values (public recognition of the results of work, professional growth, etc.).

The main basis of the professional culture of the teacher consists of four large groups of values: 1) common to mankind, including such values as a person, a child, a teacher, etc; 2) spiritual, covering pedagogical theories, pedagogical experience of man, as well as methods of pedagogical thinking; 3) practical, including pedagogical technologies, educational systems, the methods of activity, etc; 4) personal, combining pedagogical abilities, individual qualities, ideals, etc. (Сластенин & Чижакова, 2003).

Another classification of educational values is presented by Z. Ravkin who distinguishes the following groups: 1) socio-political; 2) intellectual; 3) moral; 4) the values of professional pedagogical activity (Равкин, 1995а). At the same time the author notes that educational values depend on the national mentality, national and historical traditions, the basic axiological guidelines, which embody national and common to mankind values of the spiritual life of society (Равкин, 1995b).

At the same time, V. Slastyonin and E. Shiyanov made an attempt to classify the values of pedagogical activity in higher education on the basis of the specific needs of the individual. According to scientists, they include the values connected with: 1) affirmation in society, the closest social surrounding; 2) satisfaction of needs for communication; 3) self-perfection; 4) self-

expression; 5) utilitarian and pragmatic requests. By the substantive content the authors identify the values of self-contained and instrumental types (Сластенин & Шиянов, 1996).

I. Isayev distinguishes several levels of the existence of pedagogical values: 1) socio-political, combining the norms and rules that consider the educational activity within society; 2) professional and group that regulate the professional and pedagogical activity in relation to certain groups of specialists; 3) individual and personal, that act as an internal guideline, assimilating social and pedagogical as well as professional and pedagogical values (Исаев, 2002).

On their basis, he distinguishes five groups of professional and pedagogical values: 1) the values, that reveal the meaning and essence of the objectives of professional and pedagogical activity (values-objectives); 2) the values revealing the meaning and essence of the methods and means of exercising the professional and pedagogical activity (values-means); 3) the values which reveal the meaning and essence of relations as the main mechanism of functioning the integral pedagogical activity (values-relations); 4) the values that reveal the meaning and essence of psychological and pedagogical knowledge in the process of carrying out the professional and pedagogical activity (values-knowledge); 5) the values revealing the meaning and essence of the qualities of the personality of the teacher (values-qualities). At the same time, the scholar asserts the existence of the relationship between the richness of values of the teacher and the efficiency and purposefulness of selection and appropriation of new values, their transition into the motives of behaviour and activity (Исаев, 1993).

It is worth noting that the value sphere of future teachers has repeatedly become the subject of empirical research of scientists. V. Dub investigated the subjective hierarchy of the values of future teachers of the first and fourth courses. It has been established that the hierarchy of values of first-year students has the following form: 1) spiritual satisfaction; 2) active social contacts; 3) financial position; 4) one's own prestige; 5) self-development; 6) preservation of one's own personality; 7) achievements; 8) creativity. Instead, the fourth-year students have such hierarchy of values as: 1) spiritual satisfaction; 2) preservation of one's own personality; 3) self-development; 4) one's own prestige; 5) active social contacts; 6) creativity; 7) financial position. The work carried out made it possible for the researcher to state that for the graduates of pedagogical institutions of higher education the values of professional development acquire a high status, which testifies to the integration of the system of professionally important values of students in the process of learning (Дуб, 2014).

The valuable orientations of future teachers of pre-school education institutions have been investigated by O. Padalka (Падалка, 2014), using in particular the methodology of M. Rokich, modified according to the purpose of

the planned experiment. The participants of the experiment were divided into two groups: control and experimental. Each of these groups showed somewhat different results in the course of investigation. The results of the ranking of terminal and instrumental values by participants of experimental and control groups are shown in Table 1.

Table 1 The results of the ranking of values by future teachers of pre-school education establishments (according to M.Rokich's methodology)

| Rank | Value name | | | |
|------|---|---|--|--|
| | Terminal values | | Instrumental values | |
| | Experimental group | Control group | Experimental group | Control group |
| 1 | health | love | politeness | neatness |
| 2 | happy family life | health | cheerfulness | politeness |
| 3 | love | self-development | responsibility | cheerfulness |
| 4 | child | | erudition | |
| 5 | interesting work | | latitude of views | |
| 6 | self-confidence | | neatness | honesty |
| 7 | life wisdom | | self-control | firm will |
| 8 | good and faithful friends | | honesty | tolerance |
| 9 | self-development | happy family life | tolerance | self-control |
| 10 | endowed life | | efficiency in matters | diligence |
| 11 | creativity of pedagogical activity | entertainment | diligence | professional growth |
| 12 | responsibility to the society | active life | firm will | courage in defending one's own thought |
| 13 | self-affirmation in pedagogical process | creativity of pedagogical activity | courage in defending one's own thought | efficiency in matters |
| 14 | cognition | responsibility to the society | rationalism | responsibility |
| 15 | social significance of labour | self-affirmation in pedagogical process | conformity of abilities to the character of pedagogical activity | rationalism |
| 16 | beauty of nature and art | cognition | professional growth | conformity of abilities to the character of pedagogical activity |
| 17 | active life | social significance of labour | social recognition of the work of the teacher | |
| 18 | entertainment | beauty of nature and art | pedagogical techniques and technologies | |

Source: Падалка, О. (2014). Formation of Priority Pedagogical Values for Future Teachers of Pre-school Educational Establishments: thesiscandidate of pedagogical sciences. Rivne.

As the researcher concludes, the results obtained indicate that the values of personal life and moral values dominate over the professional ones (Падалка, 2014).

We aimed to trace the dynamics of the formation of values of the professional activity of future teachers in conditions of difficult and rapidly changing Ukrainian realities.

Methodology

The investigation has been carried out for five years – 2014 – 2018. It was a difficult period in the life of Ukraine, fighting for its sovereignty and territorial integrity. Undoubtedly, this circumstance greatly influenced the social life characterized by uncertainty in the future, revaluation of values, etc. In such conditions the process of preparing future teachers, in particular, the formation of their professional values, becomes more complicated, as the changeability of social life influences the axiological development of personality. 710 students of 2-4 courses of the educational and scientific institute of foreign languages of Drohobych State Pedagogical University named after Ivan Franko took part in the investigation.

We used the methods of “Valuable Orientation” by M. Rokich (Rokich, 1973), which involves two classes of values – “terminal” (values-objectives) and “instrumental” (values-means). Terminal values involve the certainty that an ultimate objective of individual existence deserves to be pursued; instrumental values involve the certainty that some particular action or personality feature must prevail in a certain situation. The respondents were asked to range a number of values in the context of future professional activity that belong to terminal and instrumental ones. The processing of the results of investigation consisted in calculating the average indicators of the rank of selecting the values in the process of their hierarchy.

Research results

The diagnostic of student’s value-based orientation in high pedagogic education establishments was conducted by us at the beginning of 2014. From one hand it was a stressful time for Ukraine because of Maidan, that ended with victory. Also it was the beginning of the hybrid war, that was not totally realized by the society. The students who studied in Drohobych, the western Ukrainian town, took part in the questioning. The military actions related them indirectly. It’s worth noticing that at that time the grade indexes of the greatest values showed the domination of such issues as health (5,5), love (5,88), material support for life (5,94), the presence of kind and faithful friends (7,2), self-

confidence (7,4) and a happy family life (8,07). It is well seen that the future pedagogues are first of all concentrated on their own personalities and problem-solving. The placement of the instrumental values was as follows: high life demands (5,53), cheerfulness (5,89), decency (6,42), education (6,89), rationalism (7,42), self-control (7,79). Actually, the conversations with the students as well as the creative tasks “The way I see my professional life in five years” done by them let us explain the choice of dominating value-based directives. A large number of interviewees responded they were not going to work according to their profession. They considered learning foreign languages to be the mean that could help them adopt abroad, where they intended to go either for some time or forever. Certainly, not all the students shared those ideas. One quarter of the students expressed an active state position and were convinced that their work would contribute to the development of the independent country.

The next experiment was held in a year. It’s worth noticing that some changes happened in the social life. They dealt with the awareness of military threat from the eastern neighbour, the development of the volunteer activities and the Ukrainian army, an active migration inside the country. Obviously, the youth didn’t stand aside those processes. The use of M. Rokich’s methodology “Value-based orientations” showed some changes in value-based directives of future pedagogues.

So, the dominant terminal values on that stage were as follows: spiritual and physical love with the beloved person (5,63), the material support for life (5,97), the presence of kind and faithful friends (6,47), health (6,93), an interesting job (7,18), freedom (7,68). Among the instrumental values such things predominated: the discipline (5,12), high demands (5,86), the rationalism as the ability to think soberly and logically (6,45), education (6,68), decency (7,45), the courage in advocating for one’s own point of view (7,77). We can notice from the above mentioned data that the changes first of all concern the instrumental values as the means of pursuing the goal. The students realized the necessity to develop their spiritual and strong-willed features of character under the stressful political conditions. The debates with the students showed that their points of view to the future professional life had changed. The number of students who had obtained the profession and wanted to contribute to the development of the homeland grew.

The similar tendencies were kept in 2016 – 2017. The participation of the students in the volunteer movement, the realization of the difficult public situation made the students rethink their own value-based priorities. In particular, 30 percent of responders proved the rethinking of their own value-oriented directives. Besides, by that time the Ministry of Education and Science had conducted some real steps to make the profession of a teacher more

prestigious. The results of the ranking of terminal and instrumental values by future teachers in 2016 – 2017 are shown in Table 2.

Table 2 The results of the ranking of values by future teachers in 2016 – 2017 (according to M.Rokich’s methodology)

| Rank | Value name | | | |
|------|-------------------------------------|--|--|--|
| | Terminal values | | Instrumental values | |
| | 2016 | 2017 | 2016 | 2017 |
| 1 | love (5,58) | love as the basis to start a happy family (5,65) | high demands (5,62) | strong will (5,63) |
| 2 | health (5,92) | health (5,98) | rationalism (5,91) | the courage in advocating for one’s own point of view (5,91) |
| 3 | the material support for life (6,1) | an interesting job and career growth (6,49) | the courage in advocating for one’s own point of view (6,39) | high demands (6,38) |
| 4 | freedom (6,68) | freedom (6,68) | strong will (6,68) | independence (6,92) |
| 5 | an interesting job (7,33) | the material support for life (7,13) | education (7,28) | rationalism (7,45) |
| 6 | development (7,62) | development (7,69) | independence (7,86) | education (7,92) |

Few changes were held in value-based priorities of young students in 2018. So, the most important terminal values became freedom (5,69), an interesting job (5,87), health (6,32), love (6,61), development (7,44), knowledge (7,85). It was proved that the most dominant instrumental values were the courage in advocating for one’s own point of view (5,63), strong will (5,92), independence (6,48), rationalism (6,91), high demands (7,41), education (7,89).

During the lesson in pedagogy the students were suggested writing an essay “The teacher of the future”. It’s worth noticing that two thirds of the future pedagogues wrote that the main features of a pedagogue should be the education, creativeness, the will to self-improve and the patriotism. Most of these values coincide with the values of the students.

Conclusions

The formation of professional teachers’ values is taking place in conditions of quickly changing world as well as under difficult economic and political

conditions of modern Ukraine. No doubt that it has the influence on the dominant values that determine the perception of future professional activity by the students of higher pedagogic establishments.

We can notice the changes in the dominant value-based orientations of young students during the last five years. The greatest changes have happened in the system of the instrumental values of future teachers. They have moved into the manifestation of spiritual features of character as the mean to achieve the goal. Changes has taken place in the system of terminal values as well. In 2014 the dominant value for future teachers was material support for life, but in five years the importance of that value diminished. The significance of such values as development and knowledge has grown. In general, future pedagogues say that such factors as an interesting job, career growth, good health, the possibility to self-express, the opportunity to discover the world contribute to becoming a good professional.

The results of the research can become the basis while looking for the mechanisms and instruments to form professional values of future teachers in the process of their professional preparation under constantly changing social and political conditions.

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VIDUSSKOLAS SKOLĒNU UN STUDENTU INTERESE PAR DABAS ZINĀTŅU MĀCĪBU PRIEKŠMETIEM SAISTĪBĀ AR PROFESIJAS IZVĒLI

Secondary School and University Students' Interest in Science Subjects in Connection to the Choice of Profession

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Abstract. *One of the most important factors influencing the welfare of the society is the development of science and technology, which in turn depends on scientists and students' science literacy. The aim of the study was to investigate the interest of high school and university students in science subjects, their views on factors that raise interest in subjects and play a determining role in the choice of profession. The questionnaire of Riga secondary school and university students about their interest in science subjects in connection to the choice of their profession was carried out. The results of the survey showed that the majority of university students are interested, or they have moderate interest about science subjects. Doctors' assistant speciality students are more interested in science subjects in comparison with pedagogical specialities students. High school students' interest in science subjects differs to a greater extent in comparison with university students. High school students consider the opportunity to make a career and earn good money as the most important factor in choosing a profession, pedagogical specialties students - a willingness to work in the chosen profession and an opportunity to find a job in the chosen profession, but doctors' assistant speciality students - an opportunity to work for the community and to help people.*

Keywords: *science subjects; students; interests; choice of profession; pedagogical specialties*

Ievads

Introduction

Valsts ekonomiskās izaugsmes iespējas ir atkarīgas no sabiedrības zinātniskās izglītības (Maltese & Tai, 2011). Viens no svarīgākajiem faktoriem, kas ietekmē sabiedrības labklājību, ir zinātnes un tehnoloģiju attīstība, kas savukārt ir atkarīga gan no valsts zinātniskajām institūcijām un veiktajiem zinātniskajiem pētījumiem, zinātnieku kvalifikācijas, gan arī no zinātnes popularitātes un skolēnu un studentu intereses par zinātne. Jauniešu veiksmīgas studijas profesijās, kas saistītas ar dabas zinātnēm un intereses

veidošana par šīm nozarēm cieši korelē ar pamatskolas laikā iegūto pieredzi un radīto interesei par dabas zinātņu priekšmetiem (Bottia, Stearns, Mickelson, & Moller, 2018). Dabas zinātņu priekšmetu veiksmīga apguve un interese par tiem, savukārt var veicināt profesijas izvēli nozarēs, kas saistītas ar dabas zinātnēm.

Starptautiski pētījumi liecina, ka skolēniem un studentiem ir nepietiekama interese par dabas zinātņu priekšmetiem (Cedere, Gedrovics, Bilek, & Mozeika, 2014; Potvin & Hasni, 2014). Skolēnu vidējo kognitīvās darbības aktivitāti dabas zinātņu priekšmetu stundās var raksturot ar sekojošām īpatnībām: skolēni ne vienmēr seko līdz skolotāja stāstījumam stundās un reti izsaka priekšlikumus par stundu norisi, maz brīvā laika velta dabas zinātņu un matemātikas apguvei (Cēdere, Jurgena, Helmane, Tiltiņa-Kapele, & Praulīte, 2015). Tas saistīts ar to, ka bieži dabas zinātņu priekšmeti skolās tiek mācīti tradicionālā veidā, atrauti no reālās dzīves, un skolēniem šajos priekšmetos iegūtās zināšanas ir grūti saistīt ar viņu personīgajām interesēm.

Latvijas skolēniem ir salīdzinoši liela interese par dabā un apkārtēja vidē notiekošajiem procesiem, saistībā ar ikdienas dzīvi, tāpat viņiem ir augsta izziņas interese, taču interese par matemātiku, kas saistīta ar uzdevumu risināšanu ķīmijā un fizikā, ir relatīvi zema (Cēdere, Jurgena, & Targamadze, 2018). Viens no svarīgākajiem skolotāju uzdevumiem ir atrast veidu, kā radīt skolēnu interesi par dabas zinātņu priekšmetiem un nodrošināt, lai viņi spētu saskatīt šo priekšmetu lietderību turpmākajā dzīvē. Skolotāja personībai, profesionālajai meistarībai un mācību metožu izvēlei ir liela nozīme skolēnu izziņas interešu veicināšanā. Interaktīvās mācību metodes, kas attīsta analītisko domāšanu un praktiskās iemaņas, veicina intereses veidošanos par dabas zinātņu priekšmetiem un šo priekšmetu apguvi (Cēdere, Jurgena, & Praulīte, 2016). Skolēnu interesi par dabas zinātņu priekšmetiem veicina laboratorijas darbi, grupu darbi un diskusijas (Porozovs, Liepniece, & Voita, 2015), praktiski pētījumi, kuros viņi tiek iesaistīti, kā arī sīkākas informācijas sniegšana par karjeras iespējām ar dabas zinātnēm saistītās nozarēs (Salonen, Kärkkäinen, & Keinonen, 2018; Vartuli, 2016). Skolēnu interese par dabas zinātņu priekšmetiem palielinās, ja dabas zinātņu mācīšanā tiek izmantota uz skolēnu orientēta pieeja: tiek veikta rūpīga atbilstošu tēmu izvēle un uz pētījumiem balstīta mācīšanās (Čipková, Karolčík, Dudová, & Nagyová, 2018; Lamanauskas, 2012; Krapp & Prenzel, 2011), organizētas un vadītas atklātas diskusijas (Kang & Keinonen, 2018), tiek sniegta informācijas par jaunākajiem zinātniskajiem atklājumiem un modernajām tehnoloģijām (Michael, Ling, Kuay-Keng, & Huann-shyang, 2017), skolēni un studenti tiek iesaistīti zinātniskajā darbā (Anderhag, Hamza, & Wickman, 2015).

Pētījuma mērķis bija izpētīt vidusskolas skolēnu, pedagoģijas specialitāšu studentu un “Ārsta palīgs” programmas specialitātes studentu interesi par dabas zinātņu priekšmetiem, uzskatus par faktoriem, kuri rada interesi par mācību

priekšmetiem un par faktoriem, kuriem ir noteicošā loma profesijas izvēlē, kā arī noskaidrot intereses par mācību priekšmetiem lomu profesijas apguvē.

Metodika *Methodology*

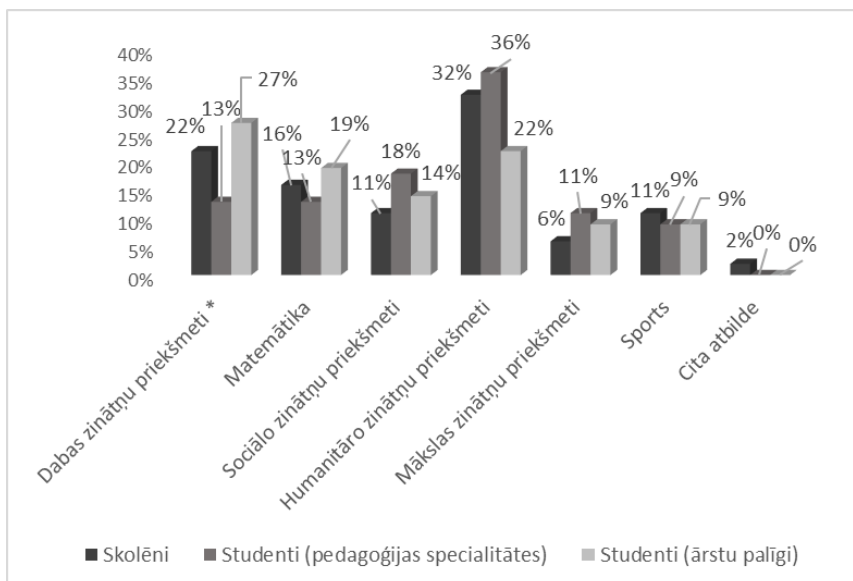
Pētījumā tika veikta 2 Rīgas skolu vidusskolas skolēnu, Latvijas Universitātes pedagoģijas specialitāšu pirmo kursu studentu un Latvijas Universitātes Rīgas Medicīnas koledžas studiju programmas “Ārsta palīgs” pirmā kursa studentu anketēšana. Ar anketēšanas palīdzību tika noskaidrota skolēnu un studentu interese par dažādu nozaru mācību priekšmetiem, interese par dabas zinātņu priekšmetiem, skolēnu un studentu uzskati par noteicošajiem faktoriem, kuri rada interesi par mācību priekšmetiem, skolēnu un studentu uzskati par noteicošajiem faktoriem skolotāja darbībā, kuri rada interesi par mācību priekšmetu un par faktoriem, kuriem ir noteicošā loma skolēnu un studentu profesijas izvēlē. Pavisam tika aptaujāti 168 respondenti: 92 vispārizglītojošo programmu vidusskolas skolēni, 44 pedagoģijas specialitāšu pirmo kursu studenti (pirmsskolas un sākumskolas skolotāja specialitātes studenti un izglītības darba vadītāja un 1 mācību priekšmeta skolotāja specialitātes studenti) un 32 studiju programmas “Ārsta palīgs” pirmā kursa studenti.

Pētījuma rezultāti tika matemātiski apstrādāti un rezultātu statistiskā ticamība novērtēta ar SPSS metodes palīdzību, izmantojot Manna-Vitnija U testu.

Rezultāti *Results*

Pētījuma rezultāti parādīja, ka Studiju programmas “Ārsta palīgs” studentiem (ĀP) ir lielāka interese par dabas zinātņu priekšmetiem, salīdzinājumā ar pedagoģijas specialitāšu studentiem (PSS) (skat. 1. att.). 27 % ĀP norāda, ka viņus no visām mācību priekšmetu nozarēm visvairāk interesē dabas zinātņu priekšmeti, bet tikai 13 % aptaujāto PSS atzīmē, ka viņus visvairāk interesē dabas zinātņu priekšmeti ($p < 0,05$).

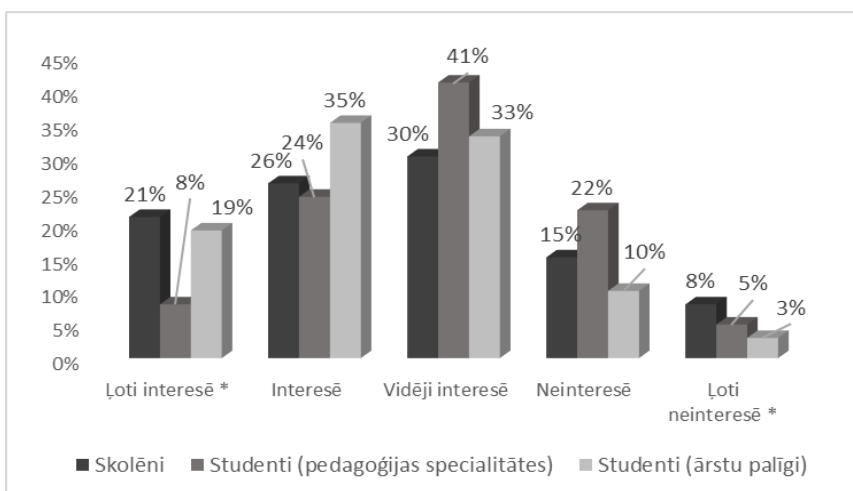
Pedagoģijas specialitāšu studentiem ir salīdzinoši liela interese par humanitāro zinātņu priekšmetiem: 36 % aptaujāto PSS norāda, ka viņus visvairāk interesē humanitāro zinātņu priekšmeti. No ĀP tikai 22 % ir norādījuši, ka viņus visvairāk interesē humanitāro zinātņu priekšmeti. Salīdzinoši mazāka interese gan skolēniem, gan arī studentiem ir par mākslas zinātņu priekšmetiem.



1.attēls. Vidusskolas skolēnu un studentu interese par dažādu nozaru priekšmetiem (% no respondentu skaita grupās)

Figure 1 High school students' and university students' interest on different branches of subjects (in % from number of respondents in groups)

Lielākai daļai skolēnu, un arī studentu interesē vai vidēji interesē dabas zinātņu priekšmeti (skat. 2. att.). Lielākam skaitam vidusskolas skolēnu (21 %) un ĀP (19 %), salīdzinājumā ar PSS (8 %) ļoti interesē dabas zinātņu priekšmeti ($p < 0,05$). Lielāks skaits vidusskolas skolēnu (8 %), salīdzinājumā ar ĀP (3 %) ir norādījuši, ka viņiem ļoti neinteresē dabas zinātņu priekšmeti ($p < 0,05$). Kopumā ĀP ir lielāka interese par dabas zinātņu priekšmetiem, nekā PSS, bet skolēnu interese par šiem priekšmetiem ir atšķirīga.



2.attēls. Vidusskolas skolēnu un studentu interese par dabas zinātņu priekšmetiem (% no respondentu skaita grupās)

Figure 2 High school students' and university students' interest on science subjects (in % from number of respondents in groups)

Skolēni uzskata, ka vissvarīgākā loma intereses veidošanā par mācību priekšmetu ir iespējai apgūt interesantu profesiju, kas saistīta ar mācību priekšmetu (skat. 1. tab.). ĀP par vissvarīgāko faktoru intereses radīšanā par mācību priekšmetu uzskata iespēju praktiski pielietot iegūtās zināšanas dzīvē, bet PSS vislielāko nozīmi piešķir skolotāju ietekmei. Gan skolēni, gan arī PSS un ĀP par svarīgākajiem faktoriem skolotāju darbībā, kas rada interesi par mācību priekšmetu uzskata skolotāja spēju pasniegt mācību priekšmetu interesanti un prasmi vienkārši un saprotami izskaidrot mācību priekšmeta tēmas (skat. 2. tab.). Skolēni augstu vērtē arī skolotāja pozitīvu attieksmi pret skolēniem, bet studenti – spēju saistīt mācību priekšmetu ar reālo dzīvi.

1. tabula. Skolēnu un studentu uzskati par noteicošajiem faktoriem, kuri rada interesi par mācību priekšmetiem (% no respondentu skaita grupās)

Table 1 High school students' and university students' views on the determining factors which cause interest in study subjects (in % from number of respondents in groups)

| Faktors | Faktora nozīmīgums (1. visnozīmīgākais...8. vismazāk nozīmīgais) | | |
|--|--|--------------------------------------|-------------------------|
| | Skolēni | Studenti (pedagoģijas specialitātes) | Studenti (ārstu palīgi) |
| Iespēja apgūt interesantu profesiju, kas saistīta ar mācību priekšmetu | 1. | 3. | 3. |
| Iespēja praktiski pielietot iegūtās zināšanas dzīvē | 2. | 2. | 1. |
| Skolotāja ietekme | 3. | 1. | 4. |
| Informācija, kas iegūta plašsaziņas līdzekļos | 4. | 7. | 5. |
| Vecāku ietekme | 5. | 4. | 2. |
| Draugu ietekme | 6. | 6. | 8. |
| Izlasītā literatūra, kas saistīta ar mācību priekšmetu | 7. | 5. | 7. |
| Citu radnieku ietekme | 8. | 8. | 6. |

Gan skolēni, gan arī PSS un ĀP par svarīgākajiem faktoriem skolotāju darbībā, kas rada interesi par mācību priekšmetu uzskata skolotāja spēju pasniegt mācību priekšmetu interesanti un prasmi vienkārši un saprotami izskaidrot mācību priekšmeta tēmas (skat. 2. tab.). Skolēni augstu vērtē arī skolotāja pozitīvu attieksmi pret skolēniem, bet studenti – spēju saistīt mācību priekšmetu ar reālo dzīvi.

2. tabula. Skolēnu un studentu uzskati par noteicošajiem faktoriem skolotāja darbībā, kuri rada interesi par mācību priekšmetu (% no respondentu skaita grupās)

Table 2 High school students' and university students' views on the determining factors in teacher actions which cause interest in study subject (in % from number of respondents in groups)

| Faktors | Faktora nozīmīgums (1. visnozīmīgākais...12. vismazāk nozīmīgais) | | |
|---|--|--|----------------------------|
| | Skolēni | Studenti (pedagoģijas specialitātes) | Studenti (ārstu palīgi) |
| Spēja pasniegt mācību priekšmetu interesanti | 1. | 1. | 1. |
| Prasme vienkārši un saprotami izskaidrot mācību priekšmeta tēmas | 2. | 2. | 2. |
| Pozitīva attieksme pret skolēniem | 3. | 4. | 7. |
| Spēja saistīt mācību priekšmetu ar reālo dzīvi | 4. | 3. | 3. |
| Spēja izprast skolēnu intereses | 5. | 7. | 5. |
| Spēja parādīt mācību priekšmeta nozīmīgumu | 6. | 8. | 4. |
| Spēja izvēlēties adekvātas mācību metodes | 7. | 9. | 9. |
| Spēja parādīt perspektīvas, kas saistītas ar mācību priekšmeta apguvi | 8. | 6. | 6. |
| Individuālais darbs ar skolēniem | 9. | 10. | 10. |
| Prasme labi organizēt darbu mācību stundas laikā | 10. | 5. | 8. |
| Labi organizētas konsultācijas | 11. | 12. | 12. |
| Spēja ieviest klasē stingru disciplīnu | 12. | 11. | 11. |

Vidusskolas skolēniem, PSS un ĀP atšķiras svarīgākie faktori, kuriem ir bijusi vai ir noteicošā loma profesijas izvēlē (skat. 3. tab.). Skolēni par svarīgākajiem faktoriem profesijas izvēlē uzskata iespēju veidot karjeru un iespēju labi nopelnīt, PSS svarīgākā loma ir bijusi vēlēšanās strādāt izvēlētajā profesijā un iespēja atrast darbu izvēlētajā profesijā, bet ĀP vislielāko lomu ir piešķirušī iespējai veikt sabiedrībai derīgu darbu un iespējai palīdzēt cilvēkiem, strādājot izvēlētajā profesijā.

3. tabula. Faktori, kuriem ir noteicošā loma skolēnu un studentu profesijas izvēlē (% no respondentu skaita grupās)

Table 3 Factors which play a decisive role in the choice of profession of high school students and university students (in % from number of respondents in groups)

| Faktors | Faktora nozīmīgums (1. visnozīmīgākais...12. vismazāk nozīmīgais) | | |
|--|--|--|----------------------------|
| | Skolēni | Studenti (pedagoģijas specialitātes) | Studenti (ārstu palīgi) |
| Iespēja veidot karjeru | 1. | 5. | 7. |
| Iespēja labi nopelnīt | 2. | 10. | 8. |
| Uzsākta darbība noteiktā profesijā | 3. | 9. | 5. |
| Vēlēšanās strādāt izvēlētajā profesijā | 4. | 1. | 3. |
| Profesijas prestižs | 5. | 8. | 10. |
| Iespēja palīdzēt cilvēkiem, strādājot izvēlētajā profesijā | 6. | 6. | 2. |
| Profesijas tālākās perspektīvas nākotnē | 7. | 3. | 6. |
| Interese par mācību priekšmetiem, kas saistīta ar profesijas izvēli | 8. | 7. | 9. |
| Iespēja veikt sabiedrībai derīgu darbu, strādājot izvēlētajā profesijā | 9. | 4. | 1. |
| Iespēja atrast darbu izvēlētajā profesijā | 10. | 2. | 4. |
| Ģimenes tradīcijas | 11. | 13. | 12. |
| Vecāku ieteikumi | 12. | 11. | 11. |
| Nejauši | 13. | 14. | 13. |
| Draugu ieteikumi | 14. | 12. | 14. |

Gan skolēniem, gan arī studentiem zināma loma, bet ne noteicošā, profesijas izvēlē ir bijusi interesei par mācību priekšmetiem, kas saistīti ar profesijas izvēli. Par mazāk svarīgiem faktoriem profesijas izvēlē respondenti uzskata vecāku un draugu ieteikumus, kas parāda, ka vairums jauniešu paši pieņem lēmumu par profesijas izvēli.

Secinājumi Conclusions

1. PSS un vidusskolas skolēniem ir lielāka interese par humanitāro zinātņu priekšmetiem, bet ĀP – par dabas zinātņu priekšmetiem. Lielākai daļai skolēnu un studentu interesē vai vidēji interesē dabas zinātņu priekšmeti, skolēniem šī interese savā starpā visvairāk atšķiras: daļai skolēnu ļoti interesē dabas zinātņu priekšmeti (22 %). bet daļai neinteresē (15 %) vai ļoti neinteresē (8 %).

2. Vidusskolas skolēni par svarīgāko faktoru intereses veidošanā par mācību priekšmetu uzskata iespēju apgūt interesantu profesiju, kas saistīta ar mācību priekšmetu, ĀP - iespēju praktiski pielietot iegūtās zināšanas dzīvē, bet PSS par vissvarīgāko uzskata skolotāju ietekmi. Visas respondentu grupas šos faktorus uzskata par ļoti nozīmīgiem intereses veidošanā par mācību priekšmetu.
3. Par svarīgākajiem faktoriem skolotāju darbībā, kas rada interesi par mācību priekšmetu gan skolēni, gan arī PSS un ĀP uzskata skolotāja spēju pasniegt mācību priekšmetu interesanti un prasmi vienkārši un saprotami izskaidrot mācību priekšmeta tēmas.
4. Vidusskolas skolēni par svarīgākajiem faktoriem profesijas izvēlē uzskata iespēju veidot karjeru un iespēju labi nopelnīt, PSS - vēlēšanos strādāt izvēlētajā profesijā un iespēju atrast darbu izvēlētajā profesijā, bet ĀP - iespēju veikt sabiedrībai derīgu darbu un iespēju palīdzēt cilvēkiem, strādājot izvēlētajā profesijā. Skolēniem un studentiem noteikta loma profesijas izvēlē ir interesei par mācību priekšmetiem, kas saistīti ar profesijas izvēli.

Summary

The choice of the student's profession is closely related to his or her interests. Persons' interests in science subjects start developing in early pre-school age, and it is influenced by different factors. It is very important to determine students' interests in natural sciences, as well as to study the preconditions and factors affecting the development of these interests. The aim of the study was to investigate the interest of high school and university students in science subjects, their views on factors that raise interest in subjects and play a determining role in the choice of profession. The questionnaire of Riga secondary school and university students about their interest in science subjects in connection to the choice of their profession was carried out. Altogether 168 students were surveyed. The results of the survey showed that pedagogical specialties students and high school students are more interested in the subjects of humanities, but the doctor's assistant speciality students are more interested in the science subjects. High school students consider the opportunity to acquire an interesting profession related to the subject as the most important factor creating interest in the subject, doctor's assistant speciality students - the opportunity to put the acquired knowledge into practice but pedagogical specialties students - influence of teachers consider as the most important factor. The ability to teach the subject interesting and to explain the subject topics in a simple and understandable way students consider as the most important factors in teacher activity, which cause students' interest in the subject. High school students consider the opportunity to make a career and earn good money as the most important factor in choosing a profession, pedagogical specialties students - a willingness to work in the chosen profession and

an opportunity to find a job in the chosen profession, but doctors' assistant speciality students - an opportunity to work for the community and to help people.

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FEEDBACK METHOD IN LECTURER-STUDENT INTERACTION

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Abstract. *The learning process at any stage involves direct interaction between the lecturer and students. The article discusses the lecturer-student relationship as one of the factors that influences the teaching process and improvement of learning materials on the example of the study course “Computer Science”. The study aims at using the results of the survey, as well as student tests as a feedback method to improve the quality of the presentation of new material to first-year students considering the basic knowledge of obtained secondary education. The article discusses two methods of feedback: survey and testing. Survey is considered a method with high efficiency of obtaining information, a possibility of organising mass surveys, an ability to accurately process student survey results. Testing is viewed as a method to identify the level of knowledge and skills, as well as the abilities and other qualities of the educator to meet certain standards by analysing the ways, in which a student performs a number of special tasks. Both methods perfectly complement each other and provide an opportunity to more objectively analyse the learning situation. The article presents the results of the study on the example of the study course “Computer Science” for three academic years, describes changes in the structure of the course, as well as changes in the conduction of practical classes within the course, which improved student performance.*

Keywords: *feedback, lecturer-student interaction.*

Introduction

Education in the modern world is becoming one of the most important factors that ensures economic growth and social stability. The leading resources are innovation and new production technologies. However, the acceleration of the pace of technology updates leads to the need for a change in approaches, development of educational content and learning technologies.

The need to introduce innovative changes in the professional training of students is also due to the fact that today future leaders and employees need not

only to have a deep knowledge, but also the ability to quickly acquire new knowledge and use it to design their own activities and activities of subordinates.

Traditional education, when students were given ready-made knowledge, turned out to be ineffective, since it was not always that theoretical knowledge was consolidated and used in practical activities simultaneously with its gain. As practice shows, in most cases the transfer of ready-made knowledge does not always encourage a person to be ready and able to identify and analyse problems and independently determine the ways to solve them. In this regard, a completely different approach to the organisation of training of specialists is required, as well as a different system of relations and interactions between academic staff members and students (Ragozina, 2010; Antsiferova, 2016).

The study process at any stage involves direct interaction between academic staff members and students (Mulliner & Tucker, 2017), (Tan, Whipp, Gagne, & Van Quaquebeke, 2018). Sustained psychological and emotional contact of the lecturer with the audience is undoubtedly a decisive condition for the success of all types of activities. Each student should feel that s/he is not separated from what is happening, is not left on the periphery of the problem being discussed, but is involved in the discussion, has the opportunity to express his/her opinion on an equal basis with others. Successful feedback establishment allows the lecturer to more effectively organise training sessions considering the personal characteristics of students, as well as guide the process of the formation and development of skills for self-educational and professional activities (Van der Kleij, Eggen, Timmers, & Veldkamp, 2012). In this case, his/her position will necessarily be considered and will receive an objective assessment. Control is an essential component of the study process. It is carried out at all stages of academic work, provides “lecturer-student” feedback and serves as a basis for improving the quality of education.

The present article discusses two methods of feedback: survey and testing. The results of the research into the course “Computer Science” are provided, the changes in the structure of the course and in the conduct of practical classes within the course are described, and the influence of the feedback method on the students’ performance is shown.

Models and Methods of “Feedback” in the Educational Process

The higher education system is aimed at ensuring high quality of education through the introduction of state education standards, the development of innovation activity, the development of a flexible education management system,

the creation of sociocultural space, the formation of specialist competence (Statement of the Third Bologna Policy Forum, 2012).

In this context, the interaction between academic staff members and students, i.e., “feedback” acquires special significance. In pedagogy, the concept of “feedback” is primarily associated with the need to monitor student performance. The implementation of the current, intermediate and final control over the students mastering the curriculum is an integral part of the educational process. The fulfilment of certain written and oral tasks by students, aimed at identifying the degree of mastering academic disciplines and willingness to apply this knowledge for practical purposes, determines only one of the sides of the feedback process.

There are several models of feedback (Fig. 1).

In the first model (Fig. 1, a), the lecturer is the main actor and leader of the course, and the students act as passive listeners. The second model assumes that academic staff members and students interact with each other during the class, are active participants and are on equal rights (Fig. 1, b). The third model, in turn, focuses on a wider interaction of students not only with the lecturer, but also with each other and demonstrates the dominance of students’ activity in the study process (Fig. 1, c).

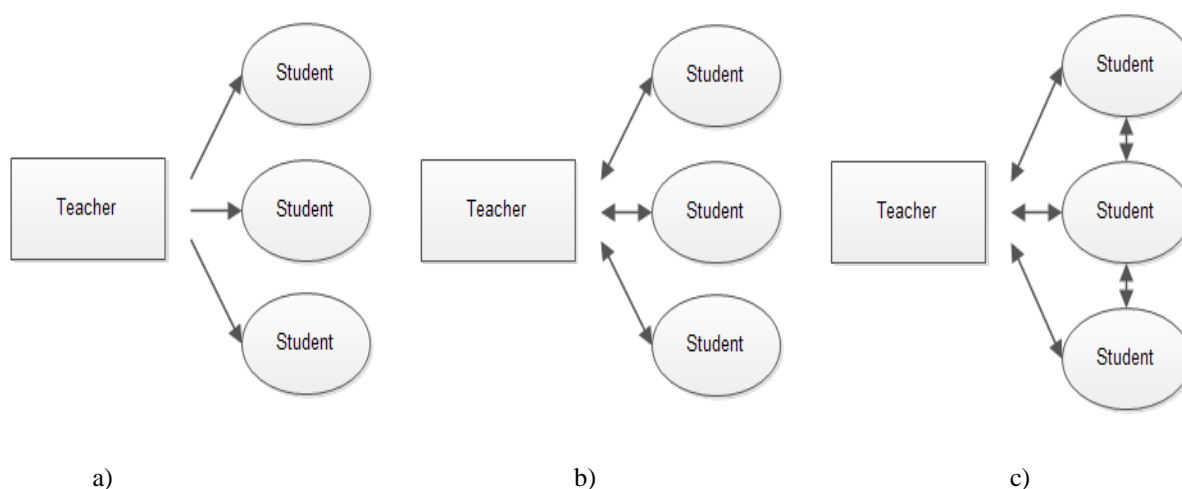


Figure 1 **Models of Feedback** (Vinnik, 2018)

Basically, feedback is a two-way process, which involves receiving and studying opinions of the trainee (student) and the educator (lecturer).

Depending on the students’ answers, the stages and content of the course can be adjusted (Prokofjeva, Uhanova, Zavjalova, & Katalnikova, 2015). Feedback allows academic staff members to get an idea of the dynamics and completeness of the process of mastering knowledge and development of trainees, and for

trainees – evaluation of their activities, advice on how to correct them, thanks to information about shortcomings and achievements (Bessonov, 2016).

Tools and methods of feedback, such as diagnostic surveys, input, intermediate, boundary, final, group works, essays on a given topic, etc., contribute to the increase in the effectiveness of mastering study courses. For the analysis and correction of the activities of students and lecturers, there are questionnaires, group discussions, as well as new ways of feedback: e-mail, forums, chat rooms and blogs. Successful establishment of feedback allows the lecturer to organise learning sessions more effectively considering the personal characteristics of students, as well as directing the formation and development of abilities and skills for self-educational and professional activities. It is the presence of a stable contact with students that determines the professional level and the true authority of the lecturer.

Research Results

Over the past two years, an experiment was conducted, in which first-year students of the Faculty of Power and Electrical Engineering participated. Survey and testing of 194 respondents were organised on the study course “Computer Science” (2017/2018 – 112; 2018/2019 – 82).

The conducted survey contained 10 questions, some of which were: “What education did you get before entering the RTU (where and when)?”, “Evaluate your skills in using Word, Excel, PowerPoint (excellent; average; below average)”, “What programming languages have you used before entering the RTU?”, “Which of the following operating systems have you already used: Windows, Linux, other _____?”, “Which of the following subjects are more closely related to the subject “Computer Science”: mathematics, physics, chemistry?”. In essence, students were asked to independently evaluate their knowledge and skills of using operating systems (Windows, Linux), text editors (MS Word, OO Writer), table processors (MS Excel, OO Calc), programming languages (Pascal, VBA and other languages), as well as their knowledge of mathematics and physics.

The results of the survey were obtained. Some of them are presented in the Table 1.

Table 1 Survey results

| 2017/2018 academic year, I year | 2018/2019 academic year, II year |
|---|---|
| 76% of respondents entered the university immediately after graduation | 80% of respondents entered the university immediately after graduation |
| Word: excellent - 74%; average - 26% Excel: excellent - 27%; average - 72% PowerPoint: excellent - 74%; average - 26% | Word: excellent - 83%; average - 16% Excel: excellent - 44%; average - 51% PowerPoint: excellent - 80%; average - 18% |
| Pascal - 35.7%; VBA - 3.6%; other - 0% | Pascal - 46%; VBA - 7%; other - 0% |
| Windows – 99%; Linux – 0% | Windows – 96%; Linux – 2% |
| mathematics - 82%; physics - 30%; chemistry - 0% | mathematics - 78%; physics - 23%; chemistry - 0% |

Testing of students was conducted during the first classes of the subject “Computer science”. The proposed test consisted of simple mathematical tasks and computer science questions. The purpose of the test was to find out the level of students' knowledge on issues that are basic for solving laboratory tasks. For example, the task “Calculate $n!$ with $n=5$ ” was correctly solved by 21% (I academic year) and 23% (II academic year) of respondents. Tasks, which include questions on trigonometric functions and tasks for calculating the sum of series, were solved by an even smaller percentage of respondents (I year - 18%, II year - 17% and I year - 12%, II year - 16%, respectively).

Taking into account the results of the survey and testing received in the first year, the lecturer made adjustments to the teaching process of the study course “Computer Science”. Results allowed, without changing the course syllabus, to “work out” the weak points in students’ knowledge and offer more understandable examples, practical tasks and assessment.

Thus, for example, in the second year the lectures were supplemented with practical examples of solving mathematical problems, their explanations, as well as methods of implementation in the VBA programming language in Excel (Fig. 1, a).

Also, in the second year short test tasks were drawn up in printed form for use in practical exercises. All these tasks were not evaluated explicitly, but examined in practical classes. At the same time, students were not forbidden to help each other with the solution; the “check friend’s work” technique was often used (Fig. 1, c).

As a result, the ability to adjust teaching materials, identifying more difficult topics and paying more attention to them, allows students to improve their academic performance, as shown in Fig. 2.

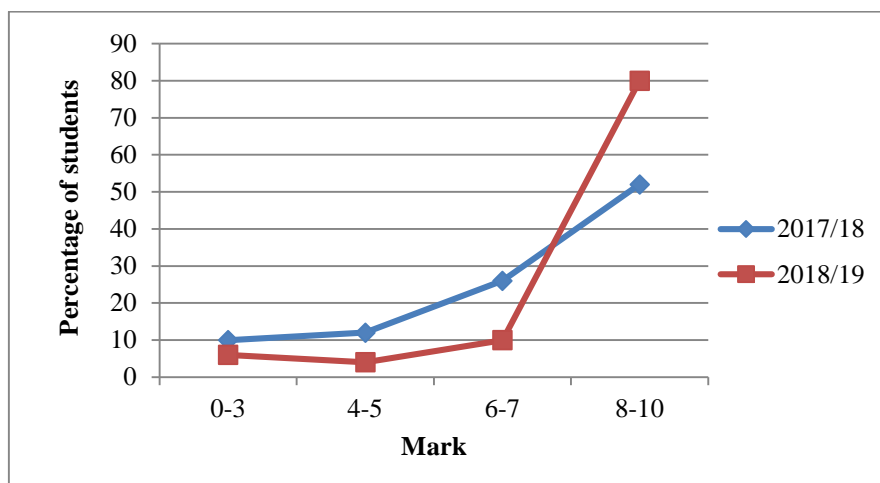


Figure 2 Student performance

This survey, i.e., feedback from students significantly helps improve the content of the course, teaching methods, and provides improvement in student performance in the study course “Computer Science”.

Conclusions

The feedback received as a result of the student surveys, if the correct conclusions have been made, allows lecturers to change or improve technologies which they use, choose the methodology that is optimal at the moment, design and use effective forms of work when delivering study courses.

Successful establishment of feedback allows the lecturer to organise learning sessions more effectively considering the personal characteristics of students, as well as directing the formation and development of abilities and skills for self-educational and professional activities. It is the presence of a stable contact with students that determines the professional level and the true authority of the lecturer.

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BALANCE BETWEEN LEADING AND FOLLOWING AND INTERNATIONAL PEDAGOGICAL INNOVATIONS

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***Abstract.** The primary goal of this paper is to portray how the balance between leading and following can often guide us to new pedagogical innovations and leadership. First of all, we will examine how students' feedback plays an essential role in devising new teaching styles that enhance the amiable learning atmosphere and directs us to new innovations and leadership. Second of all, we will focus on how feedback from colleagues can open new opportunities for new seminars, for new research projects, for writing new papers and textbooks and welcome us to new international and interdisciplinary teaching and learning atmosphere and new innovations. In addition, our aim is to address and understand the concerns and questions from students' and colleagues' feedback can be used to minimize the risk of failure and to steer us in designing new innovations and leadership. Furthermore, our intent is to portray that balance between leading and following is an essential technique in development of new ideas and innovations. Moreover, we will share examples of successful pedagogical innovations that were suggested by students and colleagues. Throughout this paper we will remit the following vital question: do creativity and innovations come directly from us?*

***Keywords:** hands-on teaching style, international learning, international teaching, feedback, pedagogical innovations, transformational leadership, sustainability leadership.*

Introduction

Innovation is defined as an introduction to something new. Leadership on the other hand is defined as guidance, direction and organization. Throughout this paper we will especially focus on pedagogical innovations together with the transformational leadership and the sustainable leadership (Brooks & Normore, 2010). Successful innovators must be good leaders and successful leaders must be innovative. **Transformational Leadership** is defined as leadership that influences positive change to followers and persuades follows to become leaders. On the contrary, **Sustainability Leadership** is defined by the United Nation's Brundtland Commission as leadership that meets the needs of the present

generation without compromising the ability of future generations and Sustainability Leadership matters, spreads and lasts. Andy Hargreaves (University of Toronto) and Dean Fink (Boston College) classify the following seven principles of sustainable leadership. Sustainable leadership creates and preserves sustainable learning. Sustainable leadership secures success over time. Sustainable leadership sustains the leadership for others. Sustainable leadership addresses issues of social justice. Sustainable leadership develops rather than depletes human and material resources. Sustainable leadership develops environmental diversity and capacity. Throughout this paper we will portray how leadership and feedback are a vital tool in developing successful and effective international and interdisciplinary pedagogical innovations that stimulate an active and amiable learning atmosphere (Kennedy & McGarthy, 2013).

The following is a quote by Thomas Corley: “Successful people are in constant pursuit of feedback. They make a habit of it. Feedback improves any product or service you offer in your business. Feedback obtained prior to a launch of a product or service enables you to improve the product or service prior to the launch. Feedback is also critical during and after the launch. Seeking feedback should be seen as a reconnaissance mission. It gives you the ability to obtain valuable information that will add value to your product or service. Making a habit of seeking feedback will set you apart from your competition and allow you to learn and improve upon anything you do” (Corley, 2010). Throughout this paper we will analyse parallel examples of this philosophy in international teaching and learning (Radosmka, 2014). We will especially portray how students’ and participants’ feedback played an essential role in the development of new pilot ideas that directed to discoveries of pedagogical innovations and guided to leadership (Wiggins, 2012).

New pilot ideas and pedagogical innovations are essential to implement as students’ learning styles change from generation to generation and due to educational reforms, cultural changes and international globalization influences (Orlova & Radin, 2018). It is salient for every teacher and professor to stay abreast of these changes and adapt to these changes and provide students with information literacy, pedagogical literacy, organizational literacy and temporal literacy. In addition, international factors also influence new teaching styles, innovations and leadership guidance (Radin & Riashschenko, 2017).

The first question we will start addressing: why is Transformational Leadership is important to be innovative and keep students engaged? The second question: why is student’s feedback is pertinent for future improvements and innovations and how to assess feedback properly (Hussain & Khan, 2016)? In addition, how to apply feedback to design innovations that follow Sustainable Leadership and will matter and spread? What impacts and differences do new ideas and innovations produce and how do students and participants benefit from

the innovations and leadership? How do we retain our leadership role during implementation of innovations? What are the potential risks and problems that can occur and how to manage and minimize them (Radomska, 2014)?

Our goals of this paper are to blend feedback, leadership, innovations and successful international teaching and learning. Coalescing them together to advance with future pedagogical ideas as hands–on teaching styles, new seminars, new topics for conference presentations and new topics for research papers and books. In addition we will emphasize how vital it is to be flexible and open minded to students' and colleagues' feedback; the feedback often becomes a vital tool to designing and implementing these new pilots that direct us to pedagogical innovations and retains quality leadership (Corley, 2010). We will apply the data and experiences during the last 15 years by using students' feedback and feedback from colleagues while teaching courses, conducting seminars and delivering presentations and workshops at conferences. We will especially emphasize how the students' and colleagues' feedback stimulated and encouraged leadership and innovations by applying the student evaluations from Rochester Institute of Technology, Riga Technical University, Transportation and Sakaru Institute, and the participants' feedback from the Canadian Mathematical Society annual conferences, American Mathematical Society annual conferences and other international and interdisciplinary annual conferences.

Students' Feedback as a Source of Pedagogical Innovations

The first step in becoming a pedagogical leader and innovator is to carefully analyse the students' feedback from the course evaluations (Herman, 2011). In fact, if several students write the same comment or similar comments, do they have good intentions to suggest future improvements in the course and in other courses (Smallbone & Quinton, 2010)? Are there good reasons, especially if the same comment or similar comments appear on the evaluations during different semesters or during consecutive semesters (Hussain & Khan, 2016)? To retain amiable communication with the students and successful leadership, feedback is not only vital from students but is just as vital from colleagues (Lucjan Kierczak, Head of Marketing at Survicate). For instance, in Michael's SAT preparatory course at RIT that he teaches regularly, the course evaluations repeatedly suggested to digitize the course workshops instead of writing out the guided examples on the board that looted time away from practice problems. In addition, students wrote on the evaluations that they are tired of spending time copying problems from board and wanted to spend class time working on the hands–on practice working on problems instead (this was the primary concern that students expressed perpetually for some time). After implementing this idea seven years ago in his SAT preparatory courses, the class participation and the enrolment

increased by 20 % compared to the previous 7 years. Furthermore, 80–90 % of the students recommend other students to take the preparatory course as it helped them perform well on the SAT Exam and helped them get accepted to their top universities of choice. In this instance the implementation of students' comments and concerns rendered Transformational Leadership and Sustainability Leadership as it influenced positive changes and provided long-term learning. Does implementing students' concerns always solves the problems? Is there risk involved (Orlova & Radin, 2018)? We will address this question in later section.

After successfully implementing this innovation, Transformational Leadership and Sustainable Leadership in his SAT preparatory course, Michael decided to transform this idea to design the course notes as pdf files for his Multivariable & Vector Calculus course that he regularly teaches at RIT. Devising pdf files of the course notes was essential to accommodate students who experience difficulties in keeping up with the course pace, students who have difficulties with multi-tasking (paying attention and taking notes at the same time), students who have to miss class for reasons beyond their control (these students can access notes and stay abreast of the course material), and to provide students with additional guided repetitive-type examples that class time does not permit. Many students wrote very positive and supportive comments on the course evaluations appraising this innovation: "The course notes were really helpful", "Course notes were great with many guided similar examples", "Course notes helped me catch up with the material when I had to miss class", "Dr. Radin is the best math professor I ever had at RIT". Following the students' feedback and recommendations certainly benefited Michael as it influenced positive changes, provided long-term learning, enhanced the communication with the students inside the classroom and outside the classroom, provided feedback on the frequent mistakes and barriers in the learning process, strengthened the classroom amiable learning atmosphere and enhanced his teaching evaluations. Students continue to write positive and supportive evaluations and recommend other students to take Michael's courses.

Furthermore, Michael received several comments on the evaluations about conducting the course in the workshop-style to provide students opportunities to work on problems during class. This has been a standard practice in freshman level calculus courses at RIT. Michael decided to try this pilot idea in his Multivariable and Vector Calculus course on very tight resources and received many positive and supportive comments on the course evaluations and increased the class participation significantly: "The hands-on practice helped me grasp the material and I understood the mistakes in the set-up of the problems", "I enjoyed the interactive hands-on style course and increased my interest and curiosity". More students started coming to office hours to ask questions and the test performance improved as well. Many students recommend Michael's courses to

other students. If freshman level courses are taught in this style, can sophomore level and upper level courses be taught in this style? By implementing these suggestions from his students Michael's course evaluations have been perpetually above the course average, the departmental average and the College of Science average. This implementation was essential to influence positive changes, retain healthy communication with the students, enhance the amiable classroom learning atmosphere and to stay ahead of the competition; these follow from the Seven Keys to Effective Feedback (Wiggins, 2012).

Colleagues' Feedback as a Source of Pedagogical Innovations

The second step in advancing with pedagogical innovations and leadership is the colleagues' and supervisors' feedback (Spendlove, 2007; Hussain & Khan 2016). Several innovations may be suggested by colleagues at new international and interdisciplinary conferences. For instance, when Michael met Jelena Malahova (Riga Technical University Department of Engineering Economics) at the **International Scientific Symposium "Economics, Business & Finance"** in Jurmala, Latvia, she offered Michael to conduct a Risk Management Seminar at Riga Technical University. Michael never conducted such a seminar and this was Michael's first invitation to such a new pedagogical innovation and leadership. Michael ardently agreed and very shortly assembled a rough draft of the slides. Jelena very meticulously provided him feedback on what vital material was missing that was essential for the students and what material was irrelevant and suggested to omit from the slides. She navigated Michael in the right direction to make the seminar as productive as possible. In fact, this was dispensed feedback before conducting the seminar. This was one of the first interdisciplinary hands-on seminars that Michael coordinated; several students participated from various engineering departments, economics department and some participants from the Riga Fire Department. The students and participants had the opportunity to design risk matrices by addressing the right questions, determining the necessary parameters and categories and making accurate conclusions on the risk classifications and percentages of risk. Practical examples of discussion included automobile insurance, traffic violations, traffic accidents, risk of fires, risk of injuries, and financial investments. This was certainly a beneficial new learning experience for Michael and his students and participants as they were exposed to a positive hands-on leading and learning atmosphere.

Students actively participated in this seminar and gave Michael positive and supportive feedback but suggested to provide more diverse examples and give little longer breaks next time. Furthermore, not only Jelena suggested Michael to conduct this seminar annually at Riga Technical University but also to conduct a similar Risk Management Seminar at the Latvia Fire Academy. After the

discussion, Michael met with the chief officers at the Latvia Fire Academy and suggested to conduct a seminar on “Applications of Risk Management, Geographical Information Systems and Buildings’ Material in Effective Firefighting Techniques”. The chief officers accepted this new pilot idea and will let Michael conduct it in May 2019. In this instance, one pilot transitioned to another pilot. It is worth noting that none of these innovations were Michael’s ideas and were Jelena’s suggested potential pilots. Listening to Jelena’s suggestions opened a new door of opportunities for Michael and expanded his learning horizons as an innovator and leader while conducting this seminar. This principle also follows from seven reasons why customer feedback is important (Lucjan Kierczak, Head of Marketing at Survicate).

In addition to meeting Jelena Malahova at the International Scientific Symposium "Economics, Business & Finance", Michael had the opportunity to meet Wlodzimierz Sroka (University of Economics in Katowice). Very shortly after the conference Wlodzimierz invited Michael to be an editor of the *Oeconomia Journal*. This task required leadership tasks in refereeing diversity of topics on economics, education and psychology. This was Michael’s first experiences refereeing papers on these topics compared to only refereeing mathematics papers. Wlodzimierz also invited Michael to present as one of the plenary speakers at the 5th International Scientific Conference on **New Trends in Management and Production Engineering–Regional, Cross–Border and Global Perspectives**. This was Michael’s second international conference related to these new topics compared to mathematics conferences. Being flexible and open–minded presented several new opportunities and connections for Michael and expanded his international and interdisciplinary experiences as an innovator and leader. This also follows from the principles of seven keys to effective feedback (Wiggins, 2012) and seven reasons why customer feedback is important (Lucjan Kierczak, Head of Marketing at Survicate).

Furthermore, during last 10 years, Michael has been successfully organizing sessions on Difference Equations and Applications at the American Mathematical Society Meetings. While organizing these sessions, several publishers asked to meet with Michael and offered him to write a textbook. Michael knew that he had to persuade the publishers with a new topic and ideas that are different compared to current written textbooks. Michael decided to write introductory textbooks with several repetitive style examples that lead to deeper understanding of the material and also stimulate new research questions. Michael’s first idea of an interdisciplinary STEM (Science, Technology, Engineering and Mathematics) textbook was on “Periodic Character and Patterns of Recursive Sequences” that addresses specific patterns of periodic cycles and eventually periodic cycles. Michael second idea for an interdisciplinary STEM textbook was on “Difference Equations for Scientists and Engineers”. Both are introductory textbooks that lead

to a journey of inductively determining patterns, explicit solutions, discovery of theorems, enhance the methods of proof by induction and proof by contradiction and guide to open-ended research questions. In addition, Michael's successful strategy is to render several repetitive type examples that inductively steer to the discovery and development of theorems. Rochelle Kronzek from the World Scientific Publishing Company told Michael "Since repetitive style teaching has been implemented successfully in your classroom why not mention about it in the textbook's introduction?" Not only did Rochelle successfully swayed Michael to write a book but also allotted Michael very useful feedback that pointed Michael in the right direction as a novice textbook writer as well. Furthermore, Olga Orlova (Munich Technical University) provided Michael advantageous feedback to improve the textbook by assimilating more repetitive-type examples that lead to discovery and development of theorems. Moreover, Olga suggested to include more proofs of theorems and enhance the proof by induction technique. Providing repetitive-type examples gives students opportunities to grasp the material better, enhances the learning atmosphere and retains the material for longer period of time (Orlova & Radin, 2018).

Leading vs. Following and Feedback

First of all, a successful innovator must be a good leader and a good leader must be innovative (Huberman, 1983). A good innovator and leader must be flexible to feedback (Corley, 2010; Kennedy & McGarthy, 2013). In the previous sections we explored the necessity of feedback that intrigue innovations and guide to leadership. In this section we will continue examining how vital the balance between leading and following and feedback play in the development of pedagogical innovations and how it will help minimize the risk of failure during implementation (Orlova & Radin, 2018). First of all, in order to be innovative it is pertinent to successfully implement Transformational Leadership and Sustainable Leadership. Second of all, without feedback leadership will eventually weaken and collapse (Corley, 2010; Wiggins, 2012). Therefore, to minimize the risk of failure and to successfully sustain innovations and leadership, it is essential to periodically change roles (between leading and following), listen to advices and feedback and let others take the lead for some time before performing certain ideas and innovations. We will commence with the following diagram:



Figure 1 Leading vs. following triangular diagram

The first crucial emerging innovation step (especially as a novice innovator) is to listen carefully to colleagues who have more experience, gather their ideas and understand why they are suggesting specific recommendations. Colleagues with less experience may certainly see aspects that you do not see. What you may think is a bad idea may in fact turn out very beneficial and may lead to an innovation. Assembling various feedback from colleagues will also reduce the risk of failure as well, especially frequently repeated feedback that suggest particular changes or new ideas (Radomska, 2014). For instance, repeated comments in the students' evaluations, repeated comments from conference participants and repeated comments from textbook reviewers advocate specific guidance. As we mentioned previously, if repeated comments and suggestions appear several times, then there are good reasons why.

The second vital step to developing successful innovations and leadership is to determine the precise balance between leading and following. It is not necessary to agree with everything your colleagues suggest but at least understand why they are recommending specific suggestions. In fact, it is a perfect opportunity to transform their guided feedback to your own ideas and innovations and direct effective leadership. Feedback is an effective and strong guidance that steers you in the right direction as an invitation to innovate and lead new ideas. As apprentice innovators is it essential to gather feedback on a regular basis to minimize the risk before and after implementations (Orlova & Radin, 2018). These questions address Transformational Leadership as we can see in the diagram below:

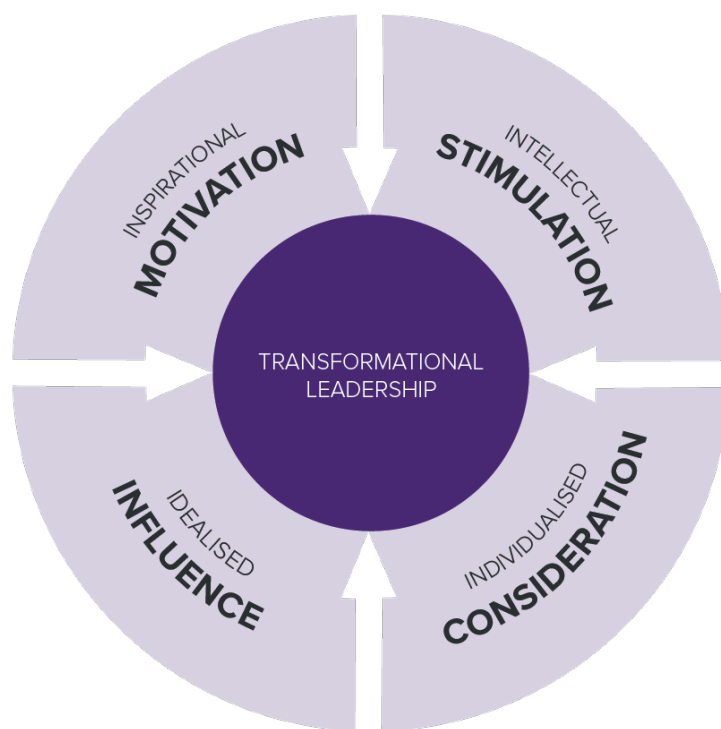


Figure 2 Vital ingredients of Transformational Leadership

From Figure 2 we can conclude that students', colleagues' and reviewers' feedback and suggestions can stimulate, inspire and steer us to creativity, innovations, and leadership that will influence positive changes, inspire leadership, and long-term learning. These include teaching new courses, conducting new seminars and workshops, writing new textbooks, and working on new research projects.

Conclusions and Future Innovations

In the previous sections, we shared about several successful innovations. These were only the first phase of explorations of international pedagogical innovations and pose many new questions to ponder about. First of all, how do we assess someone's feedback and constructive critiques? Second of all, how do we transform and extend their ideas to our own innovative ideas and take over Transformational Leadership that will become Sustainable Leadership? In addition, what additional thoughts will be required to implement colleagues' feedback and suggestions and guide leadership? For instance, if a colleague suggests to write a book or a textbook, how do we choose a new topic? When Michael was invited to write a textbook by Springer, he chose "Periodic Character and Patterns of Recursive Sequences" as a new topic compared to other textbooks.

In addition, when Michael was invited to write a textbook by World Scientific Publishing Company, he selected “Difference Equations for Scientists and Engineers” as a new topic relative to the existing textbooks. Understanding and implementing reviewers’ and publishers’ feedback was pertinent as a notice writer and yet it was just as vital to stay innovative with new ideas while writing both textbooks in inductive style by providing several repetitive type examples that lead to the development of theorems and new research questions. This has been Michael’s successful teaching practice during the last 10 years and Rochelle Kronzek (World Scientific Publishing Company) suggested Michael to include that in the textbook’s introduction. In addition, Michael is currently writing a book on “Poetic Landscape Photography” that was also suggested by a colleague. Moreover, Michael will be conducting a special workshop on “Balance Between Leading and Following and Successful International Pedagogical Innovations” at the **Society, Integration, Education International Scientific Conference** in May 2019.

Acknowledgements

In closing, we would like to take the opportunity to thank our colleagues Jelena Malahova from Riga Technical University, Svetlana Usca from Rezekne Academy of Technologies, Rochelle Kronzek from World Scientific Publishing Company and Wlodzimiers Sroka from University of Economics in Katowice. Their guidance and feedback navigated us in new directions of interdisciplinary and international innovations, stimulated effective leadership and opened doors to new explorations of innovations together with the Transformational Leadership and Sustainability Leadership.

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IDENTIFYING STUDENTS' WAYS OF LEARNING OF MATHEMATICS AT UNIVERSITY LEVEL

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Abstract. *The Mathematics study course is one of the core subjects in study programs of Technical Universities. To acquire this course successfully it is necessary to have mathematics background of sufficiently high quality. The authors of this paper recognize the difficulties first year students face due of their insufficient mathematical knowledge.*

Today, universities emphasize independent study work by students and allocate special time slots for this. To be successful, students need to plan their study time, use appropriate learning methods, and have motivation. Because of the significance of students' individual work, a questionnaire was developed to research how students plan their time and activities for learning mathematics.

The authors selected three focus groups of first year students at Riga Technical University (RTU), Latvian Maritime Academy (LMA), and University of Latvia (UL) to collect the data. The comparative analysis of data showed how students use the time slots allocated by institutions. The UL and RTU students on average do not fulfil this time completely, while the LMA students spend more time for learning mathematics. Students highly value individual consultations with teachers; they actively communicate with study mates to solve homework assignments; and students use information technologies in the study process.

Keywords: *learning at university level, mathematical knowledge, time, transition.*

Introduction

The Mathematics study course becomes an increasingly important service subject for a range of disciplines - not only as a background subject in science, technology, engineering, and mathematics, it plays a significant role in economy, sociology, agriculture and in other fields. To reach success in studies and to become highly skilled specialists, students need a sufficiently deep level of mathematical knowledge. However, the transition from secondary school to the university are challenging for most students. To overcome the difficulties faced by many students, it is necessary to organize the learning process. We, the authors

of the presented paper, are responsible university teachers, and we look for innovative teaching methods to initiate and support students' learning to enhance their level of expertise in the subject of mathematics.

There is the problem of the wide diversity in the *level of mathematical knowledge* (LMK) that students bring from the high school to the university. The commission of *centralized exam in mathematics* (CEM) of Latvia decided to eliminate the level of demands to the score of 5% of correctly solved problems on the exam as an accepted positive result. It is expected that graduates with low scores in mathematics exam do not choose to study specialties that are strongly based on mathematics. Nevertheless, some of them started studies in specialties that need valuable mathematics background.

This diversity of assessed results on CEM creates difficulties both for students and for university teachers. For example, a fifth of the first-year students at LMA had CEM assessment between 5% and 40%. The acquiring of every new theme introducing new objects, objects' properties and relations, notions and terms, and particular methods to solve the tasks and to prove the propositions requires serious effort for students with weak mathematical abilities. The teachers must apply a differentiated approach in the management of study work. The question arises here: How to make the mathematics course accessible for any student, how to strengthen and improve his or her mathematical knowledge and ability? Taking into account the significance and effectiveness of students' learning styles, we paid a closer look to the time division devoted to mathematics. The research question that we investigated is:

- *How do the students plan their time for learning mathematics and how do they value the benefits gained from different learning activities?*

The challenges in learning mathematics in the first year of university

The transition from secondary school to university essentially changes the students' learning experience. They can face different challenges: they are confused by the increasing speed of incoming information, they get more autonomy given for the solving of tasks, they have to grasp the sense of the abstract methods of proofs. Artigue (2016) points to the discontinuities between algebra and analysis that have been proved challenging for students – to understand the mechanism of analytic proofs, to solve equalities and inequalities as part of analytic calculations.

Many researchers speak about the amount of problems and questions derived from the students' start of studies in the first year of university. One of the widely known problems is the students' insufficiently strong mathematics background knowledge. Survey Team 4 from 12th International Congress on Mathematics Education (Thomas et al., 2015) reported about the internationally performed

survey to obtain data on the above-mentioned transition. They collected data answered by academic mathematics teachers from 21 countries. 91.1% of respondents agreed that students have problems in moving from school to university, and they commented that difficulties come from lack of preparation in high school; from differences of the teaching style and of the theoretical content. Other researchers (Hoyles et al., 2001) pointed to the students' lack of essential technical facility in algebraic manipulations. They noted that students do not understand that mathematics is a precise discipline in which exact, reliable calculation, logical exposition and proof play essential roles. Rensaa and Grevholm (2017) argued that students have difficulties with proofs and formal mathematical language that appears in studies without connection to previous mathematics knowledge.

Several researchers discuss the challenge: how to bridge the gap in the transition from high school to university because of the difference in students' level of mathematical knowledge. Australian researchers (Nicholas et al., 2015) present their case of secondary education curriculum - senior grade students can choose to learn elementary, intermediate or advanced mathematics or can choose to not learn it at all. Students with a different mathematics background or without one enter universities to study disciplines where the mathematics knowledge is a necessary prerequisite to take particular specialization courses.

Another type of difficulties faced by university lecturers is the diversity of the audience that demonstrates a broad spectrum of abilities and levels of interest in mathematics (Wiggins et al., 2017). The attempt to keep the learning environment suited for any student is challenging. It may happen that academically strong students feel bored, or students with lower mathematical ability cannot follow the topic.

The motivation to learn mathematics to a deeper extent is not recognized by engineering students; the links between mathematics and engineering are not made explicit. Harris et al. (2014) note that in the job market there is the need for professional engineers to think mathematically and to use mathematics to describe and analyze different aspects of the real world. Interviews with the students reveal that they do not know how mathematics will be useful in their engineering courses. Lithner (2011) pointed out that several students tried to use mathematical formulas mechanically without the understanding of their content and sense.

Based on our experience, we recognize similar problems that arise in mathematics education at the university level in Latvia.

The view on learning process

The purpose of learning is to achieve defined learning goals. The components of this process should be investigated based on different theories.

Bloom et al. (Bloom et al., 1956) observed three main domains that cover the learning objective; these are cognitive (knowledge-based), affective (emotions-based), and sensory (activity-based) domains. The cognitive domain contains knowledge as the basis for development of intellectual skills. The structure of this domain was revisited after some years by a group of researchers now calling categories of these skills in the hierarchy of their complexity: *Remembering, Understanding, Applying, Analyzing, and Creating* (Anderson et al., 2000). The teaching and learning in 21st century names many educational theories in the context of psychology, philosophy, and pedagogy – for example, Richard Millwood's exhaustive visual graphic summarizes 32 learning theories (Heick, 2019).

In our research we focus on the activities carried out in the learning process. The process is managed and guided by academic study programs, timetables, demands stated in course descriptions and assessment of students' regular work and their achievements. The learning process is supported by lectures, practices, study materials, workplaces, and computers. Learning process is performed by a person acting individually or in communication with other persons and it contains a set of components depending on individual qualities and external circumstances (Fig. 1).

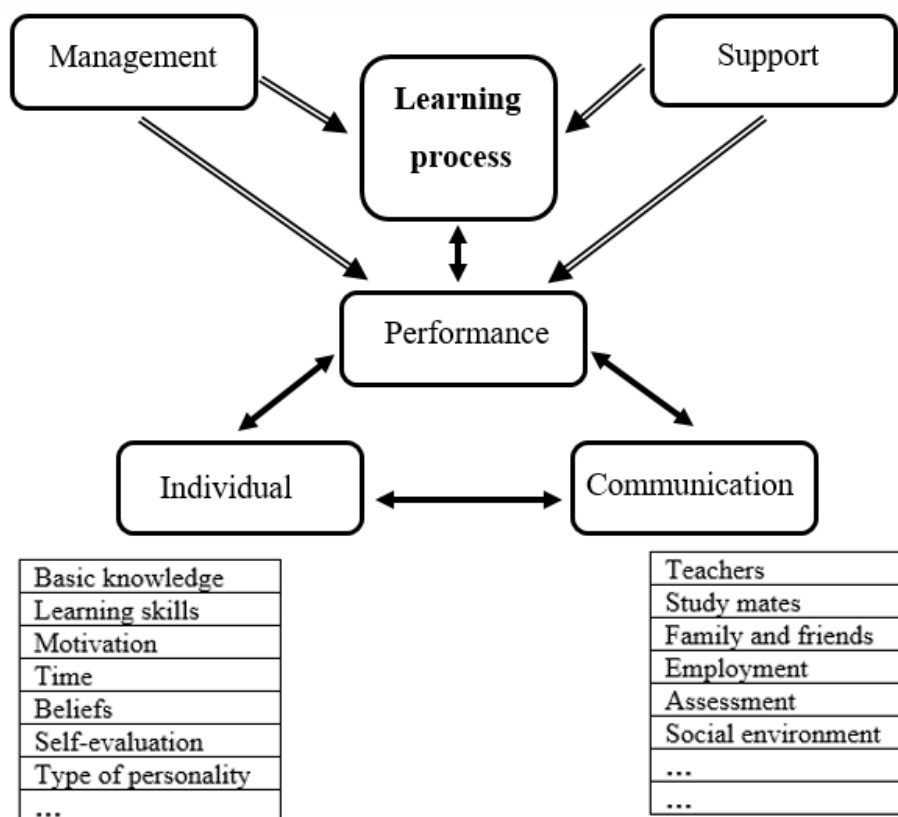


Figure 1 Regulations and activities influencing the learning process

Basic mathematical knowledge and learning skills are the crucial conditions for effective learning. Accascina et al. (2014) note that often students do not recognize what they do not know. So, identifying and filling gaps in the knowledge requires additional effort and energy, where the assistance of a competent consultant is required. The role of the consultant should be taken by a university teacher, private teacher or study mate. The quality of learning depends on several aspects of motivation: is the student interested in mathematics? is he or she aware of mathematics applications in particular study subjects? Or, motivation can be quite pragmatic – based on the necessity to pass the mathematics exam. The relevant factor in the study process is time that can be valued from three positions: time as an imaginary factor (planned by the university institution to acquire the mathematics course); time as a subjective factor (time that is needed for an individual to accumulate the knowledge); time as an objective factor (time that an individual can really spend on learning depending on outer circumstances). No less important is the division of the time devoted for learning: studying of theoretical questions, solving tasks, using computer technologies and interactive materials, communicating.

Accumulation of mathematical knowledge

Mathematical knowledge of an individual can be considered as a complex, hierarchical system. Rensaa and Grevholm (2017) describe conceptual and procedural knowledge related to learning. They refer to the model introduced by Hebert and Lefevre who defined the conceptual knowledge as connected networks of knowledge that are rich in relationships. The procedural knowledge is defined as part of symbolic representations that are used by the other party to construct step-by-step solutions.

We have a similar view on the architecture of mathematical knowledge. This system contains the *storage of information units* (domain of facts, concepts, and methods) that are managed by *supervisors* – the procedures that organize, set in order, translate, form the interconnections between the units, and construct individual concepts. Supervisors create a live, flexible and coherent network. Procedural knowledge contains a set of *instructions* on the selection of information units and on procedural steps and methods to operate with these units. These instructions construct the solutions of mathematical tasks and problems, and construct the proofs. The completeness and coherence of the knowledge system and the meaningful application of procedural steps characterize the depth of mathematical knowledge. Every new concept should be accumulated and incorporated in this system by the implementation of acquired knowledge.

Incorporation of new concepts and objects increases the depth of knowledge. If the store of information units and procedural steps is incomplete, fragmented

and weakly connected, an attempt to collect new information can even disarrange the balance between units and procedures. The assistance of a competent expert is proven in helping a student to improve and to arrange their system of mathematical knowledge. A group of researchers (Barzel et al., 2013) report on their experience designing special tasks and instructions to organize knowledge. These tasks and methods can be involved directly in the teaching-learning process so that students can accumulate well-organized information.

Investigation of the ways to learn mathematics chosen by students

Recognizing the significant role of learning activities in the process of forming the mathematical knowledge, we carried out a local investigation about students' ways to learn mathematics at university level. We chose three focus groups of students in the first study year - 8 students of the Mathematics specialization and 13 students of the Teachers of Mathematics specialization from the *University of Latvia* (UL); 53 students of Technology of Chemistry specialization from *Riga Technical University* (RTU); and 67 students of specialization Navigation from *Latvian Maritime Academy* (LMA). The students of RTU and LMA study mathematics as a service subject. They are introduced to the concepts that are used to form notions and to solve problems in particular study subjects in their specialization. The Mathematics course includes calculus that is broadened by pre-calculus content. The students of UL study Calculus as one of the study subjects.

Institutions allot a different number of credit points to these study courses and prescribe different time slots for independent work. Prospective mathematicians have to spend 9 hours per week for individual learning, while prospective mathematics teachers and students of technology of chemistry - 6 hours per week, whereas the students of navigation spend 3 hours per week.

We composed a questionnaire to collect the characteristics of division of time devoted to learning mathematics and students' beliefs on which ways can give them more valuable benefits. The questionnaire included questions of how they value the time spent learning alone, in a group, in consultations by a university teacher or by a private teacher, and in the classes, and what benefit they have from these activities. Special attention was paid to individual learning (learning alone): how students value their reading of mathematics theory books, using of notes made by themselves, doing homework, solving additional exercises to better understand the themes, using computer technologies. Another question was how many times per week they need for learning mathematics.

We separated students in 6 groups in accordance with their CEM assessment. In the first group we included the students that have score less than 41%, in the next groups – students with scores between 51% and 60%, 61% and 70%, 71%

and 80%, and in the last group were included students with the highest score of above 80%.

Results

From the collected answers to the questionnaire we found that students of technical universities valued the benefit of the ways to learn quite similarly. Science students (prospective mathematicians and mathematics teachers) are academically more strongly prepared for studies - they do not need private lessons and they mostly learn independently. In comparison, the students of UL have higher CEM scores. The mean CEM score for UL students is 75.7%; for students of RTU – 62%, and for students of LMA – 54.2% in the selected focus groups.

Figure 2 demonstrates the mean value of the benefit gained at a particular activity as estimated by students.

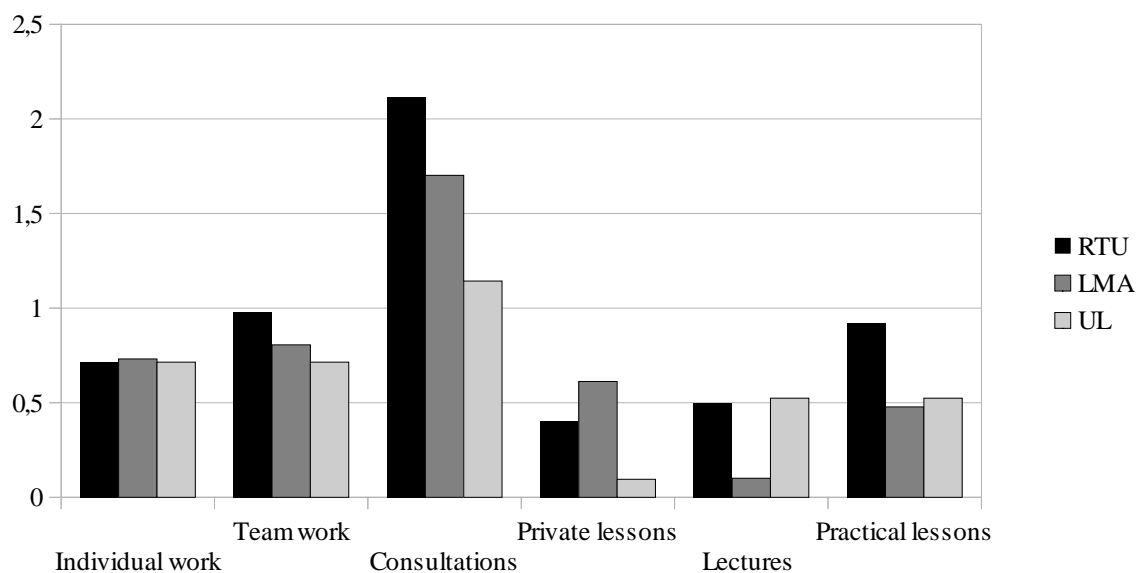


Figure 2 Students' opinions on the benefits of different ways to learn

The students from all institutions answered that the best way to learn is a consultation with their university teacher. As the next relevant activity is rated teamwork with their study mates and private lessons for those students who take them. There is minimal benefit from lectures in large audiences, especially for students with minimal mathematics background. For instance, the case of LMA students presents direct correlation between the students' level of mathematical knowledge and their estimation of the benefit from lectures. The half of them with a moderate or low CEM score are hindered to engage in the classes more actively.

Students with a strong prior mathematics background accept the benefit of the auditorium work.

Speaking of the time that students devote on acquiring all study subjects, we found that on average they do not learn as much as planned by the institution (20 hours per week for all study subjects). Still, part of the focus group students dedicate more energy for studies than others - 11% of RTU students, 24% of UL students, and 25% of LMA students learn at least 20 hours per week.

Figure 3 demonstrates the data on the average time spent for learning of mathematics (Fig. 3). The students of UL use less time than planned to acquire the topics of Calculus. The need for more time is evident for students with lower level of mathematical knowledge; especially the students of Navigation specialization need twice more time than it is planned. Here we would like to note that one of the Technology of Chemistry students is very persistent, using 30 hours per week for mathematics learning.

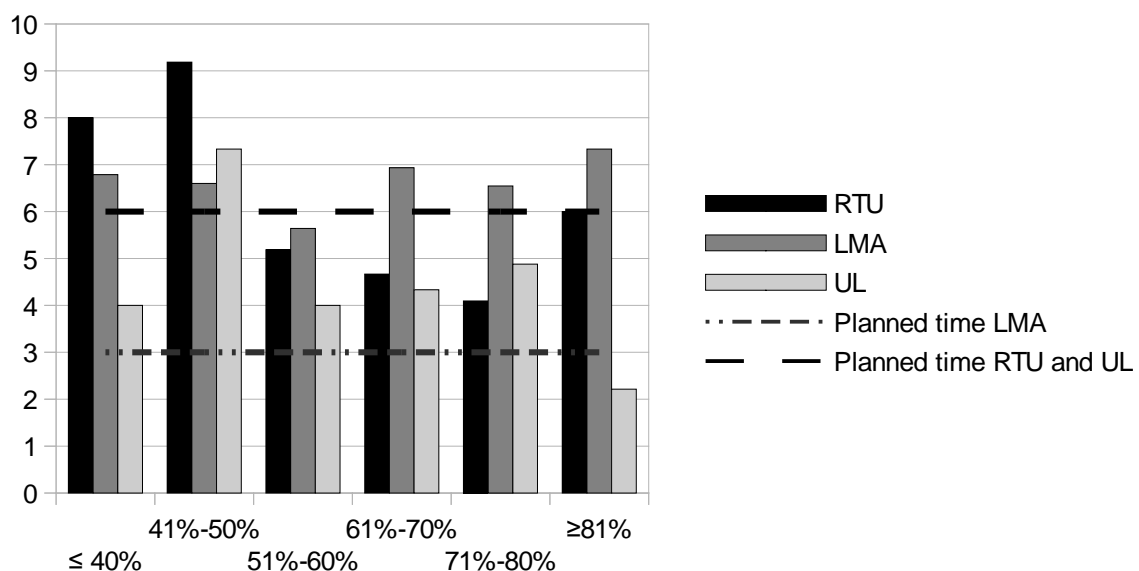


Figure 3 Time spent for after-class learning of mathematics

We analyzed the ways of individual learning as well. Students of all institutions show approximately the same preferences. Mostly they learn from the notes made by themselves to read theory and to find examples of the task solution which is expedient to prepare their homework. Up to 40% of the learning time for independent work is used to apply the advantages offered by computer-aided technologies - demonstrations of the examples of task solutions, explanations of theoretical terms, applications of interactive study materials, or computer programs for solving mathematical problems.

The reading of mathematics textbooks and the solving of additional problem sets are not broadly used. Such approach can influence the quality of knowledge, because note books may not contain complete information.

The questionnaire also asks some qualitative questions about the learning process: how do the students evaluate the mathematical knowledge acquired during the semester, and do they learn enough? We found that the students' self-estimation was highly similar to their score on the centralized exam. Only a few students from all focus groups agreed that they work hard, whereas the others feel that their attempt to get quality knowledge is not sufficient. We have to note that engineering students complain about the too-high speed in the introduction of new concepts of mathematics, and they desire to solve easier tasks.

Discussion: Possible activities to improve students' learning

We found from the collected data that students with low background in mathematics have the predicted difficulties in acquiring mathematics course at university level. Academic teachers face the challenge: how to help students to improve their knowledge? One of the aspects is to organize the presentation of the lecture including more examples, challenging tasks on different level of difficulties, causing discussions, engaging the students in investigation activities. Another way is to recommend effective learning methods to students.

There have been various studies on the effectiveness of the lecture as a teaching method (Charlton, 2006; Schmidt et al., 2015). The researchers discuss advantages and disadvantages of the lecture teaching method. The following advantages are mentioned: with this teaching method, a large number of topics can be covered in a single class period; learning material is not required; students' listening skills are developed. Charlton (2006) researched the communication between the auditorium and the lecturer, and stresses the necessity of trust between students and the lecturer as a condition of effective learning. Several disadvantages can arise with this teaching method: for example, the language used in the lecture is above the standard of the students, so the students are not able to grasp the theme of the lecture and understand its content; the students cannot to develop critical thinking.

In practice, it has been verified that students give positive feedback if the following elements are added to lectures:

- at the beginning of the lecture the learning objectives are formulated;
- regular tests using the opportunities offered by IT are included in lectures: students take short (5-10 min) tests on their mobile devices about previous or current lecture topics in order to check student progress, also for the diagnosis of previous knowledge. The test can be prepared in e.g. *socrative.com*, *kahoot.com*, *mentimeter.com*. If tests are

- performed electronically, it is immediately possible to see the students' mistakes and discuss them;
- to ensure that students are actively involved in the lecture, the lecturer can ask a question and put the students to answer on their mobile devices; use a show of hands to check the responses; if incorrect answers are chosen teacher can use the opportunity to talk the mistakes through with students;
 - different learning methods should be used to ensure that students do not lose interest in actively participating in lectures. Students like lectures in which they need to think actively and work actively; they like lectures that are “*outside the box*” (i.e., “outside” just to listen and sometimes write down notes if necessary during the lecture);
 - various visual demonstrations should be used, different examples and applications, historical facts, and activities that can involve students.

Several researchers turn their attention to the influence of textbooks in the learning process, to the organization of knowledge, or to the quality of e-learning environment. The researchers Rensaa and Grevholm (2017) acknowledge that visualizations may play an important role in learning mathematics. The pictures included in text books to illustrate examples are highly evaluated by the students. Grevholm (2005) discusses a different approach in the construction of mathematical comprehension. She proposes the construction of concept maps that include various properties of objects noted as nodes of the map and edges showing different types of interconnections of objects. Such interpretation is useful to detect students' misinterpretations by comparison with the expected results, and can help them develop better understanding about the relations of mathematical concepts.

Pan and Hawryszkiewicz (2004) categorize processes in Web-based learning environment. Researchers state that many instructional websites deliver course materials without the guidance for effective use of these materials. They discuss the architecture of such learning services in supporting the formation of constructive knowledge to assist learners in building new competences.

Following the findings of the education science, academic teachers should be open for discussions with their students – not only to give exhaustive explanations but to ask meaningful questions that can guide students to search for the solution of the problem themselves.

Conclusions

Comparative analysis of collected data from questionnaires points to several tendencies worth contemplating:

- Students prefer consultations with teachers, private consultations, and to study mathematics with mates. This indicates that it should be more effective to organize the study process of a mathematics course in groups smaller than those used today.
- A significant part of students assert that their benefit from the lectures is rather low. Most students complain about the speed and amount of information. Nevertheless, the quality of lectures is accepted by students with higher CME scores. The question arises whether it would be rational to give separate lectures for students with different levels of knowledge.
- Students plan learning activities in a rather balanced way and they apply information technologies in their independent study work. The authors note that such experience enriches students' mathematical knowledge.
- The time that students spend studying mathematics differs in focus groups. Students with lower CME score spent more time learning. The LMA students spent more time on average than the RTU and UL students. Here arises the question: how effectively do the students learn? This question is due to the students' opinion that they learn not enough. Further investigation of students' learning methods is needed.

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EDUCATIONAL ACTIVITY IN THE SECOND REPUBLIC OF POLAND. THE OUTLINE OF ISSUES

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***Abstract.** In an ethnically and culturally diversified society, great importance was assigned to education open to tolerance and respect for other people. In this respect, activities of Vilnius associations deserves special distinction, because – in spite of conflicts or differences of opinion – none of the associations propagated nationalist slogans nor promoted negative emotions. The dominating attitude was marked with moral sensitivity, connected with practical introduction of the pupils to perform their social and occupational ways, norms of conduct in compliance with the rules of amicable co-existence, their legacy and the sense of national identity in the spirit of tolerance.*

The fundamental objectives of the undertaken activities were: reconstructing reasons and circumstances of taking care of minor children, orphaned or deprived of appropriate care executed by their own families, determining the incentives contributing to development of tutelary ideas during the discussed period of time and revealing mechanisms causing development and extension of the activities, evaluating the welfare and educational work against the background of social needs, specification of the criteria to be satisfied by the institutions providing care to children in the environment of the Second Republic.

***Keywords:** care, charitable organisations, education, upbringing, Vilnius associations.*

Introduction

Regaining independence by the Polish state in 1918 year created foundations for a systematic and planned development of different forms of providing total and partial childcare. At the same time, there were many theoretical conceptions of bringing up children deprived of natural families developed, many new, more effective methods. Widespread discussions held in the society, supported by works of theoreticians of education, and their related practical solutions, inspired formation of Polish childcare system from scratch in the independent country. It was not an easy task, as after 125 years of bondage, the country and the society faced political, economic and ethnic difficulties in restoration and creation of the state.

The region of Vilnius was one of those Polish territories, where grassroots charity was particularly well developed. It had its own kind of tradition, based on the achievements and experience of the enlightened social classes and on aid and education programmes.

Polish initiatives in the field of taking care of children and adolescents were expressions of patriotic aspirations and at the same time were the result of the influence of the native tutelary conceptions combining tutelary activities with an educational programme. The associations formed by the national minorities did similar jobs, taking into account the values connected with the necessity to preserve the language, tradition, culture and religious creed that formed the basis of maintaining continuity of generations and national-cultural achievements.

Many research methods were applied in order to analyse the obtained results and their editorial processing. Due to the theoretical character of the work, the following methods were applied:

- historic-comparative – which was applied mainly for searching, selecting, classifying a problem and for identifying and comparing the collected material;
- monographic – used for examination of documents containing descriptions of the organizational structure;
- inductive – used mainly when revealing facts on the basis of source information, deciphered from instructions, programmes or other analysed documents;
- deductive – applied mainly when revealing facts on the grounds of documents indirectly discussing a given phenomenon;
- statistic.

The basic source base for this study were the archive records – an abundant set of records No 53: of the District Office of the City of Vilnius – the Republic of Poland, from the years 1921–1939, marked as Inventory No. 23, stored in the Lithuanian Central Archive in Vilnius and the Archives of Modern Records in Warsaw, Records Section of the Ministry of Religious Affairs and Public Education, Vilnius Association of Care for Children vol. 14, Performance Statement of Vilnius Association of Care for Children and Its Subordinate Institutions in the Years 1922-1933.

The fundamental objectives of the undertaken activities were: reconstructing reasons and circumstances of taking care of minor children, orphaned or deprived of appropriate care executed by their own families, determining the incentives contributing to development of tutelary ideas during the discussed period of time and revealing mechanisms causing development and extension of the activities, evaluating the welfare and educational work against the background of social needs, specification of the criteria to be satisfied by the institutions providing care to children in the environment of the Second Republic.

Educational activity in the Second Republic of Poland

The community of the Region of Vilnius was particularly sensitive to misery, particularly to the needs of children and adolescents. That attitude showed results not only in individual activity, dictated by an impulse of the heart, but also by a number of charity initiatives aimed at creating organisational frames for welfare and educational activities. One of such organisations was Vilnius Society for Providing Care for Children established in November 1901 on the initiative of social workers and philanthropists led by Jozef Montwiłł (Siedlaczek, 1998). Soon after it had been established, the Society extended its range of activity to Vilnius and Vilnius Region. The association continued its activities in the reborn Poland and considerably supplemented the activities of state and self-government institutions. The association acquitted a new formal and legal frames through an entry in the Register of Associations and Partnerships – entry No 1168 – in compliance with the resolution of the provincial governor of Vilnius of January 8, 1930.

Even in the early period of its activity, the association played an important role in keeping up Polish national awareness in the region of Vilnius and provided care to children coming from the poorest environments. By combining philanthropic activities with cultural and cultural-educational activities, the association took care of the poor children in the city of Vilnius, deprived of their parents, abandoned, threatened with bad influence of the environment in which they lived. After Poland regained its independence, the association extended its activities establishing welfare-educational institutions, in which children deprived of parental care found rational protection and education. A network of such institutions spread all over the Vilnius region. Cheap or free of charge day care centres, orphanages, food aid centres, children's hospitals and summer camp groups. The aim of such activities was to provide decent standards of living to the most needy and defenceless children. Intellectual, moral development and physical education were also taken care of, as they were very important for the adolescent generation. The association took care of the children, who were often victims of abuse, or were brought up in morally or financially bad conditions.

The ensuing situation induced to take up a widespread debate on finding a remedy for those problems and increase effectiveness of public initiatives and actions initiated by the state authorities. The issues were discussed at informal meetings, in many social circles, in open and parliamentary forums. Different concepts were devised and programmes created. In this way, a favourable atmosphere, favouring initiating welfare initiatives. And because stormy events that took place in the 20th century brought activities of many charitable institutions, deeply rooted in the previous century, to an end, the new conditions

forced creating new, more effective, tutelary-educational institutions. The problem took on not only a new social and political dimension, but first of all it required appealing to religious, moral and general human values. Hence the issues connected with providing social and educational support for children and adolescents was reflected in programmes of political parties and the daily media of different social and political orientation, as well as in pastoral work of the Roman-Catholic Church and other unions and associations of religious nature. While the right-wing parties treated the issue of social injustice or poverty with certain embarrassment, the left-wing parties used homelessness, diseases and unemployment of the young generation and tragic living conditions of the children for their propaganda and political purposes, trying to emphasize the hopelessness of life in the political system functioning in the inter-war Poland.

In the period under discussion, there were at least 40 associations (Siedlaczek-Szwed, 2009) in the studied area, Polish as well as those organised by ethnic and national minorities.

The association created tutelary and educational programmes for children and adolescents, as well as for adults. The basic group of the organisations, i.e. 22 (56.49%), originated the twenties, which were the years of particularly intensive assertion of appropriate childcare, when the entire Vilnius community set themselves the goal of setting up such a system of childcare and education, which would be appropriate to the existing needs and circumstances. The system was to provide optimal effectiveness of educational and tutelary activities oriented to values preparing children and adolescents for work and contribute to culture and to life with a sense of common good and idealistic human community. The premises resulted from the assumption that the values governing human existence and being part of the system of generally recognised axiological assessments are of fundamental importance in human life.

In that world, the world badly wounded with the effects of the war, the first ones to save were the direct foundations of existence exposed to orphanhood, hunger and epidemics. At the same time, encountering hardships of war and post-war realities had become sources of traumatic experiences and destroyed not only the financial sphere, but also the social ties based on cultural community and on the system of moral values. On that account, there was a tremendous social demand for such a pedagogical theory and educational system, which would have emphasised not so much the contents of education as values expressed as goals of education, pertaining to the entire sphere of human life (Pasterniak, 1991; Wolniewicz, 1993; Gołaszewska, 1990). Therefore, there is no doubt that the associations existing in the region of Vilnius put such pedagogy into practice in their activities with very good results. It had the same educational orientation in the associations established by the Polish community

(33 associations), as well as in the Jewish (3 associations) and the Byelorussian (2 associations) ones.

In the region of Vilnius, apart from all-Poland organizations – having their branches in the region – there were also organizations of local character, established in towns and settlements of the Vilnius region and implementing their statutory objectives there.

Further efforts to provide tutelary and educational services were made first of all by different public institutions and organisations, with relatively little help from the state. The administrative authorities, having relatively little money and budget resources, helped to finance only part of activities of the public organisations and organised care for children whose parents were killed in the war and for children of re-emigrants.

Care was provided first of all for orphaned, neglected and homeless children. They were placed in various tutelary centres or sent to peasant families. Activities connected with providing welfare aid to hungry and having nothing to live on children in large families, whose parents were poor and unemployed were initialised and developed. Aid was provided in the form of distribution of food rations, clothing, shoes and extra meals. There were also summer camps and summer play centres organised. Such activities were meant to prevent biological ravaging of young Polish generation.

However, universal, humanistic values motivating care providing activities were propagated side by side with values connected with such notions as nation, national culture, *raison d'état*. Ethnic and cultural diversification of Vilnius community and socio-political tensions arising on this ground made creation of a uniform system of care and education impossible. As a matter of fact, the universal nature of the idea of charity considerably toned down the tensions, but it should be noted that individual ethnic groups developed their aspirations separately – living in shared space, and forming separate religious, ethnic or cultural groups. Hence, apart from associations created by Polish community of the inhabitants of Vilnius, there were Jewish, Byelorussian (Orthodox Church) or Lithuanian associations formed. The style of the rescue activities of individual associations shows very clearly that it was the work performed and developed owing to specific people who, not only organisationally as well as financially, sometimes in a surprisingly generous way, rushed to other people's aid. Many societies could have organised schools, run hospitals, establish hostels, provide occupational training, facilitate membership of guilds, open orphanages and conduct extensive and original activity due to land and houses mortgage entries, as well as considerable financial contributions, which apart from limited financial support from the state budget was an important item in the annual balance sheet.

It should also be noted that in spite of the aforesaid diversification Vilnius associations enjoyed a high degree of public trust, as they were the response to the needs resulting from socio-economic, as well as cultural and political conditions. The associations owed their position to the fact that in the educational process they did not omit the spiritual sphere characteristic for individual milieus. Polish associations had distinct connections with Christian values, national aspirations and the legacy of Polish cultural tradition, whereas associations established by Jewish or Byelorussian communities aimed at preservation of their cultural and national identity, including preservation of tradition and religious principles that were faithfully followed by individual circles of Vilnius community.

In an ethnically and culturally diversified society, great importance was assigned to education open to tolerance and respect for other people. In this respect, activities of Vilnius associations deserves special distinction, because – in spite of conflicts or differences of opinion – none of the associations propagated nationalist slogans nor promoted negative emotions. The dominating attitude was marked with moral sensitivity, connected with practical introduction of the pupils to perform their social and occupational ways, norms of conduct in compliance with the rules of amicable co-existence, their legacy and the sense of national identity in the spirit of tolerance. In the region of Vilnius, where there were active and cooperating the Catholic Church, the Orthodox Church, the Evangelical Church and Synagogue, building one's identity without tolerance might have been very dangerous. Therefore, the associations formed the tolerance by releasing cognitive activities of their members, based on referring to common experiences and historic ties.

Conclusion

When analysing educational programmes of individual associations, one can see – in spite of their common axiological plane – certain diversification in trends of activities. It often arises only from different emphasizing educational tasks, different ranking of the designated priorities. Hence, taking into account the fact that the essence of the educational objectives was common, not to say identical, it should be emphasized that classification of educational trends is in a certain way symbolic, determined by the emphasis rather than mutually exclusive differences. Yet, it is worthwhile to articulate this diversification of educational tasks, because it makes them more distinctive and their structure is more clear. Demands made in the sphere of pedagogical theories and the practice of pedagogical activities, expressed in statutes and programmes of activities of individual associations allow to distinguish four main trends in upbringing, characteristic for the interwar period, namely: national upbringing,

state upbringing and patriotic-civic upbringing, educational upbringing and socio-moral upbringing. All those trends in educational effects can be found in programmes and in practice of Vilnius associations and all-Poland organisations having their branches in the region of Vilnius.

Difficulties with development of childcare in Poland resulted from the negligence of the Partitioners' administration, the result of earlier policy, and not always appropriate social policy of the reborn Polish state and acute economic problems projecting not only on social situation, but on constant deficiency of budget revenues. For these reasons the tutelary units and institutions were not sufficiently subsidized and their expenses were permanently reduced. Programme concepts of associations included above all issues resulting from the exceptionally difficult contemporary situation of the time, as well as activities oriented on planning the future of a given individual realistically taking into account his or her identity.

Polish initiatives in the field of taking care of children and adolescents were expressions of patriotic and at the same time were the result of the influence of the native tutelary conceptions combining tutelary activities with an educational programme. The associations formed by the national minorities did similar jobs, taking into account the values connected with the necessity to preserve the language, tradition, culture and religious creed that formed the basis of maintaining continuity of generations and national-cultural achievements.

On the one hand, the work done by the associations was the work done in favour the Vilnius community, and on the other hand, which should be emphasized – it was the work of the same community, who recognised it as their moral obligation to carry out all sorts of charity services, such as: bringing up orphans and children from the poorest, as well as pathological families, educating of the jobless and quite often demoralised adolescents, providing aid to the sick and lonely.

The welfare organisations made efforts to resolve the most complicated educational problems, in accordance with the traditional ideal, derived from the national historical experience, which allowed Polish nation – but also the national minorities – to survive, even without their own, independent statehood. In their tutelary and educational practice, all the associations – Polish, Jewish and Orthodox – were motivated by the same objective: providing altruistic aid to children, adolescents and adults – lost, helpless in the face of challenges and threats carried by the complicated reality, in which they were unable to manage their own destiny. Carrying out the objective, they worked hard performing their ancillary welfare and educational function, whenever and wherever possible.

Many methods were used during the research; because the study is of historical and pedagogical nature, the following methods were used: historical method, comparative method, monographic method, inductive and deductive

methods. When comparing the most important events, facts corresponding to social conditions of the charity, welfare and educational activities during the inter-war period were emphasized.

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НЕКОТОРЫЕ АСПЕКТЫ ПСИХОЛОГО- ПЕДАГОГИЧЕСКОГО СОПРОВОЖДЕНИЯ АДАПТАЦИИ БУДУЩИХ УЧИТЕЛЕЙ

Some Aspects of the Psychological and Pedagogical Support for the Adaptation of Future Teachers

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Abstract. *The article is devoted to the study of some aspects of psychological and pedagogical support for the adaptation of future teachers. Objective: to determine the impact of the proposed strategies of psychological and pedagogical support on the ability of students to adapt. The “Adaptability” (Multilevel Personality Questionnaire) questionnaire by A. Maklakov and S. Chermianin was used in the study to diagnose students of the 1st-6th years of bachelor’s and master’s degree programs of higher education at the faculty of arts of a pedagogical higher education establishment. The results of the introduction of strategies of psycho-pedagogical support showed that students grow their ability to regulate their interaction with the environment, that there is an increase in social contacts, social activity and self-esteem. It has been proven that the introduction of the proposed strategies of pedagogical support at the faculty of the arts of a pedagogical higher education establishment has a direct impact on the ability of students to adapt.*

Keywords: *adaptability, future teachers of musical art, pedagogical support.*

Введение

Introduction

На современном этапе развития украинского общества, становления новой украинской школы, актуальной является потребность в учителях, способных успешно социализироваться в обществе и активно адаптироваться на рынке труда, адекватно воспринимать изменения, привносить новое содержание в социальную, культурную, профессиональную среду. В этой связи, насущной является проблема развития способности будущих учителей к осознанной регуляции

собственного поведения и деятельности; активной адаптации к условиям изменяющегося обучения, требованиям к профессии, учебным нормам; усвоению и признанию коммуникативных норм и требований. Решение таких задач предполагает гармонизацию взаимодействия будущих учителей с новой образовательной, профессионально ориентированной средой путем постепенного уменьшения степени рассогласования внутри коллектива и с внешним окружением.

Задача обеспечения адаптации будущих учителей, по-нашему мнению, наиболее эффективно может решаться с использованием психолого-педагогического сопровождения данного процесса. Это понятие активно используется в теории педагогики и педагогической практике последнего десятилетия. В процессе сопровождения преподаватель осуществляет диагностирование имеющейся ситуации, результаты которого являются основой для обсуждения и совместной постановки целей профессионального и личностного развития студента; отбора и применения преподавателем методических средств, анализа промежуточных результатов, что дает возможность корректировать процесс адаптации.

Цель статьи: определить влияние предложенных стратегий психолого-педагогического сопровождения на способность студентов к адаптации.

Теоретические основы исследования *Research theoretical foundation*

Этимологически понятие «сопровождение» близко к таким понятиям, как содействие, общее передвижение, помощь одного человека другому в преодолении трудностей. В новом толковом словаре украинского языка понятие «сопровождение» имеет схожее значение «то, что сопровождает любое действие, явление, общество, окружение; группа людей, которая сопровождает кого-то» (Яременко & Сліпушко, 2008). С. Гончаренко выделяет в этом понятии несколько аспектов: действие со значением сопровождать сопроводить; то, что сопровождает какое-то действие, явление; объединение действия с другим, побочным действием добавления чего-то к чему-то, дополнения к чему-то (Гончаренко, 1997).

В последнее время появились исследования, раскрывающие проблему сопровождения профессиональной деятельности в различных областях науки, культуры, общественной жизни. Понятие «психолого-педагогическое сопровождение» в современной педагогике и психологии рассматривается достаточно широко. Его организация и содержание раскрыто в трудах зарубежных и украинских ученых (Бардиер, Ромазан, & Чередникова, 1993; Бітянова, 2007; Бех, 2004).

Содержательные основы психолого-педагогического сопровождения в высшей школе освещены в работах отечественных ученых, в частности по таким аспектам: сопровождение адаптации иностранных студентов (Виселко, 2017); сопровождение как условие профессиональной мотивации будущих учителей (Павлова, 2017); сопровождение становления личностной зрелости студентов (Меднікова, 2015); сопровождение социализации иностранных студентов (Білик, 2017), активизации личностно-профессионального саморазвития (Міщенко, 2012) и др. Значительная часть работ посвящена вопросам организации сопровождения студентов и учеников с ограниченными возможностями (Василькова, Родигіна, & Гринчук 2006; Єрьоменко, 2016; Савчин, 2012; Скрипник, 2014; Таланчук, Кольченко, & Нікуліна, 2013). Психолого-педагогическое сопровождение рассматривается учеными как не директивная форма оказания помощи, направленная на развитие и саморазвитие самосознания личности (Маркова, 2002). Его составляющими являются процессы психологической и педагогической поддержки.

Несмотря на значительное внимание к изучению различных аспектов психолого-педагогического сопровождения студентов, в украинском педагогическом дискурсе отсутствуют исследования, направленные на изучение психолого-педагогического сопровождения адаптации будущих учителей музыкального искусства.

Методологические основы и методы исследования *Research methodological foundations and methods*

Для оказания помощи в адаптации студентов были реализованы такие стратегии психолого-педагогического сопровождения: коммуникации; взаимосвязи учебной, исполнительской и практической профессиональной деятельности; самосовершенствования.

Реализация «коммуникативной» стратегии необходима для успешной социализации студентов (общение с преподавателями, сверстниками, родителями), профессионального становления (общение с учениками, их родителями; со слушателями разных возрастов средствами музыкального искусства во время практики, концертов, лекций-концертов и т.д.).

Стратегия «взаимосвязи учебной, исполнительской и практической профессиональной деятельности» предусматривает необходимость внедрения полученных знаний и умений, компетенций в практическую деятельность, определённых образовательно-квалификационной характеристикой направления «Музыка», современными требованиями к профессии учителя.

Стратегия «самосовершенствования». В период обучения в вузе происходит утверждение самопроцессов, что связано с профессионально-личностным самоопределением студента, его целенаправленным самосовершенствованием, для обеспечения более высоких результатов в самореализации как в собственных интересах, так и в интересах общества.

В пределах указанных стратегий применяли тактики: распознавания (диагностика и получение результатов); вмешательства, сотрудничества, поддержки, сотворчества (консультирование); ответственности (ответственность за выбор варианта решения проблемы).

Тактика распознавания необходима для диагностирования, определения, обоснования и переосмысления сложившейся ситуации. Чем объективнее, глубже, достовернее, разностороннее информация об образовательной деятельности студента, тем результативнее будет реализация стратегий.

Тактика вмешательства предполагает ярко выраженные субъект-объектные отношения, при которых отношения студента и преподавателя выстраиваются на основе авторитета последнего, который лучше знает, что для студента хорошо, в каждой отдельной ситуации и активно влияет.

Действенность указанных тактик обеспечивалась комплексом методов, которые реализовывались индивидуально и в группах: индивидуальные беседы («Особенности исполнения ранних сонат Л. Бетховена», «Камерные произведения украинских композиторов», «Деятельность гитариста по формированию грамотного построения музыкальных фраз, равновесия фактуры (динамический баланс)»); беседы-визуализации с использованием виртуального коллажа («Тематика лекций-конcertов нашего оркестра народных инструментов», «Музыкальные инструменты различных культур»); вечера вопросов («Мой факультет – единая семья», «Ценности взаимопонимания», «Моя будущая профессия»); игры-знакомства («Я и мой исполнительский опыт», «Моя визитка»); контактность («Наш творческий коллектив», «Вокальная мозаика»); а также социометрические методы, «творчество по образцу», «готовая интерпретационная версия» и др.

Использование методов способствовало развитию таких коммуникативных умений, как: слушать партнера, убеждать, аргументировать, отстаивать свои позиции, принимать мнение другого.

Результатами тактик стали: список проблем, сформулированные цели и задачи деятельности, образ ожидаемого результата.

Тактика поддержки предусматривала использование определенных ее видов (помощи, эмпатийного слушания, соучастия), иметь превентивный или оперативный характер, быть непосредственной и опосредованной. Непосредственная поддержка предусматривает прямое включение студента в деятельность через анализ, принятие решений, планирование.

Опосредованная – осуществляется без активного участия студента, в виде одобрения, ободрения, направления. Превентивный характер поддержки направлен на предварительное установление причин сложных для студента ситуаций. Оперативный характер поддержки является реакцией преподавателя на происходящие события, совместную разработку и реализацию изменений.

Тактика сотрудничества предполагала понимание взаимодействия студента и преподавателя как единомышленников, особенно на музыкально-исполнительских занятиях. Цель такого сотрудничества – дать возможность студенту проявить себя добровольным и заинтересованным соратником, единомышленником, равноправным участником педагогического процесса, ответственным за его результаты.

Действенность указанных тактик обеспечивалась комплексом методов: создание благоприятного микроклимата обучения и жизнедеятельности студентов («авансирование» – предварительное обсуждение действий для успешного выполнения задач, объяснение неуспеха случайными нестабильными факторами; избегание приказов, безапелляционных распоряжений, предвзятого отношения); проявление доверия, симпатии, похвалы, моральной поддержки (направлено на определение микроцелей обучения, ее мотивов («Вам это очень нужно потому, что ...», «Вы должны этого достичь для того, чтобы ...»)); выполнение упражнений на развитие умений перцепции, эмпатии, экспрессии, управление проявлениями эмоций («Наблюдение-копирование», «Зеркало»); упражнения на экстрасенсорику, интуицию («Я представляю, что ...», «Телепатия»).

Результатами тактик стали: скорректированная дорожная карта, деятельность по ее реализации, изменения в мотивации профессиональной деятельности студентов, изменения в организации образовательного процесса.

Тактика сотворчества представляет взаимодействие наивысшего уровня – сотворчества преподавателя и студента. Сущностной характеристикой этого процесса является взаимный характер позитивных изменений.

Тактика ответственности предусматривает обеспечение максимальной самостоятельности студентов в выполнении запланированных индивидуальных и коллективных задач. Она направлена на выработку позиции студента, быть ответственным, стремиться достичь взаимопонимания с членами студенческой группы, коллектива исполнителей, качества совместного звучания.

Действенность указанных тактик обеспечивалась комплексом методов: создание ситуации успеха (концертов и концертов-лекций: «Мое любимое произведение», «Мой любимый стиль искусства», «Мой любимый

композитор»); обеспечение поддержки, составление портфолио творческих работ и достижений студента, создание и презентация творческих проектов («Украинский вертеп», «Слобожанские узоры», «Харьков – мой любимый город»).

Результатами тактик стали: создание репетиционного коллективного пространства; организация процесса обсуждения коллективного исполнения и содействие вхождению в это пространство всех студентов; помощь в адаптации индивидуальных способностей и умений студентов к процессу реализации коллективных проектов; создание единого пространства группы, факультета; расширение ресурсной карты каждого за счет знакомства с опытом других; опыт создания коллективной интерпретационной версии музыкального произведения.

Для выявления влияния стратегий психолого-педагогического сопровождения на адаптацию студентов применяли многоуровневый личностный опросник «Адаптивность» (МЛО-АМ) А. Маклакова и С. Чермянина, предназначенный для оценки адаптивных возможностей с учетом социально-психологических и психофизиологических характеристик (Райгородский, 2001). Опросник рассчитан на использование специалистами с разным уровнем специальной подготовки: психологами, психофизиологами, педагогами.

Теоретической основой опросника является представление об адаптации как о процессе активного приспособления индивида к условиям окружающей среды. В его основу положен ряд личностных характеристик, которые отличаются относительной стабильностью и определяют успех процесса адаптации в различных условиях деятельности. Обработка результатов осуществляется путем подсчета количества совпадений ответов испытуемого с ключом по каждой из шкал. Итоговую оценку по шкале «личностный адаптивный потенциал» (ЛАП) получают путем суммирования сырых баллов по трем шкалам: нервно-психическая устойчивость, моральная нормативность, коммуникативные способности.

Реализация стратегий и тактик психолого-педагогического сопровождения адаптации происходило на факультете искусств Харьковского национального педагогического университета имени Г.С. Сковороды. В исследовании приняли участие 58 студентов 1-6 курсов специальности 014 Среднее образование (Музыка) в возрасте от 18 до 21 года.

Результаты исследования

Research results

Результаты внедрения психолого-педагогического сопровождения адаптации студентов на факультете искусств выявили динамику

становления адаптивности, отличающуюся четко выраженными тенденциями на различных этапах обучения: у студентов первого года обучения (этап вхождения в профессию), четвертого года обучения (этап получения базового профессионального образования) и шестого года обучения (получение полного высшего образования).

Предварительная диагностика по методике «Адаптивность» (МЛЮ-АМ) А. Маклакова и С. Чермянина выявила следующие результаты: обработка данных, по шкале «вероятность» показала, что все результаты были в диапазоне 2-4 балла, что свидетельствует об их достоверности. Установлено, что высокий уровень по шкале «адаптивные способности» у студентов I и V курсов был почти одинаковый (30% и 33%), у студентов IV и VI курсов – 40% и 38%; по шкале «нервно-психическая устойчивость» высокому уровню соответствовало 31% – IV курс, 33% – V курс, 30% – VI курс и только 25% студентов I курса; по шкале «коммуникативные способности» высокому уровню соответствовало 38% и 40% студентов IV, V, VI курсов и только 25% – I курса; по шкале «моральная нормативность» высокому уровню соответствовало 25% студентов IV курса, 23% – V курса, 33% – VI курса и 11% студентов I курса. Таким образом, результаты свидетельствуют о том, что показатели по всем шкалам у студентов IV, V и VI курсов находятся в пределах средней выраженности. Наименьшие показатели характерны для студентов I курса.

Опросник помог выявить студентов, имеющих затруднения в процессе адаптации. Были определены факторы дезадаптации: неподготовленность к новым средствам восприятия и переработки информации; к самопрезентации в учебной группе; неспособность к систематизации знаний.

После внедрения стратегий и тактик психолого-педагогического сопровождения было проведено повторное диагностирование способности к адаптации студентов по указанной методике. Результаты тестирования показали, что показатели высокого уровня по шкале «поведенческая регуляция» увеличились почти равномерно у студентов I и V курсов (5%, 8%), наиболее изменились показатели у студентов IV курса (почти на 40%); по шкале «нервно-психическая устойчивость» показатели высокого уровня увеличились: I курс на 13%, IV курс – 16%, VI курс – 18%, V курс – 7%; показатели высокого уровня по шкале «коммуникативные способности» увеличились: I курс на 9%, IV курс – 13%, VI курс – 8%, V курс – 22%; показатели высокого уровня по шкале «моральная нормативность» увеличились почти равномерно (I – на 9%, IV – 14%, VI – 7%, V – 14%) (рисунки 1, 2).

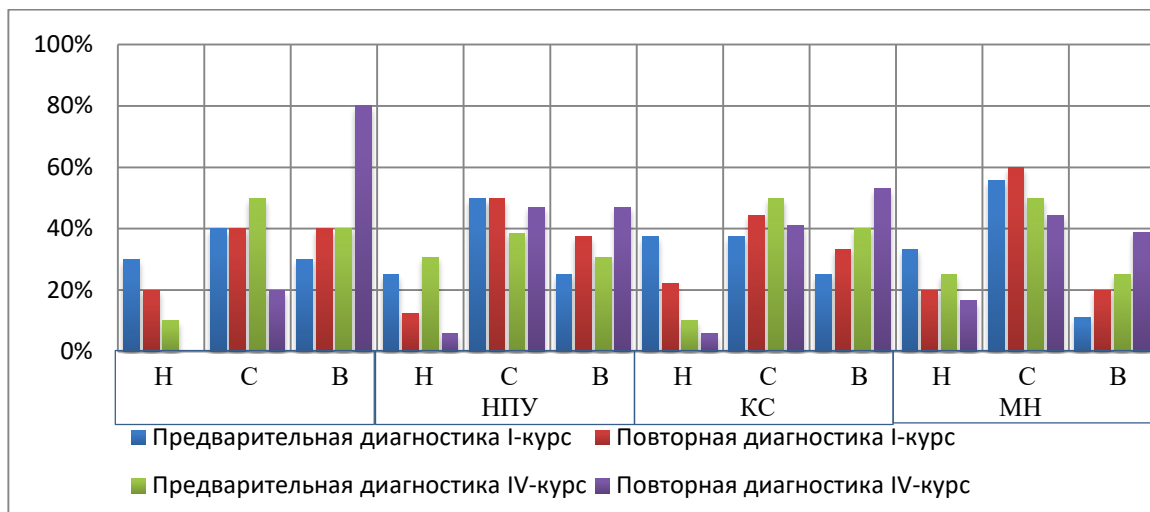


Рисунок 1. Динамика изменения уровней адаптации студентов I, IV курсов
Figure 1 Dynamics of change of adaptation levels of students of I, IV courses

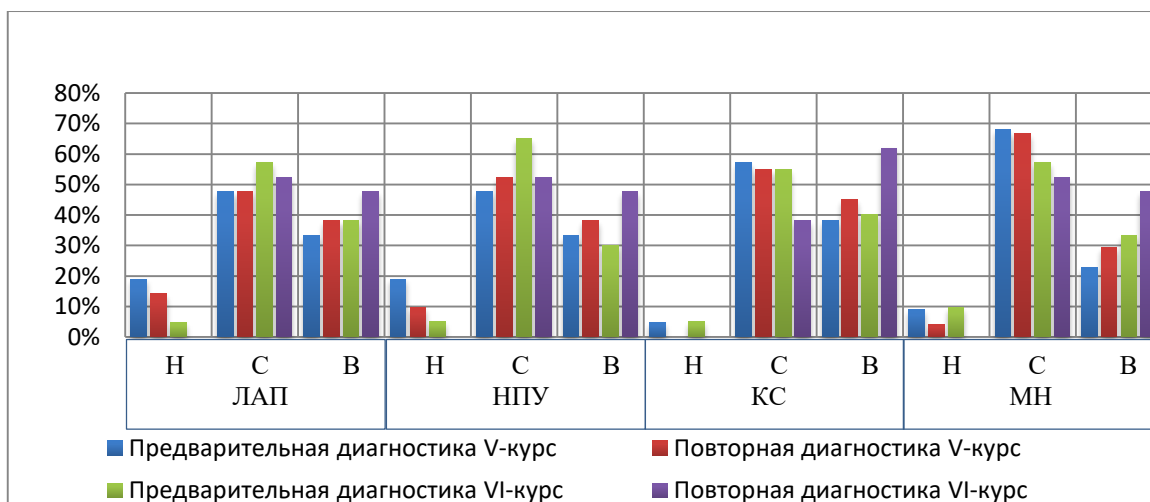


Рисунок 2. Динамика изменения уровней адаптации студентов V, VI курсов
Figure 2 Dynamics of change of adaptation levels of students of V, VI courses

Результаты свидетельствуют о том, что показатели по шкале «поведенческая регуляция» фактически находятся на одном уровне у первокурсников (30%) и магистрантов первого года обучения (33%), в то время как высокий уровень адаптации присущ выпускникам бакалавриата и магистрантам. Такой результат дает возможность предположить, что студентам, которые находятся на этапе получения неполного высшего образования (IV курс), свойственно видение целей будущей профессиональной деятельности, которые привносят в их обучение осмысленность, направленность и ориентацию на будущее. Показатель поведенческой регуляции магистрантов достигает верхних значений (40%),

поскольку их основными поведенческими характеристиками являются направленность на будущее, осознание жизненного призвания, собственных потенциальных возможностей, главной жизненной цели, тщательность планирования своего поведения. Окончание учебы в университете оценивается ими как важный жизненный этап, основным содержанием которого становится продуктивная самореализация.

Обобщение этих показателей показывает, что в результате внедрения психолого-педагогического сопровождения возрастает способность студентов регулировать свое взаимодействие со средой, происходит рост социальных контактов, социальной активности, явственной оказывается самооценка. Сфера саморегуляции характеризуется умениями достичь контакта и взаимопонимания с окружающими, постепенным ростом целенаправленного контроля над эмоциями и поведением.

Такие тенденции являются достаточно позитивными, поскольку характеризуют профессиональную деятельность в системе «человек-человек», где общение является ведущим. В то же время, показатели по шкале «моральная нормативность» указывают на то, что студенты становятся более зависимыми от предлагаемой социальной роли. В основном в своих действиях и поступках они ориентируются на социальное одобрение, не всегда охотно отстаивают собственное мнение. Выявленные различия в характере адаптивности студентов I, IV и VI курсов после проведения повторного диагностирования, свидетельствуют о непосредственном влиянии стратегий психолого-педагогического сопровождения на способность к адаптации.

Заключение и рекомендации *Conclusions and Recommendations*

Результаты исследования подтвердили наличие непосредственного влияния стратегий психолого-педагогического сопровождения на способность студентов к адаптации. Установлено, что наиболее подвержены изменениям у будущих учителей музыкального искусства коммуникативные и поведенческие характеристики, которые испытывают заметную трансформацию во время профессионального обучения. Эмпирически зафиксировано кризисный этап, который приходится на окончание студентами IV курса, характеризующегося дезориентацией в построении жизненных целей и потерей смыслов при моделировании профессионального будущего. Считаем, что указанное состояние возникает из-за неоднозначности статуса «бакалавр», который в общественном сознании ассоциируется с незавершенным (неполноценным) высшим образованием. Есть необходимость в продолжении исследования адаптации

студентов с расширением направлений стратегий психолого-педагогического сопровождения.

Summary

The article is devoted to the research of the influence of psychological and pedagogical support on the adaptation of future teachers of musical art. The “Adaptability” (Multilevel Personality Questionnaire) questionnaire by A. Maklakov and S. Chermianin (Райгородский, 2001) was used in the study to diagnose students of the 1st - 6th years of bachelor’s and master’s degree programs of higher education at the faculty of arts of a pedagogical higher education establishment. The following strategies of psychological and pedagogical support for the adaptation of future teachers were implemented: communication; interconnection of educational, executive and practical professional activity; self-improvement. Within these strategies, the following tactics were used: recognition (diagnosis and obtaining results); interference, cooperation, support, co-creation (consulting); responsibility (responsibility for choosing a solution to the problem). Each tactic provided for the application of appropriate methods. The results of the introduction of strategies of psychological and pedagogical support showed that students grow their ability to regulate their interaction with the environment, that there is an increase in social contacts, social activity and self-esteem. The sphere of self-regulation is characterized by the ability to reach contact and mutual understanding with others, the gradual growth of purposeful control over emotions and behaviour. It is established that communicative and behavioural characteristics that are undergoing a noticeable transformation during vocational training are the most likely to change in the future teachers of musical art. The crisis phase, which occurs during the fourth year of study, characterized by disorientation in the construction of life goals and the loss of meaning during the modelling of professional future, has been empirically recorded. It has been proven that the introduction of the proposed strategies of pedagogical support at the faculty of the arts of a pedagogical higher education establishment has a direct impact on the ability of students to adapt.

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ПРОПЕДЕВТИКА МЕТОДИЧЕСКОЙ КОМПЕТЕНТНОСТИ БУДУЩИХ УЧИТЕЛЕЙ НАЧАЛЬНЫХ КЛАССОВ НА ЛЕКЦИОННЫХ ЗАНЯТИЯХ ЕСТЕСТВЕННОНАУЧНОГО ЦИКЛА В ВЫСШЕЙ ШКОЛЕ

*The Methodical Competencies' Propaedeutic of the Future Primary
School Teachers at the Natural Science Lectures in High School*

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Abstract. *The article characterizes and experimentally substantiates the criteria, indicators and levels of methodical competence of future teachers; illustrated by didactic means propaedeutic training of students for the instructional activities in primary school.*

The influence of metaprofessional (universal) instrumental competences formed by future teachers at Nature Science lectures on the unconscious, on the intuitive level, through the "insight", their acquisition of the methodological experience is proved.

Keywords: *criteria, indicators and levels of methodological competence; metaprofessional instrumental competencies; intuitive acquisition of methodical experience; integration of academic disciplines.*

Введение **Introduction**

Внедрение компетентностного подхода в систему высшего профессионального образования нацелено на повышение конкурентоспособности специалистов на рынке труда, обновление содержания, методологии и соответствующей среды обучения. Повысить качество подготовки будущих учителей начальных классов в высшей школе представляется возможным при пропедевтическом формировании у студентов методической компетентности, начиная уже с лекционных занятий по базовым учебным дисциплинам.

Цель настоящей статьи заключается в презентации опыта подобной деятельности при чтении в Псковском государственном университете курса

«Естественно-научные основы профессиональной подготовки педагога», подчинённой идеи синтеза биологических и методических знаний в сознании студентов, за счет системного соединения структурированной информации и способов организации обучения.

Актуальность статьи объясняется недостаточностью опыта становления методической компетентности студентов бакалавриата посредством интеграции фундаментальных и методических учебных дисциплин; недостаточной разработанностью психолого-педагогических условий её становления в высшей школе; отсутствием критериев, показателей и уровней сформированности методической компетентности у будущих учителей.

Гипотезой экспериментального исследования явилась мысль о том, что развитие у студентов на лекциях по естествознанию метапрофессиональных (универсальных) инструментальных компетенций, в основе которых лежат универсальные действия обработки получаемой информации (умения создавать ассоциативный ряд, перекодировать вербальную информацию в визуальную, перефразировать, интерпретировать, подводить под понятие), способы организации информации (умения идентифицировать, прогнозировать, устанавливать последовательность, дифференцировать, классифицировать), умение анализировать вербальную и визуальную информацию, умение находить несоответствие в аргументации, а также использование на лекциях техник обучения, применяемых в образовательном процессе начальной школы на неосознанном, на интуитивном уровне, через «инсайт», подготовит будущих учителей к методической деятельности, повысит уровень их методической компетентности.

Проведенное исследование основывалось на теоретическом анализе литературных источников, тестировании, формирующем эксперименте, стандартизированном педагогическом наблюдении за деятельностью студентов, качественном анализе результатов их деятельности.

Базой для экспериментального исследования выступили студенты 2 и 3 курса факультета образовательных технологий и дизайна Псковского государственного университета, изучавших курс «Естественно-научные основы профессиональной подготовки педагога».

Теоретическая основа темы *The theoretical background*

Теоретической основой нашего исследования служат следующие теоретико-методологические позиции.

- Интеграция фундаментальных и методических дисциплин на педагогических факультетах есть «база для создания новых

педагогических единиц образования на основе внутренней взаимосвязи учебных дисциплин и соответствующего им дидактического обоснования» (Афанасьева, 2006, 24–28), это изменение технологий управления вузовским образовательным процессом с позиций системно-деятельностного подхода, это рефлексивно - педагогическое управление, то есть содеятельность педагогов и студентов, направленная на формирование научных, коммуникативных и ведущих методических компетенций. «Для этого учебный материал, осваиваемый в педагогических вузах, должен рассматриваться не только как носитель научного содержания школьного обучения, но и как носитель будущей методики его реализации на уроках в школе» (Соловьёва & Витковская, 2016, 162).

- «Методическая компетентность – это интегративное качество личности, характеризующееся внутренним желанием и готовностью использовать свои методологические, психолого-педагогические, предметные, методические знания, умения, опыт, личностные качества для творческой самореализации в учебно-методической деятельности» (Соловьёва, 2017, 37).
- В качестве психолого-педагогических условий становления методической компетентности обучающихся в высшей школе можно отнести «обеспечение понимания студентами причин собственного методического успеха или неуспеха в качестве средства формирования у них мотивирующей личностной функции»; «формирование у студентов креативных способностей при постановке и решении методических проблем»; «провоцирование студентов к аргументированию собственной точки зрения»; «развитие и коррекция методической Я-концепции»; «формирование у студентов способности осуществлять познавательную внутреннюю рефлексия»; «обучение их использованию знаково-символических средств представления методической информации» (Соловьёва, 2017).

Результаты теоретического исследования

The results of theoretical research

Теоретический анализ научной литературы показал, что исследователи в развитии методической компетентности учителя в целом в качестве уровней называют: «интуитивный, нормативный, активный и креативный» (Syasina, 2005, б), «практико-имитирующий, комбинирующе-продуктивный, научно-созидательный» (Zagrivnaya, 2008); а также

«эмпирический, конструктивный, творческий» (Lyubotinsky, 2014); «интуитивный, теоретический, квазипрофессиональный (практико-имитирующий), профессиональный координируемый, профессиональный, научно-методический» (Igorpulo, 2012).

К сожалению, перечисленные выше уровни проявления методической компетентности «привязаны» к этапам её формирования, с их помощью не представляется возможным осуществить диагностику качества методической подготовки будущих учителей, так как они содержательно не охарактеризованы и не опираются на совокупность критериев и показателей.

Для диагностирования в процессе экспериментальной работы динамики становления у студентов методической компетентности потребовалась теоретическая модель уровней её сформированности, которая и была построена нами после выявления критериев и соответствующих им номинативных и частных показателей.

Первый критерий, обозначенный как «*осознанность собственной методической некомпетентности/компетентности*», имеет четыре номинативных и частных показателей.

- Неосознанная некомпетентность характеризуется следующей методической самооценкой: «Я не знаю, что именно я не знаю» (Дружилов, 2001, 32-33).
- Для рефлекслируемой некомпетентности характерна следующая методическая самооценка: «Я знаю, что именно я не знаю». Другими словами, рефлекслируется недостаток знаний, умений, опыта, необходимых для осуществления определенной методической деятельности.
- Осознанная компетентность: «Я знаю содержание и структуру моих методических знаний, я умею их эффективно применять».
- Аутопсихологическая компетентность (Кузьмина, 1993): «Я осознаю уровень своих методических способностей, вижу причины недостатков в своей работе; знаю способы методического самосовершенствования».

Формирование методической компетентности будущего учителя предполагает, прежде всего, субъектное присвоение, интериоризацию предметного знания, переход его в знание личностное, «встроенное» в профессиональное мышление.

Поэтому при диагностировании уровня методической компетентности следует учитывать и второй критерий - *уровень предметных знаний преподаваемой учебной дисциплины*, имеющий три номинативных показателя.

- Студент может допускать при изложении базовой учебной информации фактологические ошибки, нарушая принцип научности.
- Студент может излагать учебную информацию в неполном объеме, с незначительными неточностями, его знания немобильны (не способен перенести информацию на аналогичные ситуации) и недействительны (он не использует их для решения познавательных задач).
- Студент имеет обширные, мобильные и действенные знания в области преподаваемой учебной дисциплины, использует их без ошибок.

Третий, выявленный нами критерий, мы обозначили как «*степень методической информированности (качество методических знаний, приобретенных в процессе учебной деятельности)*», которая бывает низкая, иными словами, у обучающегося имеются лишь отдельные поверхностные представления о методических приёмах; средняя - имеются обобщенные представления о стандартных методических техниках, методах и приёмах; высокая – студент владеет методической информацией об инновационных нестандартных методических техниках, методах и приёмах.

Четвертый критерий – это «*вид методической активности*». При проявлении репродуктивной методической активности воспроизводится формулировка методических заданий, осуществляется деятельность по образцу. Интерпретирующая методическая активность характеризуется деятельностью по аналогии, но с отклонением от образца. Для творческой методической активности характерна способность к генерации новых идей (творчеству), то есть обучающийся может предложить собственный путь, стратегию решения методической проблемы, проявляя мотив «тенденция к противоположности».

Пятый критерий – «*мотивация (желание) приобретать недостающие методические знания, умения, опыт деятельности*». Студент может не проявлять интереса к методической деятельности, отказываться приобретать методические знания, умения, опыт деятельности. Возможно также, что студент не проявляет особого желания заниматься методической деятельностью, зачастую теряя интерес в процессе осуществления методической деятельности. Часть студентов может с большим желанием заниматься методической деятельностью, проявляя к ней устойчивый собственно познавательный интерес. Последний номинативный показатель данного критерия - это желание методического самосовершенствования, проявляющееся в теоретическом интересе к методической деятельности.

Шестой критерий - *степень методической самостоятельности*, которая бывает низкая, проявляющаяся в методической работе только под руководством преподавателя; средняя, когда при выполнении методических заданий, студенту требуется небольшая помощь преподавателя и высокая, в последнем случае при конструировании методических заданий студент проявляет самостоятельность, оригинальность.

Седьмой критерий - *готовность осуществлять оценку методических ситуаций, в частности, на наличие в них противоречий, и оформлять её в письменной форме* – имеет три номинативных и три частных показателя.

- Не готов, то есть не способен дать качественную оценку методического задания, даже в устной форме.
- Частично готов, другими словами, способен в устной форме оценить качество методического задания, испытывая затруднения при её письменном оформлении.
- Готов, то есть способен сжато и точно оформлять свою методическую оценку задания в письменной форме.

Восьмой критерий - *способность адекватно методической технике или приему подбирать содержание учебного материала*. Неспособность проявляется в серьёзных затруднениях при попытке подбора содержания учебного материала, адекватного используемой технике или приёму. При наличии способности, студент извлекает из различных источников, включая Интернет, содержание учебного материала, адекватное используемой технике или приёму.

Девятый критерий - *способность учитывать возрастные и интеллектуальные особенности восприятия учебного материала школьниками*.

При наличии способности, студент конструирует развивающие задания для школьников, ориентируясь на их интеллектуальные и возрастные особенности, при отсутствии способности - не учитывает их.

Десятый критерий - *степень сформированности умения осознавать, ставить и решать методические проблемы* проявляется с помощью четырёх показателей.

- Студент не осознаёт («не видит») стандартную методическую проблему.
- Студент «чувствует» и осознаёт стандартную (традиционную) методическую проблему, но формулирует или частные вопросы, или ставит вопрос в общей неопределенной форме, не позволяющие ему самостоятельно создать алгоритм деятельности по её решению.

- Студент осознаёт стандартную (традиционную) методическую проблему, может сформулировать центральный проблемный вопрос, выдвигает предположения об алгоритме деятельности по решению проблемы и осуществляет её.
- Обучающийся осознаёт и формулирует методическую проблему творческого характера, «намечает» алгоритм деятельности по её решению.

Выявленные критерии позволили нам описать каждый из теоретически возможных уровней сформированности методической компетентности будущих учителей.

Первый, низший уровень характеризуется неосознанной методической некомпетентностью; минимальной методической информированностью, то есть наличием отдельных поверхностных представлений о методических приёмах. У студента, находящегося на этом уровне преобладает репродуктивная методическая активность, т.е. конструирование методических заданий осуществляется по образцу. Он не желает приобретать методические знания, умения и опыт деятельности. Низкая степень методической самостоятельности, другими словами, методическая работа студента осуществляется только под руководством преподавателя. Он не способен осуществлять оценку методических ситуаций, в частности, на наличие в них противоречий, и оформлять её даже в устной форме. Для первого уровня характерно также отсутствие способности конструировать развивающие задания для школьников, в соответствии с их интеллектуальными и возрастными особенностями. Студент испытывает серьёзные затруднения при подборе содержания учебного материала, адекватного методической технике или приему. Не способен осознавать проблему и формулировать проблемные вопросы.

Второй, ниже среднего, уровень подразумевает рефлекслируемую методическую некомпетентность, то есть студент рефлекслирует недостаток знаний, умений, опыта, необходимых для осуществления методической деятельности. Степень методической информированности основана на отдельных поверхностных представлениях о методических приёмах. Он, в основном, воспроизводит методические задания по образцу, редко от него отклоняясь. Не проявляет особого желания заниматься методической деятельностью или теряет его в процессе её осуществления. Большая часть методической работы студента строится под руководством преподавателя. Редко осуществляет оценку методических ситуаций, при том только в устной форме. Старается учитывать возрастные и интеллектуальные особенности восприятия учебного материала школьниками при конструировании заданий. Осознаёт методическую проблему, но

испытывает затруднения при формулировке даже частных уточняющих вопросов.

Третий, средний уровень определяется осознанной методической компетентностью, так как студент знает содержание и структуру методических знаний, а также умеет их эффективно применять. Обладает обобщенными представлениями о стандартных методических техниках, методах и приёмах. Для данного уровня свойственна интерпретирующая методическая активность студента, так как конструирование заданий осуществляется по аналогии, с небольшим отклонением от образца. Он с желанием занимается методической деятельностью, проявляя устойчивый собственно познавательный интерес. Средняя степень методической самостоятельности студента, другими словами, при выполнении методических заданий, ему требуется небольшая помощь преподавателя. Характерна частичная готовность студента осуществлять оценку методических ситуаций в устной форме, испытывая при этом затруднения при её письменном оформлении. Он способен конструировать развивающие задания для школьников, ориентируясь на их интеллектуальные и возрастные особенности. Может адекватно методической технике или приему подбирать содержание учебного материала. Осознаёт проблему, но формулирует только частные вопросы.

Четвертый, выше среднего уровень включает в себя осознанную методическую компетентность, т.е. студент знает содержание и структуру методических знаний, умеет их эффективно применять, пытается увидеть причины отдельных недостатков в работе. Также для данного уровня характерно глубокое владение стандартными методическими техниками, методами и приёмами. При доминировании интерпретирующей методической активности, зачастую проявляется и творческая методическая активность. Студент демонстрирует устойчивый собственно познавательный интерес к методической деятельности. При конструировании методических заданий он старается проявлять самостоятельность, редко обращаясь за помощью к преподавателю. Способен подробно оформить свою методическую оценку заданий в письменной форме. При конструировании развивающих заданий для школьников ориентируется на их интеллектуальные и возрастные особенности. Адекватно подбирает содержание учебного материала согласно методической технике или приему. Глубоко осознаёт проблему, умеет формулировать частные вопросы, испытывая незначительные затруднения при конкретизации обобщенного проблемного вопроса.

Пятый, высший уровень характеризуется осознанием собственного уровня методических способностей, то есть умением видеть причины недостатков в своей работе, знанием способов методического

самосовершенствования. Студент обладает высокой степенью методической информированности об инновационных нестандартных методических техниках, методах и приёмах. Ему свойственна творческая методическая активность, т.е. студент предлагает собственный путь, стратегию решения методической проблемы. Проявляет теоретический интерес к приобретению недостающих методических знаний и умений. Также для данного уровня свойственна высокая степень методической самостоятельности и оригинальности при конструировании методических заданий. Студент готов точно, лаконично в письменной форме осуществлять оценку методических ситуаций. Он способен адекватно методической технике или приему извлекать из различных источников нужное содержание учебного материала, учитывая возрастные и интеллектуальные особенности его восприятия обучающимися при конструировании развивающих заданий. Умеет осознавать методические проблемы и формулировать обобщенные проблемные вопросы.

О первом, втором и т.д. уровнях можно говорить, если будет наблюдаться приближение к одному из теоретически возможных уровней, т.к. современное состояние педагогического диагностирования не представляет иной возможности.

Организация и результаты экспериментального исследования *Organization and results of an experimental study*

Педагогический эксперимент на лекционных занятиях по курсу «Естественно-научные основы профессиональной подготовки педагога» был организован на базе Псковского государственного университета на факультете образовательных технологий и дизайна. В эксперименте приняли участие 36 студентов 2 и 3 курса бакалавриата по профилю «Начальное образование».

Работа проходила в три этапа: констатирующий, формирующий, контрольный.

На констатирующем этапе эксперимента, с целью определения наличного уровня сформированности методической компетентности у студентов бакалавриата, была проведена диагностическая работа на знание стандартных методических техник и приёмов; на умение подбирать содержание учебного материала для конструирования по образцу развивающих заданий, учитывающих возрастные особенности младших школьников; давать и оформлять свою методическую оценку предъявленным заданиям в письменной форме.

Из 36 студентов 72% продемонстрировали до начала слушания курса «Естественно-научные основы профессиональной подготовки педагога»

первый (низший) уровень сформированности методической компетентности, 22% обучающихся имели второй (ниже среднего) уровень, 6% студентов обладали средним (третьем) уровнем методической компетентности.

На формирующем этапе опытно-экспериментальной работы нами были разработаны и проведены пять интегрированных лекционных интерактивных занятий по биологическим темам («Характеристика типа членистоногих»; «Характеристика класса пресмыкающиеся, или рептилии»; «Характеристика типа земноводные», «Характеристика надкласса рыбы»; «Характеристика типа моллюски, или мягкотелые») и четыре интегрированные лекции по землеведению и краеведению («Природные зоны России»; «Ориентирование на местности. План и карта»; «Главнейшие минералы и горные породы, слагающие поверхность земной коры. Полезные ископаемые»; «Солнечная система»).

Построение лекционных занятий по естественно-научной подготовки будущих учителей начальных классов осуществлялось на основе подчинения содержания и способов овладения материалом единой цели – формирования у обучающихся методической компетентности, включающей, в частности, мобильные и действенные предметные знания преподаваемой дисциплины, другими словами, способность перенести усваиваемую информацию на методические ситуации и использовать их для решения учебно-познавательных задач.

Логика описания формирующего этапа эксперимента требует некоторого иллюстрирования дидактического инструментария, используемого на лекциях.

Как правило, на начальных минутах лекции студентам предлагалось выполнить задание на перекодирование вербальной информации в визуальную. Приведем пример.

«Узнайте по описанию, о представителе какого класса животного мира идёт речь в следующем тексте, и допишите тему лекционного занятия «Характеристика типа _____ (Amphibia)»

Использование на лекциях в высшей школе заданий на перекодирование учебной информации, позволяющего обучающемуся при восприятии изучаемого материала предвидеть образ до того, как он ясно его увидит, готовит будущих учителей к применению подобных учебных упражнений на уроках в начальных классах.

С целью появления у студентов связи между ощущениями, представлениями, мыслями, чувствами на лекционных занятиях постоянно использовался метод ассоциаций, имеющий важнейшее значение для организации перехода младших школьников от представления к первоначальному понятию. По словам академика И.П. Павлова, «каждая

маленькая, первая ассоциация — это есть момент рождения мысли», «мышление ... ничего другого не представляет, как ассоциации, сперва элементарные, стоящие в связи с внешними предметами, а потом цепи ассоциаций» (Павлов, 2004).

Для актуализации прежних знаний студентам предлагались задания, требующие вспомнить суть биологического или географического понятия:

с помощью ряда предложенных определений различных авторов выписать существенные и несущественные признаки понятия, а затем представить его схематическое изображение; или же найти (при возможности, подчеркнув разным цветом) важные одинаковые части в определениях, выбрать наиболее удачное определение и отметить его с помощью галочки; либо назвать сильные позиции каждого из предложенных определений. Такие задания позволят в последствии выпускникам без затруднений организовывать на уроке в начальной школе работу над понятиями.

Во время интерактивных лекционных занятий активно использовался методический приём «таблица верных и неверных утверждений» (Загашев & Заир-Бек, 2003), цель которого заключается в развитии у студентов навыков вдумчивого и осознанного восприятия новой информации, данный приём очень популярен и на уроках в современной начальной школе.

Для обработки информации на лекциях постоянно применялись техники, направленные на развитие у студентов метапрофессиональных (универсальных) инструментальных компетенций: построение кластеров, денотантных графов, позволяющих графически организовать учебную информацию; использовались задания на построение умозаключений по аналогии, на чтение гистограмм, графиков, диаграмм, развивающие способность анализировать визуальную информацию, переводить её в вербальную. В дальнейшем они послужат «калькой» для заданий, предназначенных для формирования у младших школьников универсальных учебных действий, так как имеют единую гносеологическую основу с техниками обучения, используемыми в начальной школе.

Большинство лекций заканчивались домашним заданием - найти занимательный материал по изучаемой теме и на его основе попытаться создать развивающие упражнения для младших школьников.

На протяжении всей опытно-экспериментальной работы нами осуществлялось стандартизированное педагогическое наблюдение за проявлением студентами желания приобретать недостающие методические знания, умения, опыт деятельности во время интерактивных лекций, результаты которого фиксировались в протоколах на основании следующих критериев и показателей:

1. Постановка и характер задаваемых вопросов:
 - а) задаёт открытые вопросы, с целью получения развёрнутого ответа;
 - б) задаёт только закрытые вопросы, с целью выявления истинности или ложности собственной позиции;
 - в) не задаёт вопросов.
2. Проявление инициативы при выполнении методической деятельности:
 - а) проявляет инициативу;
 - б) редко проявляет инициативу;
 - в) никогда не проявляет инициативу.
3. Успешное включение в обсуждение дискуссионных вопросов в процессе деятельности методического характера:
 - а) всегда включается;
 - б) редко принимает участие;
 - в) никогда не принимает участие.
4. Проявление стремления высказать свое мнение, поделиться своими методическими знаниями или опытом:
 - а) проявляет стремление;
 - б) редко проявляет стремление;
 - в) никогда не проявляет стремление.
5. Доведение начатой методической работы до конца:
 - а) доводит до конца;
 - б) редко доводит;
 - в) «бросает» работу, как только встречает затруднения.

На завершающем, контрольном, этапе эксперимента студентам вновь была предложена диагностическая работа, аналогичная по сути проведенной на констатирующем этапе.

Анализ результатов диагностической работы и данных педагогического наблюдения позволил определить уровни методической компетентности студентов после завершения опытно-экспериментальной работы.

Оказалось, что из 36 студентов на первом (низшем) уровне сформированности методической компетентности осталось только 17%, на втором (ниже среднего) уровне - 39% студентов. Третьего (среднего) уровня методической компетентности достигли 39% будущих учителей, а 5% обучающихся добились четвертого (выше среднего) уровня.

Статистическая достоверность наблюдаемой положительной динамики сформированности методической компетентности у студентов в процессе опытно-экспериментальной работы была доказана с помощью

непараметрического Z-критерия при уровне значимости $\alpha=0,01$, что свидетельствует о правомерности выдвинутой гипотезы.

Выводы *Conclusions*

Начинать работу в высшей школе по формированию у будущих учителей начальных классов методической компетентности следует уже с лекционных занятий по базовым учебным дисциплинам, интегрирующих в сознании обучающихся предметные и методические знания, формирующих у студентов универсальные инструментальные учебные действия (перекодирование, интерпретацию, идентификацию, перефразирование, прогнозирование и другие).

Такая организация лекционных занятий на факультетах начального образования позволяет осуществлять интуитивный перенос полученных студентами инструментальных знаний и сформированных у них самих универсальных действий организации и обработки информации в ситуацию обучения младших школьников.

Определить достигнутые студентами уровни методической компетентности можно с помощью десяти критериев:

- осознанность собственной методической некомпетентности / компетентности;
- уровень предметных знаний преподаваемой учебной дисциплины;
- степень методической информированности (качество методических знаний, приобретенных в процессе учебной деятельности);
- вид методической активности;
- мотивация (желание) приобретать недостающие методические знания, умения, опыт деятельности;
- степень методической самостоятельности;
- готовность осуществлять оценку методических ситуаций, в частности, на наличие в них противоречий, и оформлять её в письменной форме;
- способность адекватно методической технике или приему подбирать содержание учебного материала;
- способность учитывать возрастные и интеллектуальные особенности восприятия учебного материала школьниками;
- степень сформированности умения осознавать, ставить и решать методические проблемы.

Диагностические работы и педагогическое наблюдение за деятельностью студентов показали, что развитие у студентов на лекциях по

базовым дисциплинам метапрофессиональных (универсальных) инструментальных компетенций, в основе которых лежат универсальные действия организации и обработки получаемой информации, также использование на лекциях техник обучения, применяемых в образовательном процессе начальной школы, позволяет существенно повысить уровень методической компетентности будущих учителей начальной школы.

Summary

The methodical competence formation of future primary school teachers should be already with lectures on the basic academic disciplines, integrating subject and methodological knowledge into students' minds, forming universal instrumental learning actions for students (recoding, interpretation, identification, paraphrasing, prediction, etc.)

Such an organization of lectures at the faculties of primary education allows for the intuitive transfer of the instrumental knowledge gained by students and the universal actions of organizing and processing information generated by them to the situation of teaching primary schoolchildren.

Levels of methodological competence achieved by students can be determined using ten criteria:

- awareness of their own methodical incompetence / competence;
- the level of subject knowledge of the taught academic discipline;
- the degree of methodological awareness (the quality of methodological knowledge acquired in the process of educational activity);
- type of methodological activity;
- motivation (desire) to acquire the lack of methodological knowledge, skills, experience;
- the degree of methodological independence;
- the willingness to assess the methodological situations, in particular, the presence of contradictions in them, and draw it in writing;
- the ability to adequately methodical technique or method of selecting the content of educational material;
- the ability to take into account the age and intellectual characteristics of the perception of educational material by schoolchildren;
- the degree of formation of the ability to recognize, set and solve methodological problems.

Diagnostic works and pedagogical observation of students' activities showed that the development of students in lectures on basic disciplines of meta-professional (universal) instrumental competencies, which are based on universal actions of organizing and processing the information received, also, the use of teaching methods used in the educational process of elementary school at lectures, allows you to significantly increase the level of methodological competence of future primary school teachers.

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МЕТОДИКА ФОРМИРОВАНИЯ КОМПЕТЕНТНОСТИ МЕНЕДЖЕРА ПО УПРАВЛЕНИЮ ПЕРСОНАЛОМ В ОБЛАСТИ УПРАВЛЕНИЯ КАДРОВЫМИ РИСКАМИ

HR Manager Competence Formation Methods Regarding Personnel Risk Management

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Abstract. *In a post-crisis society, the most valuable economic and social resources of an organization are human capital. Modern strategies of management employed by an organization need special management approaches that would base on analysis of activities' mechanisms and processes associated with personnel risks. One of the organizational, methodological and pedagogical solutions to this problem is the educational technology for raising competence level of managers in risk management. The research is aimed at methodological, managerial and organizational recommendations for competence formation of MSc in personnel risks management (major "Human Resource Management"). Research methods: expert survey, questionnaires, interview. The main finding of the research study: respondents were interviewed (Bachelors and Masters of Samara National Research University named after academician SP Korolev, of Samara State Technical University, executives, managers, HR managers, employees of industrial enterprises and of organizations providing services) to assess the relevance of competence in management of personnel-related risks for professional activities of an HR manager; learning and teaching support material has been developed to be used in training and education organized at the university and for management consulting of employers and employees of various organizations; samples of tasks for "Evaluation Tools Fund" have been developed, aimed at identifying the level of formation of the components of professional competence in management of personnel-related risks.*

Keywords: *fund of evaluation tools, methods and forms of practice-oriented training of risk management, model of competence formation, personnel risk, structural and functional characteristics.*

Введение *Introduction*

Реализация управленческой деятельности менеджера в современной организации связана с идентификацией, оценкой и профилактикой рисков системы управления персоналом и рисков поведения персонала. Кадровые риски могут проявляться в следующем:

- несоблюдение работниками культуры трудового поведения;
- наличие деструктивных конфликтов в трудовом коллективе;
- высокий уровень стрессогенности организационной среды;
- финансовые потери (мошенничество);
- угрозы информационной безопасности;
- нерациональные режимы труда и отдыха;
- риски неблагонадежности персонала;
- профессионально-квалификационные риски и др.

Система управления персоналом организации должна обязательно включать в себя стратегию управления кадровыми рисками. Противоречие состоит в том, что, с одной стороны, существует необходимость использования стратегии управления кадровыми рисками в организации, а с другой стороны – в управленческой и педагогической практике недостаточно проработаны организационные формы и методы формирования компетентности менеджера по управлению персоналом в области управления кадровыми рисками. В условиях трансформации требований работодателей к уровню профессиональной подготовки специалистов перед системой высшего образования встает задача совершенствования образовательных технологий и моделей подготовки специалистов, способных к профессиональному развитию, мобильности и адаптивности в условиях реальной полифункциональной профессиональной деятельности. Данные факторы обуславливают актуальность создания образовательной среды, направленной на формирование у будущих управленцев компетентности в области управления кадровыми рисками.

Целью исследования является теоретическое обоснование, разработка методических и практических рекомендаций по формированию компетентности в области управления кадровыми рисками у магистров, обучающихся по направлению подготовки «Управление персоналом».

Задачей теоретического этапа исследования является обоснование и разработка методических рекомендаций, направленных на повышение уровня компетентности в области управления кадровыми рисками у магистров по направлению подготовки «Управление персоналом».

Задачей практического этапа исследования является изучение мнения магистров, обучающихся по направлению подготовки «Управление персоналом» и работников различных организаций по проблеме исследования.

В исследовании были проведены экспертные опросы с целью оценки актуальности формирования компетентности в области управления кадровыми рисками для профессиональной деятельности специалистов по управлению персоналом. Для сбора данных использованы методы: системный подход, анкетирование, сравнительный анализ, метод экспертных оценок, метод статистической обработки информации.

Подходы к формированию компетентности менеджера в рамках стратегии управления кадровыми рисками
Approaches to the formation of the competency of the manager within framework of the of human risk management strategy

Исследовательский диапазон изучения проблемы управления кадровыми рисками в современной организации достаточно многогранен и встраивается в проблемные поля различных областей научного знания (социологии, психологии управления, управления персоналом, конфликт-менеджмента, этики деловых отношений и других наук).

Различные аспекты проблематики изучения риска первоначально были отражены в управленческих и экономических концепциях многих ученых (Баззел, Кокс, & Браун, 2003; Bratton & Gold, 2001; Brown, 1999; Oertig, 2003; Cruz, 2002; Embrechts, 2000; Donabedian, 1978).

Риск явился предметом исследований российских ученых (Ваганова, 2010; Грачева, 2012; Кирсанов, 2012; Кузнецова, 2011; Кынтиков, 2011; Чернова, 2010 и др.).

Отдельные вопросы управления кадровыми рисками современной организации исследуются с позиций системы управления персоналом (Алавердов, 2010; Бадалова & Москвитин, 2005; Карцева, 2007; Митрофанова, 2013а; Митрофанова, 2013б; Тэпман, 2002; Цветкова, 2009).

Вопросам совершенствования кадровой политики и стратегий управления персоналом организации посвящены работы таких ученых, как В.Р. Ragins, J.L. Cotton, J.S. Miller (2000), А. Esher Ellen (Ellen, 1992), А. Furnham, J. Taylor (2004), А. Schweyer (2004).

Проблематика реализации компетентностного подхода в управлении персоналом отражена в исследованиях российских ученых (Кибанов, Митрофанова, Чуланова, & Коновалова, 2014; Эсаулова, 2013).

Вопросы формирования различных видов компетентностей, значимых для трудовой деятельности изучались в работах S. Kagan (2005),

J.D. Mayer, M. Di Paolo, P. Salovey (1990), A. Matczak (2001), P.J. Jordan, A.C. Troth (2002).

Методология исследования *Research methodology*

Менеджеры по управлению персоналом могут работать с наибольшей эффективностью, если управленческая подготовка будущих управленцев будет направлена на формирование компетентности в области кадровых рисков. Компетентность в области управления кадровыми рисками – это система научных знаний о кадровых рисках и умении их идентифицировать, классифицировать, оценивать и формировать кадровые мероприятия, направленные на минимизацию кадровых рисков, с целью обеспечения максимальной устойчивости деятельности организации.

С целью оценки актуальности формирования у менеджеров по управлению персоналом компетентности в области управления кадровыми рисками, авторами был выбран метод экспертной оценки с использованием анкетирования руководителей и работников различных организаций сферы услуг.

Задачами данного этапа исследования являлись идентификация наиболее значимых для данных организаций кадровых рисков и формирование обобщенного профиля кадровых рисков. В процессе проведения экспертных опросов использовали анкеты «Оценка кадрового риска», предложенные А.Е. Митрофановой (2013а). В методике данного автора с целью оценки значений кадровых рисков предлагается использовать шкалу Харрингтона, дополненную вербальным описанием каждого интервала шкалы (Литвак, 2004).

Обобщенный профиль кадровых рисков организаций сферы услуг показал, что к области высокой оценки уровня риска относятся следующие кадровые риски системы управления персоналом: риски, связанные с планированием и маркетингом персонала; риски, связанные с трудовыми отношениями; риски деловой оценки персонала; риски неэффективной организационной структуры. К области высокой оценки уровня риска относятся следующие кадровые риски персонала: социально-психологические риски, риски неблагонадежности. Полагаем, что материалы, полученные в ходе данных экспертных опросов, могут быть использованы для разработки учебно-методического обеспечения процесса формирования компетентности в области управления кадровыми рисками: кейсы, картографирование конфликтных ситуаций, вариативные задачи, темы эссе, сюжеты ролевых игр и др.

В исследовании были проведены экспертные опросы с целью оценки актуальности компетентности в области управления кадровыми рисками для профессиональной деятельности менеджеров по управлению персоналом (2018 г.). Данные опросы проводились по методике К.О. Старовойтовой (2005). В ходе опроса предусматривалось решение следующих методических задач:

- эмпирическое подтверждение значимости компетентности в области управления кадровыми рисками для эффективной деятельности руководителей;
- определение эффективных методов и организационных форм методики формирования компетентности в области управления кадровыми рисками в вузе;
- формирование банка вариативных задач, отражающих специфику профессиональной деятельности менеджеров по управлению персоналом организации.

Эмпирическое обоснование значимости компетентности в области управления кадровыми рисками для эффективной деятельности менеджеров предполагает анализ мнений трех групп респондентов:

- руководителей и менеджеров по управлению персоналом различных организаций («внешняя оценка»);
- выпускников по направлению подготовки «Управление персоналом» («внутренняя оценка»);
- магистров, обучающихся по направлению подготовки «Управление персоналом» («внутренняя оценка»).

Репрезентативность экспертной выборки первой группы респондентов (12 руководителей и 19 менеджеров по управлению персоналом) обеспечивалась значительным стажем работы большинства руководителей. Вторую группу респондентов составили выпускники Самарского национального исследовательского университета имени академика С.П. Королева (направление подготовки – «Управление персоналом»). Всего было опрошено 35 выпускников 2016-2018 гг.

В третью группу респондентов вошли магистры университета. Число респондентов – 56 магистров дневной и заочной форм обучения. Репрезентативность данной выборки обеспечивалась охватом студентов различных курсов. Всего по трем группам в рамках данной части эксперимента было опрошено 123 респондента. Исследование проводилось в форме анкетного опроса, предполагающего оценку необходимости компетенций в области управления кадровыми рисками для профессиональной деятельности менеджеров по управлению персоналом.

В список предлагаемых для оценки компетенций, помимо указанных компетенций в таблице 1, вошли и другие, выбранные произвольно.

Таблица 1. Выявление значимости компетентности в области управления кадровыми рисками (Калмыкова, Соловова, & Латушкина, 2018)

Table 1 Identification of managers and employees competence of human risk management (Kalmykova, Solovova, & Latushkina, 2018)

| Типы компетенций | Магистры | | Выпускники университета | | Руководители организаций | |
|--|--------------|----------------------------|-------------------------|----------------------------|--------------------------|----------------------------|
| | Средний балл | Поставили выше 3 баллов, % | Средний балл | Поставили выше 3 баллов, % | Средний балл | Поставили выше 3 баллов, % |
| Основные характеристики кадровых рисков | 4,3 | 76,1 | 4,3 | 76,6 | 4,4 | 84,5 |
| Виды и факторы кадровых рисков | 4,8 | 78 | 4,5 | 76 | 4,7 | 85,3 |
| Методы оценки кадровых рисков | 4,9 | 85,2 | 4,7 | 82,5 | 4,8 | 87 |
| Построение профиля кадровых рисков | 4,3 | 76,1 | 4,3 | 76,6 | 4,5 | 84,6 |
| Разработка бюджета управления кадровыми рисками | 4,5 | 80,3 | 4,8 | 83 | 4,8 | 87 |
| Управление кадровыми рисками в организации | 4,5 | 80,3 | 4,8 | 86 | 4,9 | 88,1 |
| Методы профилактики коррупционного поведения работников | 4,6 | 81,4 | 4,5 | 87 | 4,8 | 85,4 |
| Организация обучающих тренингов, направленных формирование компетентности в области управления кадровыми рисками | 4,2 | 79,1 | 4,2 | 82,5 | 4,5 | 84,6 |

Как видно из таблицы 1, важные с точки зрения темы исследования, практические умения были высоко оценены респондентами (средний балл равен «4» или выше, более 2/3 респондентов оценили необходимость названных умений на «4» и «5»). Анализ результатов опроса респондентов показывает, что наибольшие показатели с точки зрения значимости имеют компетенции в области знания видов и факторов кадровых рисков, методов оценки кадровых рисков, методов управления кадровыми рисками в организации.

Результаты

Results

Авторами разработано учебно-методическое обеспечение процесса формирования компетентности в области управления кадровыми рисками у магистров по направлению подготовки «Управление персоналом». Полагаем, что управленческая подготовка специалистов в рамках стратегии управления кадровыми рисками должна быть направлена на формирование следующих компетенций:

- владение методами диагностики источников и причин возникновения кадровых рисков в организации;
- владение методами диагностики источников и причин возникновения трудовых конфликтов и профессиональных стрессов в организации;
- владение методами идентификации кадровых рисков в организации;
- умение классифицировать кадровые риски в организации;
- умение классифицировать конфликты в организации;
- умение своевременно проводить стресс-мониторинг в трудовом коллективе;
- владение методами оценки кадровых рисков в организации;
- построение профиля кадровых рисков;
- владение картографическим методом анализа конфликтов в организации;
- построение паспорта кадровых рисков;
- знание принципов и методов формирования системы управления кадровыми рисками в организации;
- распределение ответственности и делегирование полномочий по управлению кадровыми рисками;
- разработка бюджета управления кадровыми рисками;
- формирование программы профилактики коррупционного поведения персонала;
- разработка и внедрение кадровых мероприятий, направленных на профилактику организационных, межличностных и социально-трудовых конфликтов в коллективе;
- оперативный контроль над кадровыми рисками организации;
- проведение обучающих тренингов, направленных на формирование компетентности персонала в области кадровых рисков и повышение конфликтологической компетентности работников организации;

- создание документационного обеспечения системы управления кадровыми рисками в организации;
- учет рискообразующих факторов и кадровых рисков в организации;
- пересмотр и обновление системы оценки кадровых рисков.

Пример предметно-практического компонента компетентности в области управления кадровыми рисками у магистров представлен в таблице 2.

Таблица 2. Оценка уровня сформированности компетентности в области управления кадровыми рисками (Калмыкова, Соловова, & Латушкина, 2018)
Table 2 Quality evaluation of managers' competence of human risk management (Kalmykova, Solovova, & Latushkina, 2018)

| Структурный компонент Предметно-практический: управленческий | |
|--|--|
| Наименование показателей | Содержание показателей |
| Мониторинг стратегии управления кадровыми рисками в организации | <ul style="list-style-type: none"> – диагностика существующих в организации методов, форм системы управления кадровыми рисками; – идентификация и оценка кадровых рисков; – диагностика и классификация кадровых рисков; – выбор методики диагностики кадровых рисков и разработка кадровых мероприятий по их минимизации; – осуществление мониторинга. |
| Формирование стратегии, целей и принципов в области управления кадровыми рисками | <ul style="list-style-type: none"> – анализ кадровой политики организации; – формулирование принципов и стратегических направлений риск-менеджмента; – формирование кадровых мероприятий стратегии в области управления кадровыми рисками. |
| Определение содержания и структуры стратегии управления кадровыми рисками | <ul style="list-style-type: none"> – определение задач и программ по разработке и внедрению стратегии управления кадровыми рисками; – формирование профиля кадровых рисков; – разработка программ профилактики кадровых рисков; – осуществление мониторинга стратегии управления кадровыми рисками. |
| Разработка системы мотивации персонала | <ul style="list-style-type: none"> – классификация мотивов отношения персонала к мероприятиям стратегии управления кадровыми рисками; – разработка эффективной методики стимулирования персонала; – формирование образовательной среды по формированию компетентности в области управления кадровыми рисками. |

| | |
|--|---|
| Разработка нормативного и документационного обеспечения стратегии управления кадровыми рисками | <ul style="list-style-type: none"> – определение состава нормативно-регламентирующих документов стратегии управления кадровыми рисками; – разработка Положений. |
| Внедрение стратегии управления кадровыми рисками | <ul style="list-style-type: none"> – внедрение кадровых мероприятий стратегии; – формирование структуры взаимодействия с руководителями структурных подразделений; – разработка системы информирования персонала; – анализ результатов функционирования стратегии управления кадровыми рисками. |
| Мониторинг эффективности стратегии управления кадровыми рисками | <ul style="list-style-type: none"> – мониторинг стратегии управления кадровыми рисками; – оценка социально-экономической эффективности стратегии управления кадровыми рисками. |

Уровень сформированности данных компонентов готовности к эффективному управлению кадровыми рисками в организации можно оценить в рамках проводимых тренингов, учебных занятий, в ходе устных опросов, решения вариативных задачи др.

Методика обучения *Teaching methods*

Методика формирования компетентности в области управления кадровыми рисками должна обеспечить качественную подготовку компетентного специалиста в области управления человеческими ресурсами. Авторами выделены организационно-педагогические условия формирования компетентности магистров в области управления кадровыми рисками:

- разработка диагностического инструментария для отслеживания динамики индивидуально-личностного развития и формирования компетентности магистра;
- разработка учебно-методического обеспечения процесса формирования компетентности в области управления кадровыми рисками;
- высокий уровень компетентности преподавателей высшей школы в обеспечении индивидуальной образовательной деятельности магистров.

Для эффективной организации учебно-познавательной аудиторной и внеаудиторной деятельности магистров преподавателю необходимо

создать определенный комплекс учебно-методических материалов, обеспечивающих процесс формирования компетентности менеджеров в области управления кадровыми рисками. Авторами разработан комплекс вариативных задач по теме «Управление кадровыми рисками», представленный следующими группами: основные характеристики кадровых рисков; виды и факторы кадровых рисков; методы оценки кадровых рисков; управление кадровыми рисками в организации. В таблице 3 представлены примеры вариативных задач, используемых как в образовательном процессе, так и в процессе проведения обучающих тренингов в различных организациях.

Таблица 3. Вариативные задачи учебного модуля «Управление кадровыми рисками» (Калмыкова, Соловова, & Латушкина, 2018)
Table 3 Variable tasks of the training module «Personnel Risk Management» (Kalmykova, Solovova, & Latushkina, 2018)

| Специфические функции управления кадровыми рисками в организации | Содержание специфических функций | Примеры вариативных задач |
|--|---|--|
| Основные характеристики кадровых рисков | Диагностика и характеристика существующих в организации кадровых рисков. Формирование методики диагностики кадровых рисков и разработке кадровых мероприятий по их минимизации. | <p><i>Задание 1.</i> <i>Составьте список ключевых понятий, характеризующих:</i></p> <ul style="list-style-type: none"> а) кадровый риск в системе управления персоналом промышленного предприятия; б) кадровая безопасность инновационной организации; в) взаимосвязь стратегии развития организации и стратегии управления кадровыми рисками; г) слабая предсказуемость поведения работников организации в различных обстоятельствах как результат пассивной кадровой политики. <p><i>Задание 2.</i> <i>Перечислите ключевые слова при характеристике понятий:</i></p> <ul style="list-style-type: none"> а) стратегия организации – управленческое решение, цель, набор правил, путь, изменения внутренней и внешней среды, ресурсы; б) противоречивость кадрового риска –; в) альтернативность кадрового риска –; г) неопределенность кадрового риска –; д) опасность кадрового риска –; е) уязвимость кадрового риска –; ж) подверженность кадрового риска –; |

| | | |
|-------------------------------------|--|---|
| <p>Виды факторы кадровых рисков</p> | <p>и Диагностика классификация существующих организации кадровых рисков.</p> | <p>и <i>Задание 1.</i> <i>Составьте список ключевых понятий, характеризующих:</i> а) принципы классификации кадровых рисков; б) кадровые риски подсистемы СУП; в) целенаправленные кадровые риски; г) внешние кадровые риски. <i>Задание 2.</i> <i>Постройте схемы классификации кадровых рисков по следующим критериям:</i> - по сфере локализации; - по объекту риска; - по источникам риска; - по сферам деятельности организации; - по систематичности проявления; - по видам деятельности организации; - по результатам деятельности; - по возможным размерам ущерба; - по степени регулярности потенциального проявления; - по степени чувствительности к кадровым рискам различных групп заинтересованных лиц; - по степени правомерности; - по причинам возникновения.</p> |
|-------------------------------------|--|---|

Выводы и предложения *Conclusions and recommendations*

Управление кадровыми рисками включает в себя их поиск, идентификацию и оценку, классификацию кадровых рисков, так как это позволит менеджеру по управлению персоналом выбрать эффективные методы управления рисками и направления совершенствования кадровой политики и стратегического развития организации. Проблема кадровых рисков, возникающих в системе управления персоналом, отражает увеличение значимости человеческого фактора и эффективности системы управления персоналом в реализации стратегических задач организации.

Необходимость формирования системы управления кадровыми рисками, повышения уровня компетентности в этой области у будущих менеджеров, обосновано в работе исследованием мнений руководителей и специалистов кадровых служб различных организаций, магистров, обучающихся по направлению подготовки «Управление персоналом».

В ходе проводимого исследования авторами:

- разработаны организационно-методические и психолого-

педагогические рекомендации по формированию компетентности в области управления кадровыми рисками у магистров, обучающихся по направлению подготовки «Управление персоналом»;

- сформировано учебно-методическое обеспечение учебного курса «Управление кадровыми рисками»;
- разработан комплекс обучающих тренингов для руководителей организаций;
- разработан комплекс вариативных задач для учебного курса «Управление кадровыми рисками».

Summary

Modern strategies of management employed by an organization need special management approaches that would base on analysis of activities' mechanisms and processes associated with personnel risks. One of the organizational, methodological and pedagogical solutions to this problem is the educational technology for raising competence level of managers in risk management. The methodology for personnel risk management formation should ensure the fulfillment of the social order of the state, training of a competent HR manager, reduction of the gap between science, practice and education.

The research is aimed at methodological, managerial and organizational recommendations for competence formation of MSc in personnel risks management (major "Human Resource Management").

Research methods: expert survey, questionnaires, interview.

The main finding of the research study:

- respondents were interviewed (Bachelors and Masters of Samara National Research University named after academician SP Korolev, FSBEI HE, of Samara State Technical University, FSBEI HE, executives, managers, HR managers, employees of industrial enterprises and of organizations providing services) to assess the relevance of competence in management of personnel-related risks for professional activities of an HR manager;
- learning and teaching support material has been developed to be used in training and education organized at the university and for management consulting of employers and employees of various organizations;
- samples of tasks for “Evaluation Tools Fund” have been developed, aimed at identifying the level of formation of the components of professional competence in management of personnel-related risks.

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СТРАТЕГИЯ ПОДГОТОВКИ БУДУЩИХ УЧИТЕЛЕЙ НАЧАЛЬНЫХ КЛАССОВ (НА ПРИМЕРЕ МАРИУПОЛЬСКОГО ГОСУДАРСТВЕННОГО УНИВЕРСИТЕТА)

Strategy of Training of Future Primary Classes Teachers (on the Example of Mariupol State University)

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Abstract. *The strategy of training future primary school teachers is analyzed in the article. That is relevant in the context of the Concept of the New Ukrainian School. In this regard, the purpose of the article is to disclose the tasks and content of the strategy of future primary teachers' training in Mariupol State University. The main research methods to achieve the goal were selected: questioning of students that contains a list of questions of different categories; survey of specialists, who provide training for future primary school teachers, was made up of introductory and informational questions.*

Successful implementation of these goals and objectives of the strategy is being introduced by teachers of the pedagogical and education chair of Mariupol State University: the development of basic and applied research in the field of professional education of future primary school teachers is provided, innovative methodological manuals are developed, and researches with talented youth are being organized.

Keywords: *strategy, professional training, future primary classes teachers.*

Введение

Introduction

Современные условия реформы начальной школы Украины в соответствии с Концепцией Новой украинской школы (Бібік, 2018) требуют от высшей школы подготовки специалистов нового типа, адекватно реагирующих на изменения в образовательном процессе, умеющих внедрять методы инновационного развития будущего поколения страны. Внедрение всех условий подготовки будущих учителей начальных классов – необходимая основа любой современной образовательной системы.

Активное, плановое и алгоритмизированное развитие украинского общества и образования в современной эпохе со всей очевидностью показывает зависимость эффективности труда будущего учителя начальных классов от уровня его профессионализма, компетентности, использования инновационных технологий преподавания. В связи с этим все более актуальной становится проблема получения исчерпывающих знаний о тенденциях в педагогике, методике преподавания и психологии во время учебы в высшем учебном учреждении будущих учителей начальных классов. Наступил период изменений подходов к организации образовательного процесса, административно-хозяйственной деятельности образовательного учреждения, который позволяет разрабатывать стратегии подготовки будущих учителей для начальной школы, основываясь на эффективности деятельности современного учебного заведения в целом.

Цель публикации – раскрытие применения стратегии во время подготовки будущих учителей начальных классов на примере стратегии Мариупольского государственного университета, которая будет способствовать обеспечению конкурентоспособности образовательного учреждения и формированию его положительного имиджа в аспекте образовательных услуг и повышению качества образовательных услуг.

В ходе исследования были поставлены и решены следующие *задачи*: проанализировано понятие «стратегия» в научной, методической, психолого-педагогической литературе; изучены особенности образовательных услуг для будущих учителей начальных классов; исследована маркетинговая стратегия образовательных услуг Мариупольского государственного университета; дана характеристика подготовки будущих учителей начальных классов в условиях Концепции Новой украинской школы. Основными исследовательскими методами для достижения данных задач нами был выбран эксперимент, при помощи которого можно выделить особенности подготовки будущих учителей начальных классов. Анкетирование студентов представляло собой перечень вопросов разных категорий: открытых и закрытых типов, а опрос преподавателей был составлен из ознакомительных, информационных вопросов.

Обзор литературы *Literature review*

Образовательная реформа начальной школы (Бібік, 2018) является серьезным действенным фактором повышения инновационно-интеллектуального потенциала страны. Главные стратегические ориентиры подготовки будущих учителей начальных классов, раскрываются в нормативно-правовой базе сферы образования Украины: Национальна

доктрина развития образования, Концепция развития общего среднего и высшего образования, законы Украины.

Аюпова В. в своей научной работе уточнила, что система управления образовательным процессом в учебном учреждении характеризуется: четырехуровневым управлением (стратегическое, тактическое, оперативное, самоуправление); ориентированностью на развитие деятельности учебного заведения и педагогического коллектива; реализацией принципа обратной связи, которая обеспечивает необходимый уровень контроля за реальными результатами брендинга; открытостью, прогнозируемостью, брендинговые модели управления (Аюпова, 2010).

Сегодня образовательным учреждениям нужно уметь продвигать себя на рынке образовательных услуг, используя те возможности, которые дают потенциал сделать результат их деятельности открытым для целевых аудиторий. Продуманная стратегия использования маркетинговых коммуникаций для позиционирования учебного заведения делает этот процесс более эффективным и планомерным (Почуева, 2013).

Согласно исследованиям Голдобина Н. осуществляется реорганизация потенциала всей системы работы учебного заведения. При этом ассортимент образовательных услуг достаточно разнообразен и постоянно обновляется под влиянием требований общества и научно-технического прогресса. Цена на образовательные услуги формируются под влиянием рынка, действующих на нем конкурентов, состояния платежеспособности населения; коммуникативная деятельность активная, направленная на конкретные целевые группы потребителей образовательных услуг; в организационной структуре учебного заведения формируется подразделение маркетинга (Голдобин, 2009).

Николаева С. акцентирует внимание на том, что стратегия должна: включать в себя четкие цели, результат будет являться решающим для общего исхода дела; сохранять инициативу; концентрировать основные усилия в необходимый период времени и в нужном месте; предусматривать такую эластичность поведения, которая необходима для использования меньшего количества ресурсов для достижения максимального результата; обозначать скоординированное управление; предполагать корректное расписание определенных операций; обеспечивать гарантированные ресурсы (Николаева, 2016).

Необходимой составляющей стратегии управления образовательными учреждениями являются маркетинговые стратегии. Характеристика сущностей, содержания и целей маркетинговых стратегий дает основания утверждать, что основное назначение таких стратегий состоит в том, чтобы были взаимосогласованы маркетинговые цели организации с ее возможностями, требованиями потребителей, использовать свои

конкурентные преимущества. Главным принципом использования маркетингового подхода в управлении современными образовательными учреждениями является согласование его деятельности с ожиданиями и образовательными потребностями государства, общества, личности. Такой подход в управлении образовательными учреждениями направлен на тщательное изучение субъектов рынка образовательных услуг, их образовательных потребностей и активное воздействие учебного заведения как производителя образовательных услуг на формирование спроса своих потребителей.

Стратегия является общим, долгосрочным планом деятельности учебного заведения. Сорочан Т. отмечает, что стратегия – это долгосрочное, качественно определенное направление развития учебного заведения, интегрирует миссию, цели, нормы и действия в единое целое, определяет ресурсное обеспечение с учетом внутренних преимуществ и недостатков организации. Ведущим в разработке стратегии является формулировка цели деятельности учебного заведения (Сорочан, 2005).

Как отметила ученая, доктор педагогических наук, Л. Задорожная-Княгницкая, большое внимание зарубежные ученые Р. Леитгвуд (Leithwood, 2003) и Б. Мулфорд (Mulford, Silins, & Leithwood, 2004), уделяют умению руководителя школы сплотить педагогический коллектив. В исследованиях этих ученых рассматривается концепция общего руководства учебным заведением, является следствием постепенного перехода от индивидуального руководства одним человеком к коллективной ответственности в школе. Эта ответственность реализуется через ряд инициированных руководителем следующих мероприятий: активное привлечение учителей к принятию важных решений по дальнейшей деятельности школы; обеспечение постоянной партнерской ответственности за принимаемые решения; выбор и формулирование реальных целей деятельности, являются гибкими и постоянно изменяются в зависимости от необходимости; совместный поиск способов борьбы с внутренними школьными проблемами (Задорожна-Княгницка, 2015).

Стратегия деятельности образовательного учреждения детализируется в соответствующей программе, которая включает характеристику учебного заведения, миссию, концепцию развития учреждения, цели деятельности, план деятельности. Программа обязательно должна включать характеристику учебного заведения, которая детализируется по таким показателям: управление заведением; преподавательский состав; материально-техническая база; образовательный процесс; результативность деятельности. Утверждается программа руководителем образовательного учреждения.

Таким образом, для того, чтобы определиться со стратегическим планированием, сформулировать цель деятельности образовательного

учреждения, необходимо осуществить определенные действия маркетингового управления.

Авторы исследования поддерживают мнение Кравченко О. о том, что современная глобализированная экономическая ситуация формирует новые требования к управлению высшими учебными заведениями. Это обусловлено наличием жесткой конкуренции, высокими требованиями к качеству образовательных услуг и учебных технологий, необходимостью гибко реагировать на новые изменения в обществе. Вхождение Украины в европейское пространство предусматривает необходимость освоения новых для современных учебных заведений «правил» взаимодействия с внешним миром. Мировой опыт в управлении учебными заведениями подтверждает решающее значение стратегического управления для преодоления проблем адаптации к изменяющейся внешней среды, обеспечение его конкурентоспособности, успешного функционирования и дальнейшего развития. Итак, практическое решение проблем развития современного университета, прежде всего, связано с умением сознательно формулировать эффективную стратегию развития как проактивную позицию высшего учебного заведения на рынке образовательных услуг (Кравченко, 2016).

Стратегия развития Мариупольского государственного университета (МГУ) на 2016-2020 годы с 2016 года находится в публичном доступе и любой желающий может ее просмотреть на сайте МГУ http://mdu.in.ua/index/msu_2012/0-77 в разделе библиотека, для того, чтобы понять каким образом учреждение высшего образования проводить подготовку будущих специалистов.

В Мариупольском государственном университете стратегия развития на 2016-2020 годы разработана в соответствии с нормативно-законодательной базой Украины в сегменте высшего образования, перспективной развернутой программой деятельности ректора МГУ, перспективных планов деятельности кафедр и факультетов МГУ на 2016-2020 гг. Стратегический план отражает перспективные изменения в системе управления, в структуре, содержании и технологиях обучения.

Определение критериев оценки эффективности стратегии развития университета, которые отражают систему признаков, характерных для данного процесса, осуществляется исходя из его сути и особенностей. Стратегия развития МГУ включает в себя следующие элементы:

- обеспечение качества образования;
- развитие персонала, кадровое обеспечение учебного процесса;
- научно-исследовательская и инновационная деятельность;
- развитие научной библиотеки;
- международная деятельность и сотрудничество;

- воспитательный процесс и студенческое самоуправление;
- развитие инфраструктуры;
- финансово-экономическая и профсоюзная деятельность.

Главная цель обеспечения качества образования в МГУ – обеспечение наличия достаточных и сбалансированных ресурсов для осуществления процессов обеспечения качества образования; обеспечение европейского качества образования и последующее вхождение в мировое образовательное общество.

Одной из основных задач является организация и учебно-методическое обеспечение образовательного процесса, внедрение технологий дистанционного обучения, обеспечение конкурентоспособности выпускников на рынке труда и их трудоустройства.

Стратегическая цель: создание условий для организации образовательного процесса в направлении обеспечения европейских стандартов при сохранении культурных традиций Украины.

Текущие задачи:

- совершенствование качества учебно-методического обеспечения, приведения его в соответствие с требованиями подготовки конкурентоспособных специалистов на основе повышения наукоемкости и профессионального направления дисциплин;
- концентрация внимания на повышении качества содержания учебников, пособий, методических рекомендаций, выданных преподавателями университета, в том числе и на иностранных языках;
- внедрение инновационных технологий и методов обучения, основанных на достижениях науки, информационных и дистанционных образовательных технологиях;
- организация и дальнейшее совершенствование системы последипломного образования и дистанционного обучения;
- обеспечение непрерывной практической подготовки студентов в период учебной и производственной практик на базе Университета и базах практики – предприятиях, организациях, учреждениях и тому подобное.

Основная цель научно-исследовательской и инновационной деятельности – получение новых научных знаний путем проведения научных исследований и разработок на кафедрах и факультетах Университета для обеспечения инновационного развития общества, подготовки специалистов инновационного типа.

Стратегические цели:

- обеспечение развития фундаментальных и прикладных исследований по приоритетным направлениям с обязательным внедрением полученных результатов в учебный процесс, с использованием многоканального финансирования;
- интеграция научно-исследовательской и инновационной деятельности Университета и научных учреждений Национальной академии наук Украины, национальных отраслевых академий наук с целью разработки и выполнения приоритетных научных программ, проведения научных исследований, экспериментальных разработок и т.п. на основе сочетания кадровых, финансовых, технических и организационных ресурсов;
- введение в Университете единой внутренней политики в сфере интеллектуальной собственности и коммерциализации результатов научной деятельности;
- совершенствование уровня работы преподавателей с талантливой молодежью, повышение вклада молодых ученых в развитие университетской науки, обеспечения участия студентов в научных студенческих обществах, группах, студиях;
- обеспечение правовой охраны объектов интеллектуальной собственности Университета, трансфера и коммерциализации научных и инновационных разработок.

Текущие задачи:

- получение конкурентоспособных научных и научно-прикладных результатов;
- применение новых научных, научно-технических знаний при подготовке специалистов с высшим образованием;
- дальнейшее развитие и углубление научного сотрудничества путем формирования научных коллективов из научно-педагогических работников Университета, других высших учебных заведений Украины и зарубежья, ведущих отечественных и зарубежных ученых и специалистов-практиков для проведения новых, междисциплинарных по характеру, исследований, в том числе – подготовки совместных научных работ;
- интеграция в мировое образовательное и научное пространство: использование глобальных сетей, мобильности преподавателей и студентов в международном общении;
- содействие созданию новых и развитию уже существующих научных школ;
- повышение уровня знаний по вопросам интеллектуальной собственности студентов, аспирантов и работников Университета,

- активизация распространения знаний, связанных с интеллектуальной собственностью;
- организация работы научных студенческих обществ, создание положительной мотивации студентов к занятию научной деятельностью;
 - поддержка университетских научных изданий, создание и развитие их электронных сайтов и включения в международных наукометрических баз данных;
 - подготовка, проведение и участие в научных и научно-практических конференциях, семинарах, совещаниях, других научных и научно-коммуникативных мероприятиях.

Результаты исследования

Research results

С целью подтверждения адекватности предложенной стратегии подготовки будущих преподавателей проведено исследование эффективности применения интерактивных форм проведения занятий со студентами специальности «Начальное образование». Для изучения влияния на качество образования и времени взаимодействия с инновационными образовательными технологиями проводилось анкетирование студентов I и II курсов, обучающихся по данной специальности и специальности «Среднее образование». Параметры предложения изучались путем опроса преподавателей практически всех кафедр, участвующих в образовательном процессе. Достоверность исследования определялась высокой степенью адекватности выборок, общий объем которых составил 416 анкет. По сравнению с 2016-2017 учебным годом заметно повысилась социальная активность студентов.

Для изучения влияния на качество образования и времени взаимодействия с инновационными образовательными технологиями проводилось анкетирование студентов I и II курсов, обучающихся по данной специальности и специальности «Среднее образование». Состав респондентов был репрезентативным. В эксперименте принимали участие 416 студентов, из которых 120 – в экспериментальных и 196 – контрольной группе. К экспериментально-исследовательской работе были привлечены также 15 преподавателей, которые преподают дисциплины циклов психолого-педагогической и специальной практической подготовки и 5 экспертов из числа преподавателей, которые не принимали участия в эксперименте.

Оценивая актуальное состояние качества образования и взаимодействия преподавания дисциплин с применением инновационных

образовательных технологий, мы ориентировались на ранее выделенные критерии и показатели для мониторинга с помощью анкетирования. Согласно нашему подходу важное значение в структуре *мотивационно-ценностного компонента* активизации работы по воспитанию студенческой молодежи и повышению качества образования, принадлежит критерий – *интерес к овладению инновациями образования*, отражающий ориентацию студентов на самосовершенствование относительно овладения современными компетентностями.

На первом этапе было проведено анкетирование, которое позволило выяснить степень заинтересованности проблемой инновационных образовательных технологий. Разработанные анкеты содержали в себе соответствующие вопросы («В чем Вы видите значимость инновационных образовательных технологий в профессиональной компетентности для педагогов?», «Какая особенность инновационных технологий будущего педагога?», «Какие качества относительно будущей профессии Вы хотели улучшить?», «Владеете ли Вы информационным контентом по ИКТ?», «Знаете, как работать с новейшими электронными приборами в учреждениях образования? и т. д.), направлены именно на выявление интереса и стремления к профессиональному самосовершенствованию по овладению инновационными технологиями. Выяснилось, что 15% респондентов наиболее осведомлены и заинтересованы в инновациях, а 6% вовсе не проявили интереса, остальные – незначительный интерес.

Второй блок вопросов («Знаете ли Вы особенности использования инноваций в профессиональной деятельности педагога?», «Организуете личное информационное пространство?», «Владеете приемами выполнения новшеств в образовании?», «Оцените степень собственного владения приемами инноваций (высокий, средний, низкий)» и т.д.) частично позволил определить уровень владения респондентов знаниями про инновационные процессы в образовании студентами педагогических специальностей. Следовательно, результаты опроса свидетельствуют о том, что большинство, а именно 80% респондентов знакомы с особенностями использования инноваций в будущей профессиональной деятельности, лишь незначительный процент студентов (3%) сказали, что интересовались этим вопросом.

Вопросы типа «Применяете на практике педагогические программные средства в образовательных учреждениях на специальных дисциплинах?», «Каковы факторы успешности внедрения инноваций в Новой украинской школе?» и т. д. сориентировали нас о наличии опыта применения инноваций в практике студентов в учебном процессе. Студентам также предлагались вопросы для определения мотивации профессиональной деятельности.

В профессиональной подготовке бакалавров и магистров педагогических специальностей МГУ участвуют достаточно опытные преподаватели, которые имеют педагогический стаж более 10 лет (73 %), имеют ученую степень (95%). После опроса нами было выявлено, что более успешные преподаватели (качество образования студентов выше 75% по анализу экзаменационных ведомостей) владеют богатым учебно-методическим материалом и внедряют инновации в преподавании (использование новых методов, например: партнерство, внедрение цифровых технологий).

Путем анкетирования студентов доказана необходимость и потребность формирования интереса к будущей профессии с помощью внедрения инновационных технологий в современный учебный процесс. Результаты анкетирования выявили удовлетворительный уровень заинтересованности студентов будущей профессии, преимущественно положительным отношением к образовательным модернизациям во время подготовки будущих педагогов.

Графическое представление анализа результатов анкетирования представлены на рисунке 1.

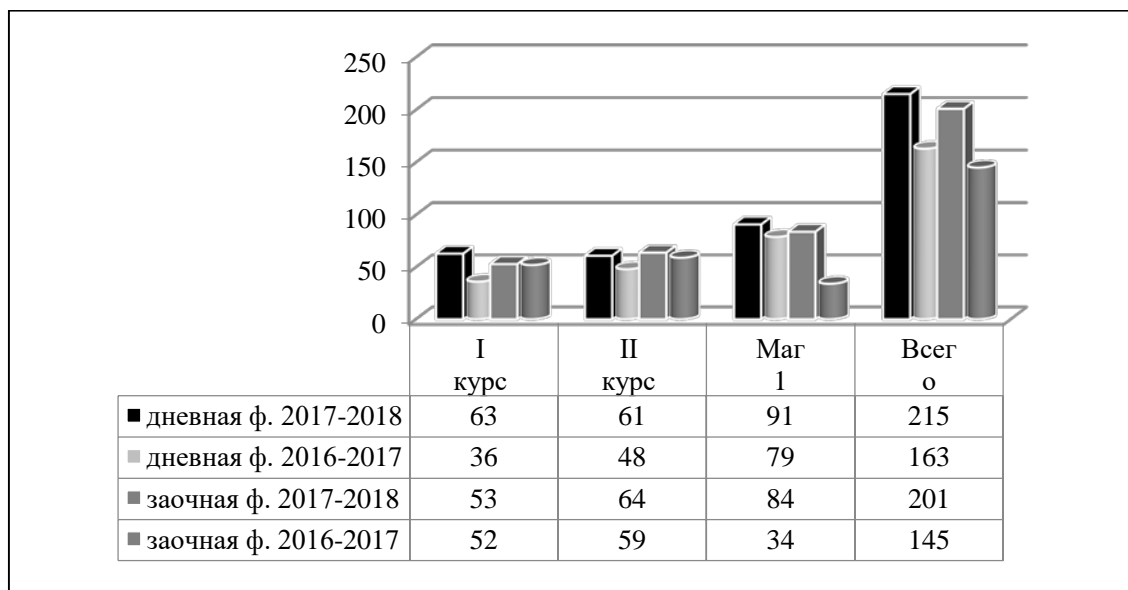


Рисунок 1. Анкетирование студентов специальности 014 Среднее образование, 013 Начальное обучение

Figure 1 Questioning students of specialties 014 Secondary education, 013 Primary education

Выводы **Conclusions**

Успешная реализация указанных целей и задач происходит средствами:

- реализации программы воспитательной работы со студентами факультета, которая направлена на совершенствование условий их личностного развития и профессионального становления;
- активизации работы национально-патриотического воспитания студенческой молодежи, воспитание национального сознания (участие в фестивалях, флэш-мобах, акциях, проведении круглых столов «Active Citizenship» и т.п.);
- формирование основ здорового образа жизни, сохранение и укрепление физического и психического здоровья;
- совершенствование системы студенческого самоуправления на факультете (изменения в структуре, налаживание системы обратной связи, расширение сферы студенческой деятельности за счет связей со студенческими комитетами других вузов Украины и зарубежья, в частности в рамках подписанных соглашений между МГУ и Ужгородским национальным университетом, Винницким государственным педагогическим университетом имени Михаила Коцюбинского, Римским университетом Топ Вергата, университетом Западной Македонии, Гумбольдтским университетом Берлина и др.)
- участия студентов в благотворительных акциях «С добром в сердце», «От сердца к сердцу» (благотворительные акции к праздникам, ярмарки, проведение досуговых мероприятий в школах-интернатах м. Мариуполя, волонтерское движение и т.п.);
- развития дебатного движения (участие в проведении городских, всеукраинских, международных турниров)
- проведение языковых практикумов (весенние языковые школы; интеллектуальный марафон для учащихся старших классов «Путешествие по странам мира»; виртуальная экскурсия выдающимися городами Великобритании; недели иностранных языков (английский, немецкий, французский, итальянский)) и др.

Summary

Marketing strategies are necessary with the conditions that are created in the educational institution: its structure, introducing innovative teaching technologies for future primary school teachers. The implementation of the university's development

strategy will help to increase the educational institution's competitiveness in the market of educational services through quality services which it proposes and the formation of its positive image.

Based on the development strategy of Mariupol State University, the training of future primary school teachers takes place in several directions. Firstly, providing the quality of education (teachers who provide the learning process use innovative approaches and digital technologies, the partnership method, equality and cohesion of the team). Secondly, research and innovation activities (development of the organizational and practical culture of future primary school teachers, through engaging students in research projects that are developed together with the research and teaching staff of the department, writing research papers). Thirdly, the educational process and student self-government (the creation of conditions for the development of student self-government, the formation of national-patriotic education on the basis of arranging chairs, departmental and university events).

The marketing activities of Mariupol State University are aimed at: identifying groups of potential consumers; identifying the target markets, work analysis and planning or providing future specialists with appropriate services; coordination of the institution's activities in pursuit of a profitable position in the market; control of the achievements of the educational institution's goals. The marketing strategy of the educational institution's activities has such reference points as the system creation: the quality provision of educational services; evaluating of the educational services quality; continuous improvement of the quality of the provided educational services. Effective demand-side management requires the university should be focused on the customer and apply marketing technologies and tools systematically.

The processes of the university strategic development management have deep and radical character; they require significant time, informational, material and human resources, and gradual implementation. Due to this, strategic development management in modern universities, which is associated with changing of managers and staff's way of thinking, goes slowly. Therefore, it is urgent to consider the issue of the creation of effective strategies of university development at the present stage of future primary school teachers training.

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INTERNATIONAL CONCEPT SYSTEM AS A STRATEGIC WAY OF MODERN SCIENCE DEVELOPMENT

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Abstract. *The article outlines the determination of international system of pedagogical concepts in modern scientific society. The definitions of the major international terms have been explored. The purpose of the research is to define is to outline international concept system as a strategic way of modern science development. It was researched that international conceptual-categorical apparatus of pedagogical science is not only a thesaurus of concepts covering all the terms with their scientific interpretations used in the study, but also a set of interrelated concepts, which reflect the key content and functional aspects of the offered theory. The most frequently used international concepts of pedagogical science have been explained and determined in the article. Original definitions of international concepts have been offered by the authors in a summary table. The system level of scientific concepts that reflects the development degree of its theory and reveals the relationship of objects and the diversity of cognitive situations which arise during the study, education of person and allows the participant clearly outline the subject of research and build its consistent concept have been investigated during the study. It has been summed up that the operation of international concepts is a prerequisite for the study and construction of theoretical models, as well as for the study of educational processes in dynamics and prospects. It has been concluded that strict understandable system of concepts creates a conceptual-categorical apparatus of pedagogical science.*

Keywords: *pedagogy, definition, determination, constituent, international concept system, conceptual-categorical apparatus.*

Introduction

Nowadays, the main trends and perspective areas of education development attract the attention of many scientists. In each historical period, the effectiveness of the educational system is an important indicator of the degree of development

of any country, its economic, social and technical potential and international reputation.

Although mankind has gained considerable experience in organizing pedagogical concept system, every culture and nation dwell on not only the specific conditions of their country, but also the experience of innovators in the field of education in other countries. Under these circumstances, the interest of the scientific and pedagogical community to international conceptual-categorical apparatus is naturally increasing.

The definition of the aim and objectives of the research is to outline international concept system as a strategic way of modern science development.

We think that unclear definition of that or those notions creates a «hazy» interpretation of events and processes of pedagogical reality that causes confusion in scientific circles. We consider that the «concept» is a «logical framed idea of common essential properties, connections and relationships of objects or phenomena of objective reality». Because researchers in the field of terminology argue that the construction of concepts and terminology of any guided science adopted requirement (principle) the uniqueness of the concepts under which each of them must have only one meaning.

The conceptual system appears as a dynamic unity of the basic components which can function, transform under the influence of historical, political, economic, socio-pedagogical, socio-cultural factors of society development, preserving its essence and, at the same time, changing the content and formal features.

Analysis of recent research and publications

A distinctive feature of recent years was the growing interest of representatives of various scientists to the questions of the international system of pedagogical concepts. This is all more important as a complex and contradictory processes of differentiation and integration of science take place. Recently, the researchers' interest to the international system of pedagogical concepts has increased considerably, as a result the approaches to the classification of pedagogical concepts in historical-pedagogical and subject-thematic relation is developed; establishment of the «age» of pedagogical concepts and terms is carried out; the study of its evolution in connection with the development of educational practice and the progress of science is carried out; reasons for changing the meaning of pedagogical concepts are explored.

The international conceptual-categorical apparatus of pedagogical science becomes the subject of a study as a unified means of clear and adequate determination of scientific and pedagogical concepts, their interpretation, definition and clarification; as important constituent of special scientific and

pedagogical information transfer (Sokol, 2016); as the necessary element of special scientific and pedagogical information transfer (Polonskiy, 2004); as a reflection of historically formed and consolidated in the language integration processes of the rapprochement and synthesis of sciences, pedagogical traditions and systems that characterize various pedagogical cultures (Antonova, 2014). A great number of investigations are dedicated to the history of the formation and development of basic pedagogical concepts (Kicheva, 2013), to introduction the definition of the constituents of the conceptual categorical apparatus, which belong to other branches of scientific knowledge (Robinson, 2017). The problem of defining international concepts system development involves a number of logical steps: the definition of the essence of the concept, its significance in the process of development, the need of society in people with creative abilities, retrospective assessment of the problem, importance of educational systems, the establishment of consistent patterns of the process, the search for innovative ways of personal improvement (Vykhreshch, 2011). Attention is paid to the psychological, socio-philosophical, culturological roots of international concepts that function in pedagogy (Tsaryk, 2016), wide use of general scientific terms in pedagogy (Salter, 2012).

The problem of the international conceptual-categorical apparatus of pedagogical science has been arisen in scientific circles. Because unfortunately, there is a sharp lack of systematic studies in pedagogy, while empirical conclusions predominate. Therefore, the formation of conceptual system pedagogical science is a fundamental problem modern science. Thus, in the last three decades several attempts have been made to construct a clear and logical classification of the system of pedagogical knowledge. However, by this time there has not been created a single common system of pedagogical knowledge that could be used in the process of general pedagogical preparation of students, teachers etc.

To solve the tasks of the research a complex of **general scientific and special methods** have been used, namely: comparative analysis, identification, selection, systematization of scientific, educational and methodical literature, documents, periodicals; historical (to determine the degree of scientific comprehension, analysis of theory development peculiarities and practice of creation a system of basic concepts); historical-genetic (to define factors, cause-and-effect relationships of formation and development); historical comparative (to compare the effectiveness of concepts usage in pedagogical science of different countries and at individual stages of development); expert (to analyze problems with evaluation of results); development of a forecast scenario. The method of comparison, descriptive method and method of system analysis have been used in the article.

The tendency of international pedagogical concepts study doesn't develop in isolation, but in the relationship created by them and in combination with not only semantic affinity, but also with thematic closeness of concepts. In general, this makes it possible to attribute the pedagogical international conceptual system to one or another thematic field. So, we can observe the presence of common components in the external form, and in the internal sense, reflecting a certain scientific and pedagogical worldview, cultural tradition. For example, discussions within the framework of the international conference «Gifted and Talented Education» (2015 Poznan, Poland) allowed to reveal English-language conceptual elements and compare them with domestic pedagogical concepts. For example: «academic retardation», «emotional/behavioral disorders», «giftedness», «specific learning disability», «special education», «exceptional children», «creativity», «discourse», «preacademic skills», «reciprocal teaching» etc.

The explication of concept «quality» is one of the main problems in contemporary discussions of modern pedagogical science. The analysis of literary sources has shown that the quality strategy today is the basis of the educational policy of many countries. This process was initiated at the end of the 20th century (Great Britain, the Netherlands, Poland, USA, Hungary, Scandinavia, etc.) and is still ongoing (Germany, Romania, France, Czech Republic etc.). The Academic Explanatory Dictionary of the Ukrainian language distinguishes the following features of this term:

- 1) it is «the internal certainty of the subject, which is a specificity that distinguishes it from all others». In our case, «quality» – has been determined as «to be an education» (Bilodid, 1970, 638);
- 2) «quality» is a «degree of value, suitability for something for its intended use» (Bilodid, 1970, 638). This aspect is usually taken into account in the discussions on the quality of education;
- 3) «quality» is «an characteristic feature, differentiation, a personal characteristic» (Bilodid, 1970, 638).

According to EAQA (European Association for Quality Assurance in Higher Education), the quality of education is «balanced conformity (as a result, process, educational system) to identified needs, goals, requirements, norms (standards)». D. F. Westerheijden believes that «quality of education» is a multi-valued concept, therefore, its measurement should be carried out in relation to the achievement of many goals that each of the participants in the educational process faces. The achievement of practical goals is the equivalent to the quality of the final «product». The scientist indicated that «quality is a multiaspectional concept: it is measured by various goals faced by participants in an educational process in an educational institution» (Antonova, 2014, 183).

In our opinion, the quality of education is significant changes in the educational system itself, the correlation of its components (students, teachers,

equipment and materials), and the creation of productive educational technologies and programs, economic, cultural and political development. Consequently, according to the UN criteria «quality of education» is one of the leading indicators of life quality. In connection with the course of Ukraine to accelerate integration into the structure of united Europe, the quality of education becomes important and calls for the bringing of domestic educational standards into conformity with the criteria of the member states of the European Union. Let's sum up that, the new methodology of quality education should be based on the interaction of traditions and innovations, and the provision of high-quality education at all its stages and levels. The evaluating of its effectiveness and quality management is one of the main tasks of the present, which is not only pedagogical or purely scientific, but also social, political and governing aspects.

It should be noted that the term «acmeology» refers to the science that arose on the breakthrough of natural, social and humanitarian disciplines. It examines the laws and mechanisms of human development at the level of its maturity, and especially when it reaches the highest level in this development. Thus, in the dictionary of V. Khalipov, «acmeology» is «knowledge (science) about the highest achievements in the field of professional skill. In the conditions of life democratization, there was a need to systematize knowledge, ideas about modern requirements for personality of leader, state and economic chief, and a significant increase of various kinds and rank managers professionalism. These goals have been served into the development of acmeology issues» (Khalipov & Khalipova, 1996, 12). In «Pedagogical Encyclopedia Dictionary», it has been found a more detailed interpretation of this concept: «a science that studies phenomenology, patterns and mechanisms of human development in the period of professional maturity. Acmeology explores the problem of contradiction between the growing volume of information, on the one hand, and the time it takes to master it, on the other. It distinguishes the general and distinctive features inherent to people in the process of their activities, as well as explores the factors that determine the qualitative and quantitative characteristics of «acme». The moral education of a professional is the transformation of universal values into his own values Acmeology also studies the problem of the relationship between the characteristics of human professionalism and his behavior outside the sphere of professional activity» (Bim-Bad, 2002, 14). Thus, in other modern sources, it has been found a somewhat different interpretation of this doctrine as a science «about life achievement and human development», and further, the author has been added that acmeology «explores the conditions for achieving high quality educational systems and the development of educational process subjects: Teacher and Student» (Khalipov & Khalipova, 1996, 3).

The works of domestic scientists of the twentieth century have been devoted to pedagogical creativity that has been permeated with the concept «creativity» –

an obligatory precondition for the pedagogical process, necessary professionalism in teacher's activity. S. Goncharenko in «Ukrainian Pedagogical Dictionary» has been interpreted «pedagogical creativity» as «the original and highly effective approach of the teacher to upbringing and educational tasks, enriching the theory and practice of education and training» (Honcharenko, 1997, 326). By the way, the author has been argued that «the achievement of creative results is ensured by systematic targeted observations, the usage of a pedagogical experiment, and critical usage of advanced pedagogical experience. Pedagogical creativity relates to various aspects of the teacher's activity - conducting training sessions, work on the organization of the student's staff in accordance with their age and individual characteristics, designing the student's personality, developing a strategy and tactics of pedagogical activity in order to fulfill optimally the tasks of individual's development» (Honcharenko, 1997, 326).

The nativity and intensive development of pedagogy as a branch of scientific knowledge and pedagogical sub discipline belong to the progressive tendencies of solving the problem of creativity of the teacher at the international level. «Pedeutology» (derived from the Greek *paideuke's* - teacher and *logos* - word, science, and French *pédeutologie*) is the science about teacher and his profession, which is an important sub discipline of systematic pedagogy. It has over a century of history. We agree with G. Kvyatkovska's point of view that *peedeutology* determines education and teaching activities from different sides: as art, as an activity that recognizes, organizes and gives to reality human meaning as an auto-creation of a human person, as a kind of union of persons who participate in the educational relational» (Okon, 1975, 12).

It should be noted that in «New Pedagogical Dictionary» (V. Okon) has been presented the following definition: «peedeutology ia a separate branch of pedagogy, that studies the problems of teachers, the personality of the teacher, the selection of candidates for the profession of teacher, pedagogical education and training, their professional activities» (Westerheijden, 2011, 154). In addition to this interpretation, the author has been added another definition of the concept: «peedeutology is a branch of interdisciplinary, sub disciplinary pedagogy, resulting from the intensive development of a school that requires knowledge from the teacher, education and training» (Westerheijden, 2011, 155). Ch. Bahn has been defined «peedeutology as a part of pedagogy, which deals with issues related to the teaching profession» (Banach, 2015, 302). We noted that the scientist has been singled out the following directions of *peedeutological* research: «the personality of teacher, his talent and authority, the selection of candidates for training for this profession and pedagogical education, professional ethics, etc» (Banach, 2015, 303). We agree with J. Shtempruch's statement that «peedeutology» should be regarded as «the science of a teacher, a mentor who studies all the tangible spheres

of a teacher's life: education, livelihoods, self-development, self-development, his social role as a personality» (Kwiatkowska, 2010, 10).

Let's consider the definitions of such a new concept as «assertiveness» (originates from English to assert – to insist on its own) – a behavior that combines inner strength and politeness with others. «Assertiveness» is derived from the English verb assert (insist, declare). In scientific circulation, «assertiveness» explains both as the quality of personality or as the ability of a person to defend his rights constructively, to demonstrate a positive and respectful attitude to other people, as an ability to defend his own interests, formulate and defend his opinion, freely express his feelings and emotions, achieve his goal, but at the same time without violating the rights of other people and taking responsibility for their own behavior.

The idea of assertiveness as a practical methodological theory of interpersonal interaction was proposed and developed by the American scientist A. Salter (Salter, 2012). The author has been asserted that «assertiveness» is a certain way of personal behavior, accompanied by a sense of respect for one's own personality and emotional and value relation to other people. At the same time, in works of the Czech scholars V. Kappony and T. Novak, it has been found the following idea that the «assertiveness» is a harmonious combination of human personal qualities, reflected in the form of concrete ideological positions and positive orientation, that manifests itself in the knowledge of the human nature, in the skills and abilities of the effective interactions. Let's look through one more definition of «assertiveness» as a way of organizing behavior, the ability to formulate personal needs and desires, the willingness in achieving the goals, respect for people, and, most importantly, respect and love for oneself» (Alberti & Emmons, 1990).

By modeling the latest conceptual-categorical apparatus, we cannot overcome such concepts as «mobing» and «bulling». «Mobing», sometimes «Mobbing» (English mob - crowd) – systematic harassment, psychological terror, forms of decreasing authority, the form of psychological pressure in the form of harassing an employee in a team, usually for the purpose of his release. Bulling is a regular and purposeful physical or mental harm to a child, and mobing refers to psychological terror committed by a group in relation to a person.

The first time problem of bulling was started by Norwegian scientist D. Olveus. He has been defined this phenomenon in a school team as a situation in which the student repeatedly becomes a subject of negative actions and attacks from one student or several students during a long time.

It is noteworthy that bulling includes three important components:

- 1) bulling is an aggressive behavior that includes unwanted, negative actions;
- 2) bulling is a long-term and systematic phenomenon;

3) bullying is characterized by inequality of power or force.

Furthermore, almost all researchers define boiling as a long-term and systematic aggression. Another key thing to remember that also this phenomenon can be determined as:

- «subtype of aggression», which can take many forms, both physical and verbal (E. Peligrini, S. Salmiwali);
- destructive interaction (R. Hezler);
- part of the social life of the group (E. Roland);
- repeated attack - social or verbal from the side of those who has higher status (B. Besag);
- prolonged, deliberate violence that is directed against a person who is unable to defend himself in the actual situation (D. Lane).

An analysis of the situation suggests that modern education is a participant in the process of the birth of a new global community. It turned out to be at the heart of the problems that have a direct influence on the development of personality and society.

Summarizing the above-mentioned information, we can emphasize the importance of comparative tables of the structure of the basic concepts presented in M. Sokol doctoral dissertation defended in 2018 on theme “The system of pedagogical concepts in the history development of XIX-XX cent.” (Sokol, 2016). The problem of modern pedagogical concepts system has been shown in the fact that the authors of textbooks and monographs avoid the answers to the main question about the nature of the triad: a person-individual-personality. So in our turn we offer a summary table devoted to the main concepts.

Table 1 The system of basic concepts

| Concept | Definition | Author |
|----------------|--|-----------------------------|
| Person | The living being is capable of development and self-cognition | A.Vykhreshch |
| Individual | A person who has a unique system of qualities | A.Vykhreshch |
| Personality | The individual is capable of self-perfection and creativity | A.Vykhreshch |
| Creativity | The process of formation original ideas that have value | K.Robinson (Robinson, 2017) |
| Pedeutology | Science about the regularities of successful pedagogical activity | A.Vykhreshch |
| Assertiveness | The way of personality behavior that accompanied by a sense of respect for one's own personality and emotional-value attitude to other people. | A.Salter (Salter, 2012) |

Conclusions

1. The principles and approaches used in this study, as well as general conclusions, directly influenced into the logic of defining international conceptual apparatus in pedagogy. On the basis of the analysis of philosophical, psychological, logical, linguistic, historical and pedagogical sources, we analyzed such concepts as: acmeology, assertiveness, bullying, creativity, mobbing, bullying, pedeutology, quality of education. Such determination is carried out by taking into account the degree of availability and scientific elaboration of the main international components of the conceptual-categorical apparatus of a given research.
2. At first sight, there may be a false impression that the definition of the essence of international concepts is a theoretical problem, the solution of which has an academic interest. In fact, this is not true. It is no coincidence that specialists in the field of psychodydactics drew attention to the significance of knowledge at the conceptual level, which first of all presupposes the systemic nature of assimilation, understanding of the phases of “conceptual experience”: motivation, categorization, enrichment, transfer, curtailment, as well as the fact that the assimilation of concepts is peculiar key to understanding the essence of the processes of students psychological (including intellectual) development.
3. The gradual transition to the information society, the rapid growth of life activity tempo, the importance of the personal factor in the economy, and competition in the labor market determine the attention to the intellectual potential of the nation and interstate associations. That is why the human factor becomes a pledge of economic development, security, prospects of social welfare.
4. Conducting a series of international conferences devoted to the pedagogical concepts, preparation on the basis of comparative studies of European pedagogical dictionaries would significantly contribute to the improvement of the quality of education, the level of pedagogical skills, integration of educational space, innovation and creativity.

Summary

Let us summarize that international conceptual-categorical apparatus is one of the conditions for the development of a world pedagogical culture as integral quality that ensures the development of an individual pedagogical culture, the mastery of scientific theories, and educational technologies in a developed single, multicultural informational research and educational space. Notably, that an international pedagogical system of concepts becomes the tool for finding new

landmarks that develops education and education of a person. Having universal boundless fields of application and the possibility of expressing all manifestations of pedagogical reality, it acquires the features of the essential force of intercultural and interpersonal scientific and professional communication, promoting the exchange of ideas and concepts, the transfer of scientific and pedagogical experience and knowledge. Also it becomes an expression of the entire set of scientific and pedagogical knowledge and ideas. As a result, the question of professional-language competence has been arose. This type of specialist professional competence is characterized by a set of knowledge, skills and skills that enable him to perceive, understand the international conceptual-categorical apparatus.

Above all, it seems pertinent to remember that, the possession of an international system of concepts, as well as knowledge of exactly how pedagogical concepts in their main features and relationships are determined in the term. They are considered as the most important components in the structure of vocabulary, communicative competence, discourse, intercultural competence: interpersonal communication across cultures, information and pedagogical competence. In conclusion, linguistic and intercultural competences become important conditions not only for deepening of a new knowledge, but also by mechanisms for spreading their own experience and pedagogical traditions. Significantly, that they also contribute to the enrichment of scientific and pedagogical research and pedagogical practice, the involvement in the field of scientific and pedagogical knowledge of new subject areas related both to the formation of the fundamental provisions of pedagogy and the acquisition of valuable information on new aspects of pedagogical theory and practice.

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PECULIARITIES OF PHILOLOGY STUDENTS' SUBJECT-MATTER COMPETENCES FORMATION TECHNOLOGY ADOPTION WHILE HUMANITARIAN DISCIPLINES STUDYING

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Abstract. *The article deals with the conceptual and pragmatic aspects of philological specialties students' subject-matter competences formation technology adoption in the process of humanitarian disciplines studying. The aim of the article is to introduce the technology of philological specialties students' subject-matter competences formation, corresponding to it didactic conditions. The technology consists of six stages (the stage of goal-setting and immersion, the stage of philological specialties students' subject-matter competences successful formation motivational ensuring, the stage of educational information rationalization and didactic facilitation, the operational stage, the stage of promoting reflexive actions and the stage of determining correlations between the expected and the consequences of subject-matter formation, the self-presentation of the achieved. The varieties of educational activity, which were realized in six stages of the subject-matter competences formation technology based on parallel-concentric allocation, are presented.*

The research was conducted by applying the following methods: theoretical: analysis and synthesis of scientific, popular scientific, methodical and educational literature on the problems of higher school didactics and intensification of students' training to research the specific use of competency approach as didactic paradigm; empirical: poll (questionnaire, interview) of students and faculty of humanities departments, monitoring the manifestation of the dynamics of students' learning process ranking to identify best forms of educational work for the aim of solving research problems based on competence approach.

It is determined that the main result of the development and adoption of philological specialties students' subject-matter competences formation technology in the process of humanitarian disciplines studying is the increase of students' subject-matter competence formation level, provided that the technology and its corresponding didactic conditions are implemented in the educational process.

Keywords: *subject-matter competences, philology students, philology students' subject-matter competences formation technology.*

Introduction

In the current socio-economic climate in Ukraine the low level of youth education is a key factor of inhibition in the cultural and economic spheres, a factor of poor quality of life for most Ukrainians. Despite the fact that in Ukraine there is a network of higher educational institutions with high quality of educational services provision, including pedagogical higher educational institutions, the competence and professionalism of the average graduate leaves much to be desired. One of the attempts to solve this problem optimally may be the introduction of technology for philological specialties students' subject-matter competences formation in the process of humanitarian disciplines studying.

The aim of the article is to introduce the philological specialties students' subject-matter competences formation technology, the development of which was carried out on the basis of a thorough study of the common and excellent, the "zone of intersection" of the competency-based and technological approaches. In the process of this analysis, it was found that the content and procedural aspects of these approaches have much in common.

The element of theoretical novelty came into developing and analysis of the didactic conditions for the philological specialties students' subject-matter competences formation. We believe that effective formation of the subject-matter competences of philological specialties students' in the process of humanitarian disciplines studying will be facilitated by the humanitarian cycle disciplines value context optimization and educational information content structuring in the logic of defining the requirements for the personality of the student-philologist as a repository of actual and potential qualifications in the field of intercultural and interpersonal communication, the student's educational activity didactic polymotivation formation and his professional self-actualization. The detailed didactic conditions are thoroughly activated in the philological specialties students' subject-matter competences formation technology developed by us.

The research was conducted by applying the following methods: theoretical: analysis and synthesis of scientific, popular scientific, methodical and educational literature on the problems of higher school didactics and intensification of students' training to research the specific use of competency approach as didactic paradigm; empirical: poll (questionnaire, interview) of students and faculty of humanities departments, monitoring the manifestation of the dynamics of students' learning process ranking to identify best forms of educational work for the aim of solving research problems based on competence approach.

Body of the Article

Over the past decade in the scientific and pedagogical environment itself, as evidenced by the analysis of professional articles and thesis works, we observe total enthusiasm for various types of "modeling" and derogation from the technological approach, in which there are real opportunities for improvement, intensification and optimization of professional pedagogical training. The peculiar "imbalance" in scientific research in favor of the theoretical substantiation and practical implementation of certain models and the refusal to introduce elements of the technological approach in the training of specialists in the educational sphere is partly due to the influence of Western philosophical and humanitarian concepts, which now over-saturate domestic scientific and pedagogical space. Based on theoretical developments, we propose philological specialties students' subject-matter competences formation through the development and implementation of appropriate technology.

Literature review

Following A. Verbytskyi (Verbickij, 1991) and other researchers, we outlined the basic forms of educational activities that were used in the process of philological specialties students' subject-matter competences formation technology developing. Didacticians A. Aleksyuk (Aleksyuk, 1998), Z. Kurliand (Kurlyand, 2007), M. Fitsula (Fitsula, 2010) emphasize the relevance of applying a lecture form as a form of didactic interaction between the teacher and students, S. Zinoviev specifies a seminar as an important form of modern high school educational activity. There is no consensus as for the game status in the educational process in didactics. Such scientists as N. Anikeieva (Anikeeva, 1989) I. Peterson, P. Pidkasystyi (Pidkasistyj, 1998) consider it as a means of study, L. Semushkina (Semushkina, 1998), S. Kharchenko (Kharchenko, Krasnova, & Kharchenko, 2005), and others – as a teaching method, A. Verbytskyi (Verbickij, 1991), S. Tiunnikova (Tyunnikova, 1983) – as a form of training. V. Slastonin, N. Filipenko (Slastenin, 1991) state that the modern process of studying humanitarian disciplines in a higher educational establishment is impossible to be imagined without a didactic interaction game, which can become a separate form, method (game, or part of problematic, interactive methods), technique (didactic games in the structure of practical classes or a workshop). Ya. Boliubash (Boliubash, 1997), V. Bondar (Bondar, 1996), O. Malykhin (Malykhin, 2009), O. Pometun (Pometun, 2005) and others devote their works to studying the possibilities of organizing and carrying out self-directed work with students.

Methodology and Research results

While developing the technology of philological specialties students' subject-matter competences formation in the process of humanitarian disciplines studying, we took into account the logic and target component of professional training of students namely philological specialties, domestic and foreign scholars' theoretical developments concerning the future teacher's competences formation.

The technology consists of six stages (the stage of goal-setting and immersion, the stage of philological specialties students' subject-matter competences successful formation motivational ensuring, the stage of educational information rationalization and didactic facilitation, the operational stage, the stage of promoting reflexive actions and the stage of determining correlations between the expected and the consequences of subject-matter formation, the self-presentation of the achieved).

On the basis of the pedagogical science methodological provisions that the professional training in a higher educational institution is a system-based element of the entire process of a specialist's personality becoming, and a crucial role in the professional development of the student's personality is played by knowledge, activity and communication; we have developed a program of formative experiment in order to test out theoretically developed technology for forming the subject-matter competences of the Philology Faculty students of Kryvyi Rih State Pedagogical University. The students of the experimental groups of the Philology Faculty, KSPU, were involved in practical activities. The formative experiment program was implemented during the 2016/17 academic year.

Principles of the philological specialties students' subject-matter competences formation technology introduction were:

- a) the principle of objectivity (Boliubash, 1997), which implies a certain decomposition of the content of education and training on integral and relatively independent parts which provide:
 - organizational and content autonomy and feedback, which is evaluated by the results of students' educational activity;
 - scientificity;
 - predictability and perceived perspectives related to the students' awareness of the goals of education and training, as well as the possibilities for their successful achievement;
- b) the principle of innovation, which involves the use of effective pedagogical innovations aimed at improving the quality of future specialists professional training and entry into a single information and education space;

- c) the principle of scientificity (Fitsula, 2010), which consists in the developing or establishing stable links of the education content with the scientific research;
- d) the principle of diagnostics (Soldatenko, 2011), which contributes to the educational achievement level objective assessment and professional training effectiveness.

From the point of view of the technology subject matter, the following was created and implemented in educational work with students of experimental groups:

- educational and methodological support embodied in the development of interdisciplinary practicum “Philological disciplines students’ subject-matter competence”;
- training course “Communicative and didactic qualification of a student”, tutorial lessons, didactic-role and business games;
- advanced course “English language through English and American literature” (discipline – “Foreign language for professional purposes”).

The defined varieties of educational activity were realized in six stages of the subject-matter competences formation technology on the basis of parallel-concentric allocation. Let’s describe the content and activity aspects of the technology implementation.

I. The stage of goal-setting and immersion. The internalization of professional-pedagogical values in the sphere of student's self-awareness requires a special teacher's attitude towards him as a future teacher, a potential colleague. Psychologists note that this attitude helps to identify the student (to a certain extent) with the teacher as with his potential counterpart. In order to provide the necessary initial dynamism of the subject-matter competences forming process, it is important to realize the subject-subjective interaction between the teacher and the student, the convergence of social and role positions, and ensuring the conditions for the professional expression of the teacher. In practical terms, the first stage of technology is associated with the first introductory and informational and summarizing lectures of the interdisciplinary practicum and the beginning of the advanced course “English language through English and American literature.”

II. The stage of motivational ensuring. While theoretical studying the matter we found out that the problem lecture, focused on the philological specialties students’ subject-matter competences formation, should have an appropriate structure. During the formative experiment, we modernized the theoretical developments of Ukrainian didactics and developed our own structure of the problem lecture: a) introduction; b) metatarget setting; c) division of metatargets into microtargets; d) specification of microtargets in problem questions, tasks; e) justification for the author's approach of the teacher to ways and methods of

metatargets and microtargets solving; e) solving problems (by the teacher alone or in cooperation with students); e) summarising and conclusions. In more detail, we provide this structure on fig. 1 “Structural components of problem lecture, focused on the philological specialties students’ subject-matter competences development”.

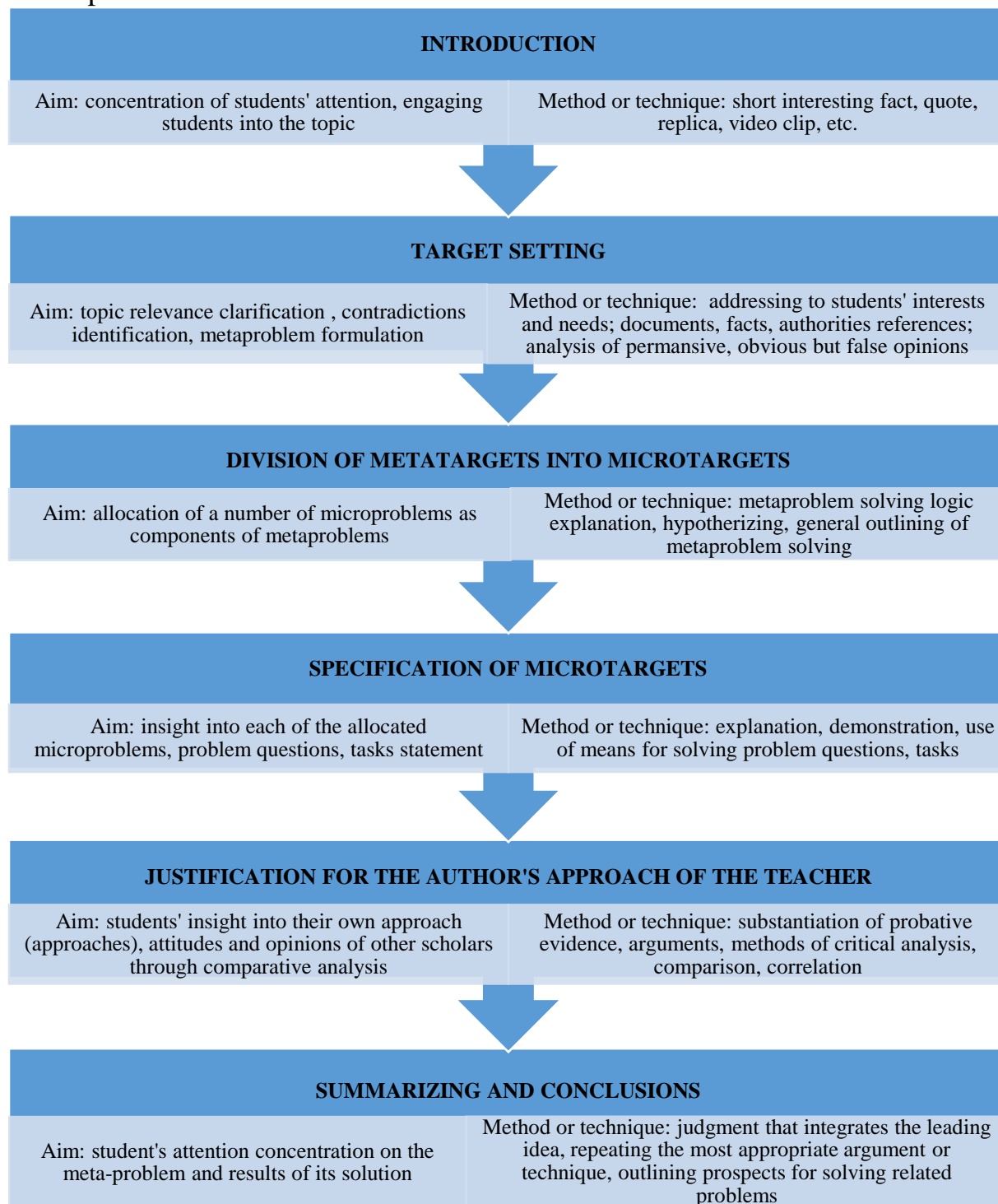


Figure 1 Structural components of problem lecture, focused on the philological specialties students’ subject-matter competences development

Based on practical experience, we also specify techniques and methods of the teacher and students of philological specialties' work, substantiate the goals of each stage of the problem lecture.

We emphasize the fact that structure of any lecture, especially the problem lecture, cannot be absolutized.

III. The stage of educational information rationalization and didactic facilitation. At this stage, a lecture-visualization on the topic "The most famous English writers", a binary lecture "A teacher-philologist's subject-matter competence – a view of a scientist and a teacher-practitioner", problem workshops, brainstorming "Scientific, methodological, informational knowledge of a student of philological specialties – ways and means of achievement" were used within the framework of the advanced course and practicum, independent and individual work of students were carried out.

In fig. 2 we present in a schematic way the algorithm of the teacher and students' actions during the problem seminar as one of the leading forms of educational work at this stage (the algorithm is developed in accordance with the recommendations of V. Haluzynskiy and M. Yevtukh (Haluzynskiy & Yevtukh, 1995), tested at this stage of the technology implementation in order to streamline educational information. The purpose and tasks of the problem seminar, the main and additional issues were formulated in advance. The questions were distributed among the students, taking into account individual possibilities, the literature was obtained, and additional literature search and information from the network were encouraged.

It was during the third stage that the experimental groups learned to structure the educational information independently and set out the core theses within the context of the lectures, learn to coordinate their views with the views and suggestions of group members and the teacher; improved the skills of working with the educational literature and the skills of search and research activities in the network, made web-quests on the topic "My favorite English writer and his works", wrote reviews and references on the works of English writers during the self-directed work.

IV. The operational stage. Since third-year students are not involved in active teaching internship (namely, this very form is recommended as one of the leading forms of the fourth stage), we used innovative forms of educational didactic interaction – tutoring and didactic-role-playing games. Also, within the operational phase, students were involved in research work in groups according to the principle of "cooperative learning" (Fitsula, 2010), which is the result of a person-oriented approach in the practice of higher education, contributes to the formation of all types of skills which are necessary and sufficient for further study, research, and scientific activity.

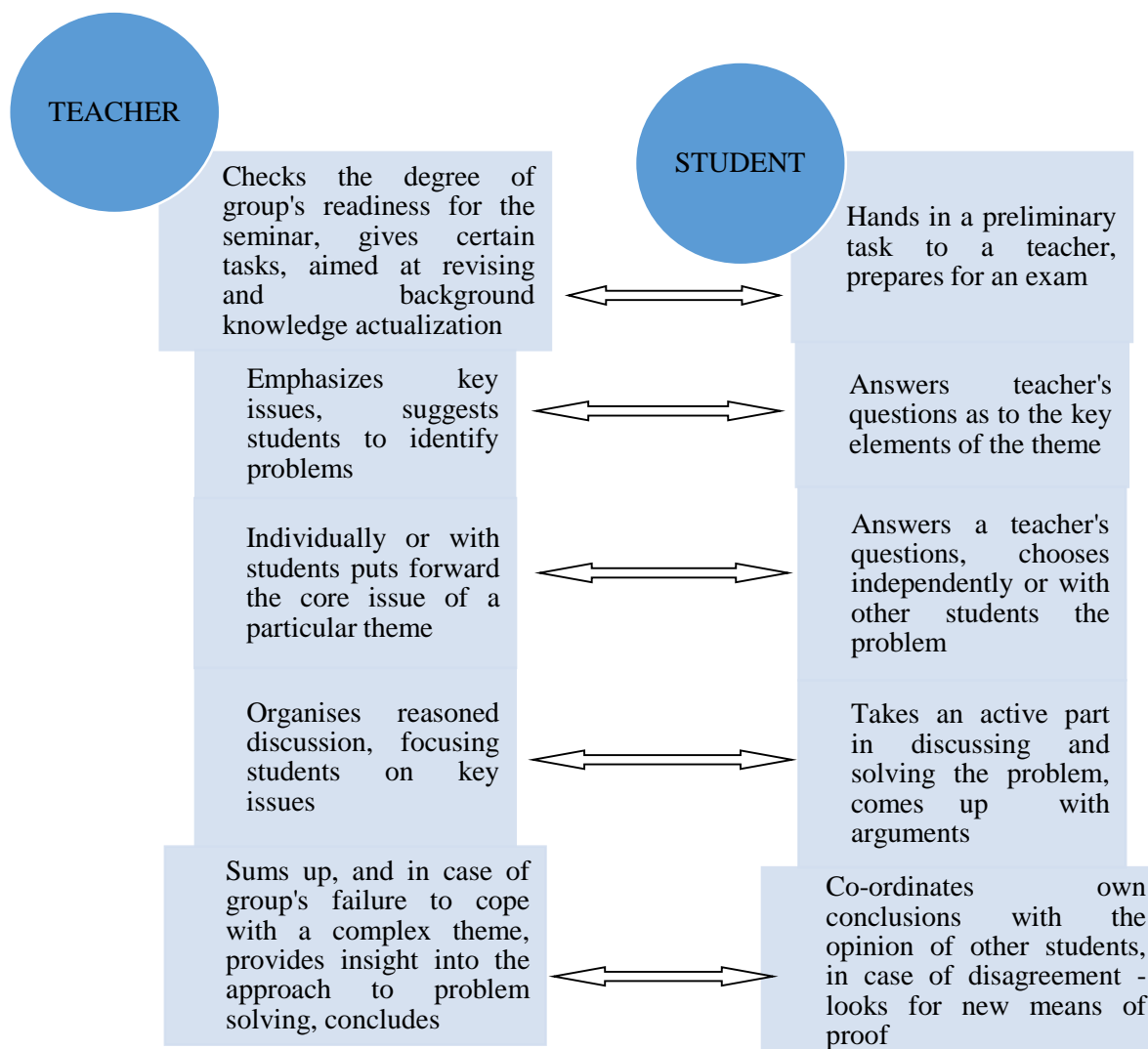


Figure 2 Teacher and students' actions interconnection during the problem seminar

The role of a teacher in such a microgroup is to assist students in gaining their own knowledge, critical understanding of the information obtained from various sources, consultative assistance on the stage of conclusions and generalizations, selecting appropriate arguments and using the necessary facts.

Tutorial lessons as a part of the practicum were developed in accordance with the recommendations of O. Yakubovska (Yakubovska, 1996) and conducted under the theme "Methods and techniques of effective didactic interaction organization in the humanitarian disciplines studying process". Below a fragment of the lesson is supplied.

Aim: to acquaint with the methods and approaches of didactic interaction; to form the ability to build didactic interaction taking into account the level of the individual's cognitive sphere development; to develop skills of non-verbal and verbal didactic interaction, ability to construct a fragment of a lesson using

methods and approaches of didactic interaction and to carry out its analysis; to educate the students on the implementation of dialogical didactic interaction.

Equipment: tables for the analysis of didactic interaction, didactic materials.

Supporting concepts: role-playing game, business game, "situations of success", "encouragement", microteaching.

Plan of the lesson

1. *Written control (10 minutes).*

1) *From Yu. Babansky's main groups of teaching methods what, in your opinion, are most conducive ones to didactic emotional interaction?*

2) *Name the methods of didactic emotional interaction from the subgroup of the methods of forming interest to learning.*

3) *How techniques of organizing emotional interaction when applying teaching methods do you know: stories, conversations, lectures?*

2. *Questions for discussing (35 min.)*

1) *What are the differences between the methods of didactic emotional interaction and other methods of teaching?*

2) *There is no solidity in pedagogical science in determining some approached and methods of teaching. Thus, we find the definition of learning stimulation and motivation methods as "method of interest", "method of exciting analogies", "method of creating novelty situations", "method of life situations", "creating situations of success", "method of emotional surge and encouragement". Other authors refer these concepts to the category of "techniques of teaching".*

- Are these authors right? What is the reason for the discrepancies in the interpretation of concepts in this case? What point of view do you support? Reason your answer.

1) *What is the essence of the method (technique) of "the creating game situations?"*

2) *What is the characteristic feature of the method (technique) of emotional surge and encouragement?*

3) *Is it necessary to create "situations of success" in the educational process?*

4) *What is a role-playing game?*

5) *What is a business game?*

Teaching non-verbal and verbal didactic interaction.

3. *Microteaching: a fragment of the English (Ukrainian) language lesson using the techniques and methods of didactic emotional interaction – 35 minutes.*

Analysis of the lesson fragment by the following questions:

1) *What methods and techniques of didactic interaction have been used?*

2) *What is the essence of the method used?*

3) *Was it appropriate to use the method (technique)?*

4) *The implementation of which educational functions provides the use of these methods?*

4. *Summarizing the results and determining the tasks for the next tutoring lesson.*

At the time H. Kostiuk considered the process of understanding the text as a solution to mental problems, and self-control as a prerequisite for a successful solution (Kostiuk, 1989)

Didactic-role-playing games “Editorial Board” (for students of experimental groups “Ukrainian Philology and Editing”, “Ukrainian and English Philology”) and “The museum tour guide” (for students of the “Ukrainian Philology” group) were developed taking into account the students’ future professional activity direction, the specifics of subject preparation, and conducted in accordance with the recommendations of M. Fitsula, in several steps:

- a) preparatory, which includes students’ theoretical training on the chosen topic, the independent formulation of the game purpose, the didactic task development, the roles distribution, the rules definition and the game script development;
- b) the process of the game covers both students’ activities and the teacher’s activities (instruction, didactic task fulfilment, certain theoretical and practical actions and abilities implementation, formulation of proposals;
- c) introspection of roles performers’ play activity and introspection of concrete practical actions, positive and negative moments, participants’ attitude to performed roles, degree of satisfaction, knowledge and professional qualities revealing during the game;
- d) an analysis of training activities performed during the game subject-matter, correctness, quality of performance, each participant’s performance (students - "experts" are invited);
- e) summarizing and analyzing the game by the teacher, during which the theoretical positions implementation in the process of professional actions simulation, erudition, subject and interdisciplinary outlook, degree of independence are taken into account (Fitsula, 2010).

Below is a fragment of the game “Editorial Board”.

Task for students (1): make the message more effective by deleting extra linguistic information.

Text 1

The professional development of the student's personality and his activity formation at the final stage are based on educational and professional skills and personal qualities already formed at the previous stages of teaching. The specificity of this phase, which is dominated by educational and professional activities, is as follows: educational tasks are of a professional nature; new skills

acquired at this stage are professionalized. Approximately the final stage covers 2-3 years of study. The purpose of this stage is to teach students to solve educational and professional tasks. One should anticipate the formation of such educational and professional skills as planning and own professional activity organization, its analysis and correction, professional tasks solving, professional activity problems and ways of their decision revealing, ability to build relationships in professional groups, production and technological situations analysis.

In the process of consideration and discussion together with the teacher, the students came to the conclusion that the following passage of the text has the following drawbacks:

- The text fragment contains a **logical repetition**. Thus, for example, the second sentence in terms of content actually duplicates the fourth one; and since the fourth contains a precise wording, and the second is a description, it is the second sentence that, in our opinion, should be deleted. The third sentence should be formulated more concisely, since it contains the so-called "phrasal pleasance" – a syntactic logical repetition. "Approximately the final stage covers 2-3 years" – the components that we italicized mean the same – "approximation", and since numeric information here is more valuable, and it is undesirable to be removed, it is better to compromise the word *approximately*.
- The last sentence contains a long **line list**. Such a list is incomplete, and therefore poorly perceived and memorized by the reader. The more effective perception of the text is more favored not by the horizontal (line), but by the vertical classification (with the delimitation of individual elements by numbers, letters or other characters).

It is obvious that the content of the didactic-role-playing game and the forms of participation in it students (discussion, share point) contribute to the formation of the philological specialties students' subject-matter competences basic constructs. Also, during the operational phase in the experimental group's students' educational activity the training course "Communicative and didactic qualification of the student" was activated since, as the data of the confirmatory stage have shown, the CDQ structure indicators are distinguished among others by their heterogeneity.

The training course was carried out according to the themes that were agreed upon with the teachers of the instructional departments. The program of the training course is presented in table 1.

Table 1 Syllabus of raining course "Communicative-didactic qualification of a student"

| <i>№</i> | <i>Theme</i> | <i>Classes organization form</i> | <i>Number of hours</i> |
|----------|---|---|------------------------|
| 1 | Communicative-didactic qualification: role and place in the modern student's competence structure | Mini-lecture, work in microgroups, discussion | 2 |
| 2 | Modern teacher-philologist (profile modeling) | Work in microgroups. Role-projection, mini-presentations | 2 |
| 3 | Components of pedagogical art of teaching of a teacher-philologist (verbal didactic interaction) | Mini-lecture, discussion | 2 |
| 4 | Components of pedagogical art of teaching of a teacher-philologist (non-verbal behavior, communication technique) | Reports, work in microgroups, dispute | 2 |
| 5 | Self-presentation technique and language adaptation | Mini lecture. Training of communicative skills based on the recommendations of L. Petrovska | 2 |
| 6 | Fundamentals of self-management | Testing, designing a personal strategy for professional development | 2 |

V. The stage of promoting reflexive actions. At this stage, the seminar-conference on the theme "My understanding of philological specialties students' subject competences essence" was preceded by a preliminary work: students of experimental groups by selected clusters studied literature on specialty devoted to the problem of future teacher-philologist's competences formation, analyzed articles in professional periodicals.

The results of such research work were combined with observations; their own experience of school and university education of each student was activated and each student group compiled a list of philology disciplines, drawn up in separate files on electronic media.

On the basis of the studied subject information, students of experimental groups came to the conclusion that the main competencies for the future teacher are those ones that are aimed at systematic search for tools and techniques for professional problems solving. It was emphasized that the future teacher should have a complex of professional direction knowledge, psychological and pedagogical knowledge, concrete subject knowledge, which is the basis for the subject-matter competence formation.

Analytical, reflexive, projective skills and informatization are necessary for the future specialist to solve various problems of professional activity. Students also pointed out that the basis for the development of subject-matter competences is the professional knowledge, the ability to apply theoretical knowledge in practice, the ability to organize their work, the ability to use new information and communication technologies.

Almost all students highlighted that the subject-matter competences presuppose knowledge of the state language and at least one foreign language; ways of interaction with other people in the system of interpersonal relationships; ability to orient themselves within a pedagogical situation, to choose the appropriate ways of communication. Also, the future teacher needs group-working skills, easy “entry” in various social roles in the pedagogical team, the ability to present themselves, to debate, to justify their position, to persuade.

It was within the framework of the fifth stage that a preliminary diagnostic assessment was made, aimed at identifying the peculiarities of the experimental group students’ subject-matter competences constructs forming and making appropriate adjustments to the implementation of the technology.

VI. the stage of promoting reflexive actions and the stage of determining correlations between the expected and the consequences of subject-matter formation, the self-presentation of the achieved. Qualitative and quantitative indicators of students’ learning information awareness serve as the criteria for assessing their responses obtained during the control varieties of educational activity, for example, such as testing. The qualitative indicator, as a rule, is the correctness and completeness of answers; quantitative indicators are the number of correct answers given by the student.

Testing, in most cases, is a determining part of a rating assessment. It was determined by M. Levkivskyi and O. Antonova that the share of testing in general rating should not be less than 50%. As our own experience of teaching humanitarian disciplines shows, it is desirable for each student to receive an instruction before testing as for its implementation (a necessary technological step) (Levkivskyi, 1999; Antonova, 2004).

Students obtained the opportunity to self-represent the achievement of the technology as a result of the technology introduction through the use of such a method as the creation of author's projects on the topic “Problems of optimal teaching of humanities and ways of solving: the student's view.”

Conclusions

The interrelation and interdependence of competence and technological approaches in the educational environment of higher pedagogical school are analyzed, on this basis the didactic conditions of philological specialties students’ subject-matter competences formation in the process of humanitarian disciplines studying are singled out.

Such conditions include: a) humanitarian disciplines value context optimization; b) structuring the content of educational information in the logic of defining the requirements for the personality of the student-philologist as a carrier of actual and potential proficiency in the field of intercultural and interpersonal

communication; c) student's didactic polymotivation formation; d) philological specialties students' professional self-actualization.

Didactic conditions are the basis of the technology of philological specialties students' subject-matter competences formation in the process of humanitarian disciplines studying – actions orderly sequence in which each structural element of students' subject-matter competence content corresponds to a certain way of its mastering.

The leading guiding idea of developing philological specialties students' subject-matter competences formation technology in the process of humanitarian disciplines studying is the idea of self-formation by the student of his own learning trajectory, which can be realized through the activation of the opportunities offered to the modern Ukrainian high school by the credit-module system; introduction on this basis of interdisciplinary programs, workshops, training courses, expanding opportunities and ensuring the efficiency of students' self-directed work. According to the logic of the investigated phenomenon formation, the developed technology of philological specialties students' subject-matter competences formation consists of six stages: goal-setting and immersion, philological specialties students' subject-matter competences successful formation motivational ensuring, educational information rationalization and didactic facilitation, the operational stage, the stage of promoting reflexive actions and determining correlations between the expected and the consequences of subject-matter formation, the self-presentation of the achieved. Insight into each stage has created the necessary theoretical basis for the practical implementation of the technology.

The qualitative analysis of the final diagnostic information shows that in the experimental groups the number of students who have a high level of actual didactic qualification formation (+18) has increased, the experimental groups students' potential didactic qualification development positive dynamics has been realized into an increase in the number of students with a high level of this construct formation (+11). The number of experimental groups' students with a high level of communicative and didactic qualification formation increased by 14%, while 12% of experimental groups' students improved the individual-personal qualities constructs indicators. Consequently, we can state that in general the experimental groups' students' subject-matter competences formation level has increased by 13,75 → 14%.

Thus, the proposed technology of philological specialties students' subject-matter competences formation in the process of humanitarian disciplines studying contains certain didactic conditions and gives the researcher the basis for its practical adoption in the educational process.

The article allows to outline the range of problems that need further development and study: first of all, this issue is related to the improvement of future teachers' subject-matter competences content, the selection of optimal

means of influence on each construct of subject-matter competences, the development and use of modern information technologies as means of forming students' competences, problems connected with humanitarian disciplines axiological potential further study and others.

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DEVELOPMENT OF THE CREATIVITY POTENTIAL OF THE STUDENT'S PERSONALITY

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***Abstract.** The purpose of this article is to show the increasing of the individual creativity potential on the base of the students' integrative collaboration during the acquisition of the Building Constructions subject in professional university. The article deals with the issue of demand for highly-qualified, skillful and competitive specialists able to work in interdisciplinary team and organize collective work. Quantitative data analysis method was applied for analyzing the change in students' creative abilities after the pedagogical experiment – adapted tests of creative abilities, which were developed by E. Torrens. Increase of the students' creativity in the experimental class was deducted from the obtained data.*

***Keywords:** professional university, creativity potential, students' integrative collaboration, sustainable development.*

Introduction

The 2030 Agenda takes the transformative steps which are urgently needed to shift the world onto a sustainable and resilient path (The 2030 Agenda for Sustainable Development). It addresses both poverty eradication and the economic, social and environmental dimensions of sustainable development in a balanced and integrated manner. All countries are acting in collaborative partnership, will implement this plan (Transforming our world: the 2030 Agenda for Sustainable Development). The 2030 Agenda also addresses issues such as effective education organization. Sustainable development urges to ensure that all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature. Policy in the sphere of education has traditionally been seen as an essential resource for the country's development. It is necessary to agree with the opinion of modern researchers in pedagogy that one of the main tasks of higher education is the development of the creative potential of students (Galpotthawela & Lubkina, 2018; Pafifova, 2015;

Pūre, 2010; Vidnere, 2010). Diagnosis of creativity and related mental processes, the development of creativity is especially important. Modern Latvian scientists and educators (Lanka, 2003; Meriste, 2004; Gudjons, 2007; Žogla, 2007; Kāposta, 2011; Vidnere, Roze, Kālis, Rože, & Krūmiņa, 2011) note that training of highly-qualified specialists requires extending fundamental knowledge, educational content differentiation and integration according to further basic professional activities, strengthening of vocational orientation, development of prospective professionals' creative thinking and research competence. Issues for study: the level of creativity of students of a technical university, using methods of creativity development.

The aim of the research is the organization of a teaching process in a professional university. The subject of the research – increasing of the creativity potential of the personality on the base of students' integrative collaboration. The research questions is “Does a students' integrative collaboration promote development of the individual creativity potential?”

Theoretical background

The trend of education process organization in university with the increasingly popular internationalized activities signifies the necessity of nurturing students with effective communication skills. Students' integrative collaboration model allows them to enrich the subjective experience of self-organization, self-control, self-expression and self-presentation, self-regulation, as well as self-reflection in their professional activities. Students' personal experience is converted efficiently through the integrative collaboration, expanding experience with new professional activities' skills in team. During students' educational process a teacher has to organise the teaching/learning process so that it should promote students' development through common knowledge constructing and decision making.

Given the fact that this research is related to the problems of reorganizing a teaching/learning process in a professional university, holism, constructivism and existentialism were chosen for a philosophical basis of students learning in the context of integrative collaboration.

A new type of scientific approach is currently being developed, which is based on a holistic approach to knowledge (Forbes, 1996; Martin, 2002; Forbes & Robin, 2004). Consequently, the understanding of education is changing too: besides the traditional understanding a new perception about an educated person is being formed, so the anthropological basis of pedagogy is changing. An educated person is a person who is prepared for life, is able to understand his place in it and find his bearings in complex issues of contemporary culture rather than a “knowledgeable” person with his own world outlook. Holism view is based on

J. Nakagawa's (2000), R.G. Nava's (2001), S.H. Forbes's and A.M. Robin's (2004) ideas. Works by J. Piaget are considered to be the basis of constructivism pedagogy (Piaget, 1954; Piaže, 2000), according to which knowledge, values, autonomy, etc. cannot be passed on to humans from the outside – they have to be actively constructed in the inner world of a person. The practical application of constructivism principles involves mainly the introduction of active teaching organizing forms into the teaching/learning process (seminars, projects, presentations, teamwork). Teacher's role is reduced to creating an interesting, multi-modal (diverse) and communicative interaction-focused educational environment.

Existentialist humanistic foundations play an important role in education, especially in the human personality priority (Maslow, 1954; Fromm, 1976; Rogers, 1980; Bass, 1961; Frankl, 2006; Антипин, 2002).

The scientists' theoretical guidelines concerning the impact of educational environment organization on the development of students' creativity potential have been identified and analyzed (Korčaks, 1986; Лесгафт, 1991; Ozoliņš, 2000; Špona, 2001; Zarembo, 2006 and others). In this research the definition of creativity proposed by E.P. Tunic (Туник, 1998) is used, according to which creativity is understood as the totality of thinking features and personality qualities that are required for the development of students' creativity. The model of students' integrative collaboration was developed, the form of the interaction between students and a teacher was determined and was used in *the third phase* of the research. According to the developed model the aim of organizing students' integrative collaboration is to promote the acquisition of learning skills, further professional self-education, including the development of creativity potential. Integrative collaboration is characterized by the development of experience, opinion exchange and strategy when physicians and technical sciences professionals (engineers) are participating (van Gejeka, 2013).

Methods

The results of the previous *first phase* of research indicated a necessity of learning environment reorganization in professional university, which logically led to the next part of the research - development of the practice scenario in order to prove the efficiency of integrative method in teaching such a technical subject as Building Constructions (van Gejeka, Pakrastiņš, & Ignatjeva, 2018).

In the *second phase* of the research the creativity potential of the students of Latvian professional universities was studied with the aim to develop the practical scenario of students' integrative collaboration. One of the main pedagogical and psychological aspects of creativity, mentioned in works of several authors, is the development of creative abilities (Zarembo, 2006; Liegeniece, 2010). To explore

the person's individual creativity potential Terrence test of creative thinking (Terrence, 1966, 1969) was used for this work that assesses personal creativity, flexibility and originality of thinking.

In the *third phase* of the research the formative pedagogical pilot-experiment was implemented in Riga Technical University, using students' integrative collaboration model as a method of creativity developing.

The empirical base of the study was formed by data obtained from a student's survey. Two Latvian professional universities from different regions have been chosen as a research area with students aged 18-27 years. Riga Technical University (RTU) and Rezekne Technical Academy (RTA) students were involved into the research of the individual creativity potential:

- RTU 80 students;
- RTA 33 students.

Riga Technical University 19 students as experimental group and 21 student as control group (age 18-25 years) was selected to take part in the piloting research.

Therefore, the methods of learning process organisation's investigation include:

- testing (Terrence test of creative thinking) as a quantitative research method;
- formative pedagogical pilot-experiment organisation for the verification of the developed students' integrative collaboration model.

Quantitative research methods are using SPSS 19.0 data processing program (Statistical package for the Social Sciences), Student test for data processing and analysis.

Results of the research

Pedagogical findings about the development of creativity potential on the base of students' integrative collaboration are analysed before the piloting research. Statistically significant differences when comparing the average indicators of the creativity factors in RTA and RTU are observed only by the factor Imagination. This factor is higher in RTA (see Figure 1).

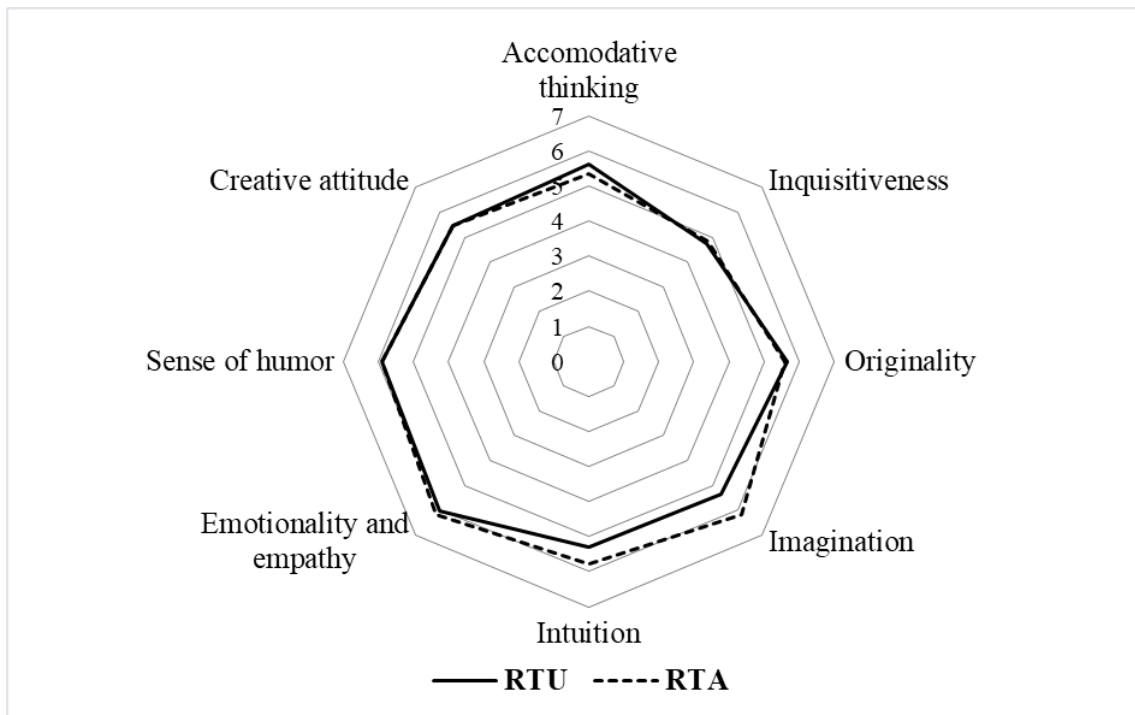


Figure 1 Average creative factors in RTA and RTU

The results of the statistical processing of creativity’s testing are shown in Tables 1 and 2, comparing average creative factors in RTA and RTU.

Table 1 Creativity factors’ descriptive statistics

| University | | Accommodative thinking | Inquisitiveness | Originality | Imagination | Intuition | Emotionality and empathy | Sense of humor | Creative attitude |
|------------|----------------|------------------------|-----------------|-------------|-------------|-----------|--------------------------|----------------|-------------------|
| RTU | Mean | 5,51 | 4,73 | 5,54 | 5,25 | 5,49 | 5,88 | 5,85 | 5,30 |
| | Median | 5,50 | 5,00 | 6,00 | 5,00 | 5,00 | 6,00 | 6,00 | 5,50 |
| | Std. Deviation | 1,77 | 1,65 | 1,49 | 1,70 | 1,62 | 1,78 | 1,54 | 1,71 |
| | Range | 9 | 8 | 7 | 8 | 8 | 7 | 7 | 9 |
| | Minimum | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 0 |
| | Maximum | 10 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | Percentiles | | | | | | | | |
| | 25 | 5,00 | 4,00 | 4,00 | 4,00 | 5,00 | 5,00 | 5,00 | 4,00 |
| | 50 | 5,50 | 5,00 | 6,00 | 5,00 | 5,00 | 6,00 | 6,00 | 5,50 |
| | 75 | 7,00 | 6,00 | 7,00 | 6,00 | 7,00 | 7,00 | 7,00 | 6,00 |
| RTA | Mean | 5,33 | 4,82 | 5,61 | 6,18 | 5,79 | 6,18 | 5,91 | 5,48 |
| | Median | 6,00 | 5,00 | 6,00 | 6,00 | 6,00 | 6,00 | 6,00 | 6,00 |
| | Std. Deviation | 1,86 | 1,530 | 1,619 | 1,648 | 1,453 | 1,570 | 1,508 | 1,623 |
| | Range | 7 | 7 | 7 | 6 | 6 | 7 | 5 | 9 |
| | Minimum | 1 | 1 | 1 | 3 | 2 | 3 | 3 | 1 |
| | Maximum | 8 | 8 | 8 | 9 | 8 | 10 | 8 | 10 |
| | Percentiles | | | | | | | | |
| | 25 | 4,00 | 4,00 | 5,00 | 5,00 | 5,00 | 5,00 | 5,00 | 5,00 |
| | 50 | 6,00 | 5,00 | 6,00 | 6,00 | 6,00 | 6,00 | 6,00 | 6,00 |
| | 75 | 6,50 | 6,00 | 6,50 | 7,50 | 7,00 | 7,00 | 7,00 | 6,00 |

A comparative creativity factors analysis was performed prior to the pilot-experiment at Riga Technical University.

Table 2 Student's t-test results of independent samples, comparing average creative factors in RTA and RTU

| | t-test for Equality of Means | |
|--------------------------|------------------------------|-----------------|
| | t | Sig. (2-tailed) |
| Accommodative thinking | ,696 | ,488 |
| Inquisitiveness | -,239 | ,811 |
| Originality | ,197 | ,844 |
| Imagination | -2,301 | ,024 |
| Intuition | -1,443 | ,152 |
| Emotionality and empathy | -,411 | ,682 |
| Sense of humour | -,023 | ,982 |
| Creative attitude | -,026 | ,979 |

Among RTU students, an experimental group of 19 students (age 18-25 years) was selected to take part in the piloting research - formative pedagogical pilot-experiment. The results of the statistical processing of creativity's testing are shown in Tables 3, comparing the average indicators of the factors of creativity in the control and experimental groups before the experiment.

Table 3 Student's t-test results of independent samples, comparing the average indicators of the factors of creativity in the control and experimental groups before the experiment

| | t-test for Equality of Means | |
|--------------------------|------------------------------|-----------------|
| | t | Sig. (2-tailed) |
| Accommodative thinking | ,846 | ,400 |
| Inquisitiveness | ,122 | ,903 |
| Originality | 1,456 | ,149 |
| Imagination | 1,042 | ,301 |
| Intuition | -1,762 | ,082 |
| Emotionality and empathy | 1,429 | ,157 |
| Sense of humour | ,534 | ,595 |
| Creative attitude | 1,656 | ,102 |

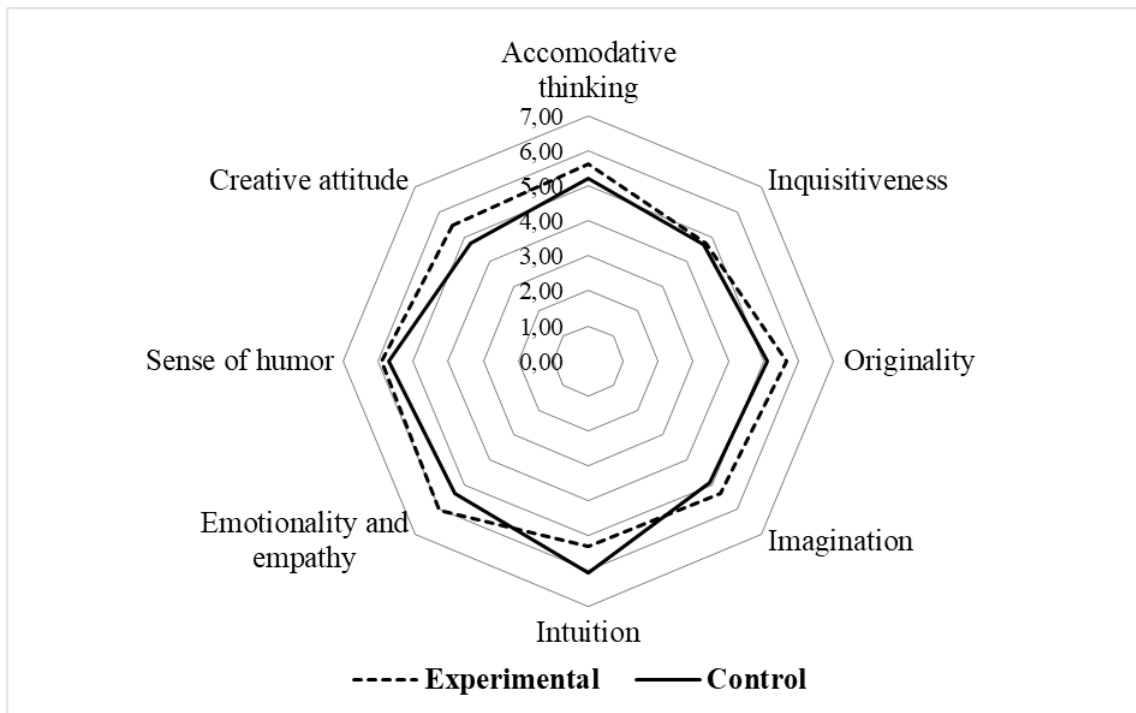


Figure 2 Creativity factors in the experimental and control groups before the experiment

Statistically significant differences between the average indicators of creativity in the control and experimental groups at the beginning of the experiment are not observed (see Figure 2).

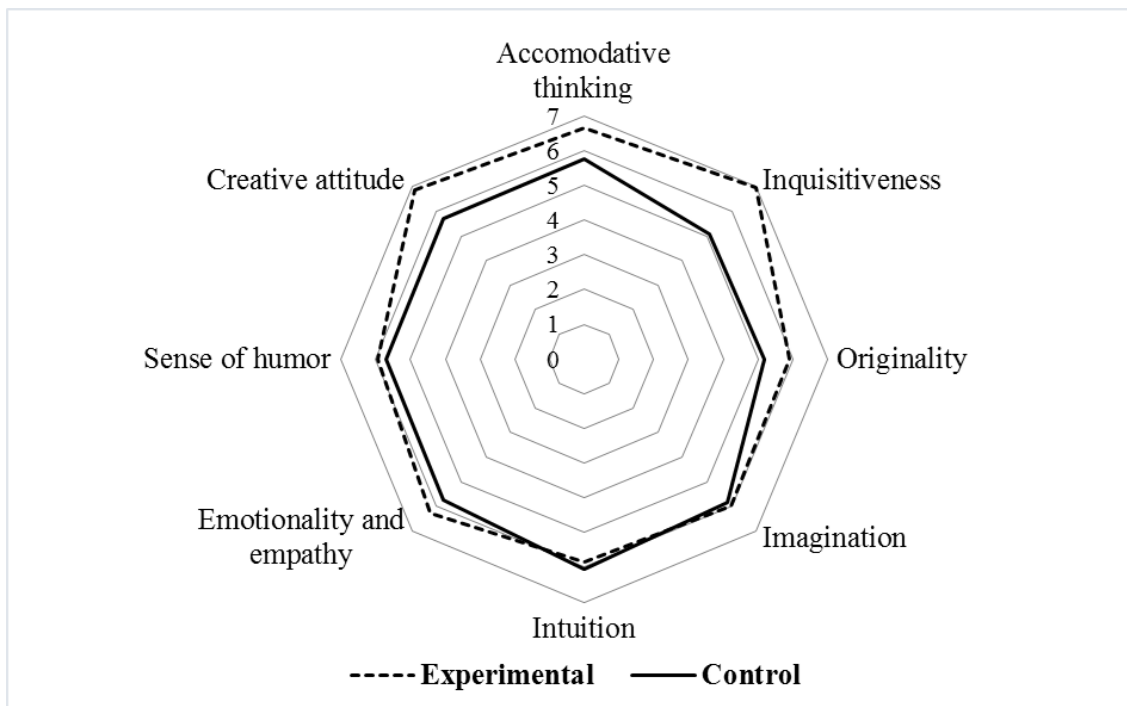


Figure 3 Indicators of creativity in the experimental and control groups at the end of the experiment

A comparative analysis of average creativity factors in the control and experimental groups at the end of the experiment revealed statistically significant differences in such factors as Accommodative thinking, Inquisitiveness, Originality and Creative attitude. In the experimental group, the creativity factors became higher than in the control group (see Figure 3) as:

- Accommodative thinking (increasing for 0.9 point);
- Inquisitiveness (increasing for 2 points);
- Originality (increasing for 0.9 point);
- Creative attitude (increasing for 1.3 point).

Table 4 Student's t-test results of independent samples, comparing the average indicators of the creativity factors in the control and experimental groups at the end of the experiment

| | t-test for Equality of Means | |
|--------------------------|------------------------------|-----------------|
| | t | Sig. (2-tailed) |
| Accommodative thinking | -2,866 | ,040 |
| Inquisitiveness | -3,156 | ,003 |
| Originality | -1,856 | ,049 |
| Imagination | 1,243 | ,276 |
| Intuition | 1,762 | ,284 |
| Emotionality and empathy | 1,429 | ,157 |
| Sense of humour | ,534 | ,595 |
| Creative attitude | -1,956 | ,042 |

The results of the statistical processing of creativity's testing are shown in Tables 4, comparing the average indicators of the creativity factors in the control and experimental groups at the end of the experiment.

Conclusions

Thus, the analysis of the creativity potential in two Latvian Universities enabled to conclude that it is necessary to activate teaching organizing forms into the teaching/learning process in a professional university. Students' creativity potential is an essential resource in education strategy. Increase of the students' creativity indicators was implemented by purposefully organized learning process, based on the students' integrative collaboration model. Students teaching/learning process is more focused/oriented on team activities in work and development of individual creativity potential. We have already written about the learners' integrative collaboration model organisation in vocation school (van Gejeka, 2013). Advantages of the integrative collaboration are also apparent:

- students' qualitative improvement of training;

- practical experience of joint course projects in team - implementation skills for professional cooperation.

A pilot-study was successfully carried out with a positive effect on the development of creativity at Riga Technical University and revealed statistically significant increase in such creativity factors as:

- accommodative thinking;
- inquisitiveness;
- originality;
- creative attitude.

The results of pedagogical pilot-experiment do not provide the grounds for drawing clear conclusions about the research question “Does a students’ integrative collaboration promote development of the individual creativity potential?” However, the pilot-study determined the directions of remedial work and allowed to plan the implementation of the main pedagogical experiment in order to reorganize the educational process in a professional university in accordance with sustainable developing conception.

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ИСПОЛЬЗОВАНИЕ БИОГРАФИЧЕСКОГО МЕТОДА В ПОДГОТОВКЕ СТУДЕНТОВ СОЦИАЛЬНОЙ РАБОТЫ

Using the Biographical Method in Students Training for Social Work

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Abstract. *The article describes the possibility of using the biographical method at students' preparation to the decision of people's social problems who turned out to be in a difficult vital situation. A research novelty consists of using the philosophical-anthropological approach as a methodological basis, that is oriented to understanding of client as a Person, whose vital problems are related to such unsteady forms of life as a risk, fear, trust, meeting, failure, crisis, life, history of life, fate, event, case. A research aim is a study of students' readiness to the practical using of the biographical method in the activities of a social worker. Basic methods for realization of this aim are working with basic concepts relevant to the using of the biographical method: pedagogical workshop, portrait of "Me", collage, reflection essay. The main results of the study were new topics of students' research works, made by using the biographical method. In practical part of researches students use the quality analysis of the personal (correspondence, photos, autobiographies) and official (descriptions, archived data) documents, survey methods (telling clients about their life, relatives' evidence about the stages of the client's life).*

Keywords: *biographical method, life path, biography, philosophical-anthropological approach, case.*

Введение

Introduction

Философско-антропологический подход разрабатывает проблемы, связанные с созданием педагогической антропологии, на основе использования всех достижений человекознания, предварительно осмысленных философской антропологией. Это явилось продолжением

идей К.Д. Ушинского о том, что педагогическая антропология – учение о человеке развивающемся и воспитывающемся в той же степени как антропология – учение о человеке.

В настоящее время кафедра педагогики и социальной работы Псковского государственного университета готовит как педагогов, так и бакалавров, магистров социальной работы. Методологической основой подготовки студентов является философско-антропологический подход в работе с клиентом. Он ориентирует на:

- осмысление реального бытия человека во всей его духовной целостности и полноте;
- обусловленность позитивных изменений, происходящих в человеке, его стремлением к самопознанию, саморазвитию, самовоспитанию;
- понимание и диалоговое общение как способы постижения бытия человека.

Реализация этих идей с необходимостью требует серьезного внимания к наполнению содержания образования бакалавров и магистров социальной работы рядом понятий, большинство из которых не отражены или отражены не в полной мере в базовых учебниках по дисциплинам учебного плана. В то же время в практической деятельности социальные работники сталкиваются с необходимостью решать:

- проблемы одиночества многих пожилых людей требуют осмысления таких понятий как «дух», «духовность», «духовное бытие», «внутренний опыт», «ценность», «вера», «благодарность», «страх», «разочарование», «незавершенность» и др.;
- проблемы детей и взрослых людей групп риска обязательно приводят к работе над понятиями: «бытие», «бытие в культуре», «кризис», «духовность», «душевность», «ошибка», «встреча», «пробуждение», «диалог», «смысл жизни», «самовоспитание», «совесть», «творчество» и др.;
- проблемы людей с ограниченными возможностями изучаются при наполнении смыслом понятий: «дух», «кризис», «цель жизни», «саморазвитие», «самореализация», «надежда», «любовь», «творчество», «доверие» и др.

Бесспорно, эти примеры можно продолжить и наполнить более полными списками категорий философско-антропологического подхода, значимых для понимания и решения проблем людей, которые нуждаются в помощи, поддержке, защите со стороны будущих социальных работников. В соответствии с этим целью статьи является рассмотрение особенностей

подготовки студентов в процессе обучения к использованию биографического метода в научно-исследовательской работе и практике. Особенность процесса обучения заключается в том, чтобы студенты наполняли для себя смыслом каждую из этих категорий. Важно, чтобы они оказались способными видеть за проблемой - Человека и взаимодействовать с ним в процессе оказания помощи не только как с «клиентом» или «получателем социальных услуг», но прежде всего как с Человеком, сохраняющим и воспроизводящим в себе все человеческие качества.

Взаимодействие социального работника с получателем социальных услуг как с Человеком углубляет понимание специфики его бытия, специфики его индивидуальности и требует внимания к освоению особыми методами социальной работы, внимательными к человеческому в человеке. Это должны быть методы, адекватные философско-антропологическому подходу. Социальная работа достаточно интегративно подходит к применению методов исследования, используя методологический и методический исследовательский потенциал таких наук как философия, социология, психология, педагогика и др. Развитие теории и практики социальной работы позволили разработать собственный методический и методологический исследовательский инструментарий.

Целью проведенного исследования является изучение готовности студентов к практическому использованию биографического метода в деятельности социального работника. Задачи: включение в учебный процесс базовых понятий философско-антропологического подхода; апробирование методологического инструментария для освоения биографического метода в научно-исследовательской и практической деятельности будущих социальных работников.

Теоретическая база исследования *The theoretical basis of the study*

Теоретико-методологическую основу исследования составили концептуальные методологические исследования, реализующие:

- положения концепции человека как активного субъекта жизнедеятельности (Абульханова-Славская, 1991; Рубинштейн, 1997);
- концепцию субъектности (Петровский, 1996; Слободчиков, 1995);
- основные положения современных гуманистически ориентированных
- теорий личности (Асмолов, 2001; Маслоу, 2002);

- базовые положения и понятия философско-антропологического подхода в понимании и воспитании Человека (Больнов, 1983; Лузина, 1998);
- смысловое содержание биографического метода исследования (Томас & Знанецкий, 2006; Мануильский, 2005);
- феноменологический подход (Шутц, 2004).

Результаты теоретического исследования *The results of theoretical research*

Многие базовые дисциплины учебного плана и курсы по выбору для студентов выстраиваются нами с учетом специфики своей научной школы (Лузина, 1998). Именно философско-антропологический подход помог характеризовать ребенка группы риска, пожилого человека, любого человека в трудной жизненной ситуации, опираясь на представления о его целостности, единстве, неделимости, ценностных основах его жизни, смысле жизни. Ключом к решению многих из перечисленных проблем является использование адекватных методов исследования.

Можно назвать несколько оснований, неопровержимо подтверждающих необходимость подготовки практикующих социальных работников уметь использовать различные методы исследования:

«Во-первых, «исследовательская грамотность», т.е. способность понимать, критически оценивать и избирательно использовать научные знания, не дается от рождения. Социальных работников нужно научить быть разумными пользователями научно-исследовательских подходов.

Во-вторых, обучение использованию методов исследования поможет социальной работе оценивать практику с позиций научного подхода, для чего они должны уметь эмпирически формулировать, документировать и оценивать свои решения, принятые в процессе практики, и свою деятельность.

В-третьих, профессиональный социальный работник должен быть обучен разнообразным оценочным подходам.

В-четвертых, умение пользоваться методами исследования позволит социальным работникам составлять отчеты о своих открытиях в соответствующей профессиональной форме» (Рамон & Сарри, 1996).

Особое место в изучении социальных проблем людей занимает биографический метод исследования.

Слово биография происходит от греческих «био-жизнь» и «графия» – описание, т.е. буквально означает жизнеописание. Традиционно понятие употребляется в трех значениях: во-первых, это литературный жанр, во-

вторых, деловой документ, содержащий «сухое» описание жизни человека и его профессиональной деятельности (так называемая «кадровая» биография) и, наконец, - жизненный путь человека (Мануильский, 2005).

Биографические данные в исследованиях социальной работы - это основа детальных и мотивированных описаний «истории отдельной личности» «истории случая», «отдельного случая», «работы со случаем», «социальной биографии». Особое значение биография имеет в том случае, если социальный работник имеет дело с клиентами «с духовными изломами», с трудной судьбой. Социальному работнику надлежит быть философом по отношению к горю человека. Биографический масштаб личности всегда тесно связан с общественным развитием, помещен в определенный исторический контекст. Каждый человек пытается осмыслить свою жизнь, логику своего развития в единстве объективных и субъективных детерминант, стремиться объяснить и оправдать свою жизнь как единое целое, как единство общественно-исторического и индивидуально-биографического. Время, эпоха, судьба поколения, как вектор жизненного пути, отражаются в индивидуальной биографии, в фактах личной судьбы.

Для социального работника биографический подход - это рассмотрение каждого конкретного случая в контексте того, как человек становится творцом и строителем собственной жизни. Совместно с клиентом социальный работник использует те приемы воздействия, которые способствуют изменению самосознания человека, формированию у него навыков жизнотворчества и самоопределения. Это ведет к осознанию, осмыслению, коррекции личностной истории. Биографический подход создает новое отношение к себе: и своей жизни. Следует иметь в виду, что события прошлой жизни людей, которые уже нельзя изменить, могут оказывать негативное воздействие на их поведение и возврату к прежней жизни. Биографический подход - это не только «работа с прошлым», но и ориентация человека на изменения. Это стимулирование клиентов к размышлениям о том, что такое личный путь, о трудностях его выбора. Кем хочет стать человек и какие усилия он прилагает для этого? Насколько реалистичны его представления о будущем. Ответ на это - тоже реализация биографического метода, точность прогноза личностного развития - показатель мастерства социального работника, реализующего биографический подход. В русле изучения биографического метода, нам интересен и значим жизненный путь человека с его наполнением: смысл жизни, жизненные цели и ценности, жизненные нормы и стратегии, жизненные сценарий и программирование и др. Важны на жизненном пути ситуации и состояния, которые О.Ф. Больнов (1983) в русле философско-антропологического подхода, назвал «неустойчивыми формами бытия», а

это кризис, встреча, совет, увещание, пробуждение, открытие и др. Это все то, что нарушает, изменяет, потрясает ровное течение жизни, наполняет духовным опытом и ценностями.

Умение «корректировать судьбу», «ломать характер» - это уровень профессионализма. И необходимо учить студентов, как следуя за качествами личности, за ее наклонностями и способностями, направлять эту личность в наиболее нужную для неё сторону.

Таким образом, преимущества биографического метода заключается, прежде всего, в возможности получения детальной "дотеоретической" информации об изучаемых социальных явлениях. Непосредственная включенность исследователя в изучаемую социальную ситуацию, группу или культуру нередко позволяет получить уникальные сведения об используемых самими участниками значениях и символах, о локальных или субкультурных "языках взаимодействия", знакомство с которыми является само собой разумеющимся условием их дальнейшего теоретического анализа.

Организация и результаты экспериментального исследования *Organization and results of an experimental study*

Организация экспериментального исследования осуществлялась при изучении студентами таких учебных дисциплин как «Методы исследования в социальной работе», «Социальная работа с детьми групп риска». В исследовании принимали участие 62 студента 3-4 курсов направления подготовки «Социальная работа». Методологическими основами исследования являлись подходы, связанные с вниманием к изучению человека как активного субъекта саморазвития.

Со студентами проводились практико-ориентированные занятия, в которых использовались такие приемы биографического метода исследования как: «Музей обидный воспоминаний», «Событие, сделавшее меня счастливым», «Когда я принес радость в дом». Студенты выполняли научно-исследовательские работы: «Проблемы социальной работы с людьми, стоящими на пороге смерти», «Феномен старости как объект социальной работы», «Жизненный путь человека (ребенка) как объект социальной работы», «Осмысление и реализация антропологических идей в практике социального работника», «Жизненный сценарий как объект социальной работы (на примере судеб бывших заключенных)» и др. В процессе работы над такими темами, исследователь учится пользоваться различными источниками биографических данных. В исследованиях были использованы эмпирические методы исследования как:

- качественный анализ личных документов, где источниками могут являться: различного рода переписка, фотографии, автобиографические фрагменты и т. п.;
- качественный анализ официальных документов - официальные архивные документы: записи актов гражданского состояния (рождения, смерти, браки), правительственные документы, данные социальной статистики, архивы общественных организаций и административных органов (личные листки по учету кадров, сведения о наградах и взысканиях, характеристики), документация медицинских учреждений, органов юриспруденции;
- опросные методы: интервью (ненаправленное), беседа, раздаточное анкетирование - свидетельства родственников, сообщения о своей жизни в целом, о каких-то ее этапах или жизни кого-либо из родственников.

Рассмотрим содержание отдельных занятий со студентами, раскрывающих специфику подготовки социальных работников к использованию биографического метода в практической деятельности. Пример вопросов для обсуждения и размышления на семинаре:

1. История появления биографического метода исследования.
2. Значение и особенности метода.
3. Источники метода.
4. Типы историй жизни и их характеристики.
5. Опираясь на знания психологии и педагогики, поработав со словарями, необходимо охарактеризовать понятия темы семинары.
6. Значимость понятий темы в жизнедеятельности человека.
7. Каковы факторы, определяющие жизненный выбор?

Творческие задания (на выбор) для организации самостоятельной работы студентов к занятию по теме (можно представить в мультимедийной форме, эссе):

1. Составить глоссарий как наглядный образ к одному из выделенных базовых понятий.
2. Отобрать притчи, легенды, материалы из художественной или мемуарной литературы к теме занятия.
3. Выполнить коллаж, отражающий тему семинара.
4. Подобрать пословицы, поговорки, высказывания, в которых бы обозначались данные модулы.
5. Может ли биография значимого другого выступать как образец возможного развития?

- б. Если в практической части курсовой (дипломной) работы предполагается изучение биографии клиента (клиентов), то необходимо подобрать источники, выделить проблему для изучения и осуществить исследовательскую деятельность в данном направлении.

Еще одной из форм работы со студентами является педагогическая мастерская. На ней студентам предлагается выполнить творческую работу по автобиографии. Задача слушающих студентов – узнать, о каком жизненном феномене идет речь.

Работа включает следующие приемы:

- а) описать из своей автобиографии любой эпизод, выводящий слушателя на феномены, которые О. Больнов (Больнов, 1983) называет «неустойчивые формы бытия», например:
- судьбоносный период;
 - событие, сделавшее меня счастливым;
 - музей жизненных обид или радостей;
 - ситуации выбора (события жизни), в которых перед человеком открывалось несколько дорог. Причем далеко не всегда четко осознаваемых и адекватно оцениваемых;
 - кризис, по-гречески, - это суд, но Суд над собой. Нарушает привычный стиль жизни, вносит в ее плавный ход неожиданные повороты, это конец одного и начало другого бытия. Уметь оказать своевременную помощь в его преодолении, если наблюдается трагический исход. Он открывает новые перспективы и тогда из кризиса человек выходит обновленным;
 - встреча. Речь идет о встрече как о случайном, непредсказуемом событии, столкновении с другой духовной реальностью, которое должно обязательно произойти. Именно ее ждал и искал человек всю предшествующую жизнь, заслуживал, зарабатывал ее. Это уже не просто встреча, а Встреча. С нее, нередко, начинается новая жизнь. Часто только обернувшись назад и поразмыслив, можно понять, что именно в тот день или час, тот *разговор или встреча* были определяющими, предрешившими дальнейший ход жизни и судьбу и т.д.).

Работа над автобиографией осмысливает свою жизнь, логику поступков (объяснить или оправдать); создает новое отношение к себе и своей жизни; работа с прошлым – это и интерес к будущему (т.е. стимулирование мысли о личностном выборе, ценностях) и т.д.

- б) коллаж «Я», когда каждый из обучающихся свои интересы, особенности и увлечения представляет с помощью аппликаций, рисунка, символов, знаков, схем. Работа автором не подписывается. Задача слушающих студентов – узнать, о каком конкретном человеке из группы идет речь;
- в) портрет моего «Я»: моя родословная (факты, увлечения, способности родственников); «Я» - сегодня с особенностями своего характера в настоящее время; «Я» - глазами других (родственники, однокурсники, друзья); «Я» - в будущем (мечта) (Буренина, 2016).

Все эти формы и приемы с разной степенью глубины и обобщенности позволяют выявить специфику жизненного опыта человека в процессе совместной жизнедеятельности с другими людьми, при включении его в различные социальные группы. Возможное представление мультимедийных презентаций с такими темами как: «Имя (разум, речь) как феномен человеческого существования», «Жизненный сценарий и его формирование», «Жизненный сценарий и сказки», «Судьба как эталон жизненного пути», «Встреча как судьбоносный фактор», «Смысл жизни – это ...».

Предлагается послушать подготовленные эссе. Например, с такими темами, как: «Самый счастливый день в моей жизни», «Самый грустный день в моей жизни», «Выбор в жизни - это право или обязанность человека» и другие. Вот отрывок из эссе на тему «Биография значимого другого как образец развития»: «Кто такой значимый человек? Я считаю, что значимым человеком можно назвать такого человека, который в течение своей жизни сделал что-то важное и значимое для человечества. Однако, многие люди делают что-либо важное для других, но масштабы этих поступков бывают разнообразными. Например, кто-то совершил за всю жизнь один хороший поступок, а кто-то это делает на протяжении всей жизни. В своем эссе я бы хотела отметить одного из наиболее значимых для меня людей – Анну Андреевну Ахматову. Я считаю, что судьба Ахматовой чем-то схожа с моей жизнью. Так же, как и ее жизнь, моя полна всяческих испытаний. Пример, Анны Ахматовой дает понять, что все трудности нужно уметь пережить. Я считаю, что благодаря значимым людям мы часто приобретаем стимул в жизни, мы развиваемся духовно и нравственно ...».

Например, в дипломной работе «Жизненный сценарий как объект социальной работы (на примере судеб бывших заключенных)» предметом исследования становится жизненный сценарий со своим смыслом, целями, ценностными ориентациями, которые претерпели изменения в связи с событиями, повлекшими за собой заключение человека в учреждение исполнения наказания. Исследователь приходит к выводу, что биографический метод позволил, во-первых, сфокусироваться на

жизненном сценарии, который был сформирован у респондента к сорокалетнему возрасту и на данный период оправдал все ожидания (получено высшее образование; работа, которая нравится и хорошо оплачивается; любимая жена и двое детей; круг верных друзей; уважение и признание окружающих; уютный дом) в соответствии со стратегическими жизненными целями и ценностями, во-вторых, изучить особенности социальной среды, микросреды (семьи) в условиях нормальной, успешной жизнедеятельности до заключения в учреждение исполнения наказания и, в-третьих, помочь адаптироваться после выхода из мест заключения (поиск смысла жизни и цели, возобновление социальных связей, трудоустройство и т.д.). Проведение биографического метода позволило исследователю (социальному работнику) стать в своем роде социальным историком семьи и определить вид социальной помощи – адаптация и социализация после выхода из мест заключения (Буренина, 2016).

В предмете «Социальная работа с детьми групп риска», благодаря использованию биографического метода в изучении судеб и жизненных историй детей девиантного поведения, мы со студентами приходим к следующей характеристике проблемного ребенка:

- он не понимает и не принимает себя как уникальность и неповторимость;
- не воспринимает себя как целостность со всеми своими способностями и недостатками;
- не определился с основными ценностями в своей жизни, смыслами своего бытия: ценностями творчества, ценностями переживания, ценностями отношения, не осмыслил их (не имеет для себя ответа на вопрос о том, что есть Добро и Благо), или не научился использовать их практически.

Именно биографический метод исследования ориентирует будущих социальных работников на использование во взаимодействии с детьми групп риска таких средств, методов и форм работы, которые создают условия для их творческой самореализации. Поэтому в программу курса «Социальная работа с детьми групп риска» вошел большой блок практико-ориентированных занятий, помогающих студентам существенно расширить багаж собственных творческих способностей через работу с бумагой и красками (квиллинг, оригами, пальчиковая живопись, арттерапия рисунком), пластилином, тканью, бисером. Имея навыки творческой деятельности, студентам в периоды их практики оказывается проще входить в диалоговое взаимодействие с проблемными детьми и их родителями, интерпретировать их жизненные проявления, повышать самооценку детей, снижать агрессию и детские страхи.

Приверженность к такой направленности в работе с ребенком, имеющим жизненные проблемы, была принята всеми, кто работал с нами в проекте Евросоюза «Дети и молодежь групп риска» (а в нем участвовали люди, работающие с проблемными подростками из Великобритании, Франции).

Таким образом, биографический метод позволяет исследовать:

- субъективные стороны общественной жизни;
 - личные отношения человека к тем социальным процессам, ситуациям, в которые он был включен (опосредованно или непосредственно);
 - социальную информацию, полученную от различных категорий граждан;
 - значимые социальные связи и мотивы действий;
 - интеллектуальный, нравственный и эмоциональный опыт человека;
 - пространство его самооценки и самоидентификации;
 - формирование потребностей, мотивов и целей действий.

Биографические данные в исследованиях социальной работы — это основной источник детальных и мотивированных описаний «истории» отдельной личности, «истории отдельного случая» и как вариант — «семейная биография» или «история семей». В центре внимания социальной работы оказывается документальное или устное описание событий с позиции самого «случая», что позволяет определить вид социальной помощи и социальной защиты нуждающимся гражданам.

Результатами исследования стало осмысление студентами базовых понятий, соотносимых с биографическим методом: биография, жизненный путь, биографический метод, жизнь, история жизни, жизненные ценности, смысл и цель жизни и др.

Выводы *Conclusions*

Таким образом, рассмотренный биографический метод становится одним из ведущих методов в подготовке бакалавров социальной работы, он позволяет переосмыслить подход к работе с клиентом социальной службы. Это особый метод социальной работы, предполагающий внимательное отношение к человеческому в человеке и иного понимания получателя социальных услуг, прежде всего, как Человека со своей спецификой бытия, своей индивидуальностью.

Биографические данные в исследованиях социальной работы - это основа детальных и мотивированных описаний «истории отдельной личности», «истории случая», «отдельного случая», «работы со случаем», «социальной биографии». В центре внимания социальной работы оказывается документальное или устное описание событий с позиции самого «случая», что позволяет определить вид социальной помощи и социальной защиты нуждающимся гражданам.

Такие творческие задания для студентов как работа с автобиографией, коллаж «Я», портрет моего «Я», написание эссе, изучение судеб и жизненных историй людей, находящихся в трудной жизненной ситуации, позволяют выявить специфику жизненного опыта человека в процессе совместной жизнедеятельности с другими людьми, при включении его в различные социальные группы и спроектировать дальнейшую работу с ними.

Summary

The considered biographical method is one of the leading methods for training of social work bachelors. This method allows to review the approach to working with a social services' client. This is a special method of social work, which include careful attention to the human in a person and a different understanding of the social services' recipient as a Person with its own specificity of being, its own individuality.

Biographical data in the social work studies is the main source of detailed and motivated descriptions of the “history of an individual”, “history of a case”, “a particular case”, “work with a case”, and “social biography”. A documentary or oral description of events are in the focus of social work and it allows to determin the type of social assistance and social protection to citizens in need.

Such creative tasks for students as work with an autobiography, a collage of “Me”, a portrait of “Me”, writing an essay, studying the fate and life stories of people who turned out to be in difficult situations, reveal the specifics of a person's life experience in the process of living together with other people, in the process of incorporating into various social groups and it let us to design further work with such people.

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PEDAGOGICAL PROBLEMS OF CORRECTING JUVENILE DELINQUENTS SERVING A SENTENCE WITHOUT IMPRISONMENT AND THE WAYS OF THEIR SOLUTION

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Abstract. *The article presents the results of the empirical research. The aim of the research is to identify and to solve the pedagogical problems of minors sentenced to punishment without deprivation of liberty through the realization of a scientifically grounded and practically tested model of pedagogical support. The methods of the research include pedagogical analysis and synthesis, induction and deduction, comparison and synthesis of the research results, questioning, individual and group interviews, supervision, generalization of independent characteristics, comprehensive and formative assessment and statistical methods of information processing. The following pedagogical problems were defined during the experimental work: insufficient level of pedagogical training of the penal staff, low level of pedagogical culture of parents, other family members and persons in loco parentis and the lack of an integral system of pedagogical support in general. During the investigation a scientifically proved pedagogical model for correction support of juvenile delinquents who are registered by the penal inspections of the Federal Penal Service of Russia is created. The pedagogical model for correction support of juvenile delinquents is considered as one of the ways of pedagogical problems solution.*

Keywords: *correction, juvenile delinquents, model of correction support of juvenile delinquents, pedagogical problems, serving a sentence without imprisonment.*

Introduction

Adolescence and youth are difficult periods for the formation and self-determination of an individual. Juveniles are possessed by contradictory tendencies which can become factors of antisocial and criminal behavior and the growth of their criminality.

The statistics of juvenile delinquency on the territory of the Russian Federation in recent years has a steady downward trend. From 2005 to 2015 the number of juvenile crimes reduced by almost 4.5 times (from 99091 to 22816 cases). The average proportion of juvenile delinquency in the country is about 5%. However, this indicator in a number of Russian regions is higher: in the Trans-Baikal Territory – 8%, in the Republic of Karelia – 7.6%, in the Tyva Republic – 7.1%, in the Irkutsk and Amur regions – 6.9% each. About 83.5% of offenses are crimes against property. The number of serious crimes is constantly decreasing, most juvenile crimes are classified as minor and medium-gravity crimes. Every third crime is committed with the participation of adults (Federal State Statistics Service, 2018).

Most juvenile offenders do not need isolation from society, as they are not dangerous to other people in the community. So in such cases legal and educational measures without imprisonment can be applied. A significant part of juvenile convicts serve various types of punishment without imprisonment in penal inspectorates. According to the concept of Russian penal system development until 2020, the rationalization of criminal justice policy assumes an increase of alternative punishments proportion by 200 thousand by 2020.

In this regard, the problem of optimization of the process of juvenile offenders' while serving sentences alternative to imprisonment, identifying the causes and conditions of their criminal behavior (criminogenic determinants) and ways to overcome them is of particular relevance.

The object of the research is the process of correction and resocialization of juvenile convicts serving sentences without imprisonment.

The subject of the research consists of pedagogical ways and conditions of improving the efficiency of their correction, using a model of pedagogical support of minors who were sentenced to punishment without imprisonment.

The aim of the research is to identify and to solve the pedagogical problems of minors sentenced to punishment without deprivation of liberty through the realization of a scientifically grounded and practically tested model of pedagogical support.

The methods of the research are pedagogical analysis and synthesis, induction and deduction, comparison and synthesis of the research results, questioning, individual and group interviews, supervision, generalization of

independent characteristics, comprehensive and development assessment and statistical methods of information processing.

The theoretical basis of the study

The theoretical basis of the study includes the system of scientific theories, approaches and methods. At the philosophical level there are ideas about the social conditions of behavior, communication and human activity, its subjectivity in interaction with social and natural environment; ideas about professional activity as a social function of a person. At the general scientific level there are the theory of integrity and interdependence of social and pedagogical phenomena in the process of individual educating (Vygotsky, 1996; Kon, 2003; Rubinstein, 2017); the theory of education in a holistic educational process of personality (Babansky, 1988; Bashkatov, 2002). At the certain scientific level the basis of the research is formed by the ideas of socio-psychological and socio-pedagogical features of juvenile delinquent's personality (Bashkatov, 2002; Belyayeva, 1995), by personal and activity approaches to the selection of content and means of educational influence on minors (Belicheva, 2004; Kazakova, 2015). At the technological level the problem is considered in terms of the theory of the formation of the penal staff professional readiness (Pozdnyakov, 2000; Ushatkov, 1999; Vinogradov, 2011) and methods of optimization of the professional training of tutors in corrections (Tyugaeva & Chistotina, 2011).

The complex of interrelated and complementary methods of scientific research consists of pedagogical analysis and synthesis, induction and deduction, comparison and synthesis of the research results. The empirical base includes questioning, individual and group interviews, supervision, generalization of independent characteristics, comprehensive and formative assessment and statistical methods of information processing.

Historical and pedagogical analysis of the problem allowed to determine the objective tendencies and contradictions of the development of the system of punishments for juvenile delinquents alternative to imprisonment, as well as the tendencies of the pedagogical support of its realization in Russia. It has been established that at all historical periods the investigated measures were considered as a humane alternative to criminal punishment in the form of imprisonment of asocial and deviant children, as prevention of personal and environmental deformations, as correction and rehabilitation, the effectiveness of which is largely predetermined by the quality of the pedagogical support. Its effectiveness and in general, the success of the correction of juvenile offenders depend on the system of legal, psychological, organizational and especially

pedagogical factors, on individual educational, preventive and reformatory work of all its subjects and their interaction.

Research results

The legislator maximally differentiates corrective and educational measures in relation to juvenile offenders, the content and essence of which predetermine the specifics of their implementation.

They are a prevention as the mildest punishment, the transfer of a juvenile under supervision of parents or persons in loco parentis or under supervision of a specialized state body, the duty to compensate the harm caused by the crime (Kuznetsov, 2016), restriction of a juvenile's leisure and determination of special requirements to his behavior (Luzgin, 2018), fine, compulsory work, correctional work, restriction of liberty and the replacement of a juvenile delinquent to a special closed educational institution under the patronage of an educational administrative body as the strictest and the last extreme educational measure. The last measure means pedagogically based isolation from society, but without imposing deprivation of liberty on a juvenile.

The following pedagogical problems were identified during the experimental work: insufficient level of pedagogical training of the penal staff, low level of pedagogical culture of parents, other family members and persons in loco parentis and the lack of an integral system of pedagogical support in general.

The results of our research let us to make up a generalized professional and personal portrait of Correctional Service staff. The majority of the penal staff working with juvenile delinquents are mainly women succeed as penal officers. More than half of them are between the age of 31 and 40 and have work experience in corrections (65% have work experience up to 5 years or more), the level of professional education is high enough (all employees have a higher education). However, only one out of ten employees has pedagogy education. About 20% of specialists have psychological and pedagogical knowledge and competences in the field of preventive, correctional, rehabilitative, social psychology and pedagogy to a greater or lesser degree. It is obvious that without effective pedagogical support it is difficult for such employees to achieve high results in the correction of juvenile offenders.

The efficiency of pedagogical support depends on the study and consideration of the personality characteristics of a juvenile delinquent (his sociodemographic, criminal, pedagogical, psychological and other characteristics, which make up his whole social portrait). In the process of the pilot study it was revealed that among the minors who are registered in the penal services boys at the age of 16-17 years old make the majority of juvenile

delinquents (only one girl pro ten boys) in proportion of 64.6%, living in Russian cities and convicted for the first time (96.1%). The family and or its absence had a negative influence on the development of these juveniles: 92% of them lived in single-parent families or were under the care of other people, and every seventh convicted juvenile is an orphan or a social orphan whose parents were deprived of parental rights. Family disadvantages, unfavorable microenvironment combined with other external negative factors negatively influenced the process of development and socialization of juvenile delinquents' personalities: almost half of them (49%) were vagrants before conviction, and 5.6% were trained according to the special education programs (corrective treatment). Many of them communicated or were members of "risk groups", easily and quickly mastered antisocial norms and elements of their subculture. The behavior of these juveniles is characterized by a demonstrative opportunistic style, they demonstrate a tendency to avoid failures and mistakes, as well as seek for protectorship by strong persons, including criminals. Their personal features include high accentuation, inadequacy of self-esteem and such features as aggressiveness, tendency to disobedience, bravado, high sensitivity in relation to the surrounding or falsely perceived injustice (Andreev, 2016).

Minors sentenced to imprisonment without deprivation of liberty are characterized mostly neutral and even positive in comparison with juveniles sentenced to imprisonment. Most of them deplore former errors and regret committing a crime, but however they does not consider the committed crime as a dangerous act and do not feel guilty and demonstrate lack of compassion to the victim, but hereby show concern with their own destiny. The criminal deformation of their personality is minimal, combined with other positive personal characteristics and environmental potential it creates favorable prerequisites for their successful correction (Kuznetsov & Luzgin, 2018).

The investigated characteristics of the social portrait of a juvenile offender bring up to day the necessity of an integrated approach to solving problems of juvenile delinquents correction.

The important role in the correction process is imposed on employees of the territorial bodies of the Federal Penal Service of Russia, on the internal affairs bodies on the issues of juvenile cases, on family or persons in loco parentis, child protection services, educational authorities and educational organizations, commissions on juvenile affairs and crime prevention, public organizations and associations. The staff of the penal service performs the largest amount of professional duties by execution of various types of punishments against minors. Being the main organizer and executor, the penal staff directs and coordinates the educational work of all other subjects of correction, closely interacting with the internal affairs bodies on juvenile cases. Since their professional activity should be based on subject-subject relationship,

the personal characteristics of the penal staff and their level of readiness for work with juvenile delinquents are of considerable importance.

The results of our research, proved by scientific data of other scientists, make clear that the family, which we consider as one of the most important subjects of juveniles' education, does not have the necessary correctional potential, in which the educational culture of parents and other family members plays a systematic role. Analysis of the current state of the real level of the educational culture shows that it is mostly low. Half of the investigated families are single-parent families living on a stringent budget, the members of these families pay attention to children's education only occasionally. They hardly know merits and demerits of their children, they estimate their interests, hobbies, and social surrounding formally. Two thirds of them (about 67%) use hard, unsystematic, situational forms of control, emotional type of communication or show complete trust and lack of control in the educational process. The study lets note that there is a considerable lack of the pedagogical experience of parents or persons in loco parentis, they do not seek to enrich their pedagogic and psychological knowledge, and often excuse themselves on the ground of pressing engagements. Mostly in the educational process they rely on their own abstract ideas and their parents' experiences. At the same time some of them (almost 50%) after their son's or daughter's conviction make occasional attempts to change and improve their prohibitive educational practice, however as before they are "short of time", "they do not know what else can be done" or they "are sure that the child is not little and will cope with his difficulties himself".

In our opinion one of the ways of solution of the above mentioned pedagogical problems is development and realization of a scientifically based pedagogical model of correction process support of juvenile convicts registered by penal inspections of the Federal Penal Service of Russia.

The urgency and basis of the development of this model is determined by the social order which demands to form a law-abiding and rehabilitated person after serving a sentence without imprisonment. The purpose of the pedagogical model is the correction of minors sentenced to punishment without imprisonment. The theoretical and methodological basis includes the systemic, personality-oriented, psychosocial approach, reflexive and activity approach. These approaches predetermined the system of interrelated ways of investigation of the category of pedagogical support of the correction of juvenile delinquents sentenced to punishment without imprisonment: psychological, social, educational and professional.

The model of pedagogical support of correctional process in penal service also includes social and pedagogical conditions of pedagogical support of the correction of juvenile delinquents sentenced to punishment without imprison-

ment, specially developed differentiated pedagogical programs and levels of juvenile delinquents correction, indicators of the correction dynamics in the pedagogical process. The social and pedagogical conditions of pedagogical support of the juvenile delinquents correction consist in the pedagogical design and creation of the developmental and educative environment; the differentiation and individualization of pedagogical support of various categories of convicts; the interaction of the main subjects of support in the process of social and pedagogical support; the engagement in a specially organized personality-oriented educating socially useful activity; management of the correction process of juvenile delinquents through their pedagogical support including the improvement of social and pedagogical competence of employees of the penal inspections of the Federal Penal Service of Russia. The pedagogical model for correction support of juvenile delinquents who are registered by the penal inspections of the Federal Penal Service of Russia is presented in figure 1.

To solve the abovementioned pedagogical problems a training seminar program for employees was developed and implemented. Within this program framework issues of adolescent correction were studied using active and interactive methods and technologies. For example, in the process of studying the topic “Methods for correcting adverse conditions” the employees mastered such methods as suppression, repression, ignoring, authorizing, focusing on the positive experience and features of their use in educational process. Group classes were held in the framework of service training with the wide use of independent forms of work on individual programs that stimulate personal and professional self-development and self-improvement (Luzgin, 2018).

In order to improve the pedagogical culture of the parents, family pedagogical counseling was organized. Its subject matter was caused by the typical and individual problems of the relatives of convicts - teenagers. Group counseling included such topics as “Features of the development of the emotional sphere of a teenager”, “Ways to create a favorable socio-psychological climate in the family”, “Personal dignity of a teenager”, “Pedagogical rules for encouraging and punishing a teenager”, “A teenager in the family and among peers” and others. The substantive basis of the consultations was constituted by specific pedagogical family situations the participants of which were adolescents registered in penal institution.

In the experimental groups of adolescent offenders who are registered in a penal institution in the amount of 103 people differentiated programs of their pedagogical support were implemented on the basis of programs of psychological and pedagogical trainings. For example, in the framework of the programs “To be healthy at Your Own Will” and “Start to Success”, group sessions, trainings, role-playing games on teaching communication skills with other people and the ability to solve conflicts with parents and peers, and to

prevent the manipulative influence of criminal leaders and media, especially the Internet. In addition, adolescents mastered the skills of video editing, photo and video film creation, journalism skills, and also learned the fundamentals of acting and managing skills. According to the adolescents' opinion, these activities helped them to understand how interesting life can be, being able to communicate with people.

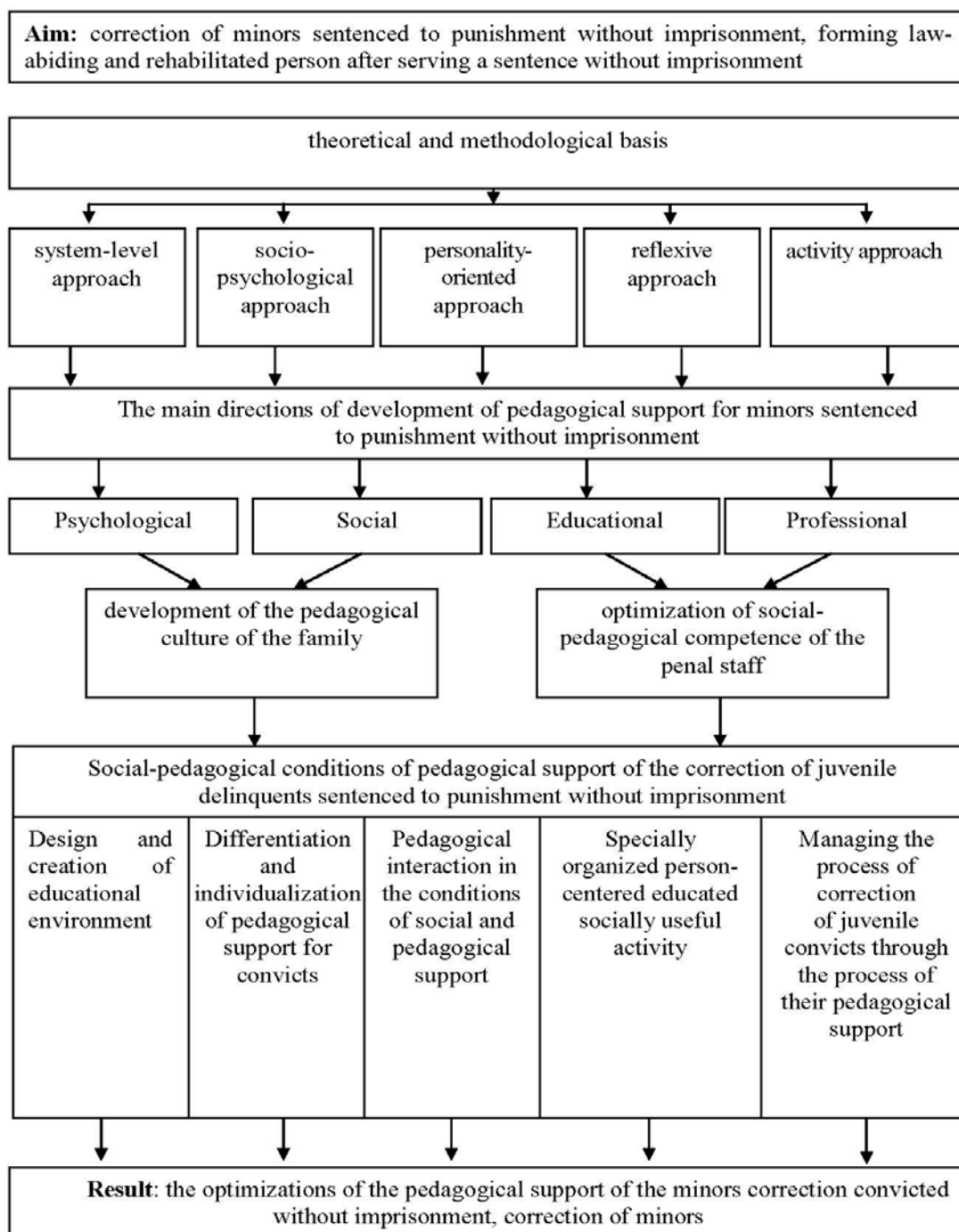


Figure 1 Pedagogical model for correction support of juvenile delinquents who are registered by the penal inspections of the Federal Penal Service of Russia

The next program “How to become successful in the labor market” helped minors to orient themselves in the world of professions and get a job. They were given training and advisory sessions on how to behave themselves when they come for an interview, how to dress, what to say, how to behave themselves and talk, express gratitude and say goodbye leaving a favorable impression about themselves and increasing their chances for successful employment.

In the process of implementing vocational guidance programs adolescents, especially from those sentenced to compulsory and corrective labor, gained a broad understanding of the various prestigious and necessary professions in the labor market, mainly related to working specialties. Games, trainings, conversations, discussions were complemented by excursions to manufacturing enterprises, schools, colleges and technical schools where teenagers directly see the work of specialists and craftsmen, and the processes of “birth” of consumer products. They were given the opportunity to test themselves, to participate in the performance of individual operations.

Group work was successfully combined with individual tasks based on the results of diagnostics of adolescents who are registered in criminal executive inspections. Individual work was based on individual preventive programs.

Practical approbation of the pedagogical model of supporting of the correcting process of juvenile delinquents who are registered by the penal inspections of the Federal Penal Service of Russia proved its effectiveness. The results of the implementation of the developed model are represented in table 1.

Table 1 Dynamics of juvenile delinquents’ correction during the experiment in 2014-2017

| | Total amount of released after realization of the model of pedagogical support of educational process in penal service | Recidivism during the approbation of the model of pedagogical support of educational process in penal service | Correction level of released | | | |
|--|--|---|------------------------------|-------------|------------|------------|
| | | | low | acceptable | medium | high |
| Control group (103 juvenile delinquents / 100%) | 82 (79,6%) | 21 (20,4%) | 41 (39,8%) | 82 (79,6%) | 12 (11,7%) | 6 (5,8%) |
| Experimental group (105 juvenile delinquents / 100%) | 87 (82,9 %) | 18 (17,1%) | 18 (17,1%) | 87 (82,9 %) | 21 (20,1%) | 12 (11,4%) |

Conclusions

Thus during the investigation the aim of the research was achieved. The pedagogical problems of correcting minors sentenced to punishment without deprivation of liberty were identified and the way of their solving through the realization of a scientifically grounded and practically tested model of pedagogical support was found and experimentally proved.

The main pedagogical problems pedagogical problems of correcting minors sentenced to punishment without deprivation of liberty include low level of pedagogical competence of the penal staff, low level of pedagogical culture of parents, other family members or persons in loco parentis which are the results of the lack of an integral system of pedagogical support. One of the ways to solve them is to implement the developed models of pedagogical support of correction of minors convicted for punishment without imprisonment. The results of the implementation of the proposed model of pedagogical support for correctional work indicate that increasing of the level of pedagogical training of corrective services staff, improving of the pedagogical culture of adolescents' relatives have optimized the process of re-socialization of convicts in total. The proof of the positive dynamics in the decrease of crime of convicts who have served their sentence without imprisonment is presented above.

The success of juvenile delinquents rehabilitation depends mostly on its pedagogical support, on the provision of the penal staff with scientific and methodological tools which were tested and proved during the empirical study conducted in six regions of the Russian Federation with about 500 people including penal staff, juvenile convicts serving sentences without isolation from society, their relatives, experts and others.

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WHO IS GUILTY THAT I FAIL IN CLASSROOM: STUDENTS' PERSPECTIVE ON HIGHER EDUCATION

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Abstract. *Societal changes, widening gap between generations influences teaching in higher education and student-teacher relationship. These transformations urge higher education institutions to prepare their teachers for the pedagogical work in new conditions and there are plenty of discussions reconsidering previously used approaches and pedagogy. Consequently, the focus has been shifted to empower students to take charge of their own learning and abundance of innovative teaching methods has been introduced both with and without integration of technological tools. However, the study results frequently present the universities still do not cope with the increasing speed of changes in students' behaviour, attitude and knowledge challenges understanding the specifics and needs of the age group. Previous studies argue that Latvian tourism educators do not handle this challenge too well as tourism industry representatives report on decreasing level of knowledge and poor work ethics of students. The aim of this research is to explore motivation and attitude of tourism students towards studies in higher education institutions in Latvia. The study is based on focus group discussions and explores dominating factors affecting students' attitude and motivation towards study process. Data was analyzed by using the method of content analysis and results varies among students of different study years. In general, the role of bachelor studies in students' life varies from high priority till secondary. A majority of students refers to extrinsic motivators as defining factors that make them to invest effort in studies. Consequently, students are more critical regarding teachers' performance than their own and do not always see a direct link between their efforts and study outcome. They prefer to avoid complicated study topics and uncertainties in study process.*

Keywords: *intrinsic motivation, extrinsic motivation, undergraduate students, study content, study motivation, teacher.*

Introduction

Today's students are active learners rather than spectators (Scott, 2015); however, Saavedra and Opfer (2012) claims that lecture model through which teachers transmit factual knowledge still prevails as the dominant instructional approach in education throughout much of the world. This approach typically

leads to indifference, apathy and for most learners, boredom. (Scott, 2015) Challenges related to student motivation in study process is much discussed and not unique problem specific only in some countries and higher education students in Latvia is not an exception where teachers and later employers are concerned how to light a sparkle in the eyes of student or young employee.

For longer time Latvian higher education system has been criticized for not providing education according to the labour market needs of state and global economic and social development trends. A fragmented network of higher education institutions (HEI) suffers from shortage of financing, decreasing overall number of students and as result universities face a stiff competition to attract students, it also challenges the level of study quality. Additionally, higher education study places are not fully doted by the state budget and is not accessible for everyone (Saeima of the Republic of Latvia, 2014). These are only few problems related to the HEI in Latvia, consequently, the image of Latvian higher education system is not enough attractive.

Motivation of undergraduate students in Latvian HEI has been researched before - students` motivation in specific universities (Baldiņš & Raževa, 2014), online and on-site motivation of students in different disciplines such as medicine (Druvmale - Druvleja et al., 2014), information technologies (Gribanova & Abeltina, 2018), etc. Several theme related PhD thesis have been produced such as Kraģe`s (2013) research that explores the role of university culture on professional motivation of pedagogy students. Recently research about student engaging study methods has been done in University of Latvia within “Erasmus +” co-financed project “Entrance to future education” (Paegle, 2018).

Overall there are few studies related to motivation of undergraduate students in Latvian universities; however, the publications give rather fragmented look to student motivation and many Latvian HEI struggle to attract students and exploration of student motivation might have potential to improve the content and organization of the studies, thus promoting the competitiveness of HEI. Additionally, generational change and technological development add some extra pressure to teachers how to balance and transform existing framework of higher education according to the needs of younger generation and labour market and global development trends.

The research aim is to explore motivation and attitude of tourism students towards studies in higher education institutions in Latvia. Research is based on qualitative data from three focus group discussions and five semi structured interviews exploring factors impacting students` motivation such as the role of student, teacher, study content and methods, study environment. Data was analysed by using the method of qualitative content analysis.

Research limitation is the selection of focus group participants because attendance was voluntary and it is likely that those students who participated in

the discussion are more motivated in studies once they choose deliberately to devote time to express their opinion on the issue. The second research limitation is related to the possibility that participants might express socially desirable opinions. Additionally, five semi-structured interviews were conducted by students interviewing other students to make sure that the presence of teachers in FGD has not provoked giving socially desirable answers.

A review of intrinsic and extrinsic motivation in the context of Y and Z generations

The researchers of educational issues recognize that motivation as one of the most significant components in student learning in any environment (Covington, 2000; Firat, Kılınc, & Yüzer, 2018). Motivation is composed by intrinsic and extrinsic elements. Stirling (2013) definition of intrinsic motivation refers to behaviour that is driven by internal rewards.

Intrinsic motivation from students` perspective is enjoyment of learning, and performance of activities for their own sake, in which pleasure is inherent in the activity itself. Specifically, intrinsically motivated student work is characterized by an orientation toward mastery; curiosity; persistence; task-endogeny; and the learning of challenging, difficult, and novel tasks (Thoonen, Slegers, Peetsma, & Oort, 2010). Intrinsic motivation is based on psychological need satisfaction as autonomy, competence support and relatedness in both aspects - environment and relationship (Reeve, 2015). However, rapid decline of intrinsic motivation is observed while entering early adulthood (Kyndt, Coertjens, & Van Daal, 2015).

On contrary, extrinsic motivation is based on offer of benefits in terms of perceived potential outcome, providing incentive to engage in action which may not be inherently pleasing, in some cases it includes avoidance of punishment (Deci & Ryan, 2010). The examples of extrinsic motivation factors referred to the study process are finance related (rewards, scholarships), grades, fame, individuals (parents, teachers etc.).

Several studies indicate that motivational autonomy of students grow over the courses (motivation that is based mostly on intrinsic factors); however, diverse motivations exist and audience cannot be considered homogenic as some decades ago (Gonzalez, Paoloni, Donolo, & Rinaudo, 2012; Araujo Leal, Miranda, & Souza Carmo, 2012).

A teacher's performance in the classroom is challenged by the generational change of audience. Generation is a group of people that fits within a certain range of ages, location they live, and significant life events they have experienced at critical developmental stages (Yusoff & Kian, 2013). The majority of contemporary audience is composed by so called generations Y and Z who were born between 1980 and 2000. This group expects a lot of personal attention,

frequently they have high demands regarding HEI performance. They are masters in technology utilization living in digital ecosystems, family oriented, confident and ambitious team players, however they want to be motivated by the fact that they will have a pleasure in the life (Kane, 2017; Ozkan & Solmaz, 2015; Randstad, 2017; Stanimir, 2015). Few sources also mention liberal, open-minded attitude, permanent access to the choice, and the fact that universal and specific ethical norms are not binding for the new generation, they are poorly equipped with the emotional quotient (Parment, 2013; Pew Research Centre, 2014; Stewart, Goad Oliver, Cravens, & Shigeiro, 2017; Randstad, 2017).

Karakas, Manisaligil, & Sarigollu (2015) indicate that during the learning process new generation may face three major problems such as lack of concentration, lack of engagement, and lack of socialization (Karakas et al., 2015). Also request of detailed guiding from superiors during learning process could lead to disability of critical thinking and decision making (Gursoy, Maier, & Chi, 2008).

Whereas learning and educating is a personal activity, its effectiveness is dependent on appropriate, adequate, reliable and attractive learning conditions (Althunibat, 2015). In all cultures, learning has always been the most important one and different teaching methods have been determined according to social behaviour, expectations and values (Crompton, 2013).

Initial recognition of the different needs of the new generation, led some researchers to argue that generations Y and Z do not have the right set the rules and behaviours due to education (Arum & Roksa, 2011). On the contrary, other research findings suggest that education has to adapt itself to the lifestyle of the new generation since they are the generation that will be entering higher education and workforce in the next two decades (Conklin, 2012; Thompson & Gregory, 2012). Mentorship, on-job learning or professional, career based education, collaborative environment supported by creative space concept are considered to be positive approaches to study process from the perspective of the Y generation, also letting them see the bigger purpose (Schroeder, 2018; Deloitte, 2016).

Both education clients and employers request more student-centred pedagogy which will equip learners with knowledge of subject and, simultaneously, will develop their generic skills such as collaboration, critical thinking, information technology (IT), problem solving, self-management, and self-study skills that would enhance students` ability to become lifelong learners (Ng, Yuen, & Leung, 2013; Hsieh & Tsai, 2017). Vogt & Rogalla, (2009) remind that professors who know their students better (have had longer mutual contact, have been motivated to obtain certain information) are more likely to make their instructional decisions in a meaningful and relevant way to develop competences. However, nowadays courses are often implemented in the framework of short term projects, also by using e-learning system with a reduced/limited contact, or

by involving industry professionals to cover specific topics, or courses are taught by several teachers thus limiting face to face contact and knowledge on specific needs of audience.

We have to emphasize also contextual aspects such as, marketization of higher education that enables public enterprises and institutions to operate more like business-oriented firms through application of private sector management practices and funding schemes emphasising market behaviour (Dovemark et al., 2018). The simple example are tuition fees which determine that client (student) would look for value for money also dictating the rules of the environment and content.

Research methodology

The research data was acquired during three focus group discussions (FGD) which took place in November and December, 2018. The participants were 2nd - 4th year bachelor level tourism students (N=16). Sizes of the focus groups varied from 4-8 students in a group and each discussion lasted at least 90 minutes. FGD explored students' opinion on five factors impacting their motivation and engagement in relation to study process: student, teacher, environment, content and teaching methods. According to Williams & Williams (2011) these are key ingredients of students' motivation. The first set of questions invited students to describe themselves as students and their individual efforts in the study process. Next participants were asked to discuss different aspects of study process including teachers' performance, study content, applied study methods. Students were also required to comment on environment related factors impacting their study motivation and performance. Finally, students were asked to express their opinion on their readiness and motivation to participate in the development of study courses.

Additionally, five semi-structured interviews were conducted by students interviewing other students to make sure that the presence of teachers in FGD has not influenced the outcome significantly. Interviewers were given a set of questions, similar as the questions discussed in FGD. Interviews were hold in October, 2018 and lasted approximately 45 minutes - 60 minutes each. The informants were allowed to keep their anonymity to make sure that students have openly expressed their views. These data were afterwards compared to the FGD data. All interviews and FGD were audio recorded and afterwards transcribed.

The data were analysed by using qualitative content. According to K.Krippendorff (2013), content analysis is a research technique for making replicable and valid inferences from texts to the contexts of their use. The texts were studied carefully several times to acquire a sense of the whole and broken down into units - phrases and sentences related explaining the barriers and

promoters of motivation. They described factors impacting both the intrinsic motivation of students and extrinsic motivation generated by teacher, environment, study content and teaching methods. The aim of categorizing the data was to understand the role of each element in the process of forming student motivation. The list of factors in each category was defined according to the approach by Williams & Williams (2011). The credibility of data categorisation was explored by member checking.

Research results

At the beginning of the FGD students were asked about the role of the university in their lives and for majority of the students HEI related matters are not the top priority - university definitely is less important than family, frequently also less significant as work or hobbies or social activities. Only few students report that during working days they consider university their utmost priority and studies-unrelated activities have been limited.

The motivation and engagement of **students** in the study process are defined both by intrinsic and extrinsic factors as well as by a variety of individual and social factors, hierarchy of needs, perceived wellbeing and other aspects. (Williams & Williams, 2011). The data reveals domination of extrinsic motivation among tourism students as FGD participants clearly defined their need to receive rewards, avoidance to disappoint family members, as well as highlighted the significance to earn state financed budget place as significant drivers. FGD participants rarely have decided on their major study subject - tourism as result of an intentional and very considerate choice of study subject, rather the choice has been defined by a chance or distance till university. Additionally, several students doubted the value of higher education as such, its significance for the person`s future employment. Personal interest in specific study subjects is dominating intrinsic motive as a majority of students states they choose to focus on learning only if there is personal interest in the subject no matter how well teacher does the job. It is illustrated by the quote below: *“If am not interested in statistics, then teacher can be wearing the costume of a clown. I am not interested.”*

FGD participants are concerned about their wellbeing in university, according to Williams & Williams (2011) it refers to quality and meaningfully spent time in university and a majority of student`s asses` quality and meaningfulness not only in terms of new knowledge and skills, but even more - in terms of entertainment and personal interests. The content is less significant the form used to deliver the content. However, none of above mentioned guarantees the result according to the interviewed students:

“We often demand exciting lectures with high level of engagement, and we can see a professor tries to do so, but anyway we choose to be passive.”

Students` perception of their wellbeing as the motive for engagement in studies is strongly related to the workload and as they prefer smaller amount of works and considers too much effort hinders their engagement in other study courses.

Very significant for students are organizational aspects of lectures and courses in general. In fact, the role of organization frequently defines students` motivation to engage in the course even more than content and teacher`s performance. Williams & Williams (2011) points out to the hierarchy of needs.

Psychological aspects such as having feeling of security impact motivation to engage in study process - student activity by involving in discussions, expressing opinions and taking responsibilities. Some students report they experience fears to give their opinion in public, also to responsibility over group works, sometimes even to present which might be related to personal self-esteem. Students report that secure environment constructed by both - supportive classmates and understanding teacher is precondition to engage in study process. Another way how students express their need for secure environment is uncertainty avoidance - they prefer very structured approach to study process and lectures over flexible and creative approach that might bring some unexpected surprises. The quote below illustrates student`s explanation why structured approach is more preferable: *“I prefer explicit instructions defined by a professor, templates, to fill in. Than an assignment is understandable, but if you have to think and decide on your own... I had a real problem to choose the topic for both of my annual research projects. I had no idea and it made me feel very stressed!”*

Students are not in agreement what is the role of teacher`s feedback in the context of motivation. Few students report that critic as such is demotivational while others refer to the teacher`s critical feedback as mandatory element in the process of development. A majority of those admitting critique is needed prefer structured and often very detailed feedback.

All FGD participants emphasized **educator`s** personality, pedagogic talent and expertise as important factor of motivation. Results reveal that teaching (pedagogic) competences often mixed with personality features dominate over the teacher's knowledge and specific study content. A good professor among FGD participants has been characterized by pedagogical charisma, capacity to attract and keep attention, good sense of humour and skills of storytelling. The quote below describes student`s perception how good teachers should work: *“I do remember that in the 1st study semester a professor showed us pictures how he drinks the blood of snakes. This is the story! I was very keen to attend these lectures!”*

Expectations of good relationship between teacher and students are high. Students would like their teachers to be friendly, non-discriminatory, empathic. According to the quote below, some students expect very egalitarian relationship:

“Professor has to be one of us, must be understanding. The one is like your buddy - when you meet one on the street you shake hands, chat a bit.”

Student’s request of “being treated as a customer” includes personalized attitude, fast communication, empathy, approachability, engagement. Students are more motivated by teachers who share personal, relevant experiences. Technological capacity of teacher should be high even in level that the one could encourage students to embrace technologies. Regards organizational capacities students expect flexibility regards special assignments and schedule development when needed, also in case of more in-class work that has to be interesting and entertaining.

There were several comments about **study environment**. Majority of informants emphasized that they are motivated to be active and contributing study process participants if the environment is secure, emotionally literate and engaging, pointing out role of the course mates and educator’s attitude. FGD participants from the older courses indicated that experience of work and studies, internship abroad works as a catalyst in development of motivational autonomy. Besides, organizational aspects of study course and process - as clear (non-changing) syllabus with detailed descriptions of assignments and evaluation system, timely transferred information were mentioned by all participants. Part of informants mentioned obtaining and sustaining paid study place as a motivational factor. Some stressed role of family, but more in terms - that they would not like to disappoint their closer private circle of persons by showing bad results. “I still do have a question, why I have got exactly that mark in my annual thesis. Yes, you have the review during presentation of work, but this should be more specific, indication - what exactly I should improve in order to get maximum.” (4th year student)

Regards questions about the **teaching content** there were minimal specific remarks, continuously educators’ personality features and teaching style and study process organization were mentioned. Also, students claim of the ownership in study to some extent, as participation on decision making about the content and organization, group division. FGD participants emphasized that their comments should be considered as important matter to enhance the study process. However, students indicated some preferences directly related to the content. For example, that competence building should happen by usage of real life products and situations and applicable content and it must be relevant to their future profession. Despite understanding, that creativity and critical thinking skills are highly demanded in labour market (World Economic Forum, 2018), attitudes from the students towards creative tasks were conflicting. However, guest lectures who would bring different perspectives to the subject, share personal stories and add “professional’s truth” are appreciated, the content, visual representation and, also, integration of video, audio and IT technologies should be relevant to the topic.

As motivational **teaching methods** increasing students' engagement from point of view of FGD participants are experiential learning, integration of applied tasks, seminars and workshops, usage of ITC, study excursions and field trips. Majority emphasized balanced group and individual works, however some stressed that students are forced to work in groups more often than they have an opportunity to develop their individual knowledge, skills, capacity. Some informants stressed the role of rewards (even monetary) besides mark and traditional evaluation.

Conclusive discussion

Overall data overlaps with previous studies researching student motivation and the study behaviour of young people. The students are motivated by the usage of communication technologies in study process (Kane, 2017; Ozkan & Solmaz, 2015; Randstad, 2017), they prefer *technology framed* teaching no matter what is taught. Similarly, the majority of students is demanding towards HEI and teachers; however, there are differences among students if they demand from both - from themselves and teachers or only from teachers or themselves. A high level of demands towards teacher and no demands towards himself/herself is frequently expressed by students who do not perceive teacher as a authority but rather "a buddy" (Kane, 2017). Data also allows to conclude that students being more demanding towards teachers demonstrate more ambitions regarding how they want to be treated by teachers and employers.

Previous studies claim students from Y and Z generations are good team players (Kane, 2017; Ozkan & Solmaz, 2015; Randstad, 2017). This study did not focus exactly on exploration of their behaviour in teams; however, students commented group work as study method. Although, participants do not deny the significance of group work, the individual work is preference mostly because they frequently find it hard to work together with somebody who is not willing to invest enough efforts to do the task. Consequently, students can be forced to do more than fair share of task or invest their time in motivating other teammates if they want to avoid low evaluation.

To sum up, students commented much less on actual content of the study courses or competencies they would like to gain, but rather focused on the organizational issues and packaging of study content (e.g. entertaining and interesting style of teaching) - how HEI could improve their wellbeing in university much more likeable thus increasing their engagement in learning. Research data confirmed findings of previous studies (Schroeder, 2018; Deloitte, 2016), that young generations are much more interested in active learning, hands-on learning and they expect from higher education that during studies they will be

introduced to different path of carrier in the industry, so that they can make well informed career decision.

Overall, on one hand it is understandable that students evaluate HEI performance from the perspective of the customer, on the other hand HEI are under pressure of the labour market and have to meet expectations of the potential employers as well as meet certain standards of quality in higher education. It might be for the first time when teachers have to adapt their teaching style to short living and changing interests of classroom audience. Students today are defined as active learners (Scott, 2015) and therefore educational system tends to empower students, also involve them in developing study courses. Research data claims today's students are active learners only if they interested into the subject and it shows another source of pressure of HEI and teacher - to involve participants that frequently do not want to be engaged.

Taking into account the context of Latvian higher education system, the focus group data presents that teachers have to deal with: diverse groups of students with very varied level of motivation to engage in study process, who want to say their word on study process; psychologically vulnerable students that need more structured way of studies; pressure to focus more on attractive teaching style rather than usability of content; demand to provide more detailed feedback and be quick in communication; changes of students` perception what is ethical behaviour in classroom, etc. It is challenging for teacher both psychologically and pedagogically and requests development of support systems in universities for both above mentioned aspects that could help all involved parties.

Overall students cannot be called homogenous audience and their perception who is bearing the main responsibility about their study performance and outcome differs - data shows the students are motivated both intrinsic and extrinsic factors. Majority of students intends to ease their workloads and cite they would choose investing of efforts into learning depending on their interest in topic or attraction; however, majority of the students are not ready to strengthen self-discipline and to find motivation when it is absent - more frequently students refer to poor performance of teaching style as source of non-existing drive for studies.

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AR AUTORTIESĪBĀM AIZSARGĀTU DARBU IZMANTOŠANA IZGLĪTĪBĀ

Use of Copyright Protected Works in the Educational Process

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Abstract. *Copyright is one of the intellectual property rights whose main activity is to promote creativity and protect the ownership of the author. However, these rights are not absolute and are subject to certain restrictions.*

In the Berne Convention, Agreement on Trade-Related Aspects of Intellectual Property Rights and also WIPO Copyright Treaty embodied so-called “three-step test” allowing exceptions to copyright protection. They state that exceptions to copyright protection are admissible only in specific cases; if they comply with the rules of normal exploitation of the author's work; and do not unreasonably prejudice the legitimate rights of the author.

While respecting the restrictions contained in international conventions, the Latvian Copyright Law also lays down various restrictions, when the author's work can be used without a special permit for the use of the author's work or for free, such as in the educational or research process. The free use of copyright-protected materials constitutes a restriction on the economic rights of copyright holders. These restrictions aim to strike a balance between the rights of the author and the interests of the public. Although copyright-protected works can be used in education almost everywhere in the world, restrictions on the exercise of these rights have not been clearly established.

The aim of this paper is to research limits use of copyright-protected works in the educational process. Basis for this analysis will be the international and national legal framework about copyright exceptions in educational process.

In the development of the research used an analytical method of scientific research, as well as a method of interpreting grammatical, teleological and historical legal norms. For the conclusions used inductive and deductive method of scientific research.

Keywords: *Berne Convention, copyright exceptions, the educational process*

Ievads

Introduction

Autortiesības ir vienas no intelektuālā īpašuma tiesībām, kuru galvenā darbības būtība ir vairot jaunradi un aizsargāt autora īpašumtiesības. Lai arī Latvijas Republikas Satversmes 105. pants nosaka, ka “ikvienam ir tiesības uz īpašumu un to nedrīkst izmantot pretēji sabiedrības interesēm” (Latvijas

Republikas Satversme, 1922), autortiesības nav absolūtas, un tām tiek piemēroti noteikti ierobežojumi. Autortiesību likums paredz gadījumus, kad autora tiesības netiek aizsargātas, nosakot tiesību ierobežojumus autoram, kā, piemēram, ja darbs tiek izmantots informatīviem mērķiem, vai izglītības un pētniecības mērķiem.

Nozīmīgs fakts ir 1948. gadā pieņemtā ANO Vispārējā cilvēktiesību deklarācija, ietverot vienu no galvenajiem autortiesību aizsardzības principiem – sabiedrības intereses un autora tiesības, kuras 27. pants noteic, ka “katram cilvēkam ir tiesības brīvi piedalīties sabiedrības kultūras dzīvē, baudīt mākslu, piedalīties zinātnes progresā un izmatot tās labumus”, tāpat arī “katram cilvēkam ir tiesības uz morālo un materiālo interešu aizsardzību, kas saistītas ar zinātniskajiem, literārajiem vai mākslas darbiem, kuru autors viņš ir” (Vispārējā cilvēktiesību deklarācija, 1948). Tikpat svarīgs ir ANO Starptautiskais pakts par ekonomiskajām, sociālajām un kultūras tiesībām, kura 15. pantā noteikts, ka “šā pakta dalībvalstis atzīst katra cilvēka tiesības: a) piedalīties kultūras dzīvē; b) izmantot zinātnes progresa rezultātus un to praktiskas pielietošanas augļus; c) baudīt morālo un materiālo interešu aizsardzību, kas saistītas ar jebkuriem zinātniskajiem, literārajiem vai mākslas darbiem, kuru autors ir šis cilvēks” (Starptautiskais pakts par ekonomiskajām, sociālajām un kultūras tiesībām, 1948). Tātad ir svarīgi ievērot tiesisko līdzsvaru starp autora tiesībām un sabiedrības interesēm piedalīties zinātnes progresā un izmantot tās labumus.

Ievērojot starptautiskajās konvencijās ietvertos ierobežojumus, arī Latvijas Autortiesību likumā ir noteikti dažādi ierobežojumi, kad autora darbu var izmantot bez speciālas autora darba izmantošanas atļaujas, vai arī bez maksas, kā, piemēram, izglītības vai pētniecības procesā (Autortiesību likums, 2000). Šādā gadījumā ar autortiesībām aizsargātu materiālu brīva izmantošana ir ierobežojums autortiesību īpašnieku ekonomiskajām tiesībām. Tomēr, lai gan ar autortiesībām aizsargātus darbus var izmantot izglītības procesā gandrīz visur pasaulē, šo tiesību izmantošanas ierobežojumi nav skaidri noteikti.

Mūsdienu tehnoloģijas ir paplašinājušas piekļuvi autoru darbiem, līdz ar to arī piekļūstot plašam zināšanu un satura daudzumam. Autortiesību likuma galvenais mērķis ir ne tik daudz aizsargāt autoru ekonomiskās intereses, bet arī nodrošināt stimulu jaunu darbu radīšanai, tāpēc autortiesību ierobežojumi nedrīkst nepamatoti ierobežot autoru ekonomiskās intereses. Bernes konvencija par literatūras un mākslas darbu aizsardzību paredz tā saucamo “trīs soļu testu”, kas pieļauj autortiesību aizsardzības izņēmumus: autortiesību aizsardzības izņēmumi ir pieļaujami tikai īpašos gadījumos, ja tie atbilst autora darba normālas izmantošanas noteikumiem un nepamatoti neierobežo autora likumīgās tiesības (Bernes konvencija par literatūras un mākslas darbu aizsardzību, 1948). Tātad, pats būtiskākais, ka autora darba izmantošana bez atļaujas un bez atlīdzības nedrīkst nepamatoti ierobežot autora likumīgās intereses.

Raksta mērķis ir izpētīt problemātiku, kas rodas, izglītības procesā izmantojot ar autortiesībām aizsargātus darbus, pētīt šīs jomas tiesiskā regulējuma vēsturisko attīstību, kā arī analizēt starptautiskās un nacionālās tiesību normas, kas attiecas uz autortiesību izņēmumiem attiecībā uz autoru darbu izmantošanu izglītībā.

Darbā izmantoti tiesību akti un zinātniskā literatūra. Pētījuma izstrādē izmantota analītiskā zinātniskās pētniecības metode, kā arī gramatiskā, teleoloģiskā un vēsturiskā tiesību normu interpretācijas metode. Secinājumu izdarīšanai izmantota induktīvā un deduktīvā zinātniskās pētniecības metode.

Autortiesību tiesiskā regulējuma vēsturiskā attīstība *Historical development of copyright legislation*

Lai gan pirmie autortiesību aizsardzības tiesību akti, kuros tika iekļauti autoru tiesību ierobežojumi, tika pieņemti tikai 18. gadsimtā, jau 1537. gada 28.decembrī Francijas karalis Francisks I, parakstot aktu "L'Ordonnance de Montpellier", noteica, ka Francijā nevienu grāmatu nedrīkst pārdot, kamēr karaļa bibliotēkā nebūs iesniegta kopija (L'Ordonnance de Montpellier, 1537). No vienas puses, šī akta mērķis bija saglabāt atmiņā cienīgus darbus, bet, no otras puses, kontrolēt disidentu ideoloģiju izplatīšanos. Zviedrijā pienākums apkopot visus iespieddarbus zviedru valodā tika pieņemts 1661. gadā, nosakot, ka pirms darba izplatīšanas jānosūta divi eksemplāri no visām publikācijām – viens eksemplārs bija jānodod Zviedrijas Nacionālajam arhīvam, otrs Nacionālajai bibliotēkai (The European Library, b.g.). Tomēr arī šo noteikumu motīvs bija nevis vēlme saglabāt publikācijas, bet gan uzraudzīt to saturu.

Lai gan oficiāli Anglijā depozitārija sistēma oficiāli aizsākās tikai 1662.gadā, pieņemot Preses licencēšanas aktu, kurā tika noteikts, ka kopijas jānogādā Karaliskajā bibliotēkā un divās universitātēs (British Library, b.g.), jau 1610. gadā sers Tomass Bodlijs noslēdza līgumu ar Londonas "The Stationers' company", saskaņā ar kuru Oksfordas bibliotēkai bija tiesības saņemt vienu kopiju no katras jaunās grāmatas, ko publicējuši Londonas "The Stationers' company" biedri (The Bodleian Libraries, 2015).

Par pirmo autortiesību likumu var uzskatīt Anglijas 1710. gada Annas statūtus, kas piešķir grāmatu izdevējiem monopola tiesības uz grāmatu izdošanu. Annas statūtu mērķis bija novērst grāmatu printēšanu un izplatīšanu bez autoru piekrišanas. Tajos bija arī iekļauti noteikumi par sabiedrības interesēm, piemēram, par noguldījumu sistēmu (Statute of Anne, 1710). Anglijas Annas statūtiem ir liela ietekme uz ASV autortiesību attīstības procesu. 1790. gada Federālais autortiesību likums – pirmais ASV autortiesību likums, lielā mērā veidots pēc Anglijas Annas statūtiem.

1858. gadā pirmajā Starptautiskajā Rakstnieku un mākslinieku kongresā, kas norisinājās Briselē, vienojās par Bernes Savienības izveidi, un jau 1886. gada 9.septembrī tika pieņemta Bernes konvencija par literāro un mākslas darbu aizsardzību, kas tiek uzskatīta par autortiesību pamatdokumentu visā pasaulē. Bernes konvencijā autortiesību izņēmumi, kas ļāva izmantot autoru darbus mācību procesā, tika iekļauti jau no pašiem pirmsākumiem. 1889. gada Bernes konvencijas redakcijā tika noteikta brīvība iegūt daļu no literāriem vai mākslas darbiem izmantošanai izglītojošiem vai zinātniskiem mērķiem, vai hrestomātijai, saskaņā ar valsts tiesību aktiem. Savukārt jau 1948. gadā tika grozīta tās redakcija, nosakot, ka ir tiesības iekļaut literāro vai mākslas darbu fragmentus izglītojošās vai zinātniskās publikācijās. Šī brīža Bernes konvencijas redakcijā noteikts, ka var atļaut izmantot literatūras vai mākslas darbus izdevumu ilustrēšanai, radio un televīzijas raidījumos un skaņu vai video ierakstu veidā mācību nolūkos tādā apjomā, kādu attaisno izvirzītais mērķis, un ar noteikumu, ka tas tiek darīts godīgos nolūkos (Bernes konvencija par literatūras un mākslas darbu aizsardzību, 1948).

Šobrīd daudzas pasaules valstis pievienojušās Bernes konvencijai un ieviesušas nacionālajos autortiesību tiesību aktos konvencijas galvenos principus. Autortiesības ir kļuvušas par pamattiesībām, kuru nodrošināšana un veicināšana ir visu pasaules valstu pienākums.

Autoru mantisko tiesību ierobežošana izglītības mērķiem *Limitation of the property rights of authors for educational purposes*

Mūsdienās internets ir veicinājis pāreju no pasīviem kultūras patērētājiem uz aktīviem lietotājiem un pat tās radītājiem, veicinot radošumu un kultūras daudzveidību. Tāpat arī digitalizācija radījusi jaunas iespējas ne tikai saglabāt, bet arī paplašināt zināšanu un kultūras mantojuma pieejamību.

Piekļuve zināšanām un izglītībai ir būtiska jebkuras sabiedrības sociālajai attīstībai. Zināšanas un izglītība ir galvenie faktori cīņā pret nabadzību. Internets un digitālās tehnoloģijas spēj nodrošināt piekļuvi zināšanām un izglītībai lielai iedzīvotāju daļai bez maksas vai par ļoti zemām izmaksām (Usadel, 2016). ASV prezidents Džordžs Vašingtons teicis, ka “katras valsts sabiedrības laimes galvenais pamats ir zināšanas” (Washington, b.g.).

Starptautiskajās tiesību sistēmās iekļautie autortiesību ierobežojumi un izņēmumi nodrošina sabiedrībai piekļuvi zināšanām un kultūrai, veicinot ekonomisko izaugsmi un sabiedrības labklājību.

ANO Vispārējās cilvēktiesību deklarācijas 26. pants nosaka, ka “izglītība ir cilvēka tiesības” (Vispārējā cilvēktiesību deklarācija, 1948). Digitālais laikmets ir palielinājis zināšanu un inovāciju nozīmi kā attīstības virzītājspēkam, kas nozīmē, ka izglītība kļūst vēl svarīgāka sociālajai un cilvēku attīstībai. Lai varētu

nodot nākamajai paaudzei zināšanas, ir svarīgi, lai izglītības sistēmā iesaistītie cilvēki savā darbā varētu izmantot autoru darbus – literatūru, mūziku vai filmas. Efektīvai un līdzsvarotai autortiesību sistēmai ir jānodrošina gan autortiesību efektīva aizsardzība, gan zināšanu izplatīšana un izglītības pieejamība. Turklāt pārmerīga autortiesību aizsardzība var ierobežot iespējas piekļūt zināšanām un izglītībai. Pretēji autortiesību sistēmas aizstāvjiem, mūsdienās aktualizējušies tādu ideju piekritēji, kuru filozofija balstās uz brīvi pieejamu informāciju, bez ierobežojumiem. Piemēram, Ārons Švarcs – interneta aktīvistis, kuram tika ierosināta krimināllieta par pārkāpumiem, lejupielādējot daudzu akadēmisko žurnālu rakstus, uzskatīja, ka “informācija ir vara. Brīvas pieejas kustība pašizliedzīgi cīnās par to, lai zinātnieki nevis parakstītu autortiesību līgumus, bet tā vietā nodrošinātu savu darbu publicēšanu internetā ar tādiem noteikumiem, kas ļautu ikvienam tiem piekļūt” (Swartz, b.g.).

Līdz šim brīdim Eiropas Savienībā ir pieņemtas 12 direktīvas par autortiesību jautājumiem. Attiecībā uz ierobežojumiem un izņēmumiem izglītības mērķiem vissvarīgākā direktīva ir Eiropas Parlamenta un Padomes Direktīva 2001/29/EK Par dažu autortiesību un blakustiesību aspektu saskaņošanu informācijas sabiedrībā. Direktīvā noteikts, ka dalībvalstis var paredzēt izņēmumu vai ierobežojumu dažu bezpeļņas iestāžu labā, piemēram, publisko bibliotēku un tamlīdzīgu iestāžu, kā arī arhīvu labā. Būtu jāveicina īpašu līgumu slēgšana vai licenču izdošana, kas, neizjaucot līdzsvaru, būtu labvēlīgas minētajām iestādēm un informācijas izplatīšanai, ar ko tās nodarbojas. Piemērojot izņēmumu vai ierobežojumu nekomerciāliem mērķiem – izglītībai vai zinātniskiem pētījumiem, tostarp tālmācībai, minētās darbības nekomerciālajam raksturam būtu jāizpaužas pašā darbībā. Būtiski ir atzīmēt, ka Direktīvas 5. pantā tika ietverti ierobežojumi, kuros gadījumos dalībvalstis varēja paredzēt izņēmumus vai ierobežojumus, kā, piemēram, izmantošanai vienīgi ilustrācijai mācību procesā vai zinātniskajos pētījumos (Par dažu autortiesību un blakustiesību aspektu saskaņošanu informācijas sabiedrībā, 2001).

Neraugoties uz to, ka sabiedrības tiesības piekļūt kultūras un zinātnes sasniegumiem ir kļuvušas par katras valsts pamattiesībām, tomēr autoru darbu izmantošana izglītībā katrā valstī var būtiski atšķirties. Ir valstis, kas ir pieņēmušas ļoti šauru autortiesību ierobežojumu kopumu, piemēram, Francija un Indija, bet tādas valstis kā Apvienotā Karaliste, Austrālija un Kanāda savā likumdošanā ir iekļāvušas plašus noteikumus, kas ļauj izmantot darbus bez atļaujas.

Piemēram, ja Francijā kāda skolēnu grupa vēlēšies izpildīt teātra izrādi skolas pasākumā, kuru apmeklē skolēni, mācībspēki un vecāki, bez autora atļaujas nevarēs šo darbu izmantot. Tāpat arī skolotājs nevarēs apspriest filmu, izmantojot DVD no personīgā arhīva. Francijā, Portugālē un Spānijā aizliegts klasē klausīties

muzikālo darbu. Francijā, Vācijā, Dānijā un Somijā tiek uzskatīta par prettiesisku mācību grāmatas lappušu skenēšana (Nobre, 2017).

Saskaņā ar pieņemtajiem starptautiskās aizsardzības principiem katra valsts var noteikt ierobežojumus attiecībā uz autoru darbu izmantošanu. Ievērojot starptautiskajās konvencijās ietvertos ierobežojumus, Latvijas Autortiesību likumā ir noteikti dažādi ierobežojumi, kad autora darbu var izmantot bez speciālas autora darba izmantošanas atļaujas vai arī bez maksas. Autortiesību likuma 18. panta otrā daļa noteic, ka autora mantisko tiesību ierobežojumus piemēro tādā veidā, lai tie nebūtu pretrunā ar autora darba normālas izmantošanas noteikumiem, un nepamatoti neierobežotu autora likumīgās intereses (Autortiesību likums, 2000).

Atbilstoši 21. pantam, izmantojot autora darbu izglītības un pētniecības mērķiem, obligāti jānorāda izmantotā darba nosaukumu un autora vārds. Likumā noteikts, ka atļauts izziņotus vai publicētus darbus vai to fragmentus izmantot izglītības standartiem atbilstošās mācību grāmatās, radio un televīzijas raidījumos, audiovizuālos darbos, vizuālos uzskates līdzekļos un tamlīdzīgi, kas tiek speciāli radīti un izmantoti izglītības un pētniecības iestādēs nepastarpinātā mācību un pētniecības procesā to darbības mērķim atbilstošā apjomā nekomerciālos nolūkos. Svarīgi ir atzīmēt, ka šie izņēmumi neattiecas uz datorprogrammām. Savukārt Autortiesību likuma 54. pantā noteikti blakustiesību ierobežojumi, kad var bez blakustiesību subjekta piekrišanas un bez atlīdzības samaksas blakustiesību objektu izmantot – nelielos fragmentos, kas iekļauti ziņu raidījumos un aktuālo notikumu aprakstos informatīvajam mērķim atbilstošā apjomā, kā arī citos nolūkos, kas attiecībā uz darbu autoru mantisko tiesību ierobežošanu noteikti attiecībā pret autortiesībām (Autortiesību likums, 2000).

Tātad ir iespējams izmantot pašu autora darbu vai tā fragmentu, lai atbilstu izmantojamam mērķim. Tomēr regulējumā nav noteikts, konkrēti kādā apjomā var izmantot darbu. Līdz ar to rodas jautājums, cik daudz no darba var izmantot? Faktiski darba izmantošanai jābūt nepieciešamai, lai ilustrētu mācīto priekšmetu, līdz ar to ir atļauts izmantot tikai tik lielu daļu no darba, lai varētu sasniegt attiecīgo mācību mērķi. Tātad darba izmantošanai mācību nolūkos jābūt saderīgai ar godīgu praksi, saglabājot līdzsvaru starp mācību mērķi un autora tiesībām kontrolēt sava darba izmantošanu, proti, nedrīkst citēt vairāk, nekā nepieciešams. Tātad, izmantojot autora darbu, tas nedrīkst būt komerciālos nolūkos izmantots, vai ar mērķi iegūt peļņu. Tikpat svarīgi ir atzīmēt, ka visos gadījumos ir jābūt norādei par autoru.

Kā norāda Rihards Gulbis un Ilona Tomsone pētījumā “Autortiesību ierobežošana izglītības un zinātniskās pētniecības mērķiem”: “nosakot darba pieļaujamo izmantošanas apjomu, pastāv divas fundamentāli atšķirīgas pieejas. Tiesiskās drošības intereses efektīvāk var nodrošināt, ja izmantojamo darbu vērtē attiecībā pret noteiktu robežvērtību, piemēram, maksimālo lappušu skaitu, vai, ja

tas ir darba fragments, – attiecībā pret kopējo darbu procentuālā izteiksmē” (Gulbis & Tomsone, 2013).

Šodien, kad mūsu ikdienā arvien vairāk tiek izmantotas digitālās tehnoloģijas, tikpat svarīgi ir saprast, vai regulējumā ietvertais termins “izglītības iestāde” attiecas tikai uz mācību procesiem “klasē”, kurā pasniedzēji un studenti sazinās klātienē, vai tas attiecas arī uz tiešsaistes apmācībām. Raksta sagatavošanas laikā vēl ir “iestrēgusi” direktīvas Par autortiesībām digitālajā vienotajā tirgū pieņemšana, kuras mērķis ir atvieglot ar autortiesībām aizsargāta satura izmantošanu ar jauno tehnoloģiju starpniecību. Mūsdienās digitālās tehnoloģijas rada jaunas autoru darbu izmantošanas iespējas, taču spēkā esošie tiesību akti skaidri neaptver jaunus izmantošanas veidus. Direktīvas 4. pantā paredzēts, ka “būtu iespējama darbu un citu tiesību objektu digitāla izmantošana vienīgi mācīšanas ilustrēšanai, ja vien šāda izmantošana notiek kādas izglītības iestādes telpās vai drošā elektroniskā tīklā, kam piekļūt var tikai izglītības iestādes skolēni vai studenti un mācībspēki” (Priekšlikums Eiropas Parlamenta un Padomes direktīvai par autortiesībām digitālajā vienotajā tirgū, 2016).

2018. gada 7. augustā Eiropas Savienības Tiesa (turpmāk – EST) izskatīja Ziemeļreinas-Vestfālenes federālās zemes (Vācijā) lietu pret fotogrāfu Dirku Renkhofu (*Dirk Renckhoff*). Tā parādīja problēmas šī brīža autortiesību regulējumā, ka tas nav piemērots digitālajai videi. Kāda Vācijas skolas audzēkne mācību referātā izmantoja tīmekļvietnē brīvi pieejamu fotogrāfiju bez atļaujas, kuru skola savukārt izvietoja citā tīmekļvietnē. Fotogrāfijai bija atsauce uz tīmekļvietni. Tomēr fotogrāfs apgalvoja, ka ir devis lietošanas tiesības tikai ceļojumu tīmekļvietnei, un uzskatīja, ka attiecīgās fotogrāfijas izvietošana skolas tīmekļvietnē ir viņa autortiesību pārkāpums. Savukārt lietas ierosinātāja Ziemeļreinas-Vestfālenes federālā zeme uzskatīja, ka jāņem vērā konkrēto interešu līdzsvarošana tiesībām uz izglītību (Eiropas Savienības Tiesas spriedums lietā C-161/17 tiesvedībā Land Nordrhein-Westfalen pret Dirk Renckhoff, 2018).

Tiesa atzina, ka “izvietošana tīmekļa vietnē fotogrāfijas izmantošanai, kas bija brīvi pieejama citā tīmekļa vietnē ar autora piekrišanu, nepieciešama jauna autora atļauja, un, izliekot internetā, fotogrāfija tiek padarīta pieejama jaunai publikai. Tiesa norādīja, ka darba izvietošana tiešsaistē atšķiras no hipersaitēm, kuru dēļ lietotāji nonāk citā tīmekļa vietnē un tādējādi veicina interneta netraucētu darbību. Jebkura trešās personas veikta darba izmantošana bez iepriekšējas piekrišanas ir jāuzskata par šī darba autortiesību pārkāpumu” (Eiropas Savienības Tiesas spriedums lietā C-161/17 tiesvedībā Land Nordrhein-Westfalen pret Dirk Renckhoff, 2018).

Kā norāda ģenerālvokāts M. Kampos Sančess-Bordona (*M. Campos Sánchez-Bordona*), “pielāgojoties pašreizējām tehnoloģijām, mūdienu skolēni savos darbos arī ievieto fotogrāfijas vai zīmējumus, tikai atšķirība ir tāda, ka gan paši darbi, gan to sagatavošanai izmantotie attēli ir digitālā formā. Internets sniedz

neskaitāmas grafiskas iespējas skolas darba sagatavošanai, un šo jau pabeigto darbu ir salīdzinoši vienkārši augšupielādēt visiem interneta lietotājiem pieejamā tīmekļvietnē” (Eiropas Savienības Tiesas spriedums lietā C-161/17 tiesvedībā Land Nordrhein-Westfalen pret Dirk Renckhoff, 2018).

Šī EST izskatītā lieta sabiedrībā izraisīja asas diskusijas, norādot, ka šī brīža autortiesību regulējums nav pielāgots mūsdienu tehnoloģiju iespējām. Tāpēc ir jādomā par autortiesību robežām un apjomiem, kuri ir daudz elastīgāki nekā “vecajā” Eiropā.

Secinājumi Conclusions

Starptautiskos tiesību aktos ir atzīts, ka izglītība ir cilvēka pamattiesības, līdz ar to ir svarīgi, lai pedagogi savā darbā varētu izmantot gan kultūras mantojumu, gan mūsdienu kultūras darbus – tekstus, attēlus, mūziku, filmas, jo pretējā gadījumā būs neiespējami mācīt.

Autortiesību likuma ierobežojumi un izņēmumi ļauj izmantot īpašus ar autortiesībām aizsargātus darbus bez autora vai tiesību subjekta iepriekšējas atļaujas vai piekrišanas, tādā veidā realizējot līdzsvaru starp autoru attiecībā uz ekskluzīvo kontroli pār viņu darbiem un sabiedrības interesēm attiecībā uz noteiktu aizsargātu darbu izmantošanu saistībā ar līdzdalību sociālajā un kultūras jomā.

Atšķirībā no Vācijas tiesiskā regulējuma, Latvijas tiesiskais regulējums nenosaka konkrētu apjomu, kādā izmantojams darbs vai tā fragments. Tāpēc, izmantojot autoru darbus izglītības mērķiem, ir jāizvērtē, kādā apjomā darba izmantošana ir pieļaujama bez atļaujas un atlīdzības. Lai arī Autortiesību likums nosaka, ka “izmantojuma apjomam ir jāatbilst izglītības un pētniecības iestāžu darbības mērķim” (Autortiesību likums, 2000), šāds vispārīgs regulējums ne tikai nesniedz pietiekamu tiesisko drošību darbu izmantotājiem, bet arī nekalpo kā konkrēts vērtējuma kritērijs.

Digitālās tehnoloģijas rada jaunas autoru darbu izmantošanas iespējas, radot iespēju piekļūt daudz plašākam zināšanu un satura apjomam, taču spēkā esošie tiesību akti skaidri neaptver jaunus izmantošanas veidus. Direktīvas Par autortiesībām digitālajā vienotajā tirgū pieņemšana Eiropas Savienībā jau kopš 2016. gada kavējas, nespējot atrisināt problēmjautājumus. Taču mūsdienu apmācība vairs nenozīmē tradicionālo sistēmu, kad apmācības notika klasē, kurā nodarbības notika klātienē ar studentiem un pasniedzēju. Šobrīd arvien populārākas kļūst tiešsaistes apmācības, tomēr šī brīža regulējums nesniedz skaidras atbildes, vai autortiesību ierobežojumi un izņēmumu tiesības attiecas arī uz jaunām izglītības formām.

Apkopojot pētījuma rezultātus, autores uzskata, ka ir nepieciešams papildināt Latvijas Autortiesību likuma 21. pantu, pēc Priekšlikumā Eiropas Parlamenta un Padomes direktīvai par autortiesībām digitālajā vienotajā tirgū regulējuma analogijas nosakot, ka “mācību vai pētniecības process notiek izglītības vai pētniecības iestādes telpās vai elektroniskā tīklā, pie kura piekļūst tikai izglītojamie un mācībspēki” (Priekšlikums Eiropas Parlamenta un Padomes direktīvai par autortiesībām digitālajā vienotajā tirgū, 2016).

Summary

International law recognises that education is the basic human rights. It is important for educators to use cultural heritage and modern culture in their work – texts, pictures, music, films, as otherwise it will be impossible to teach.

Copyright law limitations and exceptions allow to use copyright – protected works without the prior permission or consent of the author or rightholder. In such a way realize the balance between the author in terms of exclusive control over their works and the public interest in the use of certain protected works in the context of social and cultural participation.

In view of the technological changes brought about by the digital environment, a strong extension of the protection of authors' rights can be seen without reviewing users' new demands, along with technological changes, so that access to education and knowledge remains quite limited. Digital technologies create new opportunities to use of authors' works, giving access to a much wider range of knowledge and content, but the existing legislation does not explicitly cover new uses. The legal framework should support new uses by improving access to content.

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NEURO-PSYCHOLOGICAL APPROACH TO TEACHING GENERAL ENGLISH TO THE FIRST YEAR STUDENTS OF THE TRANSLATION DEPARTMENT

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Abstract. *The work deals with the problems of improving General English teaching materials for undergraduates in terms of the neuro-psychological trends in Foreign Language Teaching Methodology and developing a tutorial based on the knowledge of students' cognitive styles caused by the individual profile of the functional asymmetry of the brain, i.e. we aim at proposing the methods of neuropsychological approach implementation in the educational process. The topicality of the research is attributed to the lack of teaching materials applying neuro-psychological approach, though it is proved to be productive, as its implementation is known to help the process of mastering a foreign language. The primary methods used are as follows: observation, pedagogical experiment, statistical processing of data. Neuro-psychologically grounded teaching methodology forms the basis of the English language successful mastering, as it takes into account such extremely important features of the student as the profile of his inter-hemispheric asymmetry, which in its turn determines the specific cognitive style, and hence the type of mastering the foreign language.*

Keywords: *brain functional asymmetry, cognitive style, exercise, neuro-psychological approach, system of exercises.*

Introduction

The profound knowledge of the foreign language is the basis of the translator's/ interpreter's linguistic competence which measures the level of the translation success (Vysotskaya, 2016). Subsequently, it is extremely important to provide high-quality language training to the first year students of the translation department.

This paper is aimed at showing one of the possible ways of improving the existing methodology of the foreign language teaching. It deals with the neuropsychological approach to organizing the learning of General English on the undergraduate level of university education, as well as with the development of students' linguistic competence, taking into account their cognitive style caused by the individual profile of the functional asymmetry of the brain; it also proposes the methods of neuropsychological approach implementation in the educational

process.

The choice of this problem is attributed to the following fact: the Methodology of Foreign Language Teaching lacks knowledge on such individual characteristics of the individual as his profile of functional asymmetry of the brain and his cognitive style, which form the basis of the neuropsychological approach.

In our work neuropsychological approach implementation is considered as the allocation of cognitive styles and learning strategies that are specific to the activation of the left and right brain and, thus, the creation of neuropsychologically grounded learning programs and corresponding teaching materials organized in the manuals.

The research aim is to detect neuropsychological features of verbal information processing, to substantiate the neuro-psychological and methodological principles of teaching materials development, to draw cognitive styles and strategies of teaching, to create a system of neuro-linguistic exercises in mastering English for the left and right brain.

Research tasks: 1) to review home and foreign sources on the topic of the research; 2) to substantiate neuropsychological and methodological principles of the foreign language teaching materials developing; 3) to highlight cognitive styles and strategies for learning while activating the left brain; 4) to highlight cognitive styles and strategies for learning while activating the right brain; 5) to develop a system of exercises for mastering English, which activates, respectively, the work of the left and right brain.

Our hypothesis is as follows: neuro-psychologically grounded methods can form the basis of the English language successful learning, as they take into account such extremely important features of the individual as the profile of his inter-hemispheric asymmetry, which determines the specific cognitive style, and hence the type of mastering the foreign language.

Research methodology - observation, pedagogical experiment, statistical processing of data.

Literature review

Nowadays in domestic and foreign Language Pedagogy a lot of attention is paid to the problems of improving foreign language teaching tools in terms of the material structure and processing, as well as the process of its retention. The issues of the foreign language teaching psychology, the psychology of bilingualism, the neuropsychological approach, associated with the task of understanding the features and patterns of psychological human activity in the process of improving his knowledge of the foreign language take an important place.

Some studies (Верещагин, 1969; Деркач, 1993; Котик, 1986) deal with the problems of psychological mechanisms formation and functioning in the process

of the foreign language learning under bilingualism.

The problems of neuropsychology in teaching foreign languages are also studied:

- a) some studies (Якобсон, 1985; Корсакова & Миленьева, 1995) distinguish the differences in the cognitive strategies of the cerebral hemispheres, which determine the inter-hemispheric asymmetry, that is, the inequalities of the cerebral hemispheres;
- b) other studies (Котик, 1983; Котик, 1988; Хамская, 1996) determine the peculiarities of inter-hemispheric interaction during the information processing in general and in the process of mastering a foreign language, in particular.

A number of studies (Деркач, Коваленко, Ерохина, & Марченко 1999; Gerngross & Puchta, 1999) also investigate the problem of the possible implementation of the above-mentioned provisions in the educational process.

All studies aimed at the process of mastering a language can be divided into two groups: the research dealing with the analysis of the first language acquisition and the research dealing with the analysis of mastering the second one. However, there are no fundamental works dealing with the implementation of the neuropsychological approach to the process of the foreign languages learning. There are no comprehensive studies that would reveal the levels, stages, methods and ways of forming the foreign-language competence. Though some studies do provide some outlook of the neuropsychological approach to the process of foreign languages learning provisions implementation.

Thus, B. S. Kotik notes that the peculiarities of inter-hemispheric interaction in the processing of audio and speech information are important factors in determining the person's capacity to the foreign language mastering. The scientist distinguishes 2 types of mastering a foreign language: intuitive-sensitive (communicative) and rational-logical (non-communicative) associated with the different sign of the lateralization. Monolinguals with a high value of the right ear effect (left-sided) are more successful in the formal side of the language and experience communicative difficulties. Individuals with the leading left ear (right-sided) are good at listening, sociable, and succeed in learning a foreign language in an intuitively sensitive way (Котик, 1990, 126-134).

Based on the foregoing, we are able to draw conclusions about the nature of the differences between the cognitive styles of the left and right hemisphered bilinguals, which must be taken into account when organizing the process of foreign languages learning.

First of all, the left-hemisphered bilinguals are characterized by passive communication, while the right-hemisphered ones are characterized by emotional speech. The former experience difficulties with listening recognition caused by the high activity of the left hemisphere. In the latter case, the active right

hemisphere restrains the verbal activity of the left one and improves the understanding of the linguistic components.

In the process of memorizing the subjects with the dominance of the left hemisphere are guided by verbal symbols, whilst the process of memorizing for the subjects with the dominance of the right hemisphere is based on images.

In this regard, left-hemisphered learners will benefit from the methodology which establishes the connection between the sign system of the native language and the sign system of the foreign one. It will be more effective to use the intuitive approach, establishing the connection between the sign system of the foreign language and the nonverbal level of the subconscious, that is, from the image - to the word, for right-hemisphered learners.

Thus, it is possible to form the groups of students who are homogeneous according to their psychophysical features, which determine the foreign language learning strategies. Each of these groups may be offered techniques that are adequate to their cognitive style, memory peculiarities, and the type of the inter-hemispheric interaction.

Methodology

The neuropsychological approach, aimed at developing linguistic competence, should be reflected in doing various drills and exercises. Therefore, when developing the system of exercises in terms of the neuropsychological approach, we took into account the cognitive styles of those who are taught.

It is known that the linguistic competence is based on the following types of skills - grammatical, lexical, and verbal. All of them are inextricably linked, mutually conditioned and interdependent in the speech activity. The tightest relation exists between lexical and grammatical skills.

In this work, we pay attention to the problem of creating exercises focused on the formation of grammatical skills as the component of speech competence. Such a choice is attributed to the fact that it is the grammatical aspect which traditionally makes a difficulty when students study a foreign language, as in the process of assimilating new, strange for the learner's consciousness grammatical forms, the interference of previously developed skills of the native language is manifested most clearly.

When creating the system of exercises, we first of all took into account the peculiarities of information processing by the left and right brain.

Table 1 General characteristics of exercises

| Exercises for the left hemisphere activation | Exercises for the right hemisphere activation |
|---|---|
| 1. Based on the methodology that establishes the link from the verbal level of the native language to the verbal level of the foreign language. | 1. Based on the methodology that establishes the connection between the verbal level of the foreign language with the nonverbal level of the subconscious (from image to word). |
| 2. Memorizing is based on verbal symbols. | 2. Memorizing is based on visual and ear-minded symbols. |
| 3. Focused on solving logical linguistic problems. | 3. Focused on developing deductive conceptual thinking. |

Analysing the modern concepts of the psychological and methodological plan on the process of teaching English and the structure of teaching materials, we can outline the main provisions to base our developments on:

1. Taking into account the individual characteristics of students in terms of how they perceive and process verbal information.

In the developed tutorials the individualized approach is implemented with the help of variability of materials, techniques, and system of exercises which takes into account the peculiarities of cognitive activity of students of communicative and non-communicative types.

Teaching students of communicative type, we rely on the non-verbal component of their abilities, we offer figurative speech information, using pictures, photographs, activating mechanisms for involuntary memorization.

Students of non-communicative type study better when the linguistic material is presented in the systematic, generalized form, based on the keywords, abstracts, definitions, activating involuntary memorization.

2. Taking into account age characteristics of early adolescents.

Communication-oriented projects and exercises actualize the need of early adolescents in communication. Exercises instructions encourage discussions. The texts contain many units of linguistic and ethnographic character, which stimulate interest and motivation.

3. Communicative orientation.

The developed tutorials contain tasks that involve group- and pair-work in solving communicative tasks. Dialogue and polylogue forms of work prevail: interviews, discussions, role games, etc.

Research results

Based on the above-mentioned provisions, we developed teaching materials for the 1st year students of Translation Department (NTU “Dnipro Polytechnic”,

level - Intermediate) on the topics: “Dwellings”, “Life Events”, “Environmental Problems”.

We believe that the fundamental difference of our materials from the traditional ones is that all its parts constitute a system of differentiated exercises adapted to the peculiarities of students’ cognitive activity and the method of information processing (with regard to the dominating hemisphere).

Our materials have been tested during practical sessions in General English, NTU “Dnipro Polytechnic”, 1st year students, department of Translation. The experiment involved two groups of students - the control and the experimental ones - of 14 and 18 people, respectively.

The students of communicative and non-communicative types were identified according to Bryden's method.

Experimental group: differentiated tasks used here took into account the peculiarities of their cognitive activity.

Control group: the tasks did not take into account the peculiarities of students’ cognitive activity.

After mastering each topic, students of the control and experimental groups were given test tasks in order to control the skills formed. The average grades of the students of the control and experimental group were calculated. The results are as follows:

Table 2 Average grades on 100-grade system

| Topic | Experimental group, average grades | Control group, average grades |
|---------------------------|------------------------------------|-------------------------------|
| 1. Dwellings | 82 | 68 |
| 2. Life Events | 92 | 75 |
| 3. Environmental Problems | 90 | 70 |
| Average grades | 88 | 71 |

With regard to the experimental study results, we can assert that taking into account the students’ individual characteristics in the way of verbal information perception and processing increases the productivity of mastering the language material.

Conclusion

Teaching materials should take into account the individual characteristics of students in terms of the way in which information is perceived and processed depending on the type of inter-hemispheric asymmetry of the brain, that is, to rely on the neuro-psychological approach to foreign language teaching.

This approach, in its turn, is based on the fact that the predominance of the functions of one of the cerebral hemispheres determines certain individual characteristics of the student in the method of perceiving and processing verbal information. In practice the approach is realized with the help of certain psychological, neuropsychological and methodological principles implementation.

Thus, the domination of the functions of the left hemisphere causes verbal-logical, abstract way of information processing, while figurative, concrete-objective way is stipulated by the dominant role of the right hemisphere.

The content of our teaching materials is characterized by the implementation of an individualized approach through the use of special techniques and tools which take into account the peculiarities of communicative and non-communicative students.

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ОБОСНОВАНИЕ КРИТЕРИЕВ И ПОКАЗАТЕЛЕЙ СФОРМИРОВАННОСТИ ДЕОНТОЛОГИЧЕСКОЙ КОМПЕТЕНТНОСТИ БУДУЩИХ МЕНЕДЖЕРОВ ОБРАЗОВАНИЯ

Justification of Criteria and Indicators of Formation of the Deontological Competence of Future Education Managers

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Abstract. *The article presents the results of theoretical analysis of scientific works on the problems of deontological training of future specialists in higher education institutions. The result of this training is deontological competence as a complex subjective feature that determines the ability for the proper professional behavior and making effective decisions in deontologically determined situations of managerial interaction. The purpose of the research is to theoretically substantiate the criteria and indicators of the formation of the deontological competence of future specialists. To achieve this goal, the following research methods were used: terminological analysis, concretization and generalization of theoretical concepts in the philosophical, psychological and pedagogical works of domestic and foreign scientists. The article describes the results of the research. The criteria and indicators of forming education managers' deontological competence at university master's level are proved for the first in pedagogical science. The content of motivation, cognitive, activity-based criteria is revealed. The motivation criterion indicates the motivation for normative behavior, developed values that determine the proper performance of professional duties by education managers, their aims and needs as bearers of professional and moral values; cognitive criterion defines the degree of acquisition of deontological knowledge; technological criterion shows the degree of forming deontological abilities and skills.*

Keywords: *deontological competence, deontological training, education managery.*

Введение

Introduction

Реформирование общего среднего образования, происходящее в настоящее время в Украине, обуславливает существенное повышение профессионализма руководящих кадров, способных к эффективному менеджменту в условиях расширения академической автономии и самостоятельности учебных заведений, коренной перестройки образовательного процесса. Особое значение в указанном контексте

приобретает способность руководителя брать на себя ответственность; адаптироваться к изменяющимся социально-экономическим условиям, в которых вынуждено функционировать заведение образования; быть носителем терминальных и инструментальных ценностей, составляющих основу эффективного управленческого взаимодействия на разных его уровнях (с учениками, их родителями, педагогами, общественностью и партнерами учебных заведений и т.д.).

Одним из важных направлений обеспечения профессиональной подготовки такого менеджера образования является формирование у выпускника магистратуры деонтологической компетентности как динамической комбинации деонтологических знаний, умений и навыков, способов мышления, профессиональных и гражданских качеств, мотивов и деонтологических ценностей, определяющих его способность к надлежащему профессиональному поведению и выполнению профессионального долга.

Объект исследования: образовательный процесс в магистратуре заведения высшего образования.

Предмет исследования: критерии и показатели сформированности деонтологической компетентности будущих менеджеров образования как результата их деонтологической подготовки в университетах.

Цель исследования: теоретическое обоснование критериев и показателей сформированности деонтологической компетентности будущих менеджеров образования.

Методы и организация исследования *Methodology and organization of the research*

Методы исследования: терминологический анализ, абстрагирование, конкретизация и обобщение теоретических положений в философских, культурологических, психолого-педагогических трудах отечественных и зарубежных ученых и практиков.

Процесс обоснования критериев уровней сформированности деонтологической компетентности будущих менеджеров образования был осуществлен в три этапа:

- анализ подходов к пониманию сущности критериев и показателей оценки развития педагогических явлений;
- анализ выводов отечественных и зарубежных ученых, касающихся системы критериев и показателей деонтологической подготовки будущих специалистов в заведениях высшего образования;

- обоснование критериев и показателей сформированности деонтологической компетентности будущих менеджеров образования в университетах.

Теоретическая основа темы *The theoretical background*

В справочной литературе понятие «критерий» трактуется как мера для определения или для оценки сдвигов, обусловленных экспериментальными условиями обучения либо произошедших в развитии отдельных компонентов исследуемого явления (Гончаренко, 2011).

Критерии как средства для суждения, признак, на основании которого осуществляется оценка, определение или классификация, как мерило оценки (Артемов, 2015; Васильева, 2004) выступают ориентирами, на основе которых формируются выводы относительно уровня сформированности деонтологической компетентности. Критерий является числовым показателем переменной величины, изменяющейся под влиянием внутренних и внешних факторов (Архангельский, 1980).

Следовательно, критерии выступают средствами проверки результативности мероприятий деонтологической подготовки, совокупностью признаков, на основании которых можно оценить и сравнить ее эффективность и качество (Гащук, 2014). Критерии являются эмпирическими показателями, позволяющими однозначно определять степень достижения необходимого эффекта в образовательной деятельности, то есть результата деонтологической подготовки менеджеров образования в соответствии с ее целями.

На основании результатов теоретического анализа научных трудов отечественных и зарубежных ученых (Анненкова, 2016; Васильева, 2004; Лукина, 2006; Сыроева & Кристопчук, 2013), в которых раскрываются проблемы показателей качества образования, определены требования, задающие критерии исследования уровней сформированности деонтологической компетентности будущих менеджеров образования в университетах:

- минимизация количества критериев, которая обеспечивает простоту и прозрачность процедуры оценивания;
- максимальная информативность, то есть система должна содержать такой набор критериев, который будет охватывать различные аспекты и составляющие деонтологической компетентности менеджера образования, будет достаточным для

того, чтобы осуществлять разносторонний анализ степени ее сформированности;

- адекватность задачам деонтологической подготовки, которая является составляющей профессиональной подготовки менеджеров образования в университетах;
- сопоставимость критериев с международными стандартами, характеризующими качество профессиональной подготовки специалистов с высшим образованием;
- легкость в измерениях, то есть система критериев должна состоять как из количественных, так и из качественных показателей, исчисляемых с помощью объективных средств и инструментария;
- соблюдение морально-этических норм при отборе критериев и сбора информации, которая носит конфиденциальный характер.

Соблюдение упомянутых выше требований будет способствовать получению надежной и валидной информации об эффективности деонтологической подготовки менеджеров образования в университетах.

Результатом анализа актуальных научных источников стало определение подходов к обоснованию критериев и показателей уровней сформированности деонтологической компетентности, являющихся отражением эффективности деонтологической подготовки специалистов. Сделан вывод, что наиболее распространенным из таких подходов является «компетентностно-линейный» (авт.), при котором ученые выделяют 3-4 наиболее значимых критерия, отражающих мотивационный (мотивационно-ценностный), содержательный, процессуальный (оперативно-деятельностный), технологический (поведенческий), рефлексивный компоненты деонтологической компетентности. Такой подход характерен для научных исследований М. Васильевой (Васильева, 2004), Г. Гащука (Гашук, 2014), В. Караваева (Караваев, 2011), Г. Карахановой (Караханова, 2007), Г. Поляковой (Полякова, 2011), И. Филатовой (Филатова, 2015).

В частности, И. Филатова выделяет следующие критерии сформированности деонтологической компетентности будущих дефектологов:

- нормативно-правовой (сформированность готовности к распространению гуманистических правовых взглядов на людей с ограниченными возможностями в обществе, наличие знаний и умений применять правовые документы при разработке и реализации моделей образования в целях соблюдения прав и интересов людей с особыми потребностями, готовность осуществлять профессиональное взаимодействие с потребителями образовательных услуг и социальными институтами на основе правовых норм профессионального поведения);

- профессионально-технологический (владение комплексными знаниями, специальными технологиями обучения, обеспечивающими дифференцированный и индивидуальный подход к ученику с особыми потребностями, формирование у него академических и жизненных компетентностей, раскрытие его возможностей);
- личностно-профессиональный (наличие ценностного отношения к человеку с ограниченными возможностями, умение решать профессиональные этические проблемы с ценностных позиций, транслировать гуманное отношение к людям с ограниченными возможностями в общество) (Филатова, 2015).

Критериями сформированности деонтологической компетентности студентов военной кафедры В. Караваев называет мотивационно-целевой (выраженность профессионально значимых целей, положительная мотивация к обучению и службе, стремление к профессиональному самосовершенствованию), содержательный (уровень развития знаний, умений, навыков; направленность личностных и профессиональных интересов; выраженность профессионально ориентированного отношения к обществу, окружению, к себе), качественно-деятельностный (качество и успешность обучения и профессиональная направленность поведения), практически-результативный (качество выполнения служебных задач, связанных с деонтологическими аспектами профессиональной деятельности; активность в изучении деонтологических вопросов, касающихся учебной программы; итоговая оценка качества деонтологической подготовки) (Караваев, 2011).

Г. Полякова, исследуя проблему деонтологической подготовки научно-педагогических кадров высшей квалификации в аспирантуре, в качестве критериев сформированности деонтологической компетентности выделила содержательный, поведенческий и мотивационный. Показателями названных критериев являются: качество знаний основ научной и педагогической деонтологии и этики, нормативно-правового обеспечения профессиональной деятельности ученого и преподавателя высшей школы, мера соблюдения деонтологических норм, личностное отношение к деонтологическим нормам в научном и научно-педагогическом сообществе (Полякова, 2011),

В. Гащуком, исследовавшим проблему деонтологической подготовки будущих офицеров-пограничников, выделены следующие критерии и показатели сформированности деонтологической компетентности:

- мотивационный, составляющий мотивационную основу деонтологической подготовленности будущего офицера-

пограничника, определяющий направленность и структуру жизненно важных для него целей (осознание значимости деонтологической подготовленности для будущей профессиональной деятельности; направленность личностных и профессиональных интересов; сформированность установок на углубление деонтологических знаний);

- содержательный, характеризующий уровень знаний деонтологического характера (глубина и обширность знаний; выраженность профессионально-ориентированного отношения к обществу, к окружению, к себе, ощущение причастности к пограничному ведомству);
- практический, отражающий наличие деонтологически актуальных умений будущего специалиста в процессе служебной деятельности (умение применять полученные знания в службе, качество выполнения служебных задач, активность в изучении деонтологических вопросов);
- рефлексивный, отражающий потребность в творческом применении деонтологического потенциала будущего специалиста (умение анализировать собственное поведение, оценивать деонтологический потенциал занятий, заниматься деонтологической самоподготовкой) (Гащук, 2011).

М. Васильева выделила и обосновала критерии сформированности деонтологической компетентности студента – будущего педагога: личностный, профессиональный и рефлексивный. Основой их обоснования стал комплекс соответствующих признаков, а именно:

1. Сформированность устойчивой мотивации к формированию и совершенствованию собственного поведения студентов, определяющих их профессионально-педагогическую направленность на осуществление нормативного профессионального поведения.
2. Сформированность познавательного интереса к проблемам педагогической деонтологии (надлежащего профессионального поведения).
3. Сформированность личностно значимых качеств, необходимых для осуществления надлежащего профессионального поведения.
4. Сформированность деонтологических знаний студента о надлежащем профессиональном поведении в различных ситуациях профессиональной деятельности во взаимоотношениях с другими участниками педагогического процесса.

5. Сформированность умений и навыков осуществления надлежащего профессионального поведения в области практической деятельности.
6. Сформированность умения осуществлять рефлекссию собственного поведения (Васильева, 2004).

Многоуровневая система критериев представлена в диссертационном исследовании В. Артемова (Артемов, 2015), раскрывающем теоретические и методические основы формирования деонтологической компетентности специалистов по организации защиты информации с ограниченным доступом. Ученым обоснованно трехуровневую систему критериев в составе базового, операционного и интегрального. Базовый уровень составляют ценностно-мотивационный, когнитивный, операционно-технологический, рефлексивный, личностный критерии.

В качестве показателей деонтологической компетентности на базовом уровне определены:

- для показателя «ценностно-мотивационный» – сформированность ценностей, смыслов и мотивов освоения и реализации специалистами профессиональной компетентности на принципах деонтологии (ответственность, добросовестность, патриотизм, честь);
- для показателя «когнитивный» – знание норм и правил профессиональной деятельности, корректного поведения в рамках профессиональной деятельности (знание информационных угроз и путей их преодоления, сущности и содержания оправданного риска и т.д.);
- для показателя «операционно-технологический» – умения, навыки и способности, характеризующие деонтологическую компетентность студента (понимание нравственного долга, требовательность к себе и людям, высокий уровень развития собственной воли);
- для показателя «рефлексивный» – способность оценивать и корректировать процесс межличностного профессионального взаимодействия (умение разбираться в людях, выслушивать, убеждать);
- для показателя «личностный» – наличие качеств и характеристик студента, влияющие на успешную профессиональную деятельность (стремление к самосовершенствованию, личностные психофизические качества).

На основе ценностно-мотивационного, когнитивного, операционно-технологического, рефлексивного, личностного критериев В. Артемовым

сформированы критерии операционного уровня: осведомленность, наличие ценностного восприятия и способностей по осуществлению специалистом жизнедеятельности в профессиональном мире (Артемов, 2015).

Таким образом, результаты анализа отечественных и зарубежных научных работ по проблемам деонтологической подготовки специалистов в высших учебных заведениях позволяют сделать вывод об отсутствии единых подходов исследователей к комплексу критериев оценки уровней сформированности деонтологической компетентности. Этот факт можно объяснить исключительно спецификой профессиональной деятельности представителей разных сфер.

Результаты исследования *Results of research*

Обозначенное выше обуславливает разработку критериев сформированности деонтологической компетентности будущих менеджеров образования, профессиональная деятельность которых характеризуется определенными специфическими чертами. Исходя из этой специфики выделены следующие критерии сформированности деонтологической компетентности: мотивационно-ценностный, когнитивный и деятельностный (табл. 1).

Таблица 1. Дескрипторы критериев сформированности деонтологической компетентности менеджеров образования

Table 1 Descriptors of the criteria of forming education managers' deontological competence

| Критерий | Дескрипторы критерия |
|-------------------------|---|
| Мотивационно-ценностный | <ul style="list-style-type: none">– направленность на осуществление надлежащего профессионального поведения, превалирование в ценностных ориентирах ценностей-смыслов и ценностей-норм;– сформированность моральной ответственности менеджера образования как основы надлежащего профессионального поведения;– сформированность гражданской позиции как внутреннего убеждения действовать в соответствии с общественными ожиданиями;– стремление к получению авторитета деонтологически оправданными средствами;– наличие положительной внутренней мотивации к овладению комплексом деонтологических знаний и выработке необходимых практических навыков надлежащего профессионального поведения. |
| Когнитивный | <ul style="list-style-type: none">– овладение знаниями, презентуемыми в рамках учебной дисциплины «Управленческая деонтология» (цели, задачи объект и предмет |

| | |
|----------------|--|
| | <p>управленческой деонтологии; требования к поведению руководителя, содержание его профессионального долга; сущность деонтологической компетентности и ее значение как составляющей профессионализма; условия организации оптимального управления на принципах деонтологии; рефлексия в деятельности руководителя; деонтологический аспект формальных и неформальных отношений в коллективе, правила неформального общения и т. п.);</p> <ul style="list-style-type: none"> – степень овладения деонтологически значимыми знаниями, представляемыми в рамках отдельных содержательных модулей учебных дисциплин общей и профессиональной подготовки (сущность нормативно-правовой базы деятельности учебного заведения; особенности реализации профессиональных функций руководителя в условиях поликультурного пространства региона на основе деонтологических требований; технологии управления инновационной деятельностью педагогического коллектива на деонтологических принципах; особенности реализации деонтологических принципов в управленческом взаимодействии; понятие деонтологической составляющей имиджа учреждения образования и его руководителя; значение надлежащего поведения руководителя в обеспечении пиара заведения образования; деонтологический аспект использования методов управления педагогическим коллективом; сущность деонтологически неверного поведения руководителя как одной из причин конфликтов, возможностей управленческой деонтологии в обеспечении эффективной методологии решения конфликтов); – знание сущности юридической, социальной, дисциплинарной, финансово-экономической ответственности менеджера образования, как теоретической основы надлежащего выполнения руководителем профессионального долга, осознания им ответственности за действия, противоречащие нормам управленческой деонтологии. |
| Деятельностный | <ul style="list-style-type: none"> – сформированность деонтологически значимых умений и навыков (использовать морально-правовые способы регулирования управленческих отношений; защищать и внедрять морально-правовые отношения в управленческой деятельности согласно с нормами законности; организовывать деятельность в трудовом коллективе на принципах деонтологии; осуществлять рефлексивный анализ руководителем своей деятельности); – сформированность самоэффективности (способности управлять своим развитием и деятельностью с целью эффективного достижения поставленных управленческих целей), умение создавать собственные способы построения надлежащего поведения, что соответствует специфической управленческой ситуации; – сформированность локуса субъективного контроля (показатель общей интернальности, отражающей умение руководителя брать на себя ответственность). |

Выводы *Conclusions*

Таким образом, показателями обоснованных критериев сформированности деонтологической компетентности будущего менеджера образования являются:

- для мотивационно-ценностного критерия – профессиональная направленность на осуществление нормативного поведения; сформированные деонтологические ценности, обуславливающие надлежащее выполнение профессионального долга; сформированность ответственности, гражданской позиции; стремление к завоеванию авторитета деонтологически оправданными средствами; наличие положительной внутренней мотивации к овладению комплексом деонтологических знаний и выработки необходимых навыков нормативного поведения;
- для когнитивного критерия – полнота, системность и прочность деонтологических знаний, знания сущности профессиональной ответственности менеджера образования;
- для деятельностного критерия – сформированность деонтологически значимых умений и навыков, самоэффективности как способности управлять своей деятельностью, создавать собственные способы построения нормативного поведения, локуса субъективного контроля как умения руководителя брать на себя ответственность.

Использование в практике управления образованием указанных выше критериев и показателей сформированности деонтологической компетентности менеджеров образования дает возможность:

- 1) определить уровни ее сформированности, позволяющие не только делать обоснованные выводы о качестве деонтологической подготовки и эффективности образовательного процесса в университетах в целом;
- 2) определить степень соответствия конкретного руководителя занимаемой должности, обеспечить объективность решений в ходе его аттестации, составить конкретную программу самоусовершенствования специалиста в сфере управления образованием.

Summary

Education Manager that bears the personal responsibility for his work, must be marked by deontological readiness, by the high level of formed knowledge and methods

of activity, necessary for an acceptance of effective decisions in the morally determined situations of professional cooperation. Therefore, his deontological training at the University is a very urgent problem.

The system-forming component of the deontological preparation of future heads of educational institutions in universities is the result of the deontological preparation – formed deontological competence as a complex subjective feature that determines the ability for the proper professional behavior and making effective decisions in deontological determined situations of managerial interaction.

Analysis of scientific works of Ukrainian and foreign scientists showed that there are no common approaches to the formation of criteria of deontological competence of future specialists. In addition, there are no studies in Ukraine on the formation of deontological competence of future education managers. On the basis of the analysis of actual scientific works in the field of professional deontology the criteria and indicators of formation of deontological competence of future managers of education were substantiated.

The motivation and value-based criterion indicates the motivation for normative behavior, developed sense-values and norm-values that determine the proper performance of professional duties by education managers, their aims and needs as bearers of professional and moral values; cognitive criterion defines the degree of acquisition of deontological knowledge; technological criterion shows the degree of forming deontological abilities and skills.

Taking into account these criteria and indicators it makes possible to define and describe the levels of formation of deontological competence, allows to make substantiated conclusions about the deontological competence as the quality of deontological preparation and the effectiveness of the educational process at universities, is unable to determine the degree of compliance of a particular specialist with the position occupied.

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DEVELOPMENT OF MODULAR EDUCATIONAL PROGRAMMES BASED ON THE FORMATION COMPETENCIES

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***Abstract.** Development of modular educational programmes based on the formation of trainees' competencies solves the problem of ensuring a unified approach for the construction of educational programmes of specialties. The implementation of requirements of the Bologna process to ensure the quality of higher education in accordance with the Dublin descriptors implements the novelty of the research in the framework of the modular technology of education in Kazakhstan. The aim of the study is to reveal the process of development of modular educational programmes through the organization of pedagogical process of Formation of Professional competence of trainees. The primary methods used are theoretical generalization, justification and systematization. The study design includes discussions of authors from different countries, definitions of main meanings, schemes, figures, tables. The key results of study is to reveal the Structure, Model, Scheme and stages of the organization of pedagogical process of Formation of Professional competence. Specific asked questions for research in general prospects of implementation of modular educational programmes are formulated in the conclusion.*

***Keywords:** competencies, educational programmes, Formation of professional competence, modular, organization of pedagogical process.*

Introduction

Global trends in education indicate an increase in academic freedom of universities. In Kazakhstan, since 2014, universities have been given the opportunity to take into account the features of labour market characteristics of a

particular region in relevant personnel and expand the right of universities to determine the content of undergraduate education programmes to 55 %, graduate programmes to 70 % and doctoral programmes to 90 %. During the past three years, the country's higher education institutions have developed many educational programmes of specialties that differ in elective components. To systematize educational programmes in frameworks of pedagogical process and creation of a methodology for developing educational programmes in collaboration with key stakeholders' becomes an urgent task.

The topicality of the development of modular educational programmes in the universities of Kazakhstan focused on the formation of competencies as an issue of global trends in professional training.

The novelty of research in prospect of the internationalization in education determined by the competence-based approach that facilitates the implementation of modular educational programmes.

The subject of research is organization of pedagogical process at universities of Kazakhstan for development object of research - modular educational programmes based on the formation of competencies for trainees (undergraduate, graduate and postgraduate students).

The study aims are to reveal the systematization of all stages and development of an algorithm of trainees' professional training on modular educational programmes.

Methods of research are theoretical generalization, justification and systematization of Structure, Model, Scheme and stages of the organization of pedagogical process of Formation of Professional competence.

Methodology

The Modular education programme (MEP) *is a document (set of documents), which reflects the content of professional education and consists of a set of modules and disciplines directed towards the possession of certain Professional competences, necessary to obtain the qualification* (Zhanguzhinova, 2018; ГООС РК, 2012).

The necessity of design and implementation of competence-oriented modular education programmes depends on the implementation of credit-based modular technology of training and ECTS (European Credit Transfer System) units (HKAOKO, 2010). Adaptation of standards and education programmes in accordance with the labour market demands and the establishment of quality assurance system is based on the implementation of Bologna declaration principles for the modernization of higher education system in the Republic of Kazakhstan.

For the development of Modular educational programmes were studied Tannrisever & Erisen (2009), which justified the need to introduce modular – competence technologies with the use of modular training programmes. This characterizes a high level of the achievements of planned learning outcomes and structural, contentive and technological flexibility of modular training programmes (The concept..., 2012).

The analysis of the theory provided above allowed to design a **modular education programme**, structured by the algorithm:

- 1) identify the range of potential users of the modular education programme, to analyse existing education relatively close programmes, which are related and similar in purpose (Navikienė, 2014);
- 2) identify a set of competences, necessary for acquisition (Mardesic, 2014);
- 3) develop a set of disciplines, which constitute the content of modular education programme (Navikienė, 2014);
- 4) construct Working curriculum in modular format (Gonzalez & Wagenaar, 2003).
- 5) establish an interdisciplinary interrelation of tasks with orientation towards project activity within the framework of “Course project” (Tannrisever & Erisen, 2009).

Pedagogical design – *is the purposeful formation of pedagogical process resources on the basis of the Model of education for assurance of effective achievement of planned outcomes (on the basis of state order)* (FOCO PK, 2012).

Results and Discussion

For Pedagogical design, it is necessary to define the *Model of Formation of Professional competence* (FPC) in the system of higher education of Kazakhstan: – based on the theories of: humanitarian pedagogy (Mardesic, 2014), productivity (Navikienė, 2014) and social constructivism (Ahrens, Purvinis, Zaščerinska, & Andreeva, 2016), includes knowledge, skills, attitude, which form Professional competence and characteristics of a specialist (Irbīte & Strode, 2016), identifies **regularity of content goal**.

- based on variability of individual development, personal competency and characteristics of a specialist (Navikienė, 2014). Forms theoretical and practical orientation and experience, which depend on the development of micro (internal factors) and macro environment (external factors), through cooperation between teachers and students, employers. Creation of personal project on the basis of training methods, technology and lifelong of raising of self-education and

qualification level, defines *activity-oriented organizational regularity* (Truskovska, 2013).

- dependant on interdisciplinary links in key competences, formedness of notions and ability to solve professionally-oriented tasks in professional activity, according to common Professional competences (Ofqual, 2015). On the basis of cognitive and didactic approaches towards knowledge, defined by the content of curriculum, according to education standards (Loughran, Berry, & Mulhall, 2012). Organization of the pedagogical process and activity through educational activities, based on the requirements and normative regulatory documents, depends on *resultative criterial regularity* (Ušča, Lubkina, & Pigozne, 2012).
- dependant on *objects* of education depend on external factors, which form Professional competence: Model, activity types (professionally-pedagogical and practical), pedagogical interaction, regularities, organization of pedagogical process, dynamic links. Design of Model defines the trajectory, content, structure of education processes.
- dependant on *subjects* of education depend on internal factors: motives, content, attainments of Professional competence of students, on the basis of the Criteria for the assessment, which are formed in the process of pedagogical interaction with teachers and employers. Harmonization on the achievement of common aims of the FPC and learning outcomes, solution of the MEP tasks for the implementation of the Methodic on the basis of activity types (professionally-pedagogical and practical) is carried out through the pedagogical interaction of students, teachers and employers.

On the basis of the conducted theoretical analysis and the study of regularities and dynamic links, it is identified that the Structure of the regularities of Professional competence of trainees, must be the basis of pedagogical process in the system of higher education in Kazakhstan (Figure 1).

As a result of the analysis of the theory, the developed structure of organization of pedagogical process of Formation of professional competence of trainees for the higher education system Kazakhstan is based on three regularities:

1. ***Regularity of content goal*** includes:

- Professional competence of trainees in Clothing design: knowledge, skills, attitude.

2. ***Activity-oriented organizational regularity*** includes:

- Factors (external; internal);
- competence types;
- didactic principles;

- training approaches;
 - Conditions:
 - normative;
 - pedagogical;
 - professional;
 - Stages of the Formation of Professional competence:
 - professional preparation;
 - raising of self-education and qualification level;
 - assessment of competencies.
3. *Resultative criterial* includes:
- Criteria for the assessment of Professional competence (motivational, contentive, procedural);
 - Organization of the process of Formation of Professional competence: requirements, training trajectory, forms of work;
 - Pedagogical diagnostics.

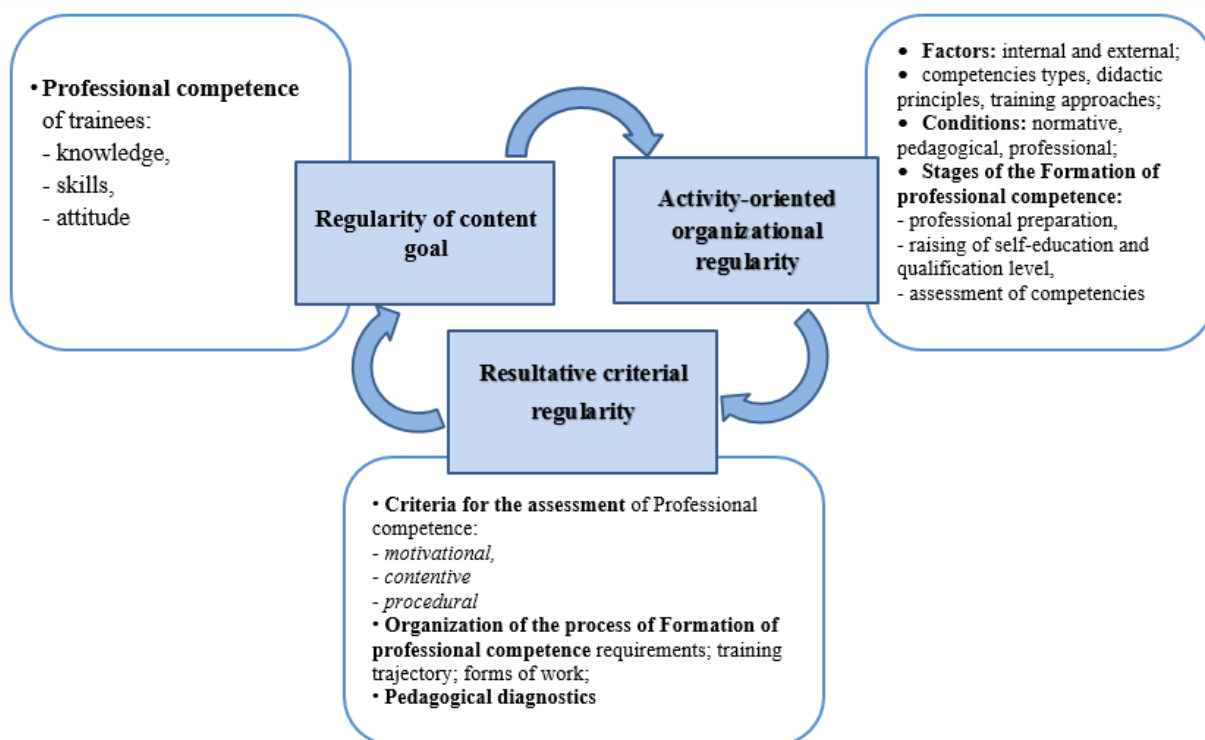


Figure 1 Structure of the organization of pedagogical process of Formation of professional competence of trainees of Kazakhstan

The implementation of the structure is directed to the realization of the Formation of professional competence of trainees of Kazakhstan.

The introduction of the proposed structure has created the need and the basis for designing the Model, which will ensure the modernization of the higher education system in Kazakhstan (Figure 2).

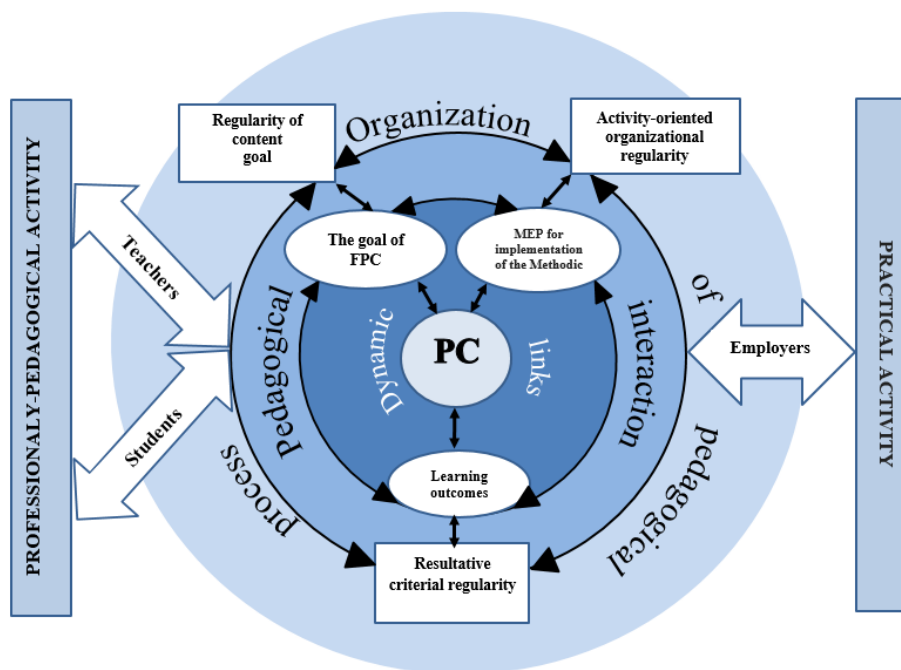


Figure 2 Scheme of the Model of Formation professional competence of trainees

Therefore, Model of Formation of professional competence of trainees promotes disclosure of scientifically-theoretical foundations of Professional competence with a goal of Formation of professional competence for implementation Methodic on Modular educational programmes with identifying Learning outcomes through dynamic links and pedagogical interaction between students, teachers and employers in activity types (professionally-pedagogical and practical) on the outlines of regularities of organization pedagogical process at Higher Educational Institutions.

Thus, the structure of the organization of the pedagogical process is substantiated (Figure 1) and the Scheme of the Model is revealed (Figure 2). The pedagogical design in a pedagogical process allowed to disclose all definitions of main meanings, schemes, figures, tables presented above. The pedagogical design's algorithm of all stages in the organization of Formation Professional competence in pedagogical process based on Modular education programme provided below.

At the first stage, the analysis is carried out on: the labour market base for the demand of specialists and standards and education programmes for development of qualification requirements and identification of spheres and organizations for the employment of graduates according to specialization.

At the second stage, *the identification of a set of competences (for cycles A, B, C in TC)* facilitates the design of the Modular education programme on the basis of competence-based approach, result-oriented training trajectory is formed, a set of competence types necessary for acquisition is identified. A list of general-professional and Professional competences (according to activity types and considering training profile), provided by SCES RK, is considered as a base (ПУПЛ, 2014), (ГОСО РК, 2012).

At the third stage, *a set of Modules is identified and an algorithm of goal implementation and problem solving in professional activity is formed* on the basis of the methodology of competence-based approach. Consideration of the dynamic links, identified during the determination of professional activity types of specialists allowed to apply the methods for programme's realization.

At the fourth stage, *a Working curriculum in specialty is drawn up (distribution of modules in cycles A, B, C) and specification of modules (aims, tasks, criteria for expected module results) is drawn up* (Правила..., 2011). The requirements, set towards structure and module content design, reflect the name of each module, its aim and objectives, requirements towards learning outcomes, including a number of credit points, expected module acquisition results (knowledge, skills, attitude), a mechanism for the assessment of an achievement of the planned results (assessment criteria, forms and methods), resource support of the module.

At the fifth stage, *a Working curriculum in specializations is drawn up (distribution of modules in cycles A, B, C). Consideration of logical dynamic links of the modules (interdisciplinarity, opportunity of academic mobility)* for the assessment of possibility of their concentrated acquisition and organization of academic mobility (intramural, intra-Kazakhstan, international).

Development of the Modular education programme (requirements towards competences, knowledge, skills and attitude) arises from the specificity of the structure of the Modular education programme:

- 1) students' acquisition of a discipline of each module during one year, but in different semesters;
- 2) the duration of a module depends on its content and specificity (general, supportive or specialized);
- 3) for the acquisition of a discipline on a professional level, it is necessary to study gradually at all education stages;
- 4) in order to ensure mobility, division of "comprehensive" modules into units based on a number of study years is recommended: 1 year – 1 modular unit.
- 5) a modular unit is an autonomous study material with a duration not more than one semester and it is finished with the formation of "portfolio" (ГОСО РК, 2012).

The example of formation of Modular programme implements the scientific and theoretical bases of professional competence through activity-oriented and system-oriented approaches in the process of professional-pedagogical and practical activity types based on the pedagogical interaction of students, teachers, employers. The goals of the Modular educational programme are implemented in a comprehensive manner on the basis of regularities and dynamic links of the Organization of the pedagogical process, complicating the thematic tasks from simple to complex. The tasks of the Module education programme are focused on the formation of knowledge, skills, attitudes of students, which must be implemented in accordance with the universal Methodic with the identification of learning outcomes, including unified system requirements, normative, pedagogical, professional conditions (Working training programme, The State Compulsory Educational Standard of the Republic of Kazakhstan) (Жангужина, 2018).

Conclusions

Thus, the following steps are necessary to develop Modular Education programmes, disclosing general prospects of their implementation: within the framework of training areas with higher education, universities independently develops various educational programmes in accordance with the National Qualifications Framework, professional standards and agreed with the Dublin descriptors and the European Qualifications Framework. The educational programme has a modular format and its design is carried out in the following sequence, which:

1. Formulation of the goal of the educational programme.
2. Mapping the areas of training in the educational programme.
3. Development of qualification characteristics of the alumnus.
4. Development of a specialist competency map.
5. Compiling a matrix of disciplines that form study modules.
6. Mapping the study module.
7. Development of the content of the educational programme.

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PEDAGOGICAL ASSUMPTIONS OF TRANSFORMATIVE DIGITAL MODEL FOR SOCIAL CHANGE

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Abstract. *Creating of digital models which transform learning and its outcomes, as well as the learner's educational, developmental and educative achievements has become vital to provision of inclusion possibilities in a networked society. Researchers have produced several frameworks of using digital technologies in education, but these are generally do not appropriately incorporate socio-contextual perspectives. To explore this area and create a transformative model of teaching-learning at higher levels of education in Special pedagogy and social work an appropriate pedagogical provisions are needed to transform educational process as a system including: (a) meaningful and transforming objectives, (b) adequate for digital learning and leading to social change pedagogical principles, (c) reflectivity with the domain of knowledge creation, (d) self-evaluation of learning and social inclusion, (e) transformations of teacher/educator activities towards social inclusion and knowledge share, as well as collaborative learning in organizational settings of emerging knowledge society.*

This study, focuses on tertiary education and doctoral investigations, reviews the literature on facilitated by transitions social changes, and introduces a theoretical underpinning of digital learning within a pedagogical model. The dominating method is theoretical analysis that includes reviewing, analysing and synthesising literature on the theme "in an integrated way such that new frameworks and perspectives on the topic are generated" (Torraco, 2005, p. 356; Hamilton & Torraco, 2013). The article introduces the theoretical approach to the project "Implementation of Transformative Digital Learning in Doctoral Program of Pedagogical Science in Latvia" and "Gender aspects of digital readiness and development of human capital in region".

Keywords: *transformations, digital learning, social change, pedagogical model, tertiary education, doctoral investigation.*

Introduction: new roles of technologies or changing pedagogy?

The answer should be among (a) the presence of technology in pedagogical processes that causes a crucial restructuring of learning environments; (b) educator's professional philosophy and capacity for thoughtful, reflective, and

flexible activity in assisting learners; (c) incorporated effective technologies into a variety of methodologies when methods of learning are chosen or agreed upon by learners; (d) students' and learners' personal empowering due to digital competence allowing for transformed mutual relations and, therefore, pedagogy that facilitates deep, strategic and personalized learning in educator-student collaborative teams. Pedagogical reasoning of technologies is often derived from vastly different philosophies related to beliefs about how learners learn, or how learning occurs. However, education has to follow this reality: it may ban the use of digital technologies but they are far from free of technological thinking that is increasingly caught up in the vortex of the technological revolution (Glandinning, 2018). Educators are relegated to a relatively small role of a monitor, facilitator or, if needed, organizer of learning; and this circumstance makes their digital competence special. The use of technologies challenges the dominant mode of learner learning-centred educational process by making it more personalized and inquiry-based in varied forms of collaboration and use of resources (Brunner & Talley, 1999, p. 27); students' desire for independence sought by the transformation flux calls for an adequate digital culture in higher education and in doctoral research (Rubene & Strods, 2017).

The term 'digital learners' (Gallardo-Echenique, 2015; Rapetti & Cantoni, 2010) suggests a global vision of the twenty-first century learner and does not exclude using traditional sources of knowledge and valid research tools; rather it allows for focus shifting in education to use less time to consume training, shorter attention spans for learning (Penfold, 2016), they cooperate and communicate differently, have a different sense of authorship and use different language (Gibbons, 2007). Influence of the digital devices is so vast that it is time to consider doctor students, adults' and educators' beliefs about the role of ICT in education and research. The challenge is to use it appropriately so that students learn *with* the computer, not just *from* it.

The end of the 20th century was marked by a changed image of sciences and new rationalism with characteristics which are not in compliance with the previous concept of education: the transition from the accent on knowledge in the development of sciences moves to humans' development in their cultural context that is created by humans and considerably changing under the influence of digital technologies being in humans' mind and hands. Pedagogical optimism allows for illustrating challenges by extracting a couple of visions for 2025 (Thomson Reuters, 2014): (a) neuroscience along with increased understanding of the human genome will allow for early prevention of neuro-degenerative diseases, like dementia; (b) everything from cars to appliances to individual personal items will be digitally connected, therefore, create a new social networking and mutual relations. These and other people's desires can be achieved by competent and responsible researchers and practitioners who make this innovation topical when

the old scheme, I know where I am going, and know how to get there' will not be valid any more. It is not only a sign of the human nature to want to know what is coming; it is education that does its best to zoom the future developments and challenge understanding of new learning modes.

The doctoral formal and adult in-formal education programs are undergoing transition towards better understanding and learning with digital technologies in acquiring higher level competencies that will enable the new generation of researchers and practitioners achieve rich intellectual properties to identify the themes of emerging importance. They should be prepared to expertise the fields of human activities, create sustainable environment appropriate for living, as well as responsibly protect it from men's damaging inventions. Framing of key competences for the 21st century suggests that while society has produced large amounts of knowledge and complex global challenges, it lacks the capacity to respond to this challenge including new modes of learning (Lotz-Sisitka et. al, 2015, 73); therefore the educative role of education becomes decisive with much attention to social changes, science, sustainability and growing digital possibilities.

Transformation towards the Knowledge Society being based on technological breakthroughs is even more revolutionary, as it changes the fundamental processes of adult communication, cognition, perception, mutual relations and identity construction that provide the competence creation as a foundation for social life. "At present, we are not only changing the tasks and division of labour between the different components of educational systems. We are also changing learning itself" (Tuomi & Miller, 2011, 1).

The content-structural dimension of a doctoral and adult education programs can be implemented by interconnected components of human cognitive, emotional, communicative and informative-technological culture; that is represented by the pedagogical action-procedural dimension in mutually integrated motives, goals and criteria, tools and organization, academic outcomes and personal achievements, self-assessment, self-evaluation, assessment and evaluation. Having into consideration that the core feature of competencies is a responsible meaningful usage of knowledge that manifests itself in human sense-making activities, in science of pedagogy a phase or cycle of action can be treated as a unit of research.

The driving impetus of the two projects will be to rethink teaching and learning in relation to a digitalized and globalized society in which humans break traditional boundaries, share agency and decision-making power with intelligent systems enabled through machine learning. Emphasis on human-machine collaboration, cognitive and social augmentation is also of topical importance. The story is not so much about technologies; it is about humans with technologies (Coombs, 2018).

Changing functioning of education

“Society not only continues to exist *by* transmission, *by* communication, but it may fairly be said to exist *in* transmission, *in* communication” (Dewey, 1916, 5). Alongside with the function of adapting, integrating and keeping social balance, education is also a future-oriented agent of change that introduces a certain dis-balance; it is, therefore, supposed to generate and facilitate problem solving and innovation for social progress. Diversity in all spheres of human life makes societies dynamic and education allows them for surviving in the rapidly changing world.

“New modes of value production will transform both the industrial system of production and the societal requirements for education”...“In the Industrial model value was essentially generated by extracting it from nature” while in the Post-industrial era the model itself is being created by creating value. This can be seen as the essence of the Knowledge Society. Value is created by creating meaning that in its turn is defined as the difference between what we already understand and what we learn that we do not understand yet. Such value creation process could be called learning and Knowledge Society, therefore, could be called Learning Intensive Society (Tuomi & Miller, 2011, 7-8).

These changes and contradictions generate a tension that calls for different dominating values and forms of educational settings. “Two key factors, therefore, shape the evolution of educational systems” (ibid, 3): (a) although the key social functions of education remain the same over time, the concrete implementation of educational processes generates institutions that start to live their own lives and which are creatively “misused” for novel purposes, therefore, do not depend on their effectiveness for education; (b) the concrete implementation of educational change depends on pressing social needs, available tools and concepts; therefore the social actors develop education based on the currently perceived challenges and problems.

These contexts itself is a product of cultural evolution that makes education focus more on informal learning. All the observable and emerging changes in value creation call for adequate approach to capability including reflection, metacognition, process and achievement evaluation by following appropriate criteria with dominating peer and self-evaluation and, consequently, with higher value of inquiry-based learning and ethical principles when students “engage fully in technology-rich learning environments” (Blayone et.al, 2017). These add to the educational content and cause changes in pedagogy still remaining an organizer of learners’ success.

Alongside with the growing role of digital technologies and informal education, especially at tertiary and doctoral levels, education to a considerable extent becomes focussed on developmental and educative effect of evaluation that

is implemented by a new balance between students' sense of freedom and educators' assistance in coordinating their creative learning. Meanwhile, a pedagogical process still preserves face-to-face communication as a human mode of value exchange in spite of obtaining stronger accent on learner autonomy by wider functioning of digitally provided educators' guidance. Adequate educator's organizational assistance focussed on the learners' personalized achievements and based on creative information process is a sign of deep and strategic learning when the social, emotional and cognitive processes of learning change and in their new quality still remain a fundamental mode of human meaning-creating existence inside and outside the formal education.

The digital learning that to a large extent steps in instead of printed sources interferes with the learning content structures, re-shape the process and in a new way provide possibilities of view exchange in a sense-making communication that allows for speedy knowledge internalization and externalization, enable quality learning by accent shifting among cognitive processes like rapid expansion of concepts, transfer and understanding of cultural values.

An important consequence in the development of science of pedagogy is the recognised new quality of its traditional research object being inner dynamic links of a pedagogical process and mutual relations that now is affected by: the learner subject's position in meaningful pedagogical settings with growing accent on personalised assistance in learner development, evolving collaborative learning in value-making organizational situations and collaboration among the participants that are strengthened in educator-student team-based research within the global information and communication networks now being an important learning environment that considerably interferes with the individual's perception, conceptions, understanding, views and mutual relations.

Activity theory

Pedagogy is a science and practice of action/activity and follows the conception that humans develop their faculties in diverse activities, and these can be offered by education. Vigotsky's (1978) and Leoniev's (1978) theories with the accent on human development in educational action (practical, mental, social; formal, informal or non-formal) and activity being a measure of intensity make a background of an individual's development. This article addresses several basic statements for further detailed descriptions of implementing a learner learning-centred paradigm in doctoral research and adult education.

An action begins with an active, motive's driven and goal-directed human agent to transform the object of his/her activity. The learner's experience transformed in this activity returns at a new level in his further activity/learning. The intensity in which an action takes place depends on his/her needs/motives and

individual ability of performing the desired action according to his/her will and vision of a goal, by using tools as a link between the environment and human consciousness. Learning is a specific action because of its object that actually is the learner's self, his/her qualities to be transformed: experience, mental and physical abilities, and culture-oriented values. The target is also specific: in subject- and teacher-centred paradigms the object and the target use to be perceived as synonymic, and this introduces a serious pedagogical mistake that manifests itself in obstacles for learners' freedom to learn and becoming a responsible decision-maker of one's learning.

The above mentioned theories elaborated the concept of links between human and tools that are chosen to reach the goals; it is important to identify that the chosen tools on the one hand inform of the learner's learning experience, on the other, the most important for education, tools offer the learner opportunities to extend and further develop his/her capacities. The object (self) also shows the learner's experience and interferes with the quality of learning and the achievements.

The object being a phenomenon of a learner's self invites the individual to find out its essence, developmental opportunities and possibilities that in their turn inform the learner of appropriateness of tools to be consciously chosen. Vygotsky's theory brought individuals, as active agents, together with other agents and the cultural-social environment. Through their actions and communication, humans enter into a relationship with the environment of mental and practical objects created by other humans, the nature, as well as a relationship with a community where an individual meets values and norms of attitudes. Mediation between an individual and the tools pays attention to the learner's cognitive activity and social construction of the individual's mind, ability to restructure his/her experience and share values with the partners. This is also a mechanism that constitutes the basis for collaborative digital learning/research in educator-learner teams by claiming the need to identify and provide a possibility to conceptualize an action-based human – technologies dialogues across contexts and organizational settings. Within this conceptual frame human-technology interactions in education should be focussed on the learner actively addressing (opposite to passive acceptance) the objectives. Action in education distinguishes between learning how to use digital technologies and learner's empowering by digital technologies when these considerably add to the quality of action, its formal/academic outcome and what is the most important – to new personal achievements (educative, education, developmental). Gibson (2001, 44-45) considers that almost all field of education can be viewed as comprising a mixture of two purposes: (a) instrumental education is that in which the learner acquires new knowledge or skills for the purpose of being able to do something; (b) transformative education is that in which the learner participates in a process for

the purpose of changing in some important ways as an individual human being or member of a community.

The dimensions of an action to consider in the context of digital technologies:

1. Structural – (a) subject of action, in this context being a learner/researcher with a certain digital competence; (b) object (learner’s capability) that is supposed to be improved and which does or does not contain any quality added by digital technologies; (c) tools being used to intermediate subject and object by applying physical and mental energy affected or not by digital equipment.
2. Procedural – (why?) motives and aims; (what?) content of learning/research that is supposed to acquire, like understanding, competences, values etc.; and (how?) - appropriate methods or types of activity to reach the goal in many organizational contexts, inter-connecting activity structures, varieties of collaboration and contexts of cognitive, practical, social activities.

Further considerations focused on the action level suggest four sub-systems of digital-mediated action: (a) relating to building and maintaining human-machine pairings - meta-functional, technical and operational; (b) mediating cultural expression address internalization and externalization largely determined by rules and values of participating communities; (c) automatization of actions by reducing them to formal procedures (algorithms) run by a machine; (d) the most complex sub-system addresses digitally-mediated collaboration.

Functioning of digital technologies in a pedagogical process deserve a special consideration in its structural, processual and action level dimensions. Finally, a pedagogical process includes evaluation (according to the action theory action expires in its outcome); this component also goes through transitions in a learner learning-centred process – evaluation introduces the process by identifying the learner’s individual capability for learning, is being continued through the process and reaches the final evaluation of the outcomes. Self-assessment and self-evaluation are of greater importance if compared to external evaluation; these introduce considerable changes in organizational settings of education and the changing role of technologies. Assessment *for* education (if compared to assessment *of*...) is an integrated approach to instruction and curriculum that supports students’ learning “to move beyond the basics that are learned and transfer that knowledge to other contexts beyond the one in which the original knowledge was learned” (Gordon Commission, 2012). Therefore we have to distinguish between evaluation of the academic results and learner’s individual achievements; learning processes and goals can only change if assessment changes (OECD, 2010).

Transforming pedagogical process from dominating instruction to

dominating learner possibly autonomous learning leads to an assumption that digital technologies transform internal dynamic connections of a pedagogical process that manifest themselves in transformed nature of mutual relations between the educator and doctor student. Technologies impact understanding of pedagogy as a science, its object of investigation (more in Žogla, 2017, 2018), pedagogical process by transforming assessment (Redecker et al., 2013; Gordon Commission, 2012), allow for supporting students with and without disabilities (Rao et al., 2015), on-line problem-based pre-diploma education (Barber et al., 2016) etc. Addressing the action approach justifies the assumption that digital technologies create a new, up-to-date pedagogy (to be further developed in the projects mentioned in the acknowledgements).

Theories of deep and transformational learning

Technology on its own may not improve student achievements, this research might help us understand how technology creates opportunities under which there is a positive effect on students' achievement (scientific research is a new experience of a doctor students to acquire); transition from lecturing and demonstrations to assisting doctor students' scientific exploration and discovering new knowledge with incorporated open-ended assignments is a vast object of investigation where transformation meets with deep and strategic learning and where 'technology plays a catalytic role in opening the minds' of educators and students to new ideas about learning and their own role in the education process (Dwyer, 1996, p. 25-29). Transformative pedagogy is that in which the learner participates in a process for the purpose of changing in some important ways as an individual human being and a team member while assessment emphasizes both the development of 'whole brain' capacity and capability for collaboration.

Educators have to distinguish between their competencies: in knowledge instruction settings technology takes a role of a tutor while in knowledge construction it takes the vastly different role of a tool; students learn not only *from* technologies but do this *by* technologies - student's and educator's freedom in collaboration, conversing and solving problems under a pressure of the digital technologies introduces a new 'pedagogy of learning' (Gibbson, 2001, 41-42) - to be investigated.

The transformation, deep and strategic approach theories of learning are significant and may be considered for learning and research of doctor students.

Transformation theory (Mezirow, 2009; Taylor et al., 2012) describes changes in operation of a number of elements that relate to a multiform learning process empowered by digital technologies while the deep approach theory in higher education (Biggs & Tang, 2011; Howie & Bagnall, 2012; Entwistle, 2009) is appropriate for doctor students' academic and research achievements; among

the main there is the ability of independent, critical analysis, synthesis and evaluation.

The deep learning theory in practice will lose quality and the learners will underachieve without 'learning about learning', in other words, without reflection and thinking on learning. Deep approach theory is the theory that is cognate when integrated with transformation theory because both theories related to learning are profound in the impact on the learner and allow for the learners' genuine engagement with the subject matter and ways of learning in order to generate meaningful interpretations; this involves in higher order thinking as something of value to them and their lives (Biggs & Tang, 2011)

After transformation individuals see themselves and the world in more effective manner, because their assumptions and outlook are modified to better fit their real context. Modifications of these theoretical structures are common in the literature (Howie & Bagnall, 2012) and characterizes a transformative learning process; ongoing nature of experiments in a wide variety of situations. Among these there are: experiencing a dilemma and ability to identify topical problems in theory and practice on the background of critical thinking and strategic knowledge; self-examining and reflectivity or thinking about learning and adequacy of achievements; reintegrating new perspectives and capacities into one's life on the basis of conditions dictated by the new perspectives etc.

The discussion focusses on several assumptions to underpin the models:

Change for the learner-centred process means changing for the humanistic educational paradigm to transform mutual relations - transition of the learner's position from an educational object or passive information receiver to a person in the capacity of educational subject capable for self-education and self-improvement. The main purpose therefore is building a learner's value system and individual meaning as a value being strengthened in communication by culture-oriented content of education and adequate organizational settings.

Digital technologies change their position from that of a tool to an agent of educational change, educators' belief shift towards value-creating learning. Technologies change pedagogy by essentially collaborative learning and research, accentuate capability development for autonomous learning and transversal skills (Council of EU, 2006), prioritize and enable functioning of self-assessment.

Deep transformative learning theories underpin acquiring of reflection, development of critical thinking, strategic knowledge, and competences for life-long learning that is in compliance with the research object of pedagogical science and its core – inner constant links of a pedagogical process and mutual relations; these are appropriate for investigation of the under-researched education for social changes in the context of rapidly growing impact of technologies and digital learning, personalized support to learners who need special assistance for successful learning and individual development.

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STUDĒJOŠO MOBILITĀTE KĀ AUGSTĀKĀS IZGLĪTĪBAS INTERNACIONALIZĀCIJAS ELEMENTS

Student Mobility as the Element of Internationalization of Higher Education

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Abstract. *Scientific researches on the potential of export of higher education became topical more than 10 years ago, but this issue remains very topical nowadays as well, and it is essential to keep searching for solutions for the future development of this area. The aim of the paper is to analyse the general trends of student mobility in Latvia in the context of the student mobility in the world. Hypothesis of the research - comparative research on the student mobility rates in the research period from 2011 to 2016 shows that there is higher growth of student mobility in Latvia than on the global scale. The number of mobile students in the research period is increasing both in Latvia and in the world, but the statistical survey in Latvia confirms that this growth in Latvia is more significant.*

Keywords: *higher education, internationalisation, mobility.*

Ievads

Introduction

Mūsdienās, dinamiskajā ģeopolitiskajā vidē, par nozīmīgu faktoru augstākās izglītības iestādēs ir kļuvusi internacionalizācija.

Vēsturiski studentu piesaiste augstākās izglītības nozarē konkrētā valstī aktualizējās pēc otrā pasaules kara. Tādas Eiropas nozīmes pilsētas kā Dublina, Berlīne, Mančestra, Stokholma piedzīvoja strauju attīstības kāpumu, pateicoties savām universitātēm, kas piesaistīja citu valstu studentus, t.sk., zinātniekus, kas, savukārt, deva būtisku intelektuālu ieguldījumu konkrētās augstākās izglītības iestādes, pilsētas un valsts attīstībā kopumā. Latvijai kā relatīvi mazai valstij, meklējot konkurētspējīgās priekšrocības, augstākās izglītības nozare tiek minēta

kā perspektīva un eksportspējīga tautsaimniecības nozare, kas var dot būtisku pievienoto vērtību (Lonska, 2010). Par augstākās izglītības eksportspēju zinātniskie pētījumi aktualizējās jau pirms vairāk kā desmit gadiem, tomēr šis jautājums aktualitāti saglabā joprojām, un ir būtiski meklēt risinājumus šīs jomas attīstībai arī nākotnē.

Mobilitāte jeb studējošo pārvietošanās starp valstīm studentam sniedz iespēju gūt pieredzi – akadēmisko, valodas, kultūras – studējot ārvalstīs. Studentu mobilitāte veicina personisko izaugsmi, kā arī uzlabo darba iespējas nākotnē. Augstākās izglītības iestādes ģeogrāfiski atrodas noteiktā vietā, bet to mērķauditorija ir noteiktu pasaules reģionu telpa un tās iedzīvotāji. Nosacīti varētu uzskatīt, ka 21.gs. ir mobilitāšu kulminācijas periods, jo iespējams pēc e - vides arvien plašākas asimilēšanās izglītības telpā, var mazināties fizisko mobilitāšu skaits kopumā. Mobilitāte ir cilvēku pārvietošanās uz kādu no augstskolām ārzemēs mācību nolūkos.

Raksta mērķis – analizēt studējošo mobilitātes vispārējās tendences Latvijā pasaules konteksta ietvaros.

Pētījuma hipotēze – veicot salīdzinošo izpēti par studējošo mobilitātes rādītājiem pētījuma periodā no 2011. līdz 2016.gadam, Latvijā ir novērojams relatīvi augstāks mobilo studentu pieauguma temps nekā vidējie rādītāji pasaulē kopumā.

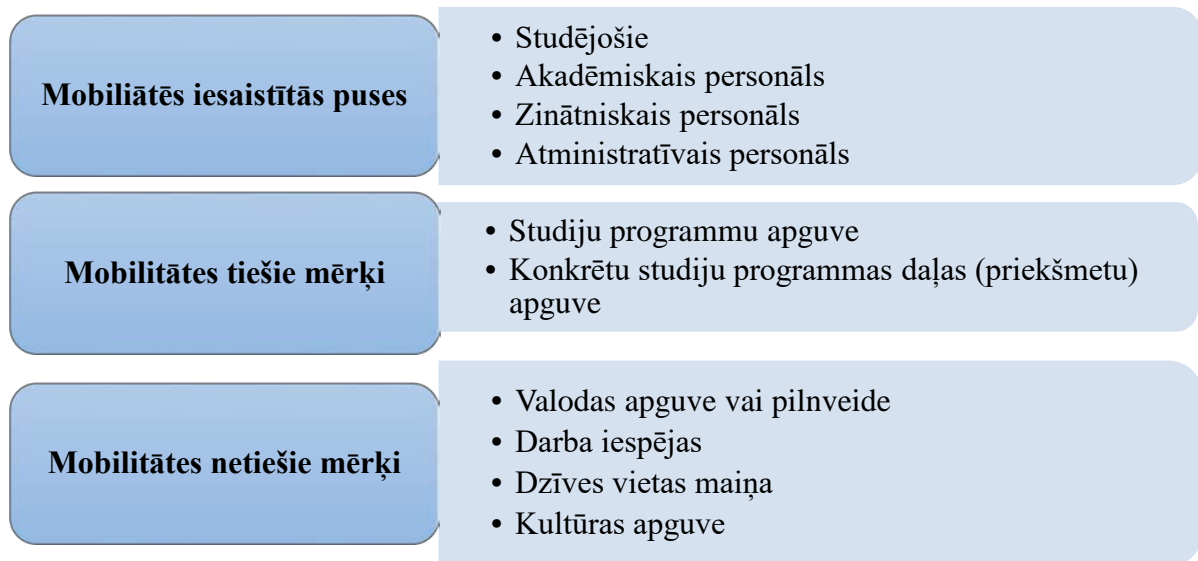
Pētījuma metodes – monogrāfiskā metode, salīdzināšanas un kontentanalīzes metodes, papildus ir pielietotas grupēšanas, matemātiskās un grafiskās interpretācijas metodes.

Pētījuma ierobežojums raksta ietvaros paredz analizēt tikai studējošo mobilitāti, neaptverot visa veida augstākās izglītības personāla mobilitāti.

Mobilitātes un internacionalizācijas būtība augstākās izglītības telpā *Mobility and the essence of internationalization in higher education*

Internationalizācija nozīmē piešķirt starptautisku raksturu. Augstākās izglītības internacionalizācija ir augstskolas pieejamība pasaulei, ar mērķi uzlabot savu konkurētspēju nacionālā un starptautiskā līmenī. Internationalizācija savā būtībā ietver ārzemju mācībspēku un studentu piesaisti, sadarbību studentu un mācībspēku apmaiņā, kopīgu mācību programmu veidošanu, prakses iespējas u.c.

Mobilitātes un internacionalizācijas aktivitātes nosacīti var klasificēt pēc iesaistītajām pusēm un mērķiem.



*1.attēls. Mobilitātes mērķi un iesaistītās puses (autoru izveidots)
Figure 1 Mobility goals and the stakeholders (compiled by the authors)*

Mobilitātē iesaistītās puses ir studējošie, akadēmiskais personāls, zinātniskais personāls un izglītības iestāžu administratīvais personāls. Mobilitātes mērķus nosacīti var dalīt tiešajos (studiju programmu apguve ar grāda/kvalifikācijas ieguvu) un netiešajos (valodas apguve, darba iespējas, dzīves vietas maiņa, kultūras apguve u.c.)

Ņemot vērā to, ka mūsdienās augstākās izglītības piedāvājums kļūst aizvien daudzpusīgāks un plašāks un studenti aizvien vairāk vēlas gūt zināšanas un pieredzi ārpus savas valsts robežām, ir iespējams runāt par augstākās izglītības internacionalizācijas attīstību. Pašreiz internacionalizācija ieņem prioritāro lomu gan augstākajās izglītības iestādēs un to stratēģijās, gan arī valsts mēroga politikā, jo starptautiskajai konkurētspējai ir nozīmīga loma pašreizējā globalizācijas laikmetā.

Viena no nozīmīgākajām programmām, kas ir radījusi būtisku ietekmi uz studējošo un augstākās izglītības iestāžu personāla mobilitāti Eiropā ir ERASMUS (*European Community action scheme for the mobility of university students*). Minētā programma tiek uzskatīta par vienu no veiksmīgākajām un plašā sabiedrībā zināmajām programmām, kas sekmē iedzīvotāju mobilitāti Eiropas teritorijā.

Kā sākums tiek minēts 1987. gads, kas pirmajā gadā tajā piedalījās tikai 3200 studentu, bet pēdējo 30 gadu laikā tā ir izvērtusies par programmu, no kuras gūst labumu gandrīz 300 000 augstākās izglītības studentu gadā (Keiča & Kroiča, 2018).

Valstis, kurās ir augsts starptautisko studentu skaits, ir ieguvējas no to pievienotās vērtības, it īpaši izglītības kvalitātes un zinātnes jomā, taču valstīs, kurās starptautisko studentu skaits ir mazs, nespēj gūt pienesumu, ko rada starptautiskie studenti un nevar to izmantot, lai pilnveidotos un sniegtu ieguldījumu savā attīstībā (Hazelkorn, 2008). Viennozīmīgi minētie ieguvumi ir tiešie, bet ir jāatzīmē netiešie ieguvumi, kas pozitīvi ietekmē iesaistīto valstu ekonomiku un cilvēkkapitālu kopumā.

Par vienu no galvenajiem mērķiem augstākajās izglītības iestādēs ir kļuvusi internacionalizācija, jo tādā veidā tiek nodrošināta iespēja mācībspēkiem un studentiem apgūt starptautiskajā vidē pieprasītas iemaņas un prasmes, paaugstinot konkurētspēju gan Latvijā, gan ārzemēs.

Kāpēc studenti dodas studēt uz ārzemēm? Pastāv nozīmīgi “atgrūšanas” un “pievilkšanas” faktori. Galvenie “atgrūšanas” faktori ir ierobežotas studiju iespējas savā valstī, vēlme dzīvot citur un iepazīt citu kultūru, kā arī “pozicionēšanās” – pārvietošanās uz citu valsti vai reģionu, lai palielinātu nākotnes iespējas studēt vai strādāt kādā konkrētā teritorijā (piemēram, pārvietoties uz Latviju, lai iegūtu ES atzītu diplomu ar mērķi vēlāk studēt vai strādāt Vācijā vai Apvienotajā Karalistē). Nozīmīgākie “pievilkšanas” faktori ir studiju pieejamība svešvalodā, ko studenti jau zina vai vēlas iemācīties, piemēram, angļu vai franču, kvalitatīvas, specializētas studiju programmas, starptautiski atzīta iegūstamā kvalifikācija, pieņemama studiju maksa, atvieglots vīzu iegūšanas process, kā arī pozitīvs valsts tēls” (Auers & Gubins, 2016).

Latvijā ir aptuveni 86 000 studentu, no kuriem aptuveni 70% studē valsts finansētās augstākās izglītības iestādēs. Visām 60 augstskolām ir ļoti svarīgi piesaistīt gan vietējos, gan starptautiskos studentus, taču, ņemot vērā sarežģīto demogrāfisko situāciju, starptautisku studentu piesaiste ir kļuvusi arvien svarīgāka (Paiders & Apsīte-Bēriņa, 2015).

Studentiem laika gaitā mainās vēlmes, viņu mobilās trajektorijas un ģeogrāfiskās vietas mainīsies visas dzīves laikā atkarībā no mainīgajām vēlmēm (Prazeres et al., 2017). Pētījumi studējošo mobilitātes jomā iezīmē arvien jaunas dimensijas un caurvijas starp nozarēm, kas apliecina šīs tēmas aktualitāti un pētāmos jautājumus arī nākotnē.

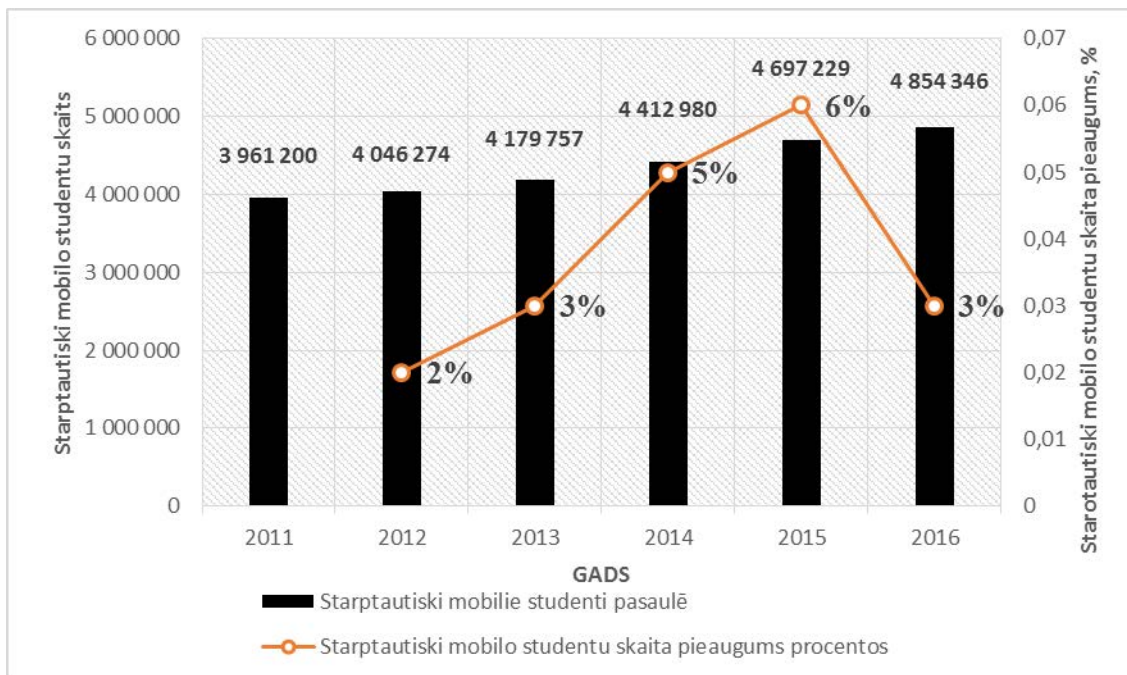
Pētījuma rezultāti par ārvalstu studentu mobilitāti raksturojošiem statistikas rādītājiem Latvijā

Results of the research on statistical indicators characterizing the mobility of foreign students in Latvia

Ir vairāk nekā četri miljoni studentu, kas pārvietojas pāri savas valsts robežai, lai iegūtu izglītību (Global migration indicators, 2018). Pēc atsevišķām

prognozēm ārvalstu studentu skaits nākamajos gados varētu turpināt pieaugt, sasniedzot 8 miljonus desmit gadu laikā.

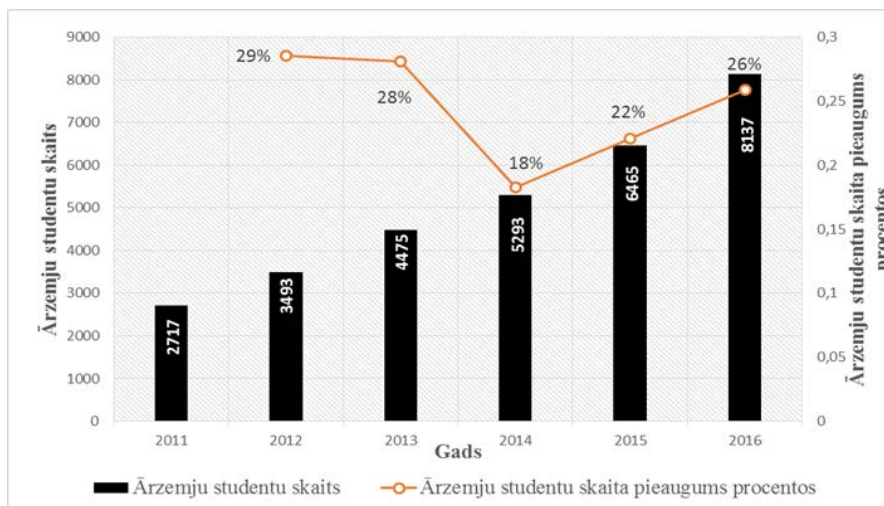
Ienākošā starptautisko studentu mobilitāte ir palielinājusies gandrīz visās OECD un partnervalstīs, kas ir augstākās izglītības mērķa valstis, un Latvijā tā ir gandrīz dubultojusies no 2013. līdz 2015. gadam, kas ir viens no augstākajiem izaugsmes rādītājiem visās OECD un partnervalstīs. Šis pieaugums atspoguļo Latvijas vērienīgos mērķus padarīt augstāko izglītību starptautisku. 2015. gadā Latvijā bija 6465 starptautisko studentu, kas bija 8% no visiem augstākajā izglītībā studējošajiem, salīdzinot ar 6% OECD valstīs. Lielākajā daļā OECD valstu starptautisko studentu uzņemšana ir daudz augstāka doktorantūras programmās nekā zemākajos augstākās izglītības ciklos. Taču, Latvijā starptautisko studentu īpatsvars doktorantūras programmās (11%) ir zemāks nekā to īpatsvars maģistrantūras programmās (16%) (Normandeau S., 2018).



2.attēls. *Mobilu studentu skaita dinamika absolūtajos skaitļos un pieaugums procentos pasaulē 2011. – 2016.g. (autoru izveidots pēc Augstākās izglītības..., 2011-2016)*

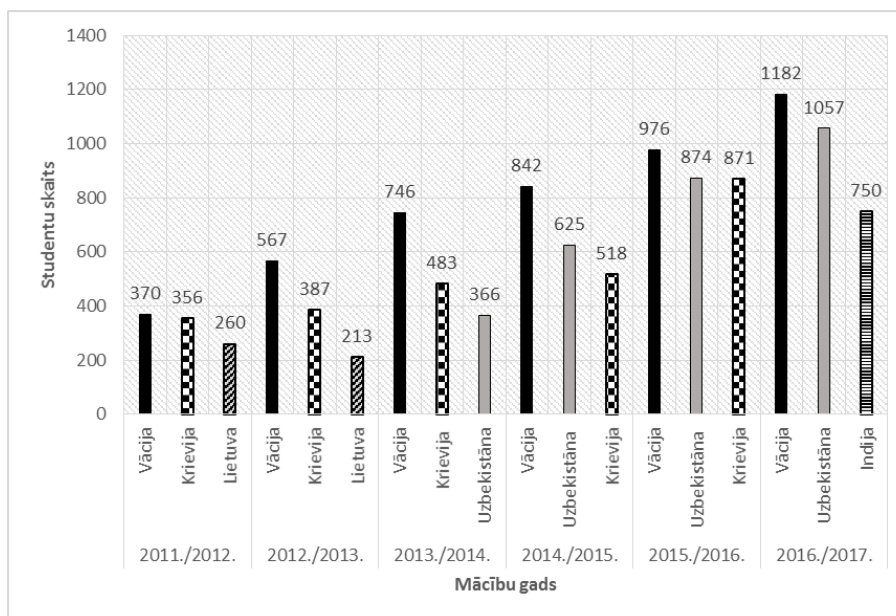
Figure 2 *Change in the number and annual percentage of mobile students in the world in the period from 2011 to 2016 (authors' construction based on Augstākās izglītības..., 2011-2016)*

Mobilu studentu pieaugums pētāmajā periodā sastāda 22.5% (2.att.), turklāt pastāv nosacīti vienmērīga ikgadējā pieauguma tendence 2 – 6 % robežās (3.att.).



3.attēls. Ārvalstu studentu skaita dinamika absolūtajos skaitļos un pieaugums procentos Latvijā 2011. – 2016.g. (autoru izveidots pēc Augstākās izglītības..., 2011-2016)
 Figure 3 Change in the number and annual percentage of foreign students in Latvia in the period from 2011 to 2016 (authors' construction based on Augstākās izglītības..., 2011-2016)

Mobilo studentu skaits Latvijā laika periodā no 2011.gadam līdz 2016.gadam ir pieaudzis 3 reizes. Ikgadējais pieauguma tempi svārstās no 18 % līdz 29%, kas apliecina augstākās izglītības aktivitāšu stratēģisku virzību un studējošo vides internacionalizāciju.



4.attēls. Latvijas augstskolās studējošo ārvalstu studentu izcelsmes trīs visvairāk pārstāvētās valstis (autoru izveidots pēc Augstākās izglītības..., 2011-2016)
 Figure 4 Three most popular countries of origin of foreign students studying at higher education institutions of Latvia (authors' construction based on Augstākās izglītības..., 2011-2016)

Pētāmajā periodā visvairāk pārstāvētās valstis ir Vācija, Lietuva, Krievija. Kopš 2013./2014. gada būtiski ir pieaudzis studējošo skaits no Uzbekistānas un kopš 2016./2017. gada būtiski ir palielinājies ārvalstu studējošo skaits, kuru mītnes zeme ir Indija.

Secinājumi **Conclusion**

1. Augstākās izglītības internacionalizācija ir augstākās izglītības iestāžu pieejamība pasaulei, ar nolūku uzlabot savu konkurētspēju nacionālā un starptautiskā līmenī. Internacionalizācija ir kļuvusi par vienu no galvenajiem mērķiem augstākajās izglītības iestādēs.
2. Strauji augoša Latvijas tautsaimniecības pakalpojumu nozare ir augstākās izglītības eksports. Augstākās izglītības nozarē ņemot vērā valsts fiskālo politiku, būtisks valsts finansējuma pieaugums tuvākajā periodā nav gaidāms, līdz ar to, augstākās izglītības iestādēm ārvalstu studentu piesaiste nodrošina papildus finanšu līdzekļus.
3. Mobilitātē iesaistītās puses ir studējošie, akadēmiskais personāls, zinātniskais personāls un izglītības iestāžu administratīvais personāls. Mobilitātes mērķus nosacīti var dalīt tiešajos (studiju programmu apguve ar grāda/kvalifikācijas ieguvī) un netiešajos (valodas apguve, darba iespējas, dzīves vietas maiņa, kultūras apguve u.c.)
4. Būtiski mainās arī piesaistīto studentu mītnes zemes ģeogrāfiskais areāls. Bez ES valstu studentiem, Latvijas augstākās izglītības iestādēs arvien vairāk tiek piesaistīti studenti no trešajām pasaules valstīm, t.sk. no Āzijas reģiona.
5. Mobilo studentu pieaugums pētāmajā periodā sastāda 22.5%, turklāt pastāv nosacīti vienmērīga ikgadējā pieauguma tendence 2 – 6% robežās. Mobilo studentu skaits Latvijā šajā laika posmā ir pieaudzis 3 reizes. Ikgadējais pieauguma tempi svārstās no 18% līdz 29%, kas apliecina augstākās izglītības aktivitāšu stratēģisku virzību un studējošo vides internacionalizāciju, kā arī apstiprina sākotnēji izvirzīto hipotēzi.

Summary

The internationalization of higher education is the access of higher education institutions to the world with the aim of improving its competitiveness at the national and international level. Internationalization has become one of the main goals of higher education institutions. The aim of the paper is to analyse the general trends of student mobility in Latvia in the context of the world. Due to the limit of the research, the paper intended to analyse only the mobility of students, not covering the mobility of staff of higher education institutions.

Main conclusions:

The export of higher education services is a rapidly growing sector of the service economy in Latvia. As there is no expected significant increase in public funding for higher education institutions in the nearest future, the attraction of foreign students provides additional financial resources to Latvian higher education institutions.

The mobility target audience includes students, academic staff, scientific staff and administrative staff of higher educational institutions. Mobility goals can be divided into direct (completion of study programmes with obtaining a degree / qualification) and indirect (acquisition of foreign language skills, job opportunities, change of the place of residence, cultural education, etc.)

The geographic scope of the countries of origin of the attracted students has changed significantly during the research period. In addition to students from EU Member States, students from third world countries are increasingly attracted to higher education institutions in Latvia, including the students from the Asian region.

The growth of mobile students in the surveyed period is 22.5%, and there is a relatively steady annual growth trend of 2 - 6%. The number of mobile students in Latvia has increased 3 times during this period. The annual growth rate ranges from 18% to 29%, which confirms the strategic direction of higher education activities and the internationalization of the student environment, as well as confirms the suggested hypothesis.

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