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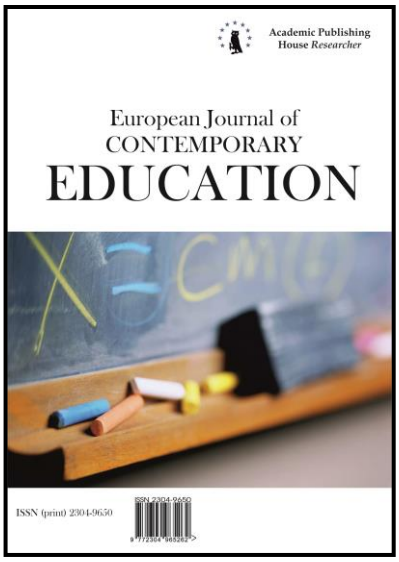

Education of Civic Consciousness in George Kershenshteyner's Creativity

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Abstract

Relevance of the publication is caused by need of judgment of realities and prospects of development of the Russian society. The education system is the main factor of updating of tenor of life of the state and further development of democratic institutes. Therefore questions of a humanization of Russian education become defining in historical and pedagogical process. The solution of an objective is impossible without knowledge of history of formation and development of the Russian school. The appeal to historical experience gains now special relevance as promotes updating of values and ideals, preservation of communications of the past with the present, between science and education. The appeal to the European history of a development of education of the second half of XIX – the beginning of the XX centuries, namely gives to Germany essential help. The German pedagogical thought is characterized by existence of rich humanistic traditions and experience. The purpose of article consists in the characteristic from modern positions of the humanistic system offered by the famous teacher of Germany of the second half of XIX – the beginning of the XX centuries George Kershenshteyner. The leading approaches to the characteristic of this problem are system, historical and culturological, the intrinsic characteristics which allowed to reveal, features of civil education in Germany of the considered period. Materials of article can be useful to pedagogical workers, organizers of educational work with the studying youth for acquaintance to life and activity of the famous German teacher and the public figure George Kershenshteyner.

Keywords: George Kershenshteyner, civil education, labor school, elementary national school, students.

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1. Introduction

The second half of the XIX century was characterized by industrial revolutions in the states of Western Europe and the USA which demanded scientific, modernization of production and improvement of social institutes. In these conditions there was more obvious a discrepancy of traditional school, practice of education and training in new economic and political realities which was already earlier felt in society. Contradictions between a condition of school business and new political, economic conditions caused emergence of the pedagogical movements demanding reforming of school at all its steps (Boguslavskii, 2008).

Comparison of a level of development of Russia with the countries of the West showed that the education system in the West dealt with qualitatively other society, material and legal support.

New western pedagogical ideas which were borrowed by teachers of Russia, were approved in essentially other welfare conditions.

The German pedagogical thought is characterized by existence of rich humanistic traditions and experience. The historiographic analysis shows undoubted interest of researchers in pedagogical experience of Germany of the second half of XIX – the beginning of the XX centuries.

The contradiction between a big contribution of the German teachers and thinkers to history and the theory of pedagogical thought and insufficient scientific judgment of humanistic aspects of this heritage comes to light.

The idea of civil education of G. Kershenshteyner enjoyed wide popularity in Germany. In his opinion, the school had to teach children to absolute obedience to the state. Growth of consciousness of the public disturbed G. Kershenshteyner. He wrote that against «internal enemies», against carriers of proletarian consciousness neither guns, nor battleships, even bayonets of the whole army do not help. It is necessary to use other weapon, thinner, but also more true and strongly acting – the political education inspiring to pupils «understanding of problems of the state, consciousness of the civic duty following from here and love to the fatherland».

2. Materials and methods

Principles:

the historicism considering the historical and pedagogical facts and the phenomena in concrete historical conditions and taking into account the level of social and economic, cultural and political development of society;

systemacities, studying social and educational institutes, structures in their interaction and interference;

the interdisciplinarity demanding application of concepts of interdisciplinary sciences make theoretical base of research.

Complex of the complementary methods adequate to essence of the studied phenomena:

- the comparative and comparative, theoretical and retrospective analysis of archival materials, philosophical, psychology and pedagogical, historical, sociological, legal literature on a research problem;
- systematization,
- classification,
- modeling of the studied phenomena and processes,
- problem and chronological method of group of research material;

it is applied at the solution of research tasks.

3. Discussion

The study of Kerchensteiner was developed in our work «The Problem of civic education in the Russian pedagogics and school of the late XIX – early XX centuries» (Belentsov, 2000).

Modern researchers B. Bim-Bud, M. Boguslavsky, Z. Vasilyeva, I. Goncharov, E. Dneprov, S. Egorov, V. Krayevsky, A. Mudrik, Z. Ravkin, V. Pryanikova repeatedly addressed to the most rich heritage of domestic pedagogical thought and practice in the context of revision of theoretical fundamentals of pedagogics of the second half of XIX – the beginning of the XX centuries.

B. Bim-Bud, A. Dzhurinsky, G. Kornetov, V. Klarin, V. Menshikov, O. Obraztsova, A. Piskunov considered influence of ideas of the European pedagogics on Russian education.

L. Nesterova, I. Tutikova, A. Ryzhov analyzed G. Kershenshteyner's creativity in the works.

4. Results

Main conditions of civil education

G. Kershenshteyner stated the vision of civil education in the works «Main Questions of the School Organization», «About Civic Consciousness Education», «Labour School» where acted as the ideologist of civil education (Kershenshteyner).

First of all, G. Kershenshteyner paid attention to concept of civil education of the work «About civic consciousness education» (Kershenshteyner).

He said about big delusion that civil education and civic education same. «If so to judge, then the best citizen the one who studied the greatest number of political sciences. It is also wrong qualification what is applied at our schools at exposure of the highest marks under the God's Law to those pupils who it is better than others learned by heart the Bible and the Catechism» (Kershenshteyner, 1917: 11). So far ways of teaching religious and ethical sciences which averted pupils from religion and moral, according to the author, existed at national schools. This danger always arose at the compulsoriness in training which is not stopping only on assimilation and multiplication of knowledge. It became inevitable when compulsoriness extended and on assimilation of ethical knowledge.

Fig. 1. Georg Kershenshteyner

The considerable part of civil sciences belongs to similar type of sciences. The jurisprudence, civil law, a constitutional right, political economy, the doctrine about problems of the state and public institutions and, the main thing, the doctrine about the rights and the citizen's duties – all these sciences can be useful and valuable only on condition that their assimilation is not calculated only on memory, not interfaced to compulsory periodic learning when «seeds of civic consciousness fall on the soil loosened with an iron plow of kind skills» (Kershenshteyner, 1917: 11).

George Kershenshteyner noted a big role of a family in formation of civil qualities. «Where the family assumes preliminary preparation of the soil, there, of course, the seed thrown into it by school training will bear fruits. In the same place, where the family of it does not do, – and in the huge majority of cases it does not do it, – there school training is a throwing of seeds in desert sand. Knowledge is extremely valuable property where they can be connected with will to action and with opportunity to apply them in practice» (Kershenshteyner, 1917: 12).

At the correct statement civic education cultivates qualities and virtues: integrity, honesty, endurance, discretion, diligence, thrift, pleasure of creativity and, therefore, pleasure of life, diligence in work without which not to do to the real citizen. "The person who is loving the work and learned

pleasure of creativity is incomparably more grateful object for education, than the slave to the car, sad and indifferent" – so considered G. Kershenshteyner (Kershenshteyner, 1917: 12).

As the researcher considers, at the same time, truly civil virtues are a respect for interests of the neighbor and devotion to a debt, do not develop by itself of the validity to work and love to it. Ability to work and love to work is necessary, but not the only thing of a condition for education of the citizen. Efficiency and pleasure of creativity can get on in the person near the most unscrupulous egoism, avidity and unrestrained ambition.

All statement of school matter in Germany is calculated only on pushing of individuals forward. «Our schools do not give public life in a germ, «an embryonie community life» as demanded that J. Dewey. Our school authorities pay not enough attention of opportunity to make public schools more similar to the state life of «la possibilite de render les Ecoles publiques plus analogs a la vie civile» – the task set by the baron von Zedliz, the minister of education at Friedrich Weliki» (Kershenshteyner, 1917: 12).

Therefore the best and capable pupils quite often left school with ardent desire to win vital fight, to eclipse all the companions, to take a palm, to achieve glory, the power, large earnings, but the serious doubts in need which are not confused to reckon with interests of the neighbor.

G. Kershenshteyner's conclusion is rather negative. In the modern industrial and official state there is a lot of population, with the ruthless economic struggle giving the fruitful soil for magnificent blossoming of egoism and ambition purely professional or at least scientific educations without appropriate education of youth in the spirit of civic consciousness are represented by rather a danger, than the benefit (Kershenshteyner, 1917: 13).

One of important conclusions of G. Kershenshteyner is distinctions of civic and political education.

Politically educated person is a person who developed steady views of the purposes and problems of the state and means of their achievement. It is that person who in case of need, will have enough will to subordinate the actions to the state idea. G. Kershenshteyner emphasizes that uncommon intelligence is necessary for this purpose. The few compatriots developed own views of problems of the state and ways of their implementation. The majority was provided to other people politically to think for them. The direction of their civil activity, as well as political views, will be always defined by more or less strong influence on them of leaders and their promises.

Therefore, systematic training is necessary since youth for transformation of our thinking into the correct acts. As the researcher considers, it is a psychological axiom. It is not enough in modern school education.

The educational system to the Fatherland has identical problems. Studying of history at best wakes up representations and feelings, respect for the power in school students. As doctor Ryulman fairly notices, whose views were analyzed by G. Kershenshteyner: «The principle of the power can appear insufficiently steady support for the state consciousness eventually. Our future depends on, whether the citizen will manage to us to impart instead of blind obedience of the citizen call of duty». And most important is a realization of call of duty in action.

G. Kershenshteyner is convinced, call of duty in a people at large takes root consciousness of provided material and spiritual existence which gives to the conscientious worker the ordered political system (Kershenshteyner, 1917: 15).

The standard education of patriotism can replace political education a little, and political education cannot replace the civil. All three serve the same ideals, but patriotism without political education is a balloon, but not the airship. Political education without civil is an airship without skilled helmsman (Kershenshteyner, 1917: 15).

G. Kershenshteyner said that quite often mix political education with party and political education. It is the direct opposite to civil education.

The party person does not recognize other state ideal, except own, other purpose of existence of the state, except that what he considers important, different ways of its achievement, except what he offers. He seeks to provide domination to the views and the exclusive power of the party.

The true citizen knows that in the modern constitutional state its power is based on freedom of thought and a freedom of worship. Thus the honest opponent has the right for existence. All life in the state is based on mutual understanding and the agreement. Interests of the separate are provided with the equation of interests of all.

Therefore, the ideal of civil education is in essence other than an ideal of political education of what it is thought by leaders of parties. Political education is an important component of civil education only so far as it moves in the direction of scientific reality. But just because scientific objectivity is the main sign of the put political education, its application in civil education is available only to what mentality allows the scientific accuracy of supervision and scientific thinking. Schooling since the childhood to civil virtues means much more, than neutral political training (Kershenshteyner, 1917: 15).

G. Kershenshteyner also spoke about difference of civil education from the public. «Public education, education for service to society, only then is important part of civil education when this concept included known prerequisites. Main from them is that direct service is not service to society» (Kershenshteyner, 1917: 15).

There are people who render huge service to society already that they try to increase cultural value of own personality. Great people of art and science treat this category. These people feel internal uncontrollable requirement to work only at a field of moral service to the ideal of the personality. We can demand from them only that their creative force found to itself expression in conscious service to society by multiplication of its cultural riches.

But as social education sets to all members of a community identical moral tasks and imposes on them identical duties, it has nothing in common with social education any more. In this aspect G. Kershenshteyner agreed with G. Schwartz who contrary to Kant, declared that moral tasks follow from nature of this personality and are defined by her tendencies (Schwartz, 1907: 34).

Our moral education cannot and should not aspire to exempting the personality from the power of her any individual tendencies and to force it to see execution of a debt in compulsion of to service to the purpose imposed to it.

Our educational task can consist only in providing to the pupil possibly more various cases to devote itself to service to the individual moral aspirations, whatever they were. Otherwise, the meaningless requirement of social education could do the same harm, as well as the senseless requirement to preserve only persons (Kershenshteyner, 1917: 16).

The most important is that it is impossible to be engaged in civil education, as something collateral, but not superfluous for completion of education of the person. It which is correctly understood is also the education in general including all other purposes and problems of human education. The simplest ethical reasonings convince us that the prime target of human activity is implementation of the cultural and constitutional state in sense of a moral community (Kershenshteyner, 1917: 47).

From this point of view, the real citizen the one who selflessly and disinterestedly serves achievement and implementation of such moral purpose. Of course, each citizen of such state first of all has to have calling, the certain place in lives, the firm soil under feet, that in process of the forces and abilities to serve common cause.

Concept «civil education»

Any education has to reckon with natural tendencies of the brought up. The success of business depends on in what measure the teacher will manage to combine the objects set by it to themselves with natural inquiries of the pupil.

G. Kershenshteyner considered as the purpose of civil education creation of the moral hostel which approached the state to its far ideals.

Reflecting on this problem, O.Y. Obraztsova noted that a problem of civil education is schooling of youth to serve a community at the correct statement of school business, the school organizations, working workshops and labor methods, suggestion of sense of duty by it and aspiration to promote moral improvement of the community by voluntary participation in it, submission by it, mutual respect (Obraztsova, 1996: 76).

So, N.A. Ryzhov considered that «what there was a constitution of this state at present and what there were conditions of civil activity of youth within this state, – all the same the citizen will consider himself obliged to serve honestly existing system, and it will be service to an ideal» (Ryzhov, 1916: 54).

Thus, conscientious execution of a debt is a first step in service on advantage of the state and on the way of formation of the citizen.

From this point of view there is no calling which at the same time would not be serious service to the state. For it are necessary after all not only politicians, officials, doctors, lawyers, but also workers. And if the worker carelessly fulfills the duties, he harms to the state, causes damage to public hygiene, increases number of diseases, lowers force of resilience of the state to adverse external and internal conditions. No state at the most ideal political system will prosper, will not find a way out, dependent in relation to other states, if his inhabitants differ in laziness, not working capacity, unfair execution of the duties, the negligent relation to the calling, as if it seemed insignificant and important (Kershenshteyner, 1917: 17).

The following step is the correct understanding of needs and needs of the fatherland and the duties in relation to whole. The one who respects himself, protects the rights, does not give itself (himself) in offense, that will be respectful and to the rights of others, it is correct to understand the social duties in relation to the whole.

From here one more problem of civil education follows is a development of feeling of legality, ability to value the and to respect foreign rights, understanding of the state as the carrier of the principles of legality and an order.

At the first stages of the development all states understand the functions externally: protection of borders against external enemies and maintenance of an internal order. From here the army, police, court are the first functions of public administration. But with progress of the state everything becomes clearer that the police and prison serve in itself as bad guards and keepers of legality, an order. The state starts understanding that as for fight against diseases the most important prevention, measures of hygiene and prevention, and in the state most important is a creating favorable conditions for joint life, improvement of material culture, – on the one hand; with another – increase of level of spiritual development of certain citizens, all people, awakening of its amateur performance, a creative power.

Thus, developing G. Kershenshteyner's views, domestic researchers considered essence of civil education as education of solidarity and mutual responsibility, legality and respect for an order, ability to endow the interests in favor of whole, to devote it the life, work, to serve its ideals.

Research of qualities of civic consciousness of students

Ideas of civil education of George Kershenshteyner are actual and now. Integrity, honesty, diligence, pleasure of creativity, diligence in work which are cultivated by civic education, undoubtedly, are important for the modern young man.

Research on problems of student's youth of Southwest state university (Kursk) was conducted by us in 2016. 64 respondents, among them took part in research: 7 men and 57 women, the direction of preparation are a psychology and sociology.

Questionnaire on the problems of the Russian youth Council of the statisticians of the Central office of Rosstat acted as tools (Questionnaire, 2011).

The main unit of the questionnaire are orientations of students to education and development.

The following results are received.

Most of the interrogated students seek for successful labor and educational activity. Absolute majority (98 %) among the interrogated respondents consider that young specialists need additional training, advanced training courses received a leading place (75 %), a language course was received by 50 % and courses of business communication (34 %) (Table 1).

Table 1. Whether young specialists, in your opinion, need additional training?

		Answers		Percent of supervision
		N	Percent	
Whether young specialists, in your opinion, need additional training?	no, do not need	2	2%	3%
	at advanced training courses	48	39%	75%
	on a language course	32	26%	50%
	on computer courses	18	14%	28%
	on courses of business communication	22	17%	34%
	I find it difficult to answer	2	2%	3%
In total		124	100,0%	193%

According to respondents, lacks young people to start independent labor life: first of all, vocational training by a concrete profession or specialty (47%), and also independence and responsibility (22 %) (Table 2).

Table 2. That, in your opinion, lacks young people to start independent labor life?

		Frequency	Percent	Valid percent	Cumulative percent
The valid	savoir vivre	10	16%	16%	16%
	vocational training by a concrete profession or specialty	30	47%	47%	62,5%
	independence and responsibility	14	22%	22%	84.5%
	working capacity	2	3%	3%	88%
	psychological stability	2	3%	3%	91%
	personal contact	2	3%	3%	94%
	another	4	6%	6%	100%
In total		64	100%	100%	

Most of respondents (88 %) consider that the state has to take part in employment of graduates of educational institutions, mainly this support has to consist in support by job search at the request of the graduate (56 %), however 32 % of students consider that the state has to provide the first workplace.

Slightly more fifth part of respondents are participants of creative, social, scientific projects.

The educational institution appeared the main source of informing on carrying out projects for a half of students, in turn a quarter of students learned about these actions from acquaintances, friends, relatives (25 %) and from mass media (25 %). These projects, most often, were financed by educational and scientifically educational institutions (62,5 %).

Slightly less than a third of the interrogated students wanted to take part in any creative, social, scientific projects (Table 3). The main motives of participation in these projects is: desire to open the creative potential (77 %), to expand the horizons, to gain new knowledge (54 %), to get acquainted with new interesting people (54 %) (Table 4).

Table 3. Would you like to take part in any creative, social, scientific projects?

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Yes	20	31%	31%	31%
	No	36	56%	56%	87%
	I find it difficult to answer	8	13%	13%	100,0
In total		64	100,0	100,0	

Table 4. What opportunities do attract your attention in similar projects?

		Answers		Percent of supervision
		N	%	
What opportunities do attract your attention in similar projects?	to get acquainted with new interesting people	14	22%	54%
	to open the creative potential	20	31%	77%
	to expand the horizons, to gain new knowledge	14	22 %	54%
	will provide the professional, career growth	12	19%	46%
	opportunity to declare itself, to become famous	2	3%	8%
	participation in cultural, pleasure programs which offer for participants of projects	2	3%	8%
In total		64	100%	247%

Thus, we come to a conclusion that the most part of students of Southwest state university is interested in educational process, and also future professional activity. The students support acquisition of additional professional skills and are ready to take part in design and innovative activity.

5. Conclusion

At the end of XIX – the beginning of the XX centuries the Russian pedagogical thought and practice are intensively enriched with the ideas of «new» foreign pedagogics turned to the purpose, the principles and means of civil education of younger generation.

G. Kershenshteyner's works approved idea of the purpose of civil education as about formation in children of solidarity and mutual responsibility, feeling of legality and respect for a public order, ability to endow the interests in favor of whole, readiness to serve public ideals, love to the Fatherland, becoming property of the pedagogical public of Russia.

As the researcher considers, truly civil virtues are a respect for interests of the neighbor and devotion to a debt, do not develop by itself of the validity to work and love to it. Ability to work and love to work is necessary, but not the only thing of a condition for education of the citizen.

Conscientious execution of a debt is a first step in service on advantage of the state and on the way of formation of the citizen.

The following step is the correct understanding of needs and needs of the fatherland and the duties in relation to whole. The one who respects himself, protects the rights, does not give itself(himself) in offense, that will be respectful and to the rights of others, it is correct to understand the social duties in relation to the whole.

From here one more problem of civil education follows is a development of feeling of legality, ability to value the and to respect foreign rights, understanding of the state as the carrier of the principles of legality and an order.

Ideas of civil education of George Kershenshteyner are actual and now. Integrity, honesty, diligence, pleasure of creativity, diligence in work which are cultivated by civic education, undoubtedly, are important for the modern young man.

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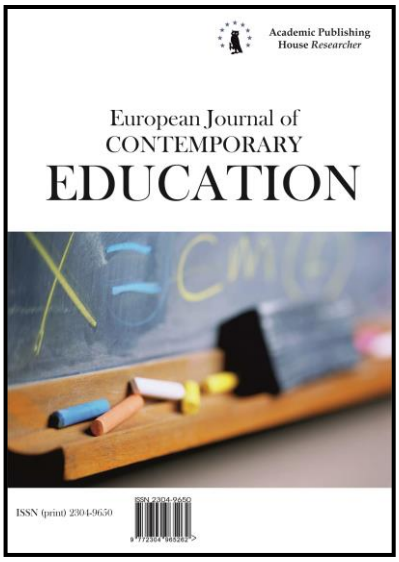

Physical and Sport Education as a Tool for Development of a Positive Attitude Toward Health and Physical Activity in Adulthood

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Abstract

The study explains the importance and the role of physical and sport education in development of a positive attitude toward physical activity and health in adulthood. The empirical study was aimed at finding the factor that contributed to the transfer of respondents' physical activity into their adulthood with regard to their health status. The group of respondents comprised 742 middle-aged inhabitants of the districts in Southern Slovakia, including 403 women (age = 37.2 ± 3.04 years, height = 167.9 ± 3.2 cm, weight = 65.3 ± 6.8 kg) and 339 men (age = 36.5 ± 4.54 years, height = 179.6 ± 6.3 cm, weight = 89.1 ± 7.9 kg). Their selection was intentional. We conducted the study in three stages by means of the standardized questionnaire. The results significantly show (χ^2 = 37.5297, $p < 0.01$) that the men enjoyed physical and sport education classes more (χ^2 = 26.9684, $p < 0.01$) than the women (only 1/3). The men were also more active as far as physical and sport education is concerned (r = 0.8363). Physical and sport education contributed to the transfer of physical activity from school years to adulthood more significantly (χ^2 = 112.47, $p < 0.01$) in the men (67.6 %; n = 229) than the women (33.7 %; n = 136). In this regard, the men also evaluated their present health status (r = 0.9139) and physical condition (r = 0.8300) better as compared to the women. The aforementioned findings prove that targeted education of population from childhood along with other effective preventive measures in health policy can approximate Slovakia to the developed European countries. These findings are partially included in the grant VEGA no. 1/0242/17 Physical activity as prevention of functional disorders related to the musculoskeletal system of secondary school students.

Keywords: adulthood, physical activity, physical education and sports, health.

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1. Introduction

The quality-of-life issue has moved to the forefront in the past decades (Borbély & Müller, 2008; Ihász & Rikk, 2010) in the USA, Europe and Slovakia, too. It deals with the contemporary lifestyle, which is sedentary and hypokinetic in more than 84% of the whole population regardless of age or gender (Fox, 1999; Salmon et al., 2003; Telama & Yang, 2000; Uvinha, 2010; Chovanová, 2011; Nemček et al., 2014; Ghyppo et al., 2016; Fyodorov & Erlikh, 2016). Such a lifestyle leads to deterioration of health status and occurrence of lifestyle diseases (Labudová & Tóthová, 2007; Pedersen, 2009; Prasad & Das, 2009; Kanásová, 2010; Cardon et al., 2012; Chovanová, 2013; Nemček et al., 2012; Nemček, 2013; McKenzie, et al. 2013; Ihász et al., 2015; Šimončičová & Kanásová, 2014; Bendíková et al., 2016).

According to international comparisons of morbidity and early mortality, Slovakia stands out most as far as preventable diseases are concerned. The most dominant are ischemic heart diseases that cause 26 % of deaths, which is most of all OECD member countries – three times more than the average! Other common diseases are the diseases connected with metabolic dysfunction such as type 2 diabetes mellitus, metabolic syndrome or obesity, which occur approximately in 31 % of the adult population in Slovakia (Dukát et al., 2007). It is necessary to point out that obesity causes about 40–70 % of hypertension, approximately 58 % of type 2 diabetes mellitus and 8–42 % of neoplasms (WHO, 2005). Therefore, only targeted education of population from childhood and other preventive measures in health policy can approximate Slovakia to the developed European countries. In this regard, Telama & Yang (2000) claim that people who were actively engaged in physical activity in their childhood and adolescence are more likely to do physical activities also in their adulthood.

Health status, quality of life and physical activity are being more and more discussed in connection to contemporary physical and sport education in Slovak elementary and secondary schools. This is also due to the fact that the number of pupils and students who are excused from physical and sport education classes owing to various diseases and disorders is increasing. The number of boys excused from physical education ranges from 27.7 % to 39.6 % and the number of girls excused from physical education ranges from 38.2 % to 48.1 %. What is more, according to the Ministry of Education of the Slovak Republic, approximately 30 % of pupils and students are regularly excused from physical and sport education classes also due to the fact that this subject is not graded (Rozim, 2005; Antala & Labudová, 2006; Antala, 2014; Bendíková, 2014). In reality, pupils and students are not interested in physical activity and physical education at school due to several subjective and objective factors. According to Bendíková (2011), the most common reasons why pupils and students at elementary and secondary schools are passive during physical and sport education classes are health problems, the subject curricula, insufficient motivation on the part of teachers, lack of interest in physical activity in general, laziness, lack of willpower, weak physical condition, teacher's personality, hygienic conditions at schools (showers), insufficient time for personal hygiene as well as the factors that are hard to understand (make-up, gel nails, changing clothes, sweat, tiredness caused by school classes, the time when physical education starts, learning for tests or other subjects).

As a result, it can be said that insufficient revitalisation and innovation of physical and sport education concerning its curriculum and teachers' attitude may cause lack of interest in the subject and the prevalence of the above-mentioned lifestyle diseases in pupils and students (Bendíková, 2014). Therefore, it is necessary to connect theory and practice because physical and sport education directly or indirectly enables diversification and implementation of innovative subject curricula (Bendíková, 2009) aimed at development of positive attitudes toward physical activity and health. The educational programme should contain diverse school lessons that can have a positive effect on physical, functional and musculoskeletal development as well as health oriented physical fitness of pupils and students. In the past, physical education and its tools were associated with survival. Nowadays, it is the same concerning the deeper and sophisticated ideas of survival in connection to the philosophy that explains positive effects of physical activity on human health (Blair et al., 2010; Uvinha & Velardi, 2014).

2. Aim

The study aimed to find the factor that contributed to the transfer of the respondents' physical activity into adulthood in relation to their health status in childhood. We assumed that

physical and sport education at school would significantly affect the transfer of physical activity into the respondents' adulthood as well as their health status.

3. Methods

Our group consisted of 742 middle-aged respondents from the southern districts of Slovakia (Komárno, Nové Zámky, Dunajská Streda), including 403 women (age = 37.2 ± 3.04 years, height = 167.9 ± 3.2 cm, weight = 65.3 ± 6.8 kg) and 339 men (age = 36.5 ± 4.54 years, height = 179.6 ± 6.3 cm, weight = 89.1 ± 7.9 kg). Table 1 presents the primary characteristics of the group. Their selection was intentional. The respondents had secondary or higher education and they all worked in private or state companies and institutions. None of them was retired due to partial or total disability. All of them were married, having one to three children.

Table 1. Group characteristics (n = 742)

Group	n	Age	Height/cm	Weight/kg	BMI	WHR
women	403	37.2 ±3.04	167.9 ± 3.2	65.3 ± 6.8	24.6 ± 3.9	86
men	339	36.5 ±4.54	179.6 ± 6.3	89.1 ± 7.9	24,9 ± 3.1	98

Legend: BMI – Body mass index, WHR – Waist to Hip Ratio

The research which was realized by us used an empirical, cross-sectional, pedagogical, field, two-group and multifactorial ex post facto research. The realized empirical research was conducted in 2014, in three primary stages. In the first stage (January – March 2014), we asked respondents from the southern areas of Slovakia who were willing to participate in research, even to gain and acquire information about the issue by studying literary sources. In the second stage of the research (April – June 2014), we carried out distribution of collected data collection from questionnaire. The basis of the third stage of the research (July – October 2014) was processing and evaluation of obtained qualitative results with subsequent interpretations presented.

In terms of methods of data collection, we used the method of studying literature sources where the information was obtained from the following databases:

- ✓ WHO – World Health Organization,
- ✓ PHA SK – Public Health Office of the Slovak Republic,
- ✓ SO SK – Statistical Office of the Slovak Republic,
- ✓ Domestic and foreign publications,
- ✓ Scientific journals,
- ✓ Internet portal of scientific and technical journals related to the field of research.

The second method of obtaining data was interrogative method – standardized questionnaire, known as "Physical Education and Physical Activity", which was anonymous, in printed form, consisted of 33 questions and aimed at monitoring the following areas:

1. Primary personal data.
2. The area of health.
3. The area of physical activity.
4. The area lifestyle and risk factors.
5. The area of physical education.

In terms of methods of data processing, the obtained data were processed by percentage frequency analysis (%) and chi-square test of good correlation (χ^2 $p < 0.01$, $p < 0.05$), by which we monitored the assess of the significance of differences in the responses to each question of the questionnaire between the sexes, as well as Pearson correlation coefficient (r $p < 0.01$, $p < 0.05$) for the assessment of the relationship between the monitored determinants of the monitored group while using the Cohen's table. Moreover, we used the method of logical analysis and synthesis while using inductive and deductive methods and comparison. The obtained results are also presented in tabular form.

4. Results and discussions

Following our goal, we present the part of results that require further and more exact processing. The presented results cannot be generalized. They need to be perceived as orientation

and source data that can be used to develop the children's and adolescents' positive attitude toward physical activity that will maintain their health status in adulthood. There are several factors that contribute to development and transfer of physical activity into adulthood. Undoubtedly, one of them is the school subject Physical and Sport Education. Therefore, we wanted to find out how physical education affected the respondents' attitude toward physical activity and its transfer into adulthood. The results are as follows. (Table 2) shows the respondents' view on the importance of physical and sport education in their life. Our significant ($p < 0.01$) finding was that the women understood the significance of physical education in terms of health 35.2 % (n = 142) (χ^2 = 26.2498), while the men in terms of developing a positive attitude toward physical activity (28.9 %, n = 98) and physical performance (26.3 %). The answer "development of a positive attitude toward physical activity" was chosen only by 27.5 % (n = 111) of the women. The respondents' answers prove that the women understood the significance of physical and sport education at school in terms of health status while the men in terms of a positive attitude toward physical activity that they are still actively engaged in their free time (56.3 %; n = 191) more than the women (31.0 %; n = 125).

Table 2. The respondents' view on the importance of PES in human life (n =742)

Group	Men (n=339)	%	Women (n=403)	%	χ^2	p
health status	77	22.7	142	35.2	26.2498	p<0.01
self-expression	42	12.4	64	15.9		
attitude toward PA	98	28.9	111	27.5		
cannot judge	25	7.4	21	5.2		
performance	89	26.3	61	15.1		
other	8	2.4	4	1.0		

Legend: PA – physical activity, PES – Physical and Sport Education χ^2 - chi-squared test

Our assumptions concerning the popularity of physical education among the respondents were confirmed by finding that only one third of the women (30 %, n = 121) enjoyed physical and sport education lessons, while the men enjoyed this subject much more (51.6 %, n = 175) ($\chi 2$ = 37.5297, $p < 0.01$, df-3), with the 21.6 % difference in their favour. 30.5 % (n = 123) of the women and 18.0 % (n = 61) of the men did not enjoy physical and sport education classes, which is by 12.5 % less (in favour of the men). 22.8 % (n = 92) of the women and 17.1 % (n = 58) of the men answered that they "sometimes" enjoyed physical and sport education. Finally, 16.6 % (n = 67) of the women and 13.3 % (n = 45) of the men had an indifferent attitude toward this subject (Table 3).

Table 3. Popularity of PES among the respondents (n = 742)

Group	Men (n=339)	%	Women (n=403)	%	χ^2	p
yes	175	51.6	121	30.0	37.5297	p<0.01
sometimes	58	17.1	92	22.8		
no	61	18.0	123	30.5		
I did not care	45	13.3	67	16.6		

Legend: PES – Physical and Sport Education, χ^2 - chi-squared test

Not only did the men enjoyed physical and sport education more than the women, but they were also significantly more active during the classes (χ^2 = 26.9684, $p < 0.01$, df-3). 41.6 % (n = 141) of the men and only 27.5 % (n = 111) of the women considered themselves to be active during PE classes, while 16.8 % (n = 57) of the men and 15.1 % (n = 61) of the women thought they were not active. The answer "rather active" was chosen by 40.9 % (n = 165) of the women and 34.8 % of the men (n = 118). 6.8 % (n = 23) of the men and 16.4 % (n = 66) of the women

considered themselves "rather not" active (Table 4). The results show that the men enjoyed physical and sport education classes and were more active (r = 0.8363) as compared to the women. Contemporary findings also prove that boys are more active than girls.

Table 4. The respondents' activity during PES classes (n = 742)

Group	Men (n=339)	%	Women (n=403)	%	χ^2	p
no	57	16.8	61	15.1	26.9684	p<0.01
rather not	23	6.8	66	16.4		
rather yes	118	34.8	165	40.9		
yes	141	41.6	111	27.5		

Legend: PES – Physical and Sport Education, χ^2 - chi-squared test

The extent to which physical and sport education contributed to development of a positive attitude toward physical activity and its transfer into adulthood was more significant (χ^2 = 112.4733, p < 0.01, df-4) in the 67.6 % of the men (n = 229) as compared to the women (33.7 %, n = 136) (Table 5). More men than women consider this transfer as beneficial to their present health status (r = 0.9139).

Table 5. Extent to which PES contributed to development of a positive attitude toward PA in adulthood (n = 742)

Group	Men (n=339)	%	Women (n=403)	%	χ^2	p
great	227	67.6	136	33.7	112.4733	p<0.01
standard	83	24.5	121	30.0		
almost no	11	3.2	84	20.8		
no	9	2.6	51	12.7		
cannot judge	7	2.1	11	2.8		

Legend: PA – physical activity, PES – Physical and Sport Education, χ^2 - chi-squared test

More men (45.7 %, n = 155; χ^2 = 177.8421, p < 0.01, df-4) than women (12.2 %, n = 49) considered their health status as "excellent"; 29.2 % (n = 99) of the men and 17.1% (n = 69) of the women chose the option "very good", 36.5 % (n = 147) of the women and 19.2 % (n = 65) of the men thought their health status was "good" and 2.7 % (n = 9) of the men and 8.2 % (n = 33) of the women regarded their health status as bad. The option "not good" was chosen only by 3.2 % (n = 11) of the men and by eight times more women (26.1 %, n = 105) (Table 6).

Table 6. Respondents' evaluation of their own health status (n =742)

Group	Men (n=339)	%	Women (n=403)	%	χ^2	p
excellent	155	45.7	49	12.2	177.8421	p<0.01
very good	99	29.2	69	17.1		
good	65	19.2	147	36.5		
not good	11	3.2	105	26.1		
bad	9	2.7	33	8.2		

Legend: χ^2 - chi-squared test

More men (54.9 %, n = 187), with a significant finding (χ^2 = 132.1577, p < 0.01, df-3), than women (only 21.6 %, n = 87) stated that they did not have any health problems (with a 33.3 % difference in favour of the men) (Table 7). On the contrary, only 10.9 % (n = 37) of the men and as many as 26.8 % (n = 108) of the women had some health problems. The answer "rather no" was

again chosen by more men (28.6 %, n = 97) than women (23.8 %, n = 96), while the option "rather yes" was chosen by as many as 27.8 % (n = 112) of the women and only by 5.6 % (n = 19) of the men

Table 7. Respondents' health problems (n = 742)

Group	Men (n=339)	%	Women (n=403)	%	χ^2	p
yes	37	10.9	108	26.8	132.1577	p<0.01
rather yes	19	5.6	112	27.8		
rather no	97	28.6	96	23.8		
no	187	54.9	87	21.6		

Legend: χ^2 - chi-squared test

The respondents' answers show that the men have fewer health problems than the women. What is more, we found the connection between active engagement in physical activity and subjective evaluation of health status (r = 0.9420), which means that those who are engaged in physical activity evaluate their own health status better (the men evaluated their own health status better than the women). Significantly higher number (χ^2 = 31.7832, p < 0.01, df-3) of the men (52.8 %, n = 179) felt healthy in comparison to the women (37.7 %, n = 152), with a 15.1 % difference in favour of the men. Similarly, we found the connection between engagement in physical activity and feeling healthy in men (r = 0.8921) and also the relation between health problems and well-being both in the men (r = 0.739) and the women (r = 0.6714).

Significantly (χ^2 = 103.84, p < 0.01, df-4) higher number of the men (31.5 %, n = 107) than women (9.6 %, n = 39) evaluated their physical fitness better, with a 21.9 % difference in favour of the men, while more women (22.1 %, n = 89) than men (5.3 %, n = 18) regard their physical condition as "very bad". Furthermore, 29.1 % of the men and 24.6 % of the women thought their physical condition was "good" and 32.3 % of the women and 13.2 % of the men considered their physical condition to be "satisfactory". Lastly, 20.9 % of the men and 11.4 % of the women regarded their physical condition as "praiseworthy". Our findings prove the relation between health status and physical condition in both the men (r = 0.8300) and the women (r = 0.7193). Furthermore, we found that the men see the relation between evaluation of their physical condition and the significance of engagement in physical activity (r = 0.791).

5. Conclusion

Our empirical study helps to broaden the knowledge of the importance of physical and sport education for development of a positive attitude toward lifetime physical activity and improvement of health status in the time characteristic of the prevalence of lifestyle diseases. We assumed that physical and sport education would significantly contribute to the transfer of physical activity into adulthood and maintenance of respondents' health status. A significantly higher number of men than women (only one third) enjoyed physical education and were more active during the classes. Physical education contributed to the transfer of physical activity from childhood into adulthood significantly in the men in comparison to the women. In this regard, the men also evaluated their health status and physical condition better as compared to the women. The respondents are aware of the fact that physical education is one of the factors that contribute to the transfer of physical activity conducted during physical and sport education classes into their present fitness and lifestyle.

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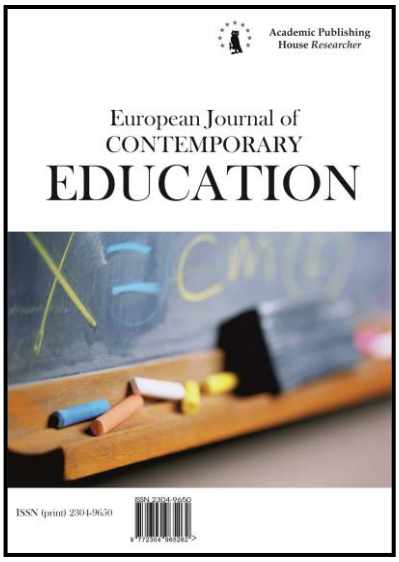

Institutional Approach to Establishment of a Structural Model of the Russian Academic Environment Development

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Abstract

The purpose of the present article is to generalize and unify the approaches to improvement of the institutional environment that ensures optimal functioning and sustainable development of the Russian academic sphere. The following conclusions and results have been obtained through presentation of the materials in the article:

- Improvement of the institutionalization of science and education must be reviewed in the context of evolutionary transitions that advance new demands for academic and human resourcing of state administration, financial and economic activities, and social development;
- Russian (just as Soviet) academic sphere is described by structural imbalances, which can be regarded both as a consequence of the shocking transition to market relations and as a consequence of imperfect institutionalization;
- Solutions proposed in the article are primarily aimed to unify the goals, tasks and results of interaction of the actors integrated into the institutional environment of the Russian academic sphere;
- Formalization of the structural model of development of the Russian education and science on the basis of the institutional approach (using the triple helix mechanism of H. Etzkowitz) can serve as a basis for the development of practice-focused concepts (as targeted programs, roadmaps), which will detail the specific measures;

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• Realization of these measures will ensure the structural balance of the national academic sphere, which in turn can be regarded as a cognitive and intellectual potential of the transition from industrial to post-industrial economic formation of society.

Keywords: institutional environment, academic sphere, cognitive economy, education, science, mentoring, education reform.

1. Introduction

Since the point of transition to market relations (in the 90s of the last century) and till the present time, the Russian education system has gone through several stages of reforms, which resulted in creation of a new institutional platform in this socially significant sphere (Tambovtsev, 2016). Processes of institutionalization of various economic and social spheres can be regarded as a natural evolutionary process of the society development. The neoclassical school has very actively criticized the institutional theory until relatively recently. At the same time, the adherents of institutionalism (in both economic and social context) opposed formalism and simplistic opinion on the processes that determine laws and areas of development (Alexander and Colomy, 1992).

The institutional environment (irrespectively of the object under study) is exogenously set and represents a set of established norms (of political, legal and social context), which determine the foundation that mediates the creation (production), exchange and distribution of various goods. In our earlier papers, when reviewing certain institutional aspects of the Russian education system, we came to a conclusion that from this point of view, such system is not described by sufficient self-organization, on the one hand, and is more overregulated than other social, economic or financial institutions, on the other hand. Besides, we have repeatedly pointed at the need for a scientific and practical view on institutionalization of the academic sphere (Dudin, Ivashchenko, 2016; Dudin et al., 2015), which can be based on the concept of the "triple helix model" proposed in the papers of H. Etzkowitz (Etzkowitz, 2010).

On a formal level, the institutional environment of Russian education is defined by a set of legal, subordinate, normative and regulatory acts, the main of which are the federal legislative acts:

1) The Constitution of the Russian Federation (Chapter 2, Article 43) (The Constitution, 1993);

2) Federal law "About education in the Russian Federation" (Federal Law, 2016);

3) Federal Law "About the improvement of the legal status of state (municipal) institutions" (Federal Law, 2010);

4) Strategy of the state national policy and Program of education development, approved by the President and the Government of the Russian Federation (Resolution, 2015; Decree, 2012)

5) Federal state educational standards (Federal Law, 2016), as well as Roadmaps that define benchmarks of development of the Russian academic sphere (Order, 2014).

The above federal acts in the field of national education should be complemented by regional and local acts that are adjusting procedures and coordinating administrative initiatives. Such a significant list of legal documents meant to institutionalize the Russian system of education should be regarded as an undoubted achievement of the legislative and executive activity in the top-down governance.

However, the Russian system of education at the same time faces a range of strategically important tasks that require additional solutions and introduction of new standards, unaccounted in the earlier published acts and documents. Besides, the problem of economic nature is also worth noting: the federal budget spending on the educational sphere reduces both in monetary and percentage terms (2016–2017 Federal Budget). This poses new threats to institutionalization of the educational sphere and poses social and political threats to social development, relatively stable in recent years (before the 2014–2015 crisis). As such, the problems of shaping the optimal institutional environment of the Russian academic sphere, taking into account the need to address all obvious and as of yet hidden issues, are urgent and require development, supplementation and clarification of existing scientific approaches.

2. Methods

This article is a short version presenting the results of the scientific research conducted by the faculty members of the interacademic research team (MSU, PFUR, RANEPA). The following methods were used in the paper:

• Method of content analysis that allowed to aggregate existing approaches to understanding the essence and tasks of institutionalization of the Russian academic sphere;

• Method of economic and statistical analysis aimed at generalization of trends describing the tendencies of functioning and development of the Russian academic sphere;

• Method of scientific synthesis aimed at formulation of practice-focused solutions on institutionalization of the Russian academic sphere, taking into account its role in support of the innovation-focused development of the economy.

We believe that it is necessary to make some key disclosures in the findings of the poll among the students of the three institutions listed above, which are presented in this article:

• Firstly, undergraduate were polled on an anonymous basis and by a random sample of the polled students with the assistance of volunteers from the student environment. This means that the recorded responses reflect only the public behavior of the students, but may not always express their real views on life prospects and professional career;

• Secondly, no evaluation of representativeness and sampling errors was conducted, as the survey was informal and focused on identifying current spirit in the student environment regarding the future employment and life priorities. As such, the obtained results in many ways are not statements of fact but reflect only individual correlations, which are expedient to justify or overturn in the future, based on the findings of the specially arranged monitoring of a representative sample and using the means of mathematical statistics;

• Thirdly, the findings of the poll can substantially deviate from the officially published financial reports of the institutions under study in the article about the employment of graduates. This is largely associated with the fact that student spirit and life priorities can rapidly change and transform under the influence of various external and internal factors (public and social processes, influence of family and relatives, etc.). This is confirmed by conducting short benchmark polls of the focus groups three months after the primary informal interviewing;

• Fourthly, the X^2 test (Pearson's chi-squared test) of the links between the factor variable (options of answers to the question) and resulting variable (number of students who gave the same answer to the question) in Tables 4, 5, 6 and on Figure 1 showed high statistical significance. This allows to suggest that the hypothesis about the need to intensify work with student audience by improving the institutional environment of academic sphere is sufficiently justified.

The formula to test the statistical significance using X^2 (Pearson's chi-squared test) appears as follows:

$$\chi^2 = \sum_{j=1}^{e} \frac{(n_j - np_j)^2}{np_j}$$

Where:

p_j is a probability that the value of the factor variable under study falls within the j-th interval on the basis of the distribution law $F(X)$;

n_j is a number of observations of the resulting variable in each interval of the obtained responses.

The statistical significance using X^2 (Pearson's chi-squared test) was calculated with help of STATISTICA software package (version 12.6).

3. Review of literature and research

A sufficient set of interpretations of the concept of "the institutional environment of an academic sphere" can be met in the Russian and foreign academic literature (Tambovtsev, 2016; Kleiner, 2004; Bessolitsyn, 2015; Bringle, Hatcher, 2000; Gordon et al., 2005; Zhukova, 2011).

Russian authors and researchers largely focus their attention on the legal aspects and state regulation of the academic sphere. On the contrary, from the point of view of foreign academicians, the institutional environment is reviewed in the context of self-organization and development of norms of relations between the actors, which determines regular and predictable changes in the academic sphere.

While integrating the first and the second methodological and theoretical aspect into the research environment, we suggest to define the institutional environment of the academic sphere as follows: The institutional environment of the academic sphere is a set of socio-political, legal,

economic and technological norms that form a strategic basis for establishment and distribution of the socially important benefit realized both in the interests of an individual (group of individuals) and in the interests of the state. As such, shaping the institutional environment of the academic sphere can be defined as a constantly renewed process aimed at supporting the sustainable development of science and system of education in accordance with the needs of the economy and society, national priorities and interests.

The interpretation of the concept of "the institutional environment of the academic sphere" presented above is fully consistent with the basic tenets of institutionalism and scientific research results showing that the academic sphere is one of the key elements in the processes of the national socio-economic development. While the knowledge resource and intellectual capital of the nation (of a country or a state) was mentioned by only a few Russian and foreign scientists in the last quarter of the XX century (Abalkin, 2002; Nonaka, Takeuchi, 1995; Quinn, 1992), several fundamental papers on cognitivism of the socio-economic and socio-political processes (Lewis and Lee, 2015; Traynev, 2014; Modern, 2014) were created in the first decade of this century. The academic sphere played a special and quite often a dominant role in these papers. In other words, science and education were considered not only as factors of the scientific and technological progress, but also as factors of global development that will be able to ensure the physical preservation of modern civilization and global ecosystem that is optimally necessary for the living conditions of people.

Issues of the institutional structuring of the development models in various fields, including the academic sphere with various methodological positions, are disclosed in the papers of J. Sabato, who pointed out that the productivity of the economy and society depended on the level of technological development (Sabato, 1979), i.e., speaking in modern language, – on the intensive use of cognitive or knowledge resources, the intellectual national capital. Although the papers of J. Sabato do not explicitly mention the role of the academic sphere in the processes of the socio-economic development, the studies of B.-A. Lundvall (Lundvall, 1992) and R. Nelson (Nelson, 1993) raised and updated this problem to the full extent. However, the institutionalization of the economic, academic and innovation sphere in the papers of the above academicians assumed the presence of the dominant structure. J. Sabato believed that the state had to be this dominant institutional structure, while B.-A. Lundvall and R. Nelson, on the contrary, pointed out that the business or entrepreneurial segment had to be a dominant structure.

As the evolutionary development of the academic economic thought demonstrated, the presence of the dominant structures is not a guarantee of an optimal institutionalization of various areas of workmanship, because it is a simplistic and formalistic approach that assumes that the dominant structure allocates the functional roles of other actors and partially repeats their purpose. Therefore, from the modern point of view, it is important in shaping the high-quality institutional environment that factors of certain spheres interacted as partners, focused on ensuring the sustainable socially and environmentally responsible development and the growth of national wealth.

In our opinion, an academic paper of H. Etzkowitz (Dudin, Ivashchenko, 2016) is worthy of special attention in the latter aspect, where he proposes a triple helix model, which describes the partnership of the state, business and academic sphere in order to create national innovation systems, which accumulate resources and reserves that support transformation of the socio-economic processes and industrial development paradigm switch to the post-industrial, socially and environmentally responsible concept. Each actor realizes its own functions in the triple helix model:

а) The state creates the conditions required for establishment of a national innovation system, which is a strategically important junction that determines the specificity of contractual three-way relationships (per se, state, business and academic sphere). Besides, the state takes on obligation to fund basic science and convert scientific knowledge into applicative;

б) Academic sphere, in turn, is a producer of both basic and applicative scientific knowledge, which carries out developments in the interests of both the business and the state at the same time. In this case, funding of the academic sphere should be parity and distributed among the state (basic research and its conversion), business (fundamental and applicative research and its commercialization) and the area under study (commercial and targeted research and development, venture and other contracts);

в) Business is a key recipient of basic and applicative knowledge of mostly civilian nature. Through core competencies, this knowledge is transformed into knowledge-intensive solutions, which are described by high added value (at the microeconomic level). At the macroeconomic level, the systemic and synergy effect ensures the balanced economic growth and shapes a new type of national wealth based on the intensive use of knowledge established in the academic sphere with the direct assistance of the state and transferred to the business environment through the national innovation system.

As such, the triple helix model is a new consensus that ensures sustainability of the socio-economic development and defines a strategic role in this development of the national academic sphere.

4. Results

Over the past quarter of a century, the Russian academic sphere has passed the two key stages of reforming:

- The first stage must be associated with the early 90s of the last century, in which the inefficiency, cumbersomeness and structural imbalance of the system of science and education was proved. At this stage, described by the dismantlement of the "Soviet statutes", the ideology was excluded from the academic sphere, paid education was allowed (from the elementary, including pre-school, and up to the highest level), and the amounts of public funding were reduced;
- The second stage of reforming was started in the early 2000s, where the structural basics of the academic sphere were reviewed (unified exam, rankings, performance criteria, two levels of the higher school, etc.). The funding of the academic sphere was also partly increased, the federal educational standards were adopted, and the less efficient educational institutions merged with the more efficient ones.

Many tend to consider the consequences of the first stage of reform and institutional changes in a negative way only. They have objective reasons – for example, the headcount of academic teaching staff reduced during the first stage of reform, the facilities and resources of many educational institutions fell to decay, academic sphere was funded using a residual principle.

General economic instability led to decline in the birth rate, which in turn led to a decline in the number of students. For example, while the number of students in secondary schools in the period from 1980 to 2000 inclusive was about 20-21 mln people, this figure decreased by 25.4 % compared to 1990 by 2005 (see Table 1). At the same time, the number of teachers in secondary schools increased by 7.9 % in 2005 compared to 1990, and increase in their number peaked in the period of the first stage of reform from the 1990s to the early 2000s, inclusive. Decline in the number of students and increase in the number of teachers resulted in a significant decrease in the burden on teachers (measured by the indicator "number of students per teacher"), almost by half (in 2005 compared to 1980).

Table 1. Analysis of the number of secondary school students and teachers in the period from 1980 to 2005, thous. people (Population. Education, 2016)

Indicator	Period						
	1980	1990	in % to 1980	2000	in % to 1990	2005	in % to 1990
Number of secondary school students	20,216	20,851	3.1	20,493	-1.7	15,559	-25.4
Number of secondary school teachers	1,135	1,460	28.6	1,751	19.9	1,575	7.9
Ratio of the number of students and teachers	17.8	14.3	-19.8	11.7	-18.1	9.9	-30.8

A decline in the number of students is also observed in the segment of secondary vocational education. A decline in the number of students in the segment of the elementary vocational education (working specialties) in also registered since 2005, see Table 2.

Table 2. Analysis of the number of students in the segment of elementary and secondary vocational education from 1980 to 2015, thous. people (Population. Education, 2016)

Indicator	Period					
	1980	1990	2000	2005	2010	2015
Number of students in the field of the elementary vocational education	-	-	-	702.5	580.5	403.0
Number of students in the field of the secondary vocational education	2,641.6	2,270.0	2,360.8	2,590.7	2,125.7	2,103.1
Number of students in the field of the higher education	3,045.7	2,824.5	4,741.4	7,064.6	7,049.8	4,766.5
Ratio of the number of students of the higher and elementary/secondary education	1.15	1.24	2.01	2.15	2.61	1.90

On the contrary, the number of students in the segment of the higher education increased by almost 1.7 times by 2000, and by more than 2.5 times by 2005. Accordingly, while there was an approximately equal ratio of the number of university students and the number of students in the field of the elementary/secondary vocational education in 1980–1990, by the beginning of the second stage of reform (2000), there were at least 2 university students per student of the elementary vocational and special vocational education. This trend continued upwards until 2010 and was partially offset in the past 5 years due to institutional transformations that took place during the second stage of the reform of the Russian system of science and education.

As for the problem of development of the research segment, we believe that it must be noted that the structural and dynamic changes can also be observed here, which can also be considered as a consequence of the reform and institutional changes (see Table 3). The number of students in post-graduate and doctoral studies has steadily grown until 2010 (the growth rate amounted to almost 33 % in 10 years).

Table 3. Analysis of indicators of the research segment from 2000 to 2015, people (Population. Education, 2016)

Indicator	Period			
	2000	2005	2010	2015
Number of post-graduate and doctoral students	121,927	147,171	161,855	111,943
Completed post-graduate and doctoral studies, total	26,079	34,978	35,022	27,212
of which defended a thesis	7,989	11,166	9,947	4,832
Proportion of those who completed post-graduate and doctoral studies in the total number of students, %	21.4	23.8	21.6	24.3
Proportion of post-graduate and doctoral students who defended a thesis in the total number of graduates, %	30.6	31.9	28.4	17.8

To date, the number of current post-graduate and doctoral students declined by 31 % (in 2015 compared to 2010), which was largely due to the reforms of both educational and academic sphere (2010 – reform of the Russian Academy of Sciences). However, it must be noted that the efficiency of the research segment declined: while a third of post-graduate and doctoral students graduated after having defended a thesis in the period from 2000 to 2010, in 2015 this figure does not exceed 18 % of the total graduated. Moreover, it must be noted that the proportion of post-graduate or doctoral graduates does not exceed 21–24 % of the total number over the past 15 years.

On the one hand, this can be explained by the Pareto principle (80 % of the effects come from 20 % of the causes), but on the other hand, 30–50 % of funding for post-graduate and doctoral studies is made at the expense of budget funds, which means that in fact, the process of budgetary funding of the scientific research does not produce desired results. This is largely the cause of scientific, technical and technological lagging of Russia, as well as of underdevelopment of the venture entrepreneurship segment, which needs both research staff and specialists with higher education. However, anecdotal data indicate that only 4 out of 10 students of higher education who have graduated find job in their field. At the same time, one third of the officially registered unemployed are also university graduates who couldn't find a job in their field within the first five years after graduation (Statistical yearbook, 2013; Geleta, 2014; Toksanbaeva, 2013).

Three universities under study run programs to promote employment of graduates and students. At the same time, as shown by an informal poll, no more than 46 % of all surveyed undergraduates are going to seek employment in their field (see Table 4). Students of social and humane fields are least of all interested in seeking employment in their filed: only no more than 28 % of the total number of students surveyed are going to seek employment in their field. On the contrary, students of natural sciences and technical fields are more interested in seeking employment in their field (49.9 % and 60.2 %, respectively).

Table 4. Findings of the poll of undergraduates of PFUR, MSU and RANEPA (question: "Are you going to seek employment in the field of the acquired degree?")

Responses to the question	Field of education						Total result	
	Social and humane sciences		Natural sciences		Technical sciences			
	number of respondents	in % to total number	number of respondents	in % to total number	number of respondents	in % to total number	number of respondents	in % to total number
I am going to seek employment in my field	135	28.1	240	49.9	289	60,2	664	46.1
I am not going to seek employment in my field	202	42.1	139	28.9	116	24,2	457	31.7
undecided	143	29.8	102	21.2	75	15,6	320	22.2
Total number of respondents	480		481		480		1,441	100.0

The following data were obtained when conducting the Pearson's chi-squared test (X^2 testing) of the result of the responses to this question: number of degrees of freedom was 4, the criterion value was 104.009 (critical value at $p \leq 0.01$ is 13.227). The statistical significance between possible responses and quantitative distribution of these responses is quite high; in other words, there is a direct correlation between the choice of a possible response and the number of students who chose a specific response. The statistical significance of the students' responses to this question using the Pearson's chi-squared test was calculated with help of STATISTICA software package.

Next, the students who are going to seek employment in their field were asked about the way of finding a job (Table 5).

Table 5. Findings of the poll of undergraduates of PFUR, MSU and RANEPA who are going to seek employment in their field (question: "Using who or what are you going to get a job?")

Responses to the question	Field of education						Total result	
	Social and humane sciences		Natural sciences		Technical sciences			
	number of respondents	in % to total number	number of respondents	in % to total number	number of respondents	in % to total number	number of respondents	in % to total number
assistance of friends, relatives, parents	71	52.6	89	37.1	60	20.8	220	33.1
under employment programs (with assistance) of the university	22	16.3	52	21.7	36	12.5	110	16.6
through the public employment service, recruitment agencies	18	13.3	29	12.1	46	15.9	93	14.0
on the free labor market	24	17.8	70	29.2	147	50.9	241	36.3
Total number of respondents	135		240		289		664	63.7

About 33 % of students who are going to seek employment in their field need assistance of friends, relatives or parents in getting a job. 36 % more students are going to get a job on the free labor market. In this case, a pattern is observed indicating that the vacancies on the free labor market increasingly constitute the area of interest of students of technical fields, while students in the fields of social, humane and natural sciences to a greater extent rely on the assistance of the inner circle. The following data were obtained when conducting the Pearson's chi-squared test (X^2 testing) of the result of the responses to this question: number of degrees of freedom was 6, the criterion value was 71.079 (critical value at $p \leq 0.01$ is 16.812). The statistical significance between possible responses and quantitative distribution of these responses is quite high. The statistical

significance of the students' responses to this question using the Pearson's chi-squared test was calculated with help of STATISTICA software package.

Next, the students who are not going to seek employment in their field were asked an additional clarifying question about their future project of life (Table 6).

Table 6. Findings of the poll of undergraduates of PFUR, MSU and RANEPA who are not going to seek employment in their field (question: "What is your project of life for the nearest future?")

Responses to the question	Field of education						Total result	
	Social and humane sciences		Natural sciences		Technical sciences			
	number of respondents	in % to total number	number of respondents	in % to total number	number of respondents	in % to total number	number of respondents	in % to total number
Run business/enterprise (parents', relatives', or will build my own)	85	42.1	27	19.4	19	16.4	131	28.7
I will continue education in Russia or abroad	9	4.5	31	22.3	60	51.7	100	21.9
I am going to enter a PhD program	3	1.5	5	3.6	12	10.3	20	4.4
I am going to look for any job closer to home	81	40.1	54	38.8	17	14.7	152	33.3
I am not going to work at all	24	11.9	22	15.8	8	6.9	54	11.8
Total number of respondents	202		139		116		457	100.0

Just over a third of students who are not going to seek employment in their field are interested in finding any job closer to home.

About 22 % of students are going to continue education (in a different or related field), another 29 % are going to run business or enterprise. Almost 12 % of students who are not going to seek employment in their field are not interested in job per se (which is about 4% of the total number of students involved in this poll).

The following data were obtained when conducting the Pearson's chi-squared test (X^2 testing) of the result of the responses to this question: number of degrees of freedom was 8, the criterion value was 132.165 (critical value at $p \leq 0.01$ is 20.09). The statistical significance between possible responses and quantitative distribution of these responses is quite high. The statistical significance of the students' responses to this question using the Pearson's chi-squared test was calculated with help of STATISTICA software package.

As such, it becomes obvious that the two stages of reform and institutional changes have led to disparities in the academic sphere:

- Firstly, the number of high school students almost doubles the number of students of elementary and secondary vocational education. In this case, as shown by a conducted poll, no more than half of the surveyed university students are going to seek employment in their field. Education of these students is sponsored by the state, and therefore the costs of their education will not form the potential of growth in the national wealth in future;

• Secondly, the number of post-graduate and doctoral students, which has increased substantially over 2000-2010, showed almost proportional decline over the last 5 years. However, the number of post-graduate/doctoral students who graduated after successfully defending their thesis also significantly declined (from 30% to 18%) at the same time. This indicates that the research activities, including the one funded from the budget, are less focused on the production of scientific fundamental and applicative knowledge.

Meanwhile, it must be noted that life priorities and goals of the undergraduates in terms of employment are subject to rapid changes. During the benchmark poll (three months after the primary informal interviewing), the overall structure of responses to the question: "Are you going to seek employment in the field of the acquired degree?" changed significantly (see Figure 1).

It is obvious that undergraduates of the universities under study have substantially revised their views on employment over the past three months. On the one hand, the active work of the universities in promoting the employment of graduates largely contributed to this. The following data were obtained when conducting the Pearson's chi-squared test (X^2 testing) of the recorded changes in the choice of responses in the benchmark poll: number of degrees of freedom was 2, the criterion value was 44.300 (critical value at $p \leq 0.01$ is 9.21). The statistical significance between possible responses and quantitative distribution of these responses is quite high. The statistical significance of the students' responses to this question using the Pearson's chi-squared test was calculated with help of STATISTICA software package.

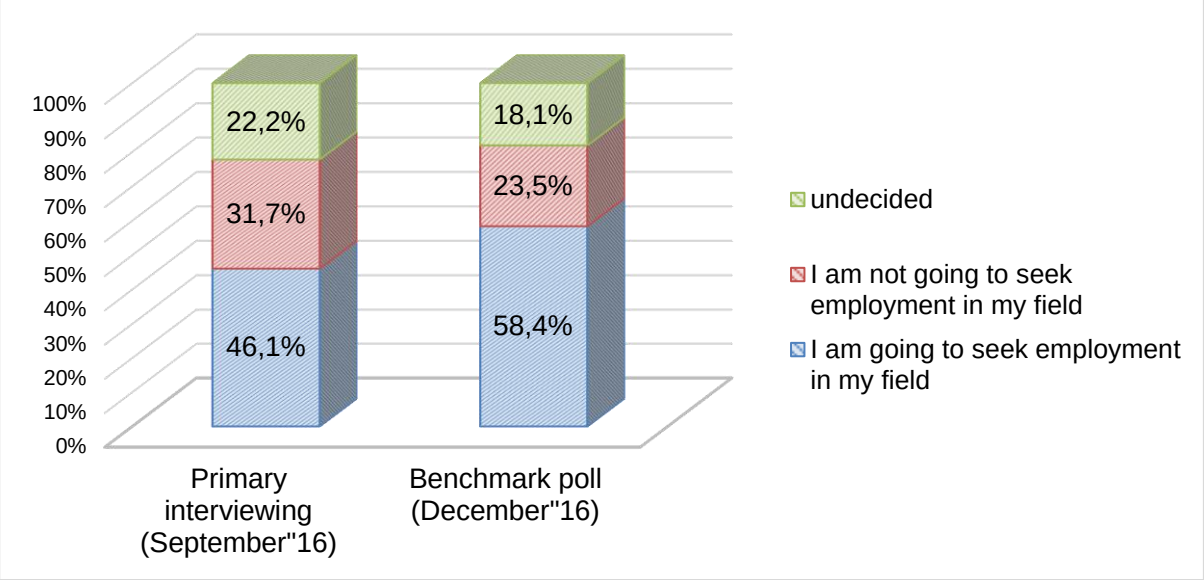

Fig. 1. Changes in the structure of responses of students of PFUR, MSU and RANEPA to the question "Are you going to seek employment in the field of the acquired degree?" in the benchmark poll 3 months after the primary informal interview

On the other hand, it must be understood that the students are the most mobile and the most quickly react to changes in the environment and the emergence of new incentives. This is why the institutionalization of academic sphere should be established using the "triple helix" concept, since it is an optimal and organic approach to the formation of intellectual capital of the nation, labor and knowledge (cognitive) resources that will be in demand in the economic, social field and in the field of science and public administration. The above allows us to argue that it is necessary to further develop and realize solutions aimed at development of the institutional environment of the Russian academic sphere.

5. Discussion

Proceeding to the statement of the main areas of development of the institutional environment, we must recall that the Russian academic sphere is still described by delayed effects in many ways, which are defined by so-called "Soviet legacy". On the one hand, the national education system was described by universalization during the Soviet period – all levels of education were aimed at teaching

students global thinking, ability to solve various problems and possess wide knowledge; not everything of this had practical application. This has had a largely positive impact on the economy and science development (rapid industrialization, a record fast overcoming of the consequences of the Great Patriotic War, the earliest development of nuclear and space technology).

But on the other hand, it became clear by the end of the 1980s – early 2000s that the established education system meets neither public nor scientific demands, and there were several objective reasons for this:

- Firstly, a task of the segment of the pre-school and school education was to fulfill the state order for the ideologically correct next generation with unified attitudes, needs and ideas. But at the same time, the communist ideology suffered from ostracism in everyday life, so the state and social orders for education were radically different in many ways;
- Secondly, extensive expansion of mass professions in the segment of elementary and specialized vocational education became particularly pronounced at a time when it was necessary to enlarge these mass professions by integration of several related professions and exception of the dying kinds of professional specialization;
- Thirdly, the trends of absence of demand in university graduates began actively manifest in the higher education sector. At the same time, the structural scientific imbalances manifested in the sphere of higher education: there was active training of specialists in physics, mathematics, engineering, chemical and biological sciences (with a focus on the military-industrial complex). Social, humane and natural sciences almost stagnated. This, by the way, became one of the reasons for the inefficiency of the first market reforms, as the economic science knew no alternative teachings except for Marxist economics.

Despite the fact that the Soviet education was among the world leaders in engineering, natural and exact sciences, a systemic crisis in the academic sphere only deepened. The scientific and pedagogical school established in the Soviet period and recognized across the world appeared already not always able to promptly respond to the changing demands of the society, state and economy. This is why a policy document "Pedagogics of cooperation", which appeared in 1986, in many ways became the necessary platform for change in both education and scientific fields (Amonashvili, 2008). The totalitarian pedagogy of coercion, predominating in comprehensive and higher school, started to recede into the background.

However, at the same time, the change of ideological vector in the establishment of the educational process did not allow to radically eliminate other accumulated problems that we have mentioned above. The structural imbalances largely caused the launch of the mechanism of self-destruction of the Soviet system of education and science. Although many of current experts (e.g. A.L. Sergeev (Sergeev, 2013), as well as public and political figures, e.g. representatives of the Duma factions G. Zyuganov, V. Zhirinovsky, S. Mironov and others believe that there was a certain "order" from the foreign elite to destroy the Soviet academic sphere (Rubin, 2015; Meeting, 2016), this actually was far from truth. The statistical data of the Soviet period is available in the public domain, indicating that, for example, about 40% of people with higher education did not work in their field but on the positions of direct and indirect workers in various production industries (Druzhilov, 2013; Lopatin, 2008).

At the same time, the academic sphere abroad was relatively balanced from institutional and socio-economic point of view. There was a notable segment of comprehensive (pre-school and school) education, segment of specialized and higher education, as well as a research segment (Thibault, 2012; Tuschling, Engemann, 2006). Accordingly, the task of comprehensive education was to prepare the children to receive specialized or higher education. Specialized education was a major supplier of human resources to the national foreign labor markets. Higher education ensured training resources for public administration and senior management of economic entities, as well as for the research sphere, which in turn fulfilled state and commercial orders for the development of fundamental and applicative solutions that would find application in all areas of activity.

Undoubtedly, the former and current principle of segregation in the academic sphere abroad largely creates the preconditions that form a significant segregation between the elite higher and mass higher specialized education. However, there is a social gap between higher school, research organizations and segments of the elementary/specialized vocational education in Russia as well. As such, by the beginning of market reforms, the Soviet education system does not ensure the

proper level of training of resources that were necessary for the establishment of the market economy. Currently, the Russian education system does not ensure the proper level of training of resources demanded in the innovation economy. It is obvious that the institutional imperfection of the Russian academic sphere is determined by both the "Soviet legacy" and the negative impact of the consequences that have arisen in result of the shocking transition from the command economy and the totalitarian society to the market (and then to the cognitive) economy and the democratization of socio-political processes.

Over the period from the late 90s of the last century to the beginning of the current decade, the Russian academic sphere, due to the residual principle of funding and not always logically consistent social and economic reforms, also faced the problem of structural imbalances that occurred in the Soviet education system. But while there was excess of graduating technical specialists in the Soviet system of education, the Russian system of education was, in contrast, dominated by graduates in the field of social and humane sciences. This was largely the result of development of the commercial basis in specialized vocational and higher education, since training of such specialists does not require the establishment of specific facilities, so education in social and humane sciences was primarily commercialized in the Russian academic sphere.

It can't be said that the partial translation of the academic sphere to commercial self-financing had an exceptionally negative effect. Establishment of the paid educational segment allowed to increase availability of the specialized and higher education, including the case of the shrinking military industrial area, where many civilian and military personnel were able to retrain on a paid basis and reintegrate in economic and labor relations with a new degree (Zhukova, 2011; Modern, 2014; Statistical yearbook, 2013).

Opinion polls reveal that students of the paid faculties and departments in many respects have a more responsible attitude to receiving knowledge than students receiving education funded by the state or businesses and organizations (Zhukova, 2011; Modern, 2014). Therefore, the thesis that education should be free cannot be considered true:

- Firstly, it creates preconditions for social dependency and increases financial burden on the state, which is generally not correct in the current economic conditions;
- Secondly, the academic sphere in innovation (cognitive) economy should be capable of creating and receiving economic benefits required for self-financing of both educational and research activities.

Summarizing the above, we consider it necessary to propose a range of solutions that will focus on the development of the institutional environment of the Russian academic sphere. First of all, we consider it necessary to develop a logically unified institutional structure model that ensures optimal functioning and sustainable development of the Russian academic sphere. This model is conceptually based on the understanding of the scientific foundations of the triple helix of H. Etzkowitz (Dudin, Ivashchenko, 2016), i.e. the partnership between the state, business and academic sphere itself (see Figure 2).

This structural model assumes that the institutional environment of the academic sphere is established and progresses through the coordination mechanism of multilateral interaction between the actors. At the same time, we consider it necessary to complement the triple helix model that integrates the interaction of the state, business and academic sphere with public institutions. At the same time, it is proposed to allocate two key areas of activity in the academic sphere: research and education. Each of the above activities in the academic sphere solves a range of mutually not repeated tasks. Therefore, it is proposed to allocate the following in the research area:

1) Fundamental segment, which solves the tasks of establishment of a theoretical and methodological framework that ensures development, testing and introduction of technology, critically important for the state, society and the economy, through long-term scanning of the scientific and technological horizons;

2) Applicative segment, which solves the tasks of establishment of a methodological framework that ensures the development, testing and introduction of product- and process-focused innovation that will be in demand in public administration, socio-economic and financial industries and sectors. At the same time, considering that the fundamental segment solves the tasks of supporting national security, the military and space critical technology can also be used in civil production via spin-off processes.

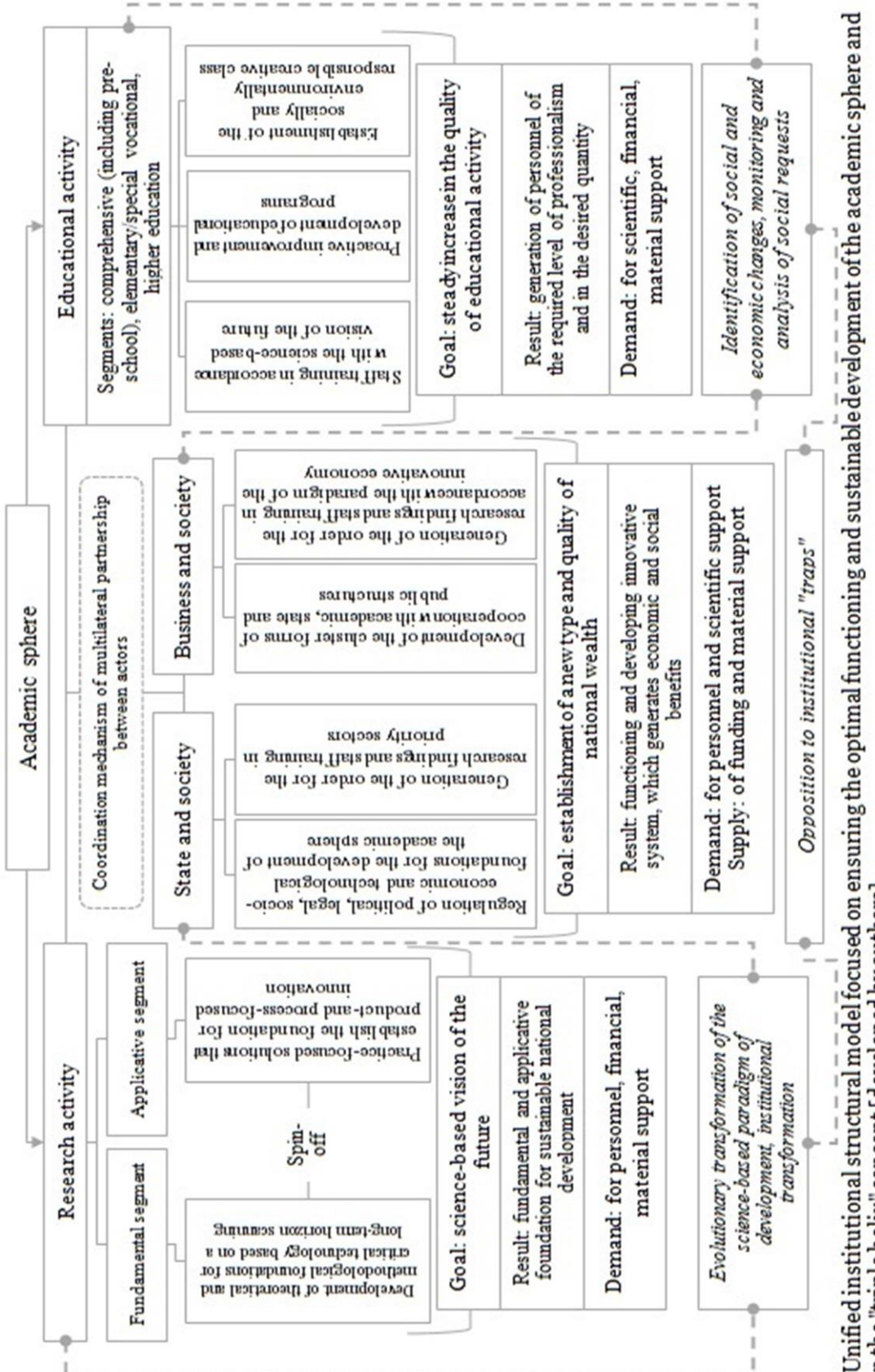

Fig. 2. Unified institutional structural model focused on ensuring the optimal functioning and sustainable development of the academic sphere and based on the "triple helix" concept [developed by authors]

The key goal of the research activity must be considered the establishment of a strategic picture of a science-based vision of the future, which will determine the generation of fundamental and applicative foundations for sustainable national development as a result. In this case, the research activity, being a major producer of scientific foundations of sustainable national development, will at the same time be a recipient of personnel, financial and material resources.

Educational activity incorporates three main segments: comprehensive (including pre-school), elementary and special vocational, and higher education. At the same time, the following main tasks are solved:

1) Staff is trained on the basis of the science-based vision of the future, established in the course of solution of the tasks of the research activity;

2) Transition is carried out from the reactive to the proactive improvement and development of educational programs that meet the scientific, state, social and economic requests in the context of ensuring sustainable development;

3) Creative class is established, which will form the political, economic and social elite, while the core competencies in this class will be coordinated with the context of environmental and social responsibility within the framework of sustainable national development.

The key goal of the educational activity is steady and constant improvement of its quality, which is expressed in the obtained result: personnel entering the free labor market are described by the required professionalism and in the necessary quantity. The educational activity, being one of the producers of the socially significant benefit is also a recipient of the scientific, financial and material support. The state, business and society represent a sector that absorbs scientific and educational results. However, the state solves the following tasks at the same time and without separation from the society:

1) Regulation of the political, legal, socio-economic and technological foundations for the development of the national academic sphere;

2) Generation of the state order for the results of research and staff training in the priority (strategically important) actors that define the long-term national interests.

Business also solves a number of specific tasks without separation from the society, the most important in the aspect of the topic of this article being:

1) Tasks of development of the cluster forms of interaction with all the actors integrated into the institutional environment of the academic sphere (with the state and social, civil and other structures);

2) Tasks of generation of the socio-economic order for the results of research, as well as staff that will be authentic to the paradigm of innovation (cognitive) economy.

Accordingly, the establishment of a new type of national wealth with high intellectual component necessary to ensure the sustainable and safe national development should be considered the key goal of the state, business and society. Establishment of the national system that will generate both economic and social benefits can be considered a result here. The state, business and society, being a cumulative producer of all kinds of benefits, including those required for financial and material support of the academic sphere, are the main recipient of the staff and scientific support.

Besides, interaction between business, society and educational structures allows to timely identify social and economic changes, including latent. This forms an information and analytical base for the future institutional transformations. The state, society and research structures, in their turn, ensure the evolutionary transformation of the scientific paradigm of the national development and carry out institutional transformations on the basis of this information and analytical base. Active interaction between all actors integrated into institutional environment of the academic sphere, aside from obtaining direct and indirect socio-economic effects, also opposes to the establishment of institutional traps (corruption, shadow economy, "gray" educational schemes, ideologization of science and education).

6. Conclusions

We have made an attempt to systematically interpret the perspectives and areas of the institutionalization of the Russian academic sphere as part of the presented paper. Based on the analysis of economic and statistical data and empirical research, the findings were obtained that

both Soviet and Russian academic spheres were described (and, of course, are described now) by the structural imbalance. This causes the combination of obvious problems:

- Low intellectual and human capacity of the national socio-economic development;
- Atomization of actors who must actively interact in the institutional environment of the Russian academic sphere;
- Imbalance of the state and socio-economic order for the results of both scientific and educational activities;
- Infrastructural underdevelopment and insufficient material and financial support of the research and educational activities.

Besides, a range of interrelated problems can be specified: from inefficient labor market to the low innovative and venture activity of the entrepreneurship and corporate structures. This has predetermined the need to establish a unified institutional structural model of development of the Russian academic sphere, where the list of strategic goals, tasks and results is defined for each actor (state, business, research and educational structures); these tasks must be solved by each of the above actors.

Undoubtedly, the proposed institutional structural model requires further work in creation of the roadmaps of the academic sphere, taking into account the current and representing institutional changes, as well as based on the science-based vision of the future of the Russian state. We will disclose the issues of roadmapping of the national academic sphere with specification of the strategic and tactical decisions in the constituent segments in the following papers on this topic.

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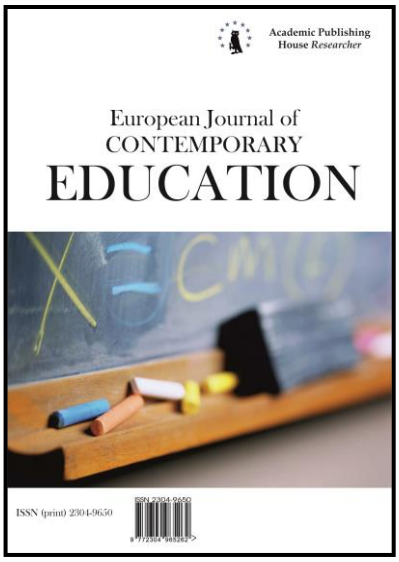

Media Education and Media Criticism in the Educational Process in Russia

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Abstract

Media criticism and media education have a lot in common. For example, both media education and media criticism attach great importance to the development of analytical thinking of the audience. Indeed, one of the most important tasks of media education is precisely to teach the audience not only to analyze media texts of any types, but also to understand the mechanisms of media texts' creation and functioning in society. Actually, the same is emphasized by media criticism, addressing experts, and a wider audience as well. Therefore the synthesis of media criticism and media education is vital. Hence it is very important to debate on the role and functions of the media in society and analysis of media texts of different types and genres in classrooms of schools and universities.

Keywords: media criticism, media literacy, media competence, media education, pupils, students, media text, Russia.

1. Introduction

Recently the stance of the supporters of "practical media education", viewing it as a set of skills to use modern media technology exclusively for practical purposes (Razlogov, 2015: 68-75) finds fewer supporters. Without denying the importance of this aspect of training, modern "Russian Encyclopedia" defines media education as "a process of a personality's development with the help of and on the material of mass media aimed to develop a communication culture with the media, creativity, communication skills, critical thinking, perception, interpretation, analysis and evaluation of media texts, to teach different forms of self-expression by means of media technology, media literacy acquisition. ... The positive outcome of media education should be media competence of a personality – the set of his/her motives, knowledge, skills, abilities (indicators: motivational, contact, information, perceptual, interpretative, practical (hands-on), creative)

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contributing to the selection, use, critical analysis, evaluation, creation and communicating media texts of different types, forms and genres, the analysis of complex processes of media functioning in society" (Fedorov, 2012: 480).

One of the most important components is training skills of the media texts analysis, whereas media criticism can provide effective help, in our opinion. Media criticism is the area of journalism, creative and cognitive activity, implementing the critical knowledge and assessment of socially important, relevant creative, professional and ethical aspects of the production of information in the media, with a focus on the creative side of media content. It is the communication with the audience, based on the analysis, interpretation and evaluation of media texts, genre and stylistic forms, that has an impact on the audience's perception of the media content, on the representation of the material and the spiritual world (Korochensky, 2003). These issues are associated with the use of information media (of different types, genres and forms), their analysis, definition of linking economic, political, social and / or cultural interests.

Media criticism can be divided into academic (relating to the publication of scientific research related to the comprehension of the media sphere, and designed primarily for professionals in the field of Media Studies), professional (publications intended for a professional audience of those employed in media industry) and mass media criticism (designed for a mass audience) (Korochensky, 2003).

Thus, it is media critics working for mass media, as well as media educators, who seek to increase the media literacy level of the widest possible audience.

Media competence of an individual is multidimensional and requires a broad perspective based on the developed knowledge structure. This is not a frozen category. It is supposedly possible to increase the degree of media competence lifelong, perceiving, interpreting and analyzing the cognitive, emotional, aesthetic and ethical information. The audience who have a higher level of media literacy have a higher level of comprehension, management and evaluation of the media world (Potter, 2011: 12).

However, as professor Art Silverblatt accurately notes (Silverblatt, 2001: 5-6), there are many obstacles in the way of both media education and media criticism. Some of them is "elitist" – people can easily notice the influence of the media on the other, but the same people are not willing to recognize the impact of the media on their own life; the complexity of the media language; emotional media effects, imposing certain behavior patterns, and public trust to the media. All of the above hinders the ability to analyze a media text critically.

As for the situation in Russia, unfortunately, we have to admit the fact that "the problem of preparing the younger generation for life in the era of information explosion, information technology, increasing role of information as an economic category, is not updated in the context of school education, a school graduate is not ready to integrate into the global information space" (Zaznobina, 1998), where manipulative technologies, alas, have a significant place. Inability of a school graduate to resist manipulative media influence is to a large extent an outcome of the low level media competence of Russian school teachers.

There is a contradiction between the insufficient level of research in the field of media education and media criticism synthesis (including in the process of preparing future teachers) and the relevance of the development of media competence and analytical thinking of students of pedagogical profile by not only media activity, i.e. creation, use, and communication of media information, but also its comprehensive analysis, determination of economic, political, social and / or cultural interests that are associated with it.

In particular, one can clearly trace the problematic contradiction between a journalistic media education model (Dzyaloshinsky & Pilgun, 2011; Zhilavskaya, 2009, etc.), aimed at the development of the audience's media activity in the practical creation and distribution of media texts, and the integrated model of media education (Jurin, 2012, etc.), whereas the main emphasis is on media literacy supporting compulsory school subjects. In our opinion, it is necessary to go beyond this utilitarian framework and create a more important for the general public model of the analytical thinking development, built on the synthesis of media education and media criticism.

In addition, in our view, there is a disagreement between the theoretical and practical approaches proponents of "protective theory" of media, calling to protect the audience from harmful media manipulation effects (one way of such protection is for example to only teach the samples of "high art") and the supporters of cultural and social theories of media, considering the

problem of media education in a broad social, cultural and genre and thematic spectrum of media texts (Buckingham, 2003; Sharikov, 2005; Silverblatt, 2001). We believe that this disagreement can be successfully resolved with the help of the synthesis of media and media criticism.

The history of media criticism in Russia goes back more than three centuries. It is clear that in the early years (XVIII century) there was only literary criticism in newspapers and magazines. However, since the end of the XIX century the spectrum of media criticism has expanded due to the analysis of photography and cinematography. In the XX century media criticism included such new types of media as broadcasting, sound recording, television and the Internet. At all stages of its development, media criticism (corporate, academic, mass) has performed analytical, educational, information and communication, regulatory, and commercial functions throughout the genre diversity of media texts.

Together with mass distribution of the Internet the number of critics' community has grown dramatically due to the "amateur" authors, who do not have to turn in their texts to the editors of traditional media in order to reach mass audience. Many of these people having no specialized education, however got jobs in the late 1990s – early 2000s in popular newspapers. Whilst, as Roman Bakanov's content analysis of publications has proved, most of these people criticize TV based on their own experiences and emotions, they don't apply analytical, evidence-based methods. They are aimed to assert themselves, to attract the audience's attention to own texts by negative assessments. Perhaps that is why the vast majority of their writing carries a negative "critical" attitude of almost all television programming. In addition, these texts do not attempt to examine and analyze the identified problems from different angles, to understand the causes and to find out the possible consequences. To do this, a media critic needs to possess a researcher's stance, the ability to not only look for, but also to collect, and summarize the information" (Bakanov, 2009).

But this, of course, does not mean that professional media critics (L. Anninsky, R. Bakanov, Y. Bogomolov, D. Bykov, A. Vartanov, D. Dondurei, V. Kichin, A. Korochensky, I. Petrovskaya, A. Plakhov, K. Razlogov, etc.) have lost their influence. Each of them has its own target audience, favored the mes, besides working for press many of them find time to maintain the Internet "live journals", blogs and other net innovations that enable to get feedback from the audience almost simultaneously upon the publication of the article.

In our opinion, it is professional media criticism that can have a positive influence on mass audience's media competence. I. Petrovskaya dwells upon the problem, too: "Do we have to satisfy the ill taste, or, on the contrary, should we treat it and try to improve the tastes and manners of the audience? Most of TV people believe that we should indulge its desires, because this is the way the audience is, and it is can't be changed by television means. But the point is that television can in fact make people worse than they really are, it can lower the bar to such an extent that people will not be able to distinguish what is good and what is bad" (Petrovskaya, 2003: 43-44).

2. Materials and methods

The main sources were the journal publications and books. The study used the basic methods of cognition: systemic and the comparative methods. The use of these methods allows to reproduce assessment approach to the problems. Comparative method defines the difference in views on actual situation.

3. Discussion

The relevance of the synthesis of media and media criticism is demonstrated by, adopted in 2008, «European Parliament resolution of 16 December 2008 on media literacy in a digital world», which states that media literacy education should be mandatory. The resolution, inter alia, recommends that compulsory media education modules be incorporated into teacher training for all school levels, so as to enable the subject to be taught intensively; calls on the relevant national authorities to familiarise teachers of all subjects and at every type of school with the use of audiovisual teaching aids and with the problems associated with media education. It also maintains that media education should be an element of formal education to which all children should have access and which should form part and parcel of the curriculum at every stage of schooling (European Parliament resolution, 2008).

In the same line, "Moscow Declaration on Media and Information Literacy", adopted by the

intergovernmental UNESCO Program "Information for All" (IFAP, 2012), recognizes that MIL should be promoted in all national educational, cultural, information, media and other policies; encourages education systems to initiate structural and pedagogical reforms necessary for enhancement of MIL and its integration in the curricula including systems of assessment at all levels of education, inter alia, lifelong and workplace learning and teacher training; encourages an intercultural dialogue and international cooperation while promoting MIL worldwide (The Moscow Declaration..., 2012). A similar declaration was adopted and held at the end of May 2014 during the First European Forum on Media Literacy, held at UNESCO headquarters in Paris (First European Forum..., 2014).

All of the above is very important and significant in the light of the official registration by UMO Ministry of Education and Science of the Russian Federation of a university specialization for pedagogical universities - "Media Education 03.13.30" and its implementation (since September 2002) by our researchers' and practitioners' team (the first graduation of certified teachers who have mastered this program took place in 2007).

The need for further development of media education is supported at the state level: on the17th of November, 2008, the Russian government approved the "Concept of long-term socio-economic development of the Russian Federation until 2020". According to it, federal executive bodies and executive bodies of state power of subjects of the Russian Federation are prescribed to follow the provisions of the concept while developing policy documents, plans and performance of the activities. Executive bodies are guided by these basic directions when developing program documents, plans and indexes of their performance. Thus, "the increased use of information and communication technologies for the development of new forms and methods of education, including distance education and media education" is asserted as one of the priorities of the concept (Concept..., 2008).

In 2005 Kirill Razlogov published a deliberately polemical article which expressed the idea that an individual's media literacy is and should be developed spontaneously (Razlogov, 2005: 68-75). This article set the beginning of the discussion on the pages of the academic journal "Media Education". However, later K. Razlogov explained that although the question of mass media education remains open to him, "special media education is certainly required. It is necessary for educators and teachers ... the work to increase the number of people who are seriously interested in classical and contemporary art is vital, too" (Razlogov, 2006: 92).

In terms of the discussion issues pointed out by Alexander Korochensky are very useful and problematic:

1) Is the idea of developing a rational, critical media culture an illusion masking the inability to realize the proclaimed humanistic concepts of training citizens to conditions of life and work in the information age within the current socioeconomic and cultural context? Is it possible to widely spread the rational-critical communication culture in the social environment, where there are powerful tendencies working to reduce the level of critical media awareness of recipients? Under the above circumstances, is there really a chance for successful implementation of a local social planning, that is, the project of media literate audience?

2) In life and activities of both individuals and communities it is the instincts, the unconscious impulses and emotions that play a very significant role. Effective use of modern media technologies having various impacts on the area of the collective unconscious, suppressing rational reactions of people is a clear proof of that. In this regard, the question is: isn't the ideal of rational-critical communication culture only a phantom, a purely speculative ambition, unattainable due to the inherent characteristics of a human personality and human community?

3) What if the critical autonomy of an individual dealing with mass media is a myth, masking the inability in the socio-political context of the real emancipation and self-emancipation of citizens from media manipulative effects and other adverse effects on the part of the media? (Korochensky, 2005: 41-42).

It seems that A. Korochensky accurately outlined the dangers standing in the way of media education and criticism development. But, in our view, if all of these questions were answered in the affirmative, then one would probably have to give up on media education altogether, since too many obstacles are irresistibly strong and aggressive.

But don't human instincts oppose any education at all? Moreover, do manipulative tendencies in modern society only concern media culture?

Undoubtedly, the absolute media competence of the mankind is as illusory as the total human equality in all spheres of life, including the field of education and culture. However, if one has the will, capacity and skills to develop media competence and analytical thinking of not millions, but only thousands, hundreds or even dozens of people, this is the goal worth working hard on.

Alexander Korochensky (Korochensky, 2003: 163) proposes to extend the concept of media education as a long-term socio-educational activity, aimed not only at schoolchildren and students, but also at an adult audience. Then the ongoing development of the media messages perception culture and evaluation of media according to democratic and humanitarian ideals and values should take on its full meaning.

The critical thinking approach in media education most fully developed by Len Masterman (Masterman, 1985; 1997, etc.), in the last decades has attracted not only supporters but also opponents. Nevertheless, a survey of experts in the field of media from various countries showed that the majority (84 %) believes that the most important goal of media education is to develop the ability of critical thinking / autonomy of an individual, skills to perceive, assess, appreciate, and analyze the media (8).

Herewith L. Masterman believes that successful media education should be attributed to the following factors: a clear understanding of the objectives by the teacher; productive discussion of these goals with the students, based on their comments, priorities and enthusiasm; regular check, and analysis (and if necessary – the revision) of the objectives (Masterman, 1985: 19).

At the same time, the practical implementation of the development of the citizens' rational-critical communication culture on the basis of independent rational and critical thinking faces a number of significant hindrances and difficulties. They cannot be only explained by immature institutions of media education or incomplete conceptualization of the goals, methods and contents of the activities in the field (although both of the above actually take place). Large scale media manipulations of the audience's consciousness and behavior for political and commercial purposes; increasingly irrational images of media reality; intellectual passivity and emotional infantilism of the significant portion of the citizens in the face of negative media influences – all of the above is observed both in Russia and other countries where mass media education is going through a formation stage, and in the countries where it has already become a mandatory component of the educational process at various levels (Korochensky, 2005: 37-38).

In fact, today's media are primarily focused on the cost effectiveness (almost) anywise. So it is quite natural that by and large the media industry is not interested in the audience's developed analytical thinking in relation to the media functions in society and media texts of various types and genres. "Lonely islands" - Russian media agencies which are not commercially centered, for example, TV channel "Culture", will inevitably drown in the flow of the mainstream market.

On the other hand, as it is aptly noted by A. Korochensky, there is another challenge for the development of media competence: "the postmodern skepticism with regard to reason and cognitive abilities of a person (correspondingly, to his/her enlightenment and education); intellectual and moral relativism, giving birth to scornful and ironic attitude to the fundamental human values, democratic and social justice ideals. Against this background, in certain social circles, including the community of media professionals, there are signs of a negative attitude to the idea of widespread rational-critical communication culture – ranging from the denial of its feasibility under current conditions (see, eg, Razlogov, 2005: 68-75) to open hostility, aggressive rejection of the spirit of enlightenment and civilization inherent in this intellectual initiative" (Korochensky, 2005: 39-40). This trend has recently been recognized in the Western hemisphere, too (see, eg. McMachon, 2003).

4. Results

The important role of mass media in modern Russian society is unfortunately accompanied with a poor development of media criticism. This particular area of journalism is aimed at analyzing the current creative, professional, ethical, legal, economic and technological aspects of information production in the media and thereby increasing the level of media competence and analytical thinking of wide audiences of all ages. In Russia, there are some talented working critics, however, not all of them are capable of significant conceptual synthesis.

In principle, it is clear why the development of media criticism and media education has not

received formal support in the Soviet times. Authorities were keen to make sure that the mass audience (both adults and teens) thought as little as possible about the goals and objectives of a particular (especially of "national importance") media text. The prevalence of "media incompetent" audience always provided ample scope for manipulation in press, on radio and TV.

Today, the position of media criticism and media education in Russia has drastically changed. Media criticism is a way to communicate with the audience. Based on the analysis, interpretation and evaluation of the whole complex of media content, its genre and style has an impact on the perception of the public, on the picture of the material and spiritual world, formed in the minds of recipients. Media criticism not only examines and evaluates the work of the authors, but also a "moving" complex of multiple relationships of print and electronic media with the audience and the society as a whole. This allows one to define the subject of media criticism as the multifaceted social operation of the media" (Korochensky, 2003: 32).

Based on this definition Alexander Korochensky clearly distinguishes basic functions of media criticism (information and communication, cognitive, correctional, social, organizational, educational, commercial) and formulates the main tasks of media criticism: awareness of how information is produced; study and change of the public perception of media content and world outlook; influence upon the attitude of the public to the media, shaping of a certain social culture of the use and appreciation of the mass media, the development of the inner world of the audience; promotion of creative and professional culture of media texts' creators; promotion of the social environment for functioning of mass media, etc. (Korochensky, 2003: 32). The latter, in our opinion, is of particular importance due to the fact that the Russian audience trusts media less and less. If the mid 1990s media messages were highly trustworthy for 70 % of Russians (Vartanova, 2001: 23), then by 2012, credibility of the most popular medium, television, decreased to 57 % (RIA, 2013).

The reason for this loyalty decline may be attributed not only to the abundance of low-quality television shows, but also, to some extent, to the influence of media criticism, that, owing to the Internet, is becoming more accessible to people, who become increasingly aware of manipulative features of media texts.

Building on the analysis of various resources, A. Korochensky distinguishes the most common manipulative elements of modern media: schematic, simplified nature; the identity of the logical and illogical; false representations; the absence of clear-cut criteria for distinguishing between surface and deep relationships; references to tradition, authority, precedent, normative, the divine will; syncretism of the aesthetic and imaginative, ethical and regulatory and proper cognitive elements of the myth; reproduction of a highly complex picture of the world through the mythical binary oppositions ("good-evil", "friend-foe"); claim to absolutely true non-historical explanation of the reality phenomena and the absolute correctness of practical action, arising out of this grounds; judgmental nature of media texts; etc. (Korochensky, 2003: 83-84).

So, today media criticism has immense potential to foster the efforts of educational institutions in the development of audience's media culture. Herewith media criticism and media education have a lot in common, since one of the most important tasks of media education is to teach the audience to analyze media texts of various genres and types, and also to comprehend the mechanisms of their creation and functioning in society.

Thus, among the key aspects of media education, British media educators (Bazalgette, 1995 et al.) emphasize the agency (referring to a comprehensive study of who produces a text; production process; what is a media institution; its economics and ideology; intentions and results), the media language (the ways the media produce meanings; codes and conventions; narrative structures), the representation (the awareness of how media texts represent actual places, people, events, ideas), and the audience (on the one hand, key audiences are identified, the ways they're addressed; and on the other hand, the study how audiences look for, choose, perceive and respond to media texts). As a matter of fact, the same key aspects of media are subject to media criticism, appealing to both the professional and the mass audience. This is why a solid connection between media criticism and media education is so important.

Bearing in mind, that in the English-language literature, the term "media criticism" is used both to mark the scientific analysis of mass media activities in academic writings, and to present "a quick scan" of pressing issues of the media concerns (Masterman, 1997; McQuail, 2010 et al.), we are going to focus on the latter form of media criticism.

We concur with Alexander Korochensky that there is a need for a thorough psychological, cultural and sociological analysis of media texts in entertainment popular culture in order to identify flawed ideas, cultural and behavioral stereotypes embedded in their social content. In fact, TV shows like "Dom-2" (House-2, the longest running reality show in Russia), promote and reinforce in the public minds the ideas about the fundamental hopelessness of the transformation of supposedly base human nature, about human actions motivated by elementary instincts, about the moral permissiveness and social legitimacy of the use of immoral methods (slander, harassment, backroom collusion) to suppress and eliminate people appearing to be an obstacle on the road to success (Korochensky, 2003: 83-84).

A. Korochensky (Korochensky, 2003: 164) proposes to extend the concept of media education as a long-term socio-educational activity, aimed not only at schoolchildren and students, but also at an adult audience. Then we might dwell upon about the continuous development of the culture of a comprehensive perception of media messages and independent evaluation of mass media with due regard for the democratic and humanistic ideals and values.

Meanwhile, we believe that media education and media criticism possess great capacities in terms of supporting the efforts of media educators and teachers, integrating media literacy in the subject matter, with the development of media competent audience. There is merit in amplifying the participation of academics, researchers and experts in various fields (educators, sociologists, psychologists, cultural scientists, journalists, and others), cultural and educational institutions, public organizations and foundations in order to develop the media literacy / media competence of citizens, to create new institutional structures able to perform a full range of media education objectives in cooperation with the media criticism (Korochensky, 2003: 254).

Over recent years quite a lot has been studied, developed, put into practice in this field. For example, media competence's development process involves the active use of analytical methods and techniques. Among these methods are the following (Eco, 1976: Fedorov, 2007: Fedorov et al., 2012; Fedorov, 2014; Fedorov, Levitskaya, 2015; Propp, 1998, etc.): aesthetical analysis; autobiographical analysis; character analysis; content analysis; cultivation analysis; cultural mythology analysis; ethical analysis; hermeneutic analysis of cultural context; iconographic analysis; identification analysis; ideological and philosophical analysis; narrative analysis; semiological analysis; stereotypes analysis; structural analysis.

All of these methods involve key aspects of media such as media agencies, media categories, media language, media technologies, media representations, and media audiences (Bazalgette, 1995).

Certainly, the study of these aspects takes place in a complex, multidisciplinary, integrated manner, immersed in a social and cultural context, suggesting that media education is "the process of forming a media saturated social communication culture" (Sharikov, 2005: 78-79).

5. Conclusions

Media criticism and media education share a lot of inherent features. Both media education and media criticism attach great importance to the development of analytical thinking. Indeed, one of the most important objectives of media education is precisely to teach the audience not only to analyze media texts of any genres and types, but also to understand their mechanisms to implement and operate in society. Actually, media criticism investigates the same issues, targeting professional community and the widest possible audience alike. That is the reason why the synthesis of media criticism and media education is so important. The debate on the role and functions of the media in society and analysis of media texts in classrooms has become an imperative of great contemporary importance.

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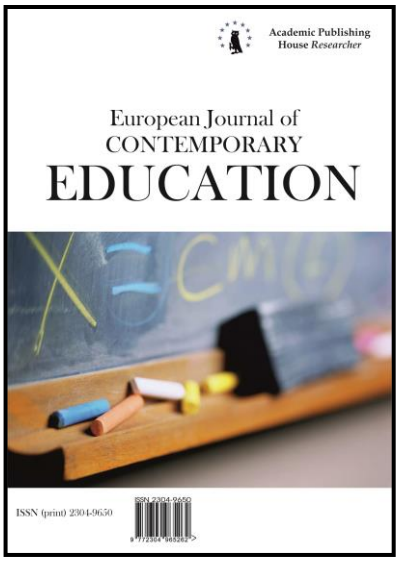

A Study Module in the Logical Structure of Cognitive Process in the Context of Variable-Based Blended Learning

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Abstract

Blended learning is increasingly gaining importance in all levels of educational system, particularly in tertiary education. In engineering profiles the core blended learning activity is students' independent work, the efficiency of which is defined by the degree of students' active involvement into the educational process, their ability to absorb new knowledge independently, on their own. Our research is aimed at the analysis of blended learning and at revealing the approaches meant to activate students' independent work in blended learning based on LMS Moodle platform. The characteristic feature of the suggested approach is the orientation towards skills and work methods mastering carried out in the form of professional competencies training at practical classes and laboratory workshops. For the purpose of our research we used one of the most interactive Moodle tools – "workshop" in order to fulfill informational, educational and monitoring functions of learning. The use of the tool allowed revealing drawbacks of the method under study and managing these drawbacks in the most effective way. The paper contains the description of students' learning and independent work which would stimulate students' activity, self-management and develop their communicative skills.

The outcomes of the current research proved that the approaches suggested significantly stir students' interest, thus, enhancing students their learning motivation, development of critical thinking and self-reflection, which altogether facilitate understanding theoretical material, encourage the development of practical skills and promote the pursue of academic goals.

Keywords: LMS Moodle, engineering education, cognitive activity and independent work.

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1. Introduction

The gap arising due to continuous reduction in the number of face-to-face classroom hours in compliance with the Federal State Educational Standards of Higher Professional Education is complemented with e-learning. Based on the existing experience, pure e-learning is practically applicable in distant learning or advanced training courses, where learners are ready for subject teaching.

In full time engineering education, which also integrates e-learning, the focus shifts towards students' independent work. However, this reveals a didactic contradiction: the learning environment requires the adequate students' readiness for the cognitive activity, while eclectic mix of conventional and e-learning and teaching results in the drop of motivation and misunderstanding of learning goals.

Information technologies are widely introduced into the process of learning and teaching; they intensify the process of professional competencies acquisition on condition that instructional techniques are didactically practised at every stage of a student's cognitive activity.

The development of higher education didactics in the context of e-learning tools preconditioned the emergence of blended learning. However, the name doesn't capture the idea of the learning process. Blended learning generally combines conventional academic and distant interactive e-learning. In blended learning the classroom and distant learning methods are methodically balanced (Skokova, Dambueva, 2013). Under this type of instruction students mainly work independently, on their own, thus, developing their cognitive activity, motivation, self-education, information search in the media based on psychological regularities of the process of any learning material acquisition.

The publications concerning blended learning in technical educational institutions focus on the design of educational process in the context of a three-phase structure of the cognitive process (Veledinskaya, Dorofeeva, 2014; Ivshina, 2012).

The first phase precedes the classroom activity and implies preparation based on the learned material and the background knowledge. The second phase or classroom phase includes face-to-face collaboration between a teacher and students. During this phase students acquire some new material. The third phase or post-classroom phase includes students' independent work aimed at further mastering of the learned material, which allows individualizing the process of education (Veledinskaya, Dorofeeva, 2014; Kravchenko, 2014; Nikitina, 2014).

The issues concerning students' independent work in the format and amount suggested in the context of blended learning are merely mentioned.

In order to organize students' independent work it is necessary to develop didactic rationale and methodological recommendations of the cognitive activity under study. Therefore, it is rather urgent nowadays to analyze students' independent work in blended learning and to develop the logical structure of students' cognitive activity arrangement in combined forms of education.

Full time education in technical educational institutions is mainly carried out on virtual learning management system (LMS) Moodle (Modular Object-Oriented Dynamic Learning Environment). Nozawa argues that this environment is potentially strong for establishing and developing professional competencies (Nozawa, 2011).

In technical majors students develop professional competencies mainly during practical classes and laboratory workshops. Thus, these forms of educational activities require didactically tested methods of students' independent work.

Our research of blended learning is aimed at revealing the approaches of intensification of students' independent work carried out on LMS Moodle platform. In order to achieve the set goal the following sub-goals should be consequently attained:

– to define the reasons for students' low activity in blended learning practical classes and laboratory workshops and suggest optimum didactic approaches that would bridge these contradictions;

– to implement the suggested solutions aimed at students' independent work intensification on LMS Moodle platform.

2. Materials and methods

Blended learning is based on the traditional "brick and mortar" education. It integrates the digitized learning contents into traditional education and makes good use of the Internet with all the opportunities it has to offer. In this form of education the gravity center of learning shifts towards students' independent work, in which psychological regularities of learning material acquisition are not taken into account.

Without understanding the point of the learning material or cause and effect relationships of certain physical phenomena within the syllabus a student gets lost and finds him/herself caught in the logical stopper, which inevitably results in the loss of interest to the subject and learning in general. In this case the motivation of proficiency development is extremely low.

By the unstructured application of didactic principles of traditional and e-learning as if to be based on competence, practice-oriented and subject approaches a student gets into a didactic deadlock.

First of all, a student in this particular situation is not a subject of education. Secondly, the training process or skills development should follow understanding and professional activities mastering, therefore the research into the process of students' learning structuring when they master professional skills implies the use of reproductive and active methods in every module.

Fundamentally every module is characterized by the learning material availability, practical drilling, followed by the case study analysis, students' collaborative interactive group work, critical peer evaluation of attained learning outcomes and competence development. The module efficiency is evaluated based on the comparative analysis of the level of professional competencies gained in the process of learning on the one hand and programme requirements and general statistical analysis on the other.

The source material for the current research was the real practice of a higher educational institution, experience of students independent work (Ivshina, 2012; Valedinskaya, 2014; Semenova, 2014), characteristic features of students' independent work in the process of gaining professional competencies (Skokova, Dambueva, 2013), validity of student peer evaluation (Swan et al., 2006).

3. Discussion

The problem of making students' independent work dominant in the cognitive activity is the core problem in contemporary didactics. Availability of e-resources and digitized learning materials as novel educational medium facilitates students' involvement when mastering professional competencies. On the one hand, it is very convenient, on the other, it significantly intensifies the process of general and professional competencies mastering. Some scientists report on the experiment of students' independent work beyond the in-class learning (Valedinskaya, 2014; Semenova, 2014).

During the phase preceding the classroom time students are asked to study the topic on their own and do a problem solving task , e.g. an essay followed with a test.

The approach was called the "method of flipped class" (Veledinskaya, Dorofeeva, 2014). This approach is well applicable to humanitarian disciplines. However, it proved not to be so efficient for engineering disciplines, particularly during the first or the second year of the bachelor course due to the complexity of the learning material, which requires the presence of a teacher or a tutor in the learning process. Otherwise students lose interest to the material under study, fail to cope with the assignments, which results in unsatisfactory quality of education.

When students work independently on problem based assignments, they need to operate their background knowledge, be persistent and capable to work continuously on a problem.

It is very typical for contemporary students, brought up in the information space environment, to have discrete thinking, which generally means that information is perceived in unrelated pieces. This type of thinking makes students incapable of analytical thinking (Smirnova, Katashev, 2013).

To make things still worse, as a rule students do their independent assignments right before the due date. Therefore, in most cases they either don't do the assignment properly or merely fail it, which prolongs the term of learning.

Playing computer games for long hours every day results in low creative and analytical thinking and long-term memory. As a result students are lacking self-analysis skills, are not

capable to work on the assignments independently and demonstrate low interest to their professional activity.

Thus, students should develop thinking, motivation and abilities to work on their own in the process of learning (Smirnova, Katashev, 2013). Motivation is one of the most important components of distant learning efficiency (Blázquez, Alonso, 2009). Students' active involvement in the learning process fosters the development of students' independent work and motivation.

Thus, when organizing students' independent work in blended learning it is recommended to concentrate on activation of learning and cognitive students' activity under variable structuring, logically relevant learning and cognitive process.

4. Results

Blended learning, being a didactically non-tested method in the framework of competence-based approach, employs the interactive model of learning. Ideally, within this model a teacher acts as a consultant. However, in reality students need explanation of the competence core. A student is perceived as a subject of education, actively acquiring new knowledge and applying this knowledge in practice. But in fact students are unable to make sense of the core of the subject, the more so, when it comes to its mathematical interpretation. Thus, this model intensifies the role of instructional design meant to prepare students for independent work based on his/her personal cognitive qualities.

Technical students' independent work is mainly aimed at enhanced learning of theoretical technical material; reinforced mastering of skills and methods acquired during practical training and laboratory workshops, i.e. all types of activities which develop the necessary competencies. In order to design these kinds of classes didactically balanced in terms of classroom and independent students' work the following conditions should be met:

– quality educational-methodological material and technical resources including text-books, students' guide-books, computer classrooms, contemporary equipment;
– regular teacher-student face-to-face tutoring organized according to timetable within a student's independent work;
– regular monitoring of students' progress in competencies mastering.

However, these components alone are not sufficient for organizing quality independent work of students, which becomes efficient only on condition that students demonstrate active cognition stirred by real learning motives.

The LMS Moodle platform stimulating students' activity via teacher-student or student-student communication. The work mode "student-group" is also gaining in popularity. The platform features a number of other handy didactic tools aimed at activation of students' cognition: forums, individual assignments, workshops, surveys, chats, wiki, etc. (Gilmutdinov et al., 2008). The most interactive type of learning activity for practical or laboratory classes is the "workshop".

Blended learning integrates electronic and traditional learning and results in the change of informational, educational and controlling functions of a learning process (control and self-control) (Ivshina, 2012; Kravchenko, 2014; Nikitina, 2012; Gilmutdinov et al., 2008; Arkhangelskiy, 1980; Kravets, 2012; Petruk, Popolzina, 2013), therefore, we will focus on students' activity when implementing these functions.

Informational function is fulfilled when the information is presented to students in the digital form in hypertext representation or e-publications. It allows a significant increase of the amount of information, facilitation of its availability and providing an opportunity to observe the visible model of a physical process.

The educational function of an interactive educational medium is implemented when mastering theoretical material and developing practical professional competencies in training sessions of different complexity levels. In order to achieve the set learning outcomes it is necessary to follow a certain algorithm of activities, learning patterns and variability of training programmes.

The controlling function is bound to provide accuracy and consistency of the skills mastered as well as leave room for the correction of these skills, if the necessity arises.

The research into the "workshop" tool proved the presence of every function mentioned above. They are distributed in different consequently emerging temporal stages: setting phase;

work presentation phase; self-evaluation phase; peer-evaluation phase, teacher evaluation phase, workshop closing phase.

The informational function is implemented during the first introductory phase when the students are instructed on how to deal with the assignment based on the learning pattern and evaluation form.

The educational function is implemented during the work presentation phase and evaluation phase. In this phase students do their assignments and attach them in e-form to the workshop. The tool is convenient from the point that students get a chance to do peer evaluation as well. In addition to working on their own they may benefit from analyzing and critically thinking on the works of their peers, thus, they undergo a double training. After this phase completion, students get feedback from the teacher, who may comment on a students' assessment grade and explain why the work was graded in that particular way. This phase facilitates further competence mastering. The learning process in this respect is similar to self-evaluation or peer-evaluation. Therefore, it contains evaluation instruction, the method of works distribution among students for evaluation and the due term. The number of works for peer-reviewing process may be undefined, however in order to develop solid skills students should evaluate at least 4 works of their peers.

In addition to LMS Moodle the efficiency of training may be enhanced by employing computer simulators of physical processes, laboratory works with the use of virtual apparatus, developed in specialized software environments, like LabView (Proshin, 2012).

The controlling function is represented in the phase of work submission, peer and teacher evaluation. Within this phase the competencies developed may undergo certain corrections. In this phase there is a final summarizing of the learning material acquisition, reflected in points. The final grade gained for the laboratory (practical) assignment within the "workshop" tool is the combination of two components: the work itself and the assessment process. It can be characterized by flexibility due to applied weighing coefficients.

If a student had the assignment done and the submitted e-version deserves the highest possible grade, the teacher may check whether his skills were developed after the 3–4 peer review analyses. If a student misses typical mistakes due to lack of knowledge and graded his peers with excellent marks only for conflict avoidance, the teacher in his/her final evaluation may correct the peer evaluation component. Thus, the final grade is bound to be more valid.

The practice of the "workshop" tool application allowed to revel the following weak points of its use:

1. Inherently subjective character of peer evaluation;
2. Reluctance of some students to evaluate the works of their peers;
3. Students' cheating when submitting their works in distant e-form without getting into the heart of the matter.

We will consider the possible ways of these drawbacks elimination. The ways to eliminate these drawbacks are systematized in Table 1.

Table 1. Drawbacks of the "Workshop" Moodle tool and ways of their elimination

Problem	Reason	Solution
1. The subjective character of peer evaluation.	a) Misunderstanding of the approach to the assignment.	The first laboratory (practical) work must be graded by the teacher. This work refreshes students' knowledge and demonstrates the practical value of the work being done, as well as highlights the typical mistakes.
	b) Inability to grade the work of their peers fairly.	The defense of the second laboratory (practical work) should be organized in pairs or small groups, supervised by the teacher. At this stage students master elementary evaluation skills.

1. Reluctance of some students to evaluate the works of their peers.	a) Fear of spoiling friendly relations. b) Fear of a primitive evaluation.	The flexible set of integral grade components: grading the work being done and the evaluation process itself.
2. Cheating of some students when submitting their works in distant e-form.	Misunderstanding and fast submission of the assignment.	Increase in the number of peer-reviewed works and the increased weight of such evaluation.

In order to define the reasons for the first shortcoming we used such research methods as observation, discussion and survey which allowed revealing the two main reasons of their emergence:

– misunderstanding of the subject matter which results in misunderstanding of the solution method;

– incapability of students to provide an objective assessment of the work.

The first shortcoming is of objective character, since a student immerses him/herself into a new subject field. It is time and effort consuming for students to master the methodology and algorithm of solving practical tasks without a tutor's guidance.

At this stage the teacher's assistance is quite necessary. Therefore, the first laboratory and practical assignments should be submitted to a tutor. Grading a student for the submitted assignment in this case is not enough. The teacher should refresh students' knowledge, demonstrate the practical value of the work carried out and highlight the typical mistakes.

The analysis and evaluation of a second laboratory or practical work is carried out in peer-review mode under the tutor's supervision (Swan et al., 2006). In this case a student acquires the basic assessment skills. Through the process of communication students develop their communicative and critical thinking skills. Thus, the second problem is eliminated, i.e. students learn to grade their peers in the objective way.

Rather often students are reluctant to grade their peers objectively for fear of hurting their peers' feelings. They can give marks without checking their peers' works and grade all the works either average or high. In order to manage this problem we suggest a flexible combination of points awarded for both, the work and the assessment itself. This is available on the Moodle platform.

Peer evaluation is highly criticized in literature, in terms of its validity (Wilson et al., 2015). In fact, it is really doubtful to trust peer review if the procedure is sporadic and isolated. The validity is achieved by multiple application of the approach supervised and guided by the teacher when evaluating a number of works by various students for the purpose of training. In this case a student's knowledge and skills are revealed. They are highlighted and evaluated as extra points. By doing so we can stimulate the manifestation of a student-evaluator's skills and knowledge through extra grades. This grading has a different weighing coefficient as compared to the grades awarded for the work carried out. Thus, a peer review corresponds to the didactic principle of multiple revision of a learning material which optimizes its mastering.

The third shortcoming emerging as a result of students' cheating when presenting their work in e-form is not widespread, but even on rare occurrence, it can't be ignored. One of the most efficient solutions for this problem in the extension of the number of peer-reviewed works.

For the purpose of evaluating the efficiency of the suggested approach we carried out an experiment at the premises of Volga State University of Technology. Two groups of students from engineering majors "Biotechnical Systems and Technologies" and "Radio-Technical Systems and Complexes" participated in the experiment. The experiment in these two groups was carried out within the following courses of study: "Biotechnical System Management" and "Radio Automation Engineering" correspondingly. The experiment lasted for 2 years from 2014 to 2016 and involved 75 participants. All the students were divided into two groups: a reference group and an experimental group.

Based on the assumption that the development of effective independence and learning motivation are defined by the students' active position, we used the following criteria, meant to evaluate the validity of approach:

– assignment due date;

– degree of assignment completeness.

In the framework of our experiment these criteria were set as follows: the due date was set in compliance with the academic calendar, the assignment submitted should be completely accomplished. The results of the experiment are tabulated in Table 2-3 and Figure. Task specific table columns contain a number of students who submitted the completed task by the due date. We define them as effective students. The table line "Total (%)" defines the percentage of effective students as related to the total number of students.

Table 2-3. Number of students submitted assignments by the due date

Reference group

Major	**Number of students**	**Task 1**	**Task 2**	**Task 3**	**Task 4**	**Task 5**	**Task 6**	**Task 7**
Major 1*	13	2	1	3	3	5	7	8
Major 2**	13	3	4	5	4	6	7	7
Total number	**26**	**5**	**5**	**8**	**7**	**11**	**14**	**15**
Total (%)		**19.23**	**19.23**	**30.77**	**26.92**	**42,31**	**53.85**	**57.69**

Experimental group

Major	**Number of students**	**Task 1**	**Task 2**	**Task 3**	**Task 4**	**Task 5**	**Task 6**	**Task 7**
Major 1*	26	6	5	7	13	16	20	24
Major 2**	23	7	5	9	12	17	19	19
Total number	**49**	**13**	**10**	**16**	**25**	**33**	**39**	**43**
Total (%)		**26.53**	**20.41**	**32.65**	**51.02**	**67.35**	**79.59**	**87.76**
Efficiency		**7.30**	**1.18**	**1.88**	**24.10**	**25.04**	**25.75**	**30.06**

*Major 1 – Biotechnical Systems and Technologies
**Major 2 – Radio Engineering Systems and Complexes

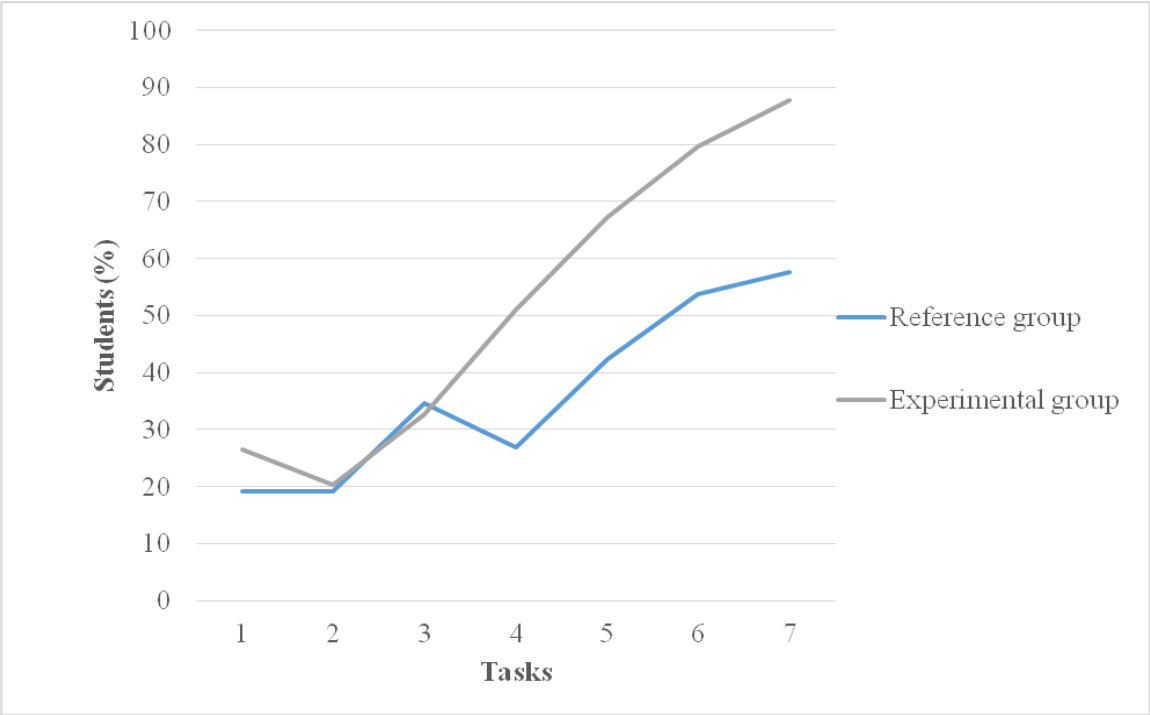

Fig. Efficiency of task fulfilment

The efficiency of the approach was calculated as the difference in the number of effective students in the reference and experimental groups.

As it can be seen from the Figure above, the number of effective students increases from 51 % to 81 % in tasks 4–7. The method efficiency is 30 %.

Upon the experiment completion the participating students were surveyed, and the survey revealed the significant development of the following aspects:

- critical thinking of the learning outcomes and transparency of the grades awarded;
- self-evaluation and peer evaluation skills;
- communicative skills, since the work is carried out in collaboration.

5. Conclusion

The suggested didactic method aimed at the activation of students' independent work was applied in student groups majoring in "Biotechnical Systems and Technologies", and "Radio Engineering Systems and Complexes" included into the Federal State Educational Standard of Higher Professional Education in the Russian Federation. The method was used within the study courses: "Radio-Automation Engineering" and "Biotechnical System Management". As a result, the variable-based structuring of the study material based on regularities of human cognition with the use of "workshop" interactive tool made it possible to significantly intensify the efficiency of cognition in the context of blended learning.

The tendency manifested itself in the noticeable increase in the results of students' independent work. About 90 % of students submitted their assignments by the due date under fixed deadlines, grading transparency, critical analysis of typical and non-standard professional case-studies.

Participating students developed their communicative and reflexive skills due to active involvement in self-evaluation and peer evaluation procedures.

The participating students demonstrated increase in their learning and cognitive activities due to the flexible set of integral mark components: grades awarded for the work, grades awarded for the assessment of work and increase in the number of peer-evaluated works.

Thus, we argue that the learning and cognitive activity was intensified in students' independent work at laboratory and practical classes with the consequent reporting.

The novelty of the current research is as follows:

1. The research provides a didactic rationale for the learning module design within the logical structure of the cognitive process under variable-based combination of classes in blended learning.

2. The authors present a variable algorithm of workshop structuring as a tool for stimulation of students' cognitive activity in the framework of their active independent work.

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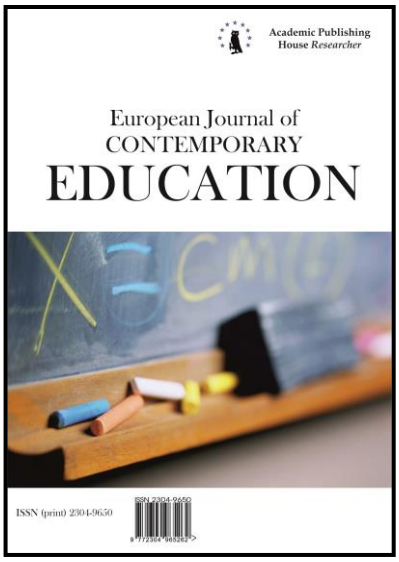

Educational-Cognitive Barriers in the Preparation of Future Social Pedagogues for the Prevention of Social Dependencies

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Abstract

This paper brings to light the essence, characteristics, and role of educational-cognitive barriers in the preparation of college-attending future social pedagogues that may arise in the process of their mastering social-pedagogical skills related to the prevention of social dependencies. The authors share the findings of their study of a typology of such obstacles in the educational process. Special attention is devoted to typical educational situations in the preparation of students (e.g., getting engaged in methodological activity related to preventing social dependencies, testing mastered methodological schemes and algorithms in activity related to preventing social dependencies, and discovering methodological knowledge) and specific educational-cognitive barriers dominating these situations.

Keywords: social pedagogue, educational-cognitive barriers, prevention of social dependencies.

1. Introduction

Among the most acute and multi-faceted interdisciplinary issues facing researchers today is the issue of preventing social dependencies (narcotic, alcohol, nicotine, TV, computer, game, food, etc.), which are proven to have highly detrimental effects on people's wellbeing, these effects known to well persist through time. The dramatic escalation in the rate and scale of the spread of the various forms of dependent behavior among children and adults signals the need for enhancing the professional preparation of future social pedagogues for the prevention of social dependencies. This adds relevance to the issue of searching for new models for the professional preparation of

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social pedagogues and reconsidering the content, means, and methods of the formation of professional competencies in them.

A special place in the preparation of social pedagogues for activity related to preventing social dependencies belongs to educational-cognitive barriers (ECB), which are linked with the functions of the subject of cognition and overcoming which is regarded as the means and the end result of learning. As scholar I.Ya. Glazkova justly points out, "the deliberate creation, prevention, or overcoming of barriers in learning is one of pedagogical objectives, while the barrier itself is a medium that facilitates the personal and professional development and self-actualization of the subjects of the educational process" (Glazkova, 2013). In this regard, it appears necessary to work out and implement in the educational process a system of barriers that would factor in the characteristics of the professional activity of social pedagogues and the degree of educational-cognitive preparedness of students. Knowledge about ECBs will help organize the interaction between the student and the teacher in such a way as to minimize the blocking impact of barriers and amplify their positive potential in the personal development of learners and activation of their educational-cognitive activity.

The purpose of this study is to develop a set of theoretical notions of ECBs in student learning and identify specific ECBs of future social pedagogues in their mastering the basics of social-pedagogical activity concerned with the prevention of social dependencies.

2. Materials and methods

The study's general theoretical-methodological basis for the design of the preparation of future social pedagogues for the prevention of social dependencies using ECBs is grounded in a number of psychological-pedagogical theories construing the cognitive barrier as a structural element of creative activity (G.A. Ball, B.M. Kedrov, M.A. M enchinskaya, and Ya.A. Ponomarev), a key element and essential characteristic of educational-cognitive activity (D.N. Bogoyavlenskaya, T.V. Kudryavtsev, A.M. Matyushkin, and R.Kh. Shakurov), and an indispensable part of educational activity (S.I. Vysotskaya, A.V. Korzhuev, A.M. Matyushkin, A.I. Pilipenko, A.A. Pinskii, etc.). Important theoretical sources for the study are works which bring to light the interrelationship between cognitive difficulties, problem situations, and psychological-pedagogical outcomes of resolving them (M.M. Balashov, S.I. Vysotskaya, N.Yu. Postalyuk, etc.), as well as research on the issue of ECBs arising in the process of student learning (I.N. Belyanina, L.A. Gerashchenko, A.N. Loshchilov, N.V. Marakhovskaya, etc.). Of particular interest in the context of developing the theoretical foundations of ECB creation and clearance in preparing social pedagogues for the prevention of social dependencies are the concept of ECBs (Tyunnikov, 2001; Chernenko, 2000) whereby ECBs are considered within a system of goal-functional, content, structural, temporal, and instrumental design characteristics and the central tenets of an integrated approach to preventing social dependencies in teenagers (Vorob'eva et al., 2012; Maznichenko, Neskoromnykh, 2013).

The study was conducted within the Sociology and Pedagogy Department at Sochi State University between 2015 and 2016. It featured 125 students (future social pedagogues), some undertaking intramural and others extramural study.

To achieve the study's objectives, the authors utilized the following methods: theoretical analysis, modeling, exploring and generalizing a body of social-pedagogical experience, retrospective analysis of one's own pedagogical activity, involved prolonged observation, surveying by questionnaire, expert assessments, conversations, analysis of the products of activity, and analysis of documentation.

Resolving the objective of identifying dominating ECBs involved engaging a pool of experts (instructors in the Sociology and Pedagogy Department at Sochi State University, practical training supervisors, and secondary-school social pedagogues). The experts analyzed specific groups of educational situations created in the process of preparing students for the prevention of social dependencies and then established dominating ECBs for each group. The analysis of mass situations involving educational-cognitive student difficulties helped develop a typology of ECBs.

By analyzing the content of social-pedagogical activity related to the prevention of social dependencies and constructing relevant methodological schemes (social-pedagogical problem → characteristics of the object of the social-pedagogical problem → methodological scheme as a

variant of social-pedagogical activity on resolving the problem → methodological recommendations on the practical implementation of a methodological scheme), as well as factoring in the findings of the research by N.P. Ivanova (Ivanova, 2011) and L.A. Nikitina (Nikitina, 2010), the authors developed a whole array of educational situations for immersing the student in the professional field of prevention of social dependencies. All educational social-pedagogical situations were first ordered by social-pedagogical problems and areas of preventive activity and then – by their place in the professional preparation of future social pedagogues.

3. Discussion

In the theory and practice of learning, overcomeable difficulties linked with the functions of the subject of cognition are considered in direct association with the concept of "problem situations". A problem situation is believed to have its origins in the emergence of a mental state of difficulty which the individual is aware of when, during the course of practical or cognitive activity, they come across some kind of an obstacle – and there arises a need to look for ways to overcome it. Construing a barrier as a factor of influence upon the learner is what forms the basis of barrier pedagogy (Gormin, 2004).

Yu.S. Tyunnikov suggests that "a barrier is to be viewed not as a problem but as difficulties arising in connection with a problem – or preceding a problem and giving rise to it" (Tyunnikov, 2013). According to A.N. Loshchilov, ECBs could be viewed as a didactic explication of a psychological-cognitive barrier the effectuation whereof stimulates the intellectual development of learners and leads to the activation of the emotional-volitional and motivational sphere of their personality (Loshchilov, 2004).

ECBs arising in the course of the professional preparation of future social pedagogues have to do with the specific characteristics of professional social-pedagogical activity. The major factor facilitating the emergence of this kind of cognitive barriers is the potential that the learner will be able to complete the assignment laid before them using a certain technique they know and based on knowledge they possess. Overcoming barriers that arise requires engaging in an active, transforming thinking activity.

The professional preparation of future social pedagogues for the prevention of social dependencies can be viewed as a specific object of pedagogical design, as the process and the result of implementing a particular system of ECBs, one governed by the following factors: the strategy and logic behind deploying social-pedagogical activity related to the prevention of social dependencies, the cognitive capacity and level of professional preparation of students, the characteristics of educational material, and the way ECBs are structured (grouped) in alignment with types of educational situations created.

The authors construe an educational situation as one of educational tension, one that encourages students to analyze, design, and forecast the mutual influence of the subjects and objects of social-pedagogical activity and causes in future social pedagogues a state of intellectual difficulty. A situation can be characterized as educational if the student marks off a problem that has arisen during the course of their social-pedagogical activity, takes relevant research steps in respect of that activity, and puts into effect educational actions leading to their "discovering" some kind of novel methodological knowledge or verifying a specific way of action.

Thus, the specificity of educational situations consists in the following: a future social pedagogue is put in a situation of where there is a complete (or partial) lack of knowledge as to what to do, a situation of uncertainty in terms of methodological activity related to the prevention of social dependencies in teenagers, and personally resolves it, which leads to changes in how and what the person does and some personal changes.

The modeling of the process of professional preparation of students for the prevention of social dependencies based on ECBs leans on a stage-by-stage logic grounded in: the pre-design (essence-related, functional, and content) analysis of the specificity of students' educational-cognitive activity in the setting of higher learning; the formation of the design image of educational-cognitive activity through the instrumentality of its design components and characteristics; the systematization, selection, and structuring of ECBs as the basis for the modeling of the professional preparation of social pedagogues; the development of proper educational situations and didactic techniques for ECB creation and clearance.

Managed student ECB clearing in learning is construed as a pedagogical process predicated upon two-way interaction between the teacher and students and built upon certain research-and-methodology approaches aimed at remediating the misalignment of the Psychological and Pedagogical Education domain of preparation of bachelors and the actual degree of formation of learners' professional competencies with the requirements of the Federal State Education Standards for Higher Education imposed with regard to the preparation of students in colleges; fostering the development of one's intellectual, motivational, and volitional spheres; creating and resolving educational situations that cause ECBs; analyzing, assessing, and discussing in a joint manner the results of students' educational and professional activity.

The idea of deliberate ECB creation and clearance in the process of preparation of students for the prevention of social dependencies is predicated upon the principles of barrier pedagogy: dialogical interaction between the subjects of the educational process, a barrier's developmental potential, measuring out difficulties, the significance of barriers to the person and the degree of the person's awareness of them, the principle of reflecting on barriers, the decatastrophization principle, and the domination of a problem situation (Glazkova, 2013).

The effective management of the process of preparation of students for the prevention of social dependencies can be ensured through the use of specific didactic techniques for ECB creation and clearance. From a goal perspective, didactic techniques comport with the objective of modeling professional preparation for social-pedagogical activity related to the prevention of social dependencies, from a structural-logical one – with types of educational situations and types and kinds of problem situations utilized, and from a perspective of actualized cognitive contradictions – with mechanisms and ways of conducting educational-cognitive activity.

4. Results

As a result of carrying out this study, the authors identified specific ECBs creating and overcoming which may facilitate positive changes in the cognitive, emotional-volitional, and motivational spheres of the personality of future social pedagogues, stimulate their intellectual development, and ensure their immersion in a constructed field of professional trials.

Let us take a look at some of the typical educational situations in the methodological preparation of students for the prevention of social dependencies and ECBs these situations are dominated by.

Group 1: getting engaged in methodological activity on preventing social dependencies. Educational situations within this group are intended to help change the student's stance in respect of educational activity – by facilitating the shift from the practice of perceiving methodological knowledge that is already available to that of making "discoveries" in the methodology of social-pedagogical activity. Such situations are characterized by the following:

a change of reality – the student's imagined switch from an audience, they are part of, to an educational or social facility, the informal institution of the street, the family of a teenager, and other types of space for the latter's activity and interpersonal communication;

a change of roles – the student assuming the role of a social pedagogue, pedagogue/psychologist, teacher, teenagers (those who are dependent, prone to dependency, at-risk, etc.), their parents (maintaining the child's social dependency, forbidding the teenager access to the object of social dependency, etc.) and engaging in discussing a social-pedagogical problem in accordance with the roles set up;

actualizing a methodological technique – drawing upon the student's experience and constructing a methodological technique in a pair or a micro-group;

playing out a methodological technique – demonstrating a methodological technique in front of an audience and having it discussed by "analysts", "critics", "experts", as well as "social pedagogues", "class masters", "pedagogue/psychologists", "social workers", etc.;

capturing difficulties – defining difficulties arising in the process of resolving an educational situation, playing out a methodological technique, etc.; representing difficulties in graphic form; establishing the reasons behind difficulties;

planning out steps for overcoming a difficulty – constructing a way of getting out of a difficult situation (setting a goal, drawing upon a body of experience, analyzing the literature, comparing a number of proposed ways of overcoming the difficulty, providing a rationale for one's vision of a methodological technique, etc.).

The process of resolving Group 1 educational situations is dominated by the following ***student ECBs***:

barrier of distilling a situation out of a system: the student has difficulty distilling some of the substantial attributes of an object (phenomenon) which most fully reflect its content (e.g., being unable to find the common in the psychological portraits of teenagers with computer and cellular-phone dependencies);

barrier of logical unfolding of the process of resolving a situation: the student knows certain fragments of the resolution process but is unable to link them logically;

barrier of the choice of alternative means: the student has difficulties in the choice of means and ways of action (e.g., having difficulty differentiating between the means of engaging a dependent teenager and an at-risk one in socially useful types of activity).

Group 2: testing mastered methodological schemes and algorithms in activity related to the prevention of social dependencies. The authors view a methodological scheme as a sequence of actions taken by a social pedagogue in resolving a social-pedagogical problem.

Educational situations within this group help future social pedagogues fill methodological schemes and algorithms of social-pedagogical activity they have mastered (or "discovered") with content through the analysis of the components of a mastered methodological scheme, transformation of a known scheme of actions, choice of a way to implement a methodological scheme on practical material (under altered conditions), and analysis of an implemented methodological scheme. In resolving Group 2 educational situations, future social pedagogues get to apply knowledge they have received and reconstruct and adapt to a specific situation the body of experience of engaging in professional activity they possess. Such situations are characterized by the following:

executive actions on a methodological scheme – incorporating, with no changes, a methodological scheme into social-pedagogical activity (e.g., applying a demonstrated methodological technique under specific conditions);

setting a new methodological (social-pedagogical) problem – the student lacks some knowledge (psychological, pedagogical, legal, etc.) needed to perform certain actions based on a scheme and is unable to fill with specific content all of the steps in an algorithm, which leads to the detection of discrepancies between the intended design of a known methodological scheme and its actual implementation in practice and to the setting of a new methodological problem;

multi-aspect look at trials of the operation of a methodological scheme in practice – the student's actions on implementing a methodological scheme are analyzed from the perspective of an analyst, critic, expert, or researcher;

reflecting on trial actions on a methodological scheme – posing questions (e.g., What worked out? What did not work out? What kind of difficulties did one have? What were the causes of those difficulties? What needs to be changed in one's preparation for the conduct of social-pedagogical activity? What needs to be done to overcome the difficulties arisen?) and suggesting answers for them;

transforming one's trial of the implementation of a methodological scheme – undertaking a repeat of the trial accompanied by going beyond the methodological scheme; correcting the scheme;

correcting one's professional-educational activity: the student putting together and implementing a plan of independent work on enhancing one's professional making.

The process of resolving Group 2 educational situations is dominated by the following ***student ECBs***:

barrier of a synthesis of methods in resolving a problem – the student, armed with a roster of particular methods or techniques, has difficulty resolving a problem that requires the combined use of some of those methods or techniques (Akindinov, Dudulin, & Semizorov, 2009);

barrier of planning out one's activity as per a methodological scheme – the student has difficulty performing actions in the proper sequence and with the right correlation of intervening steps in the operations;

barrier of forecasting one's activity – the student is unable to come up with ways to resolve problems and determine possible intervening and end results;

barrier of transforming a known methodological scheme – the student is unable to

transform a methodological scheme in accordance with specific conditions, correct their actions in accordance with their subjective characteristics, conduct a search for information that is missing, and generalize knowledge; cannot see in their practical activity the disparities and overlaps with a known methodological scheme;

structural match barrier – the student is unable to identify the characteristics of the object of activity, determine causal, functional, and other linkages between objects, and establish a match between the object and the way of action;

barrier of transfer of knowledge into a new situation – the student is unable to transfer the conceptual content of one situation into different conditions and has difficulty putting together particular problems and generalizing knowledge;

barrier of search for missing information – the student has difficulty identifying the attributes, properties, and functions of an object, grouping information, and identifying missing information;

barrier of comporting with practice – the student has difficulty applying knowledge in practice and constructing a system of particular social-pedagogical problems.

Group 3: "discovering" methodological knowledge. Educational situations within this group help future social pedagogues initiate a research quest for novel techniques, ways, and means of prevention. Such situations are characterized by the following:

students drawing upon their own experience of social-pedagogical activity – reflecting on one's activity on preventing social dependencies;

teaming up with other participants in the search for ways of resolving a difficulty – discussing a methodological problem and looking for a "discovery" in company with one's fellow students;

executing the research steps – analyzing alternatives proposed, selecting and providing a rationale for a solution (a way to overcome a difficulty), and testing a newly constructed methodological scheme.

The process of resolving Group 3 educational situations is dominated by the following ***student ECBs***:

"rolled-up brainwork" barrier – the student is unable to unfold the course of their reasoning which led them to a paradoxical result; unable to present it as a sequence of elementary "steps" and "operations" linked by logic (Akindinov et al., 2009);

solution localization barrier – the student is unable to determine the boundaries (conditions) for the application of a known methodological scheme or a solution to the educational situation;

large distance barrier – the student is unable to distill common attributes between different situations;

activity self-analysis barrier – the student has difficulty capturing a disparity or an overlap, evaluating the process and result of their activity, making changes to that activity, and correcting the means and methods of conducting it.

The types of ECBs identified and described as part of this research study helped put together a diagnostic program for identifying ECBs, as subjective sensemaking obstacles for students, that occur most commonly in the preparation of social pedagogues and working out relevant methodological recommendations for instructors. For each type of ECBs, the authors described specific ways of overcoming them.

5. Conclusion

A peculiarity of this study is that in it the process of preparation of future social pedagogues for the prevention of social dependencies is viewed and designed as the process and result of utilizing a certain system of ECBs. The study describes specific types of relevant educational situations and identifies dominating ECBs, which are detailed from a goal, information-content, and operation-activity perspective. The system of ECBs, which incorporates student activity on overcoming these barriers, forms a technologized learning space for preparing future social pedagogues for the prevention of social dependencies through fostering barrier competence in the subjects of the educational process.

Theoretical notions of ECBs could become the basis for the study of mechanisms related to overcoming such barriers in the process of professional preparation of social pedagogues.

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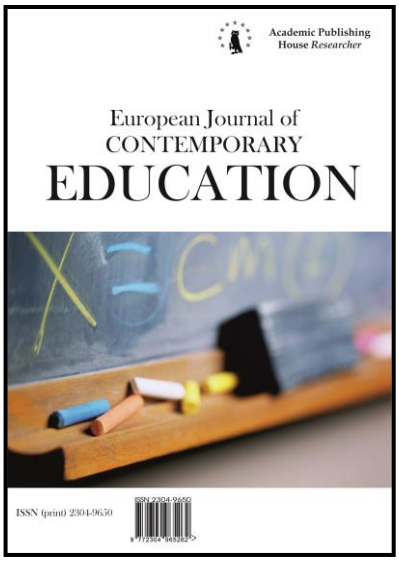

Characteristics of the Process of Culture Development Project Activities (Culture of Social Engineering) at the Future Bachelors of Social Work

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Abstract

In modern Russia professional activity productivity of social work specialist depends largely on his abilities and skills in the field of social design. University graduate`s (social work bachelor`s) high level of professional-project activity culture can be regarded as one of the necessary conditions of successful labour market adaptation of young specialists in social sphere institutions. The article discusses various aspects of future social work bachelors` vocational project activity culture formation process during the study period at university.

Development in social work bachelors the culture of vocational project activity is one of important normative standardized characteristics of their professionalism. Today a social work specialist in addition to possession of a wealth of interdisciplinary knowledge is required skills in terms of understanding social reality with further appropriate actions to its positive, constructive perspective transformation. This requirement necessitates the formation of culture of vocational project activities of future bachelors of social work.

Keywords: social work, professional culture, students` social projects, future social workbachelors training (or social work education).

1. Introduction

In the document "Basic directions of the Russian Federation Government activity for the period until 2018 (approved by the Prime Minister of the Russian Federation 31.01.2013)" it is noted that for sustainable operation of a new model of Russian society`s economic and social development it is necessary to improve social services quality, and accessibility for various

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categories of citizens to meet their social needs fully and effectively, social and cultural interests of people. To achieve this we should implement social projects and programs focused on social problems prevention and solution, corresponding current and future citizens` demands in the field of social services quality improving, satisfying needs of different population groups to protect their rights, and support social initiatives.

In modern Russia professional activity nature of a social work specialist (a specialist in social services sphere) requires qualified solutions of a number of problems directly related to project activities: from the design process to optimize own labor activity to new types of social services design, new models, ways of interaction with client systems, new technologies of social service management and its structural units.

Types of social work specialist`s project activities (we should note that the position "social work specialist" in Russia can be given to University graduates with "social work bachelor" degree) due to a combination of job functions, which are recorded in the document "Professional standards for social work specialist" (approved by the Russian Federation Ministry of labour and social protection, 22 October 2013 №571н). For example, in this document it is indicated that generalized employment function of a social work specialist is "planning, organization and control over social services implementation and social support measures" (labour function code – 6). This labour function according to the content of "Professional standard of a social work specialist" is specified in the following private functions:

- forecasting and *projection* (italics are the authors`) of social service implementation process, volume and quality of rendered social services, social support measures (private function code B/01.7),
- organization of the department activity (experts group) on social services implementation (private function code B/02.7),
- social service quality and effectiveness control and social support providing (private function code B/03.7),
- proposals preparation on social assistance and social services development (private function code B/04.7).

In fact, in the above named list of a social work specialist functions there is consistency of social design in process implementation.

In the Federal state educational standards of higher professional education in the direction of training "Social work" (bachelor) it is postulated that a student in during University training should be prepared to implement the following types of professional activity: social and technological activities, organizational and management, research, commitment to implement *socio-project* activities.

The presented material necessitates forming of professional-project activity culture of a social work bachelor (SWB) at University.

2. Literature Review

Content and technologies of social work as a special kind of sociological ("helping") professional activity have significantly modified together with socio-economic, socio-political, information technology, socio-psychological changes and other aspects of modern Russian society life the, and, as a consequence, this entailed the need for changes in the sphere of informative-technological basis of social work specialists` vocational training process in undergraduate and graduate programs for bachelors and masters in "Social work" field.

Since the beginning of XXI century in Russian system of higher education (because of Russia`s Bologna process joining) has been steady (and by the second decade of the twenty-first century has been) shifted from "knowledge" educational paradigm to "competence". However, over the past two decades the interest of researchers and practitioners, and representatives of professional communities to the problem of *cultural approach* implementation in higher education in the process of personnel vocational education in social sphere has not been decreased.

The literature analysis on the problem of formation of vocational project activity culture of a social work bachelor at University showed that there is a sufficiently solid theoretical and methodological foundation for its further development. For example, in the writings of several scholars (Barker et al., 1971; Basov, 2010; Bocharova 1999; Grigoriev, 2009; Firsov, 1998; Reamer,

2013; Taylor, 1999; Yarskaya-Smirnova, 2006) conceptual basis of culturocentric theory of social work specialists` professional education have been described.

In works of group of researchers (Agronina, Nikitina, 2011; Cameron, Este, 2008; Koprowska, 2010; Kulichenko, 1997; Lishman, 2009; Medvedeva, 1999; Nikitina et al., 2015; Pozdnyakov, 2007; Welbourne et al., 2007) different parts (essential components) of professional culture of a social work specialists were investigated (in particular, professional communication, ethical and psychological-pedagogical culture of a social worker, gerontology, professional legal culture of a social work specialist, management and research culture of a social work specialist), and also methods (technologies) of these types of culture formation in the period of future social work bachelor`s professional training at University were identified (Anderson, 2002; Postlethwait, 2012; Valeyeva et al., 2016; Wilks, Spivey, 2010; Zakharchuk, 2006; Zhdanova, 2013).

Almost in all analyzed during the research scientific works on problems of cultural approach implementation during social work bachelors training in higher education it is noted that in the period of university education in varying degrees (depending on many factors, including individual characteristics of a student) the following invariant components of future young specialist`s professional culture develop:

- motivational-value component of professional culture (includes, in particular, understanding by a future specialist the importance, social value of high quality of his work, etc.),
- intellectual (or professional-educational) component, which reflects the presence of knowledge system required for a conditional "standard of a professional", development of basic legal, ethical and other norms that regulate professional activity of a specialist;
- active part of professional culture, which manifests itself in skills, competencies, readiness and abilities of a young specialist on a daily basis in a real working environment adequately realize their mastered system of professional actions, technologies, etc., following the required norms, rules.

For scientific understanding of this article the methodology of social planning (Kruchkov, 1998; Kurbatov, 2000; Toshchenko, 1996), theories of development and implementation of social projects (Alekseeva, 1996; Lukov, 2007; Safronova, 2007) were relevant.

The works of scientists (Chechel, 1998; Krylov et al., 2015; Matyas, 2011; Simonenko, 2003) describe theoretical and methodological foundations of project-based studying and professional training processes and systems design.

3. Methods and Data

The article presents some results of a long-term (2002–2016) experimental work of the authors on formation of professional-project activity culture of future social work bachelors as teachers, supervisors, volunteer and student scientific associations of social work faculty, Russian State Social University (RSSU).

At various stages of the experimental work 385 full-time students (aged 17 to 22 years) and 513 correspondence course students (aged from 25 to 45 years) in Social work field (undergraduate); 68 professors; 96 social work professionals and 57 representatives of administration of RGSU practical bases took part (the bases were Social Centers for Population, Centers of social assistance to families and children, Socio-gerontological centers, social shelters, orphanages, Centers of employment, etc.).

During the experimental work on the issue of the article a complex of methods were used: theoretical methods (analysis, including normative-legal documents` analysis, curricula and syllabus, practices programs, modeling, systematization, classification); experimental methods (interviewing, observation, questionnaire survey, pedagogical experiment, testing, content analysis, method of delayed control, etc.); mathematical methods of experimental work data processing (Welchcriterion, Fishercriterion, etc.).

4. Results

4.1. Essence of culture of vocational project work of a social work bachelor

Modern labor market makes high and varied demands on the content, functional purpose of culture of professional activity of social services specialists.

Professional culture of social work specialists is a socio-cultural phenomenon (a special social and cultural phenomenon), which reflects quality and condition of a particular society as a whole

(for example, quality of spiritual, moral, legal, ethno-confessional, tolerant, social, psychological, and other components of social life), and qualitative state of interrelated professional groups (professional associations of social, medical, law enforcement, and other services specialists), and qualitative state of professional education system in social sphere, which should integrate modern science achievements in fields of anthropological, sociological, cult urological, psychological and pedagogical and other scientific industries, developments in modern technologies of socio-professional activity.

Undertaken by the authors in the research process multivariate analysis of quite extensive array of theoretical and empirical material allowed to formulate the following definition: culture of professional and project work of a social work bachelor is a personal entity, which integrates motivational and volitional, cognitive, eclectic (from lat. syncretismus – continuous, united), activity-operational, reflexive-acmeological components, reflects the degree of mastering by an expert system of individually kind of methods, techniques, technologies for development and implementation of socially-oriented project, daily is manifested in professional tasks solution.

To identify the totality of professionally important skills, which constitute substantial procedural basis of culture of vocational project work of a social work bachelor (SWB), job description analysis of social work specialists was conducted; qualification requirements and regulations governing these specialists` professional activities were studied. Also interviews with practitioners and representatives of social security institutions administration, social support, and social welfare of population were held; teachers of universities, institutes of advanced training of social work specialists were surveyed and interviewed. As a result theoretical and empirical data were obtained. Based on the analysis of these data following necessary professional skills of SWB, which constitute a substantial procedural basis of cultural existence of vocational project activities:

- analytical and marketing skills (these are skills to implement comprehensive and multifaceted analysis of current problems in the processes of providing various social services to the population, problems in informational support of social practices and concrete problems of life of a community of people, actual or potential categories of social services clients; ability to conduct market research in social sphere);
- system informational skills (these are skills on basis of modern computer and information technologies usage, specialized software for mathematical working of data to carry out multivariate, cluster analysis of gathered at different stages of project work, theoretical and empirical material);
- prognostic-modeling skills (these are skills to apply adequately to existing source data, the analysis of specific social situations, methods of prognostics, skills of social processes and systems modeling);
- professional-legal skills (these are skills with a glance at specific characteristics of a particular social project to justify a regulatory framework for its implementation; skills (if necessary) to develop legislation drafts, normative, legal, regulatory, guidance documents; ability to process project documentation);
- socio-economic skills (these are skills with a glance at specific characteristics of a particular social project to prepare a cost estimate of its implementation, skills to collaborate with economists-professionals to carry out business plan development, ability to apply fundraising technologies for funds bringing to social projects implementation);
- praxeologically-correcting skills (these are skills to analyze timely and accurately the real state of affairs at various stages of project activity, ability to apply specialized diagnostic techniques to determine deviations from defined standards of project implementation, ability to develop and implement quickly programs to adjust negative situations);
- assessment-expert skills (ability to apply in practice methods of social qualimetry, abilities to implement expert evaluation method, ability to conduct monitoring studies in social sphere).

The levels of manifestation of vocational project work culture of a social work bachelor are:

- singular-professional level (from lat. Singulus – single, one-dimensional); this level is characterized by the fact that SWB qualitatively develops and implements social projects, usually of the same kind;
- additive-professional level (from lat. Addere – to add, summarize; in philosophy "additive" – total, but does not form a unified wholeness); this level is characterized by the fact that SWB knows enough to competently and efficiently implement several types of social projects, however,

as a rule, there are separate "spaces" either in the level of legal training, or in economic or in general methodological readiness in project management field;

- professional-multiplicative level (from lat. multiplicative – increase, multiple); this level is characterized by the fact that SWB is fluent in interdisciplinary foundations of social design, is able to apply variable design technologies; professionally and personally is ready and able to implement social projects of various kinds.

4.2. Characteristic of formation procession university culture of vocational project work of a social work bachelor

The culture of professional and project work of a social work bachelor in its essential form has some specific features:

a) on the one hand, this culture requires *individual and distinctive* intellectual skills to understand cause-and-effect relationships that occur in social systems (processes, phenomena) when you change their parts, *individually-creative* abilities to produce (generate) original decisions of problem situations, creative ways of solving professional tasks that will be demanded in future and will be able to contribute to creation of new (improved) conditions of humanity social life,

b) on the other hand, this culture involves development of specialist`s competencies of social collaboration and team collaboration, formation of skills to interact with team of specialists (members of social planning team) in situations of varying degrees of ambiguity and complexity (and sometimes, it is hard and calculable risk), in terms of multidisciplinary (multifunctional) professional space.

This (above) means that for development of culture of vocational project work of social work bachelor during the period of university training, on the one hand, implementation of training process individualization (with the aim to adjust, develop for a particular student his "sinking down", underdeveloped structural components of a given culture), and, on the other hand, active usage of interactive group, training forms and technologies of professionally-oriented training (to develop skills of team work, skills of productive personal and business interaction in micro-group work).

The process of formation of culture of vocational project work of a social work bachelor in university was implemented by stages.

Explicative stage (from lat. Explication – an explanation, deployment) was that students were professionally oriented in modern social work demands as a special kind of professional activity in "man – man" system; future SWB mastered software-basic of interdisciplinary knowledge in the field of social planning, etc.

Quasi-professional stage (from quasi-professional – like, similar, approximate, i.e. simulation of professional activities) included during business games process development of scenario basis, different kinds of social projects software, first experiments on established projects realization in terms of volunteer work within student government, academic practices, etc.

Productive-professional stage involved reflection and self-analysis by students of the results of the implementation of social projects that they had developed in the conditions of specific social services lives, etc.

For the culture development of professional-project activity of social work bachelors technologies of critical thinking development, design technologies, case studies, contextual learning technologies, technologies based on application of methods of TIPS (theory of inventive problems solving), professionally-simulation gaming and training technologies were actively used. RSSU held annual contests of students` social projects with practitioners and employers involvement as juries. Also there was organized work of scientific students` society "Social planning in professional activity of social work specialists" as well as activity of students` volunteer center "Good act".

In the process of four-year study at university nearly each "Social work" bachelor took part in development and implementation of the following social projects:

- projects of socio-pedagogical profile (were implemented in orphanages sponsored by RSSU, social assistance Centers for families and children; in the Autonomous nonprofit organization "Russian family traditions");

- projects of social rehabilitation profile (were implemented by students in conjunction with social workers that deal with persons with disabilities and children left without parental care. In particular, students together with Department of ward ship specialists, guardianship and patronage of "Preobrazhensky" district, specialists of Centers of social assistance to family and

children "Khoroshevskaya" and "Vostochnoe Degunino" implemented a project on a remote additional education for children with disabilities "School of a young Moscow scientist", "School of a young designer", "School of a young psychologist", etc.);

- projects of social law profile (in particular, a project on creation on the basis of RSSU a legal advisory center, and similar centers like "Legal assistance" were created in a number of territorial centers of population social servicing);

- projects of socio-medical profile (were implemented by students in collaboration with specialists in social work who, in their professional activity interact with healthcare institutions, provide socio-medical services; in particular, in state institution "Scientific-practical center of medical-social rehabilitation of disabled named after L.I. Shvetsova" a project "You can do everything" aimed at social adaptation of people with disabilities was implemented);

- socio-economic projects (for example, on the basis of City resource center of family support and child welfare "Otradnoe" Association of mutual help for large families was created etc.);

- projects of socio-psychological profile (trainings to enhance professional self-determination of children's homes pupils, trainings for socially-pedagogical culture of guardians development, trainings on development the skills of adaptation in labor collective for young professionals, etc.).

All of the above socially-oriented projects were developed, prepared and implemented according to the following stages.

1. Preparatory work for "synecticssession" or "brainstorming". The participants of this "session" are social work faculty students (fields of study "Social work", "Psychological and pedagogical education", "Organization of work with youth"), volunteer students of information technology faculty, and volunteer students of psychology and law faculties, members of volunteer center (social services) "Good act".

In the process of preparation for these "synectics sessions" students previously mastered in the classroom at discipline "Theory and methods of social work" (this discipline is studied by all students of RSSU, all courses of training in variable part of the curriculum), at training courses at " Culture of professional and project work of social work specialists" (for specialty "Social work"), "Culture of professional planning activity of social sphere specialists" (courses of training "Psychology pedagogic education", "Organization of work with young people") at seminar-training "Bases of theory of inventive problem solving (TIPS) and social planning" the following theoretical and methodological positions:

a) application of TIPS ideas of G.S. Altshuller in social planning practice, in particular, students mastered the rules of finding and formulation of ideal final result (IFR), the basic positions of "Code of problems solver" (including resolution of difficult life situations problems);

b) algorithmic stages of social planning;

c) they studied the basics of fundraising, psychology of creativity, creativity, the foundations of social innovation; theoretical and applied bases of forecasting, designing and modeling in social, socio-pedagogical work.

Also many students from the "synectic sessions" took an active part in work of regularly organized at Social work faculty "roundtables" on such topics as "Specificity of planning activity and planning principles in youth environment", "Features of socio-oriented planning in professional activity of pedagogic-psychology specialists", "Social forecasting, planning and professional activity of social work specialist: theory and practice interaction", "Social projects: from idea to implementation". In the process of conducting these "round tables" in quite vivid discussions representatives of professors, lecturers of RSSU, students and invited practitioners, graduates of the University the following issues were discussed:

- possibility and necessity of social planning technologies application in youth problems solution, while organizing cultural leisure, sports and recreation, vocational guidance work with students;

- features of socially-oriented planning in the field of social gerontology (peculiarities of projects` implementation in Socio-gerontological centers);

- mechanisms for social planning implementation and social partnership development in the field of youth employment promotion and professional realization of young specialists;

- features of social planning in legal services sphere (legal help) to different groups of population (usage of Internet technologies in the process of social projects implementation with human rights, legal advisory focus);

- possibility and necessity of social planning technologies application in promoting social adaptation of orphanages graduates;
- specifics of social planning in the field of inclusive education;
- role and importance of marketing technologies in social project development and implementation;
- social planning and business planning: theory and practice relationship;
- social planning and development of social partnership in youth environment;
- historical aspects of formation and development of social planning: what historical-cultural (social-engineering) experience is relevant today, what experiences can be revived and adapted to modern conditions?;
- role and importance of expert assessments in modern social forecasting and planning;
- methods of assessing of reality (feasibility) of a social project in conditions of various types and kinds social services; technologies, methods and techniques of evaluating actual and potential risks;
- mechanisms, technologies (methods and techniques) of project activities implementation in social work practice;
- role and importance of monitoring technologies during social project`s development and implementation;
- modern variable models of expertise in social forecasting and designing.

2. "Brainstorm" conducting to discuss specific socially-oriented tasks (for example: a) tasks regularly on Saturdays on the basis of RSSU by volunteer students and professors to hold "University Saturdays" for pupils, students of colleges to identify and further support talented children, promote professional self-determination of students, create conditions for productive and positive personal interactions of students with disabilities with other members of "University Saturdays" in inclusive environment, etc.; b) organization of distant forms of realization of developing education programs for 10–16 years old children with disabilities using modern information technologies (the children are attached to territorial Centers of social assistance to families and children); c) in sponsored mental asylum implement the program (pre-designed on the basis of "marketplace of ideas") socio-pedagogical support of skills development of young disabled people (age 18–26 years old with mild mental retardation) social adaptation, who will be alumni of this boarding school, etc.).

As a result of analysis of proposed problematic social situation for members of the project group the essence of the problem "distilled", and solution of it will be their upcoming project; they formulate working title of the project, outline its themes. Then at this stage, the project team analyzes existing domestic and foreign experience of solving similar social problems, as well as analyzes available information, if there had been any similar projects in the area of chosen topic. In the end, at this stage, after discussion, (organized by a special technique in technologies of moderation style, and filled out expert sheets, etc.) they formulate final idea (priority plan), goals and objectives of this social project, justify (estimate) feasibility of its implementation.

3. Development of substantive content of project documentation for a pre-defined structural plan. A clear prescription of the project`s management process. They define procedure of events conducting, measures implementation, corrective profile. Possible risks are discussed.

4. Hypothetical (mental) application of the project (self-test), predictive application of the developed criteria and indicators for evaluation of the project results. Experts` evaluation of the project. Updating of the project. Making a reasoned decision about usage of the project.

5. Implementation of the project.

6. Conducting analytical and evaluative sessions.

One of the organizational-pedagogical factors influencing the process of culture development of professional-project activity of social work bachelors is effective operation of students` government, which pay special attention to youth social projects implementation (including, those in framework of volunteer work of students).

4. Discussion: assessment of process effectiveness of culture of professional and project activity formation in social work bachelors

Efficiency of process of formation at university of culture of vocational and project work of social work bachelor we analyzed in a retrospective perspective, i.e. comparing the levels of this

culture development among graduates (full-time and correspondence forms of training) in the field of training "Social work" (bachelor) in different years (2011 graduates, 2012 graduates, 2013, 2014, 2015, 2016 graduates). Thus, during the experiment all students of RSSU (Moscow) in the field of training "Social work" in the period of study were able to master the content of such educational disciplines as "Forecasting, planning and modeling in social work", "Project activity in social services", "Project activities of social work specialists", "Basics of social creativity", "Theory of creativity and social innovation", "Social monitoring system", "Fundraising in social services", "Management of humanitarian projects" optional author`s course "Culture of professional and project work of social work specialists" developed by us substantive and methodological support, to participate in social students` projects volunteering using our developed recommendations and technologies, take place in different practices on programs created with our participation and involved performance by trainees a cycle of specialized tasks that focused on formation and development of culture of vocational and project work of SWB.

Thus, it is possible to say that in our research we have created the so-called "conventional" control group (CG) they are graduates of 2011 in the field of training "Social work" full-time and correspondence forms of training, and experimental group (EG) they are graduates of 2016 in the field of training "Social work" full-time and correspondence forms of education. We emphasize that in the first year students of the CG and the EG (full-time and correspondence forms of training) study at about the same level and it was slightly different for individual indicators. Also in the first year the level of awareness of students of the EG and the CG on content and structural components of professional culture-project work of social work bachelor (according to some polls, interviews, questionnaires) was approximately the same. Therefore, we can consider correct to analyze the effectiveness of the process of formation of culture of vocational project work of social work bachelor at university in retrospective aspect (context).

At graduates of the CG (they are graduate SWB of 2011, n=38 full-time form of studies; n=69 – correspondence forms of studies) and graduates of the EG (they are graduate SWB of 2016, n=34 – full-time form of studies; n=77 – correspondence forms of studies) expert group (10 persons) identified as numerical values on a 10-point scale, the indicators reflecting the formation of professional skills of SWB, which constitute a substantial procedural basis of culture, his professional-project activities (tables 1 and 2).

The group of experts included: 3 head of social service centers for population (the centers for 15 years have been bases for practice of RSSU), 3 social work practitioner with experience of about 15 years (who had positive experience of development and realization of own social projects and oversaw volunteer activities, and internships for RSSU students on the basis of social institutions in which they worked); 2 teachers of universities (who teach relevant, professional-applied disciplines for future SWB and had experience in management and implementation of students` social projects), 2 university graduates (former participants of our experimental work, members of scientific students` society for social planning, laureates of all-Russian students` contest of social projects, social workers of social assistance Centers for families and children, Social-gerontological center).

The experts evaluated the formation of the above skills and in the process of students ` volunteering, and during periods of training and pre-diploma practice, and in the process of social projects protection at conference (before practice and prior volunteer work beginning for a specific social project implementation), and in the defense of term papers that had to do with issues of social planning, etc.

Assessment for each type of professional project skills was carried out on a 10-point scale, and consistency of the experts by definition of coefficient of concordance significance. For the case of the presence of associated rank calculation the formula is:

$$W = \frac{12S}{m^2(n^3 - n) - m\sum_{j=1}^{m} T_j} \qquad S = \sum_{i=1}^{n}\left(\left(\sum_{j=1}^{m} R_{ij}\right) - \frac{\left(\sum_{i=1}^{n}\sum_{j=1}^{m} R_{ij}\right)}{n}\right)^2 \qquad T_j = \sum_{l=1}^{k_j}(t_l^{\,3} - t_l)$$

Here: m –number of experts, n –number of objects ranking, R_{ij} – the rank, t_j is the number of indistinguishable objects in each bunch, $i=\overline{1,n}$, $j=\overline{1,m}$.

Statistic meanings $\chi^2=\frac{12S}{mn(n+1)-\sum_{j=1}^{m}T_j \Big/ n-1}$ let us to determine value: if $\chi^2>\chi^2_{\text{кр}}=(\alpha;(n-1))$ then null hypothesis of the coefficient of concordance is rejected.

The values of the coefficient of concordance, calculated for each type of skills ($0.73<W<0.86$, $270.1<\chi^2<318.2$ when $\chi^2_{\text{кр}}(0.05;(38-1))=52.19$ and $0.81<W<0.89$, $299.1<\chi^2<329.3$ when $\chi^2_{\text{кр}}(0.05;(34-1))=47.8$ for full-time study, $0.76<W<0.88$, $281.2<\chi^2<325.6$ when $\chi^2_{\text{кр}}(0.05;(69-1))=88.25$ and $0.83<W<0.92$, $307.1<\chi^2<340.4$ when $\chi^2_{\text{кр}}(0.05;(77-1))=97.35$ for correspondence courses) allowed to consider the consistency of experts` opinion is not accidental, and, therefore, a comprehensive assessment of formation of professional-project skills of social work bachelors largely true.

To study statistical significance of changes criterion of Welch, which is a powerful parametric test, was used. Distribution of relevant assessments of the bachelors` could be considered close to normal, which was determined by the method of graphic *Q-Q Plot*.

Table 1. Results of the expert assessment of formation of professional and project skills of social work bachelor (RSSU graduates; correspondence courses form of training)

Professional project skills	graduates 2011		graduates 2016		Possibility of equableness (p)
	$\bar{x}_1$	σ_1	$\bar{x}_2$	σ_2	
Analytical-marketing	6.35	1.86	7.17	1.29	<0.05
System information	5.53	1.44	6.57	1.44	<0.05
Professional-legal	6.37	1.48	7.72	1.27	<0.05
Socio-economic	6.13	1.47	6.71	1.5	<0.05
Prognostic-modeling	6.19	1.38	7.11	1.35	<0.05
Praxeologically-correcting	5.74	1.34	6.91	1.57	<0.05
Assessment-expert	6.01	1.27	7.03	1.5	<0.05

Table 2. Results of the expert assessment of formation of professional and project skills of social work bachelors (RSSU graduates; full-time courses)

Professional project skills	graduates 2011		graduates 2016		Possibility of equableness (p)
	$\bar{x}_1$	σ_1	$\bar{x}_2$	σ_2	
Analytical-marketing	6.35	1.12	7.33	1.19	<0.05
System information	5.62	1.21	6.97	1.18	<0.05
Professional-legal	5.84	1.28	7.09	1.24	<0.05
Socio-economic	6.05	1.24	6.7	1.32	<0.05
Prognostic-modeling	6.19	1.19	6.85	1.22	<0.05
Praxeologically-correcting	5.7	1.33	6.18	1.3	>0.05
Assessment-expert	5.54	1.21	7.29	1.18	<0.05

Fig. 1 and table 3 illustrate the evolution in the levels of formation of culture of professional project work of social work of bachelor according to the year of graduating from RSSU.

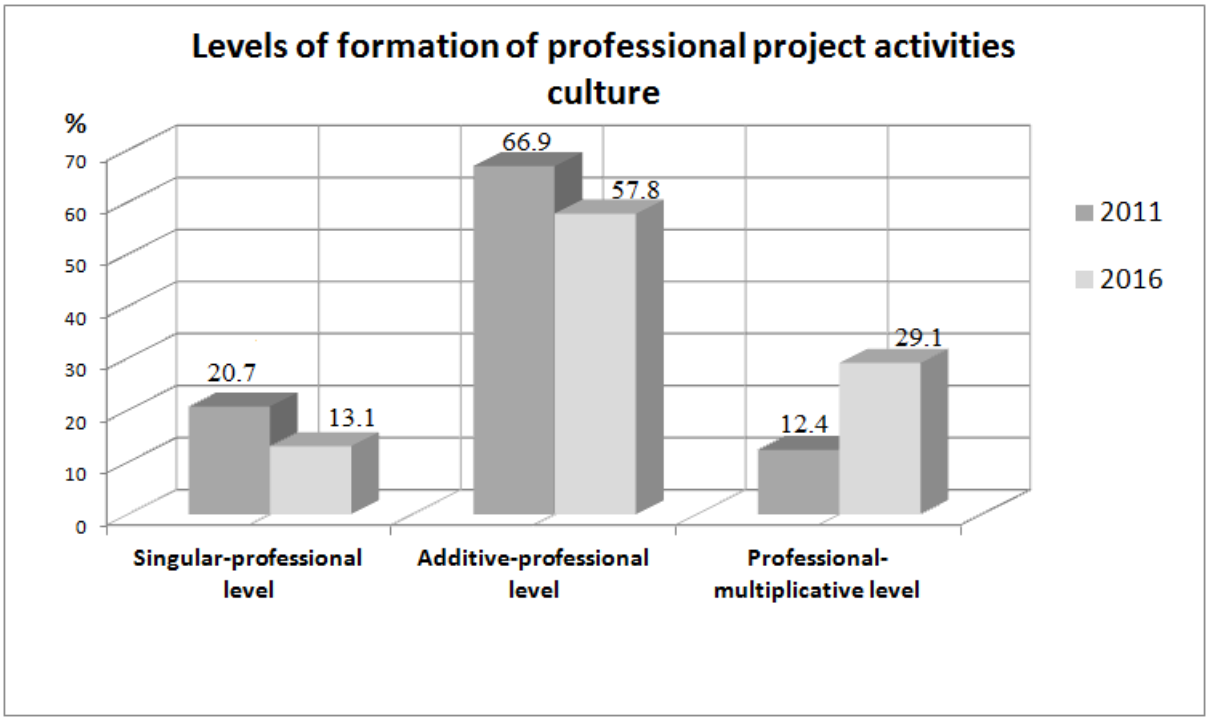

Fig. 1. Levels of formation of professional project activities culture of university graduates in the field of training "Social work" (bachelor)

Table 3. Data on quantitative (percentage) ratio in the levels of formation of professional project activities culture of university graduates in the field of training "Social work" (bachelor)

Graduates	Levels		
	Singular-professional level	Additive-professional level	Professional-multiplicative level
2011	20.7	66.9	12.4
2016	13.1	57.8	29.1

To identify the degree of dependency between two samples we used χ^2 -criterion for nominal characteristics (criterion of homogeneity χ^2) to the data of Table 3. Statistics for this criterion:

$$\chi^2 = \sum_{i=1}^{r}\sum_{j=1}^{c}\frac{(a_{ij}-e_{ij})^2}{e_{ij}}, \text{where:}$$

a_{ij} – elements of the contingency table (built by the transpose of Table 3), $r=2$ is the number of samples, $c=3$, e_{ij} is corresponding a_{ij} expected frequency; number of degrees of freedom $(r-1)(c-1)=2$.

The obtained meaning of probability of homogeneity of samples $p=0.0477$ allowed us to assert that positive changes in the levels of development of this culture of RSSU graduates in 2011 and 2016 have substantial and statistically significant ($p<0.05$) difference.

As an indirect indicator of pedagogical experiment participants interest to the problem of formation of culture of vocational project activities of SWB will cite the following content analysis data: 16 % of final qualification works (theses) of RSSU students in the field of training "Social work" (in the past 2011–2016) are devoted to problems of social planning, which is 8% higher than the previous years (2007–2011).

Deserve attention and delayed data control: 62 % of graduates of the University in the field of training "Social work" (according to the survey conducted during the delayed control with former students of the CG and the EG) are systematically (regularly) use to solve tasks professional project skills, formed in the period of University training; 55 % of graduates of the University in the field of training "Social work" (according to the survey conducted during the delayed control with administrators of social services) show a fairly high level of culture and vocational project activities, initiate ideas for implementation of social projects aimed at improving the quality of existing and creation of new kinds of social services for population.

5. Conclusion and Final Considerations

Development in social work bachelors the culture of vocational project activity is one of important normative standardized characteristics of their professionalism. Today a social work specialist in addition to possession of a wealth of interdisciplinary knowledge is required skills in terms of understanding social reality with further appropriate actions to its positive, constructive perspective transformation. This requirement necessitates the formation of culture of vocational project activities of future bachelors of social work.

Using the theory of sets of Euler ("Euler circles"), conventionally, the culture of professional and project work of social work bachelor is possible to be represented (depicted) in the form of intersection of the following circles denoting such types of professional culture of SWB as:

- professional legal culture of social work bachelor,
- informational analytical culture of social work bachelor,
-socio-economic culture of social work bachelor,
- communicative ethical culture of social work bachelor,
- professionally-predictive culture of social work bachelor,
- psycho-pedagogical culture of social work bachelor,
-organizational and managerial culture of social work bachelor,
- research culture of social work bachelor.

Such representation (in the form of intersection of Euler circles) of culture of vocational project work of social work bachelor allows you to:

- develop specialized diagnostic (assessment) procedures for identifying (determining) the level of development (formation) at a specific University student of each component (professional-legal, economic, analytical etc.);
- determine what exact "segment" of professional-project work of social work bachelor is necessary in focused (targeted) work with special tasks, techniques, and professionally-oriented technology to be further improved, developed ("improve").

Thus, it can be argued that culture of professional and project work of social work bachelor is a symbiosis (integrative set of) partial components (analytical-informational, normative-legal, socio-economic, organizational, managerial etc.) which complement and synergetic manifest themselves in practice of social work realities.

Efficiency of formation at the University of social work bachelors can be ensured if:

- professional project preparation of social work bachelor is based on interdisciplinary (research and integrative) relationships, both in classroom and extracurricular teaching and professional work, in educational research, scientific research activities of students and has the practice-oriented focus;
- informative-methodical support of this process fully reflects the regulatory qualification (standardized) requirements to professional culture of project work of social work specialists, takes into account the variety of possible places of employment of social institutions graduates;
- process of formation of social work bachelors is carried out in stages, using a variable set of technologies of professionally-oriented learning (design technology, case studies, training systems, etc.), provides psycho-pedagogical support of students` social projects implementation and creation at the University necessary conditions for mastering by social work bachelors the culture of professional and project work.

Further directions of development of the studied problems can be:

- development and implementation of methods, technologies enhance self-educational activity of students in theory and practice of social planning;

- integration of students` theoretical training on issues of social planning and activity of students during periods of practice to master professional project skills, abilities;
- specialized training for university teachers to implement purposeful and systematic work on the formation of culture of vocational project activities of future social work bachelors;
- identification of characteristics and specifics (it is possible that qualitative differences as well) content and methodology (technological) bases of process of formation in university culture of professional-project activitiesof social work bachelors, depending on the form of study (internal, correspondence, remote).

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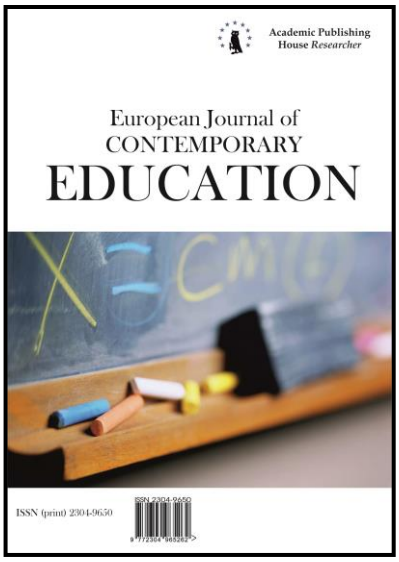

A Comparative Analysis of the Education Systems in Korea and Japan from the Perspective of Internationalization

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Abstract

The object of this study is the characteristics of the development of the present-day national education systems in two leading economies of the Asia-Pacific region (APR), Japan and the Republic of Korea (Korea). Its main purpose is a comparative analysis of the aspect of the state's education policy dealing with enhancing the national markets for educational services by means of internationalization. The study's methodology is founded on the analysis of the logic behind the development of the national education systems based on an evolutionary approach that is inclusive of history, culture, demographic policy, the market for educational services, and the idea of integration of education systems. The authors employ classification and comparative analysis. They use as source information open data from the official websites of companies specializing in worldwide university rankings and of institutions dealing with education, culture, sports, and technology in Japan and Korea.

Results and discussion. Over the last couple of decades, the development of the education system in Korea has been distinguished by a revolutionary and innovative spirit, propelling the nation into leading positions within the education market in the APR. The Korean government is encouraging the nation's colleges to take on a primary role as regional centers engaged in the production of new knowledge and skills, which may help drive technological and regional growth throughout the APR.

Based on the World University Rankings, South Korea is currently ranked 9th and Japan 10th globally in higher education.

Conclusion. The findings of the authors' analysis of the major aspects of the internationalization of the education systems indicate that both in Korea and in Japan the process of education internationalization is increasingly gaining momentum. The reasons here are pretty much the same – globalization and demographic declines. The two systems differ in that in Korea

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preference is given to the scientific component of universities, while in Japan it is the development of the educational segment. In Korea, international education is entirely regulated by the state, while Japan's current internationalization model is transitive – there is a shift taking place from government regulation to market freedom. The prospects for the continuation of this research, apparently, lie in expanding the cross-border networked interaction of APR universities.

Keywords: internationalization of higher education, global market for educational services, Asia-Pacific region, Korea, Japan, quality of education.

1. Introduction

Internationalization in the global market for educational services is an aggregate of interrelationships between all participants in the sphere of education, namely producers, importers, and buyers of these services. The internationalization of higher education has been actively pursued across the major geopolitical regions of the world: the North American region, the Asia-Pacific region (APR), and Europe. Over the last couple of decades, Asian nations have advanced into leading positions in the global market for educational services, which is attested to by most of the top worldwide college rankings. The boosts in the quality of higher education in such nations as Japan, South Korea, and China are mainly due to implementing efficient international practices in their education process with a view to creating a single educational space as part of the development of the Asia-Pacific region.

The internationalization of higher education is not new in Asia. Back in the 2nd half of the 19th century, many Asian nations were already engaged in putting together a system of modern higher education based on sending students abroad to have them engage in advanced research. In the period from 1945 through to the late 1980s, the process of internationalization of higher education in the region saw a decline in a climate of the Cold War.

What makes the Asian market for education particularly attractive is that by the year 2025 the size of the region's educateable population is expected to grow from 17 to 87 million people (Rasha, 2013). The intensity of measures on the internationalization of higher education in Asia depends on the education policy of particular nations.

Starting in the 1990s, the global economy has been increasingly dominated by globalization, with the implementation of market mechanisms having a major effect on the various spheres of human activity, including higher education. The process of internationalization of higher education appears to be gaining a new momentum presently.

The APR nations copying the American education model, including South Korea and Japan, have also begun to follow this policy, and the process of internationalization of higher education in these countries has moved beyond just international student and teacher mobility and now incorporates the internationalization of educational programs, including the creation of international organizations and college branch networks at the regional and global level.

The systems of education in Korea and Japan have been developing based on different scenarios. Both nations have achieved a lot in the area, which is all the more reason to conduct a comparative analysis of the development of education and the process of its internationalization in these countries and take away some best practices from their experience, as well as take note of some of the errors committed along the way so as not to repeat them in the future.

2. Research methods and source databases

The authors have already summarized some of the major strategies used to internationalize higher education in Asia – in 'Prospects for the Development and Internationalization of Higher Education in Asia' (Krechetnikov et al., 2016), one of their earlier papers. These, above all, include taking a coordinated approach, undertaking a shift from selecting students indiscriminately to bringing in the more talented ones (a targeted approach), commercializing education and generating maximum profit, expanding educational projects and creating foreign colleges in the territory of the receiving side. Over the last 15 years, the indicators of Japan's and Korea's academic mobility have increased more than two times.

The principal method employed in this study is comparative analysis. The authors use as source information open data from various specialized international, as well as Japanese and Korean, websites. Among the international websites consulted by the authors are those run by the

companies QS (QS. (n.d.-a); QS. (n.d.-b)) and Shanghai Ranking Consultancy (Shanghai Ranking Consultancy).

The authors' comparative analysis of the education systems of Japan and Korea was mostly conducted based on data from the following websites: the official website of the Ministry of Education of the Republic of Korea (Ministry of Education of the Republic of Korea) and that of the Ministry of Education, Culture, Sports, Science and Technology of Japan (Ministry of Education…).

In addition to data from the above sources, in conducting their comparative analysis the authors consulted a variety of other information sources (reports, seminars, workshops, discussion platforms, personal contact with representatives of the educational establishments of Japan and Korea), including information shared in the proceedings of several major international conferences held between 2015 and 2016 at Far Eastern Federal University, like 'Cross-Border Markets for Goods and Services: Issues in Research', 'Continuing Pedagogical Education: Current State, Problems, and Prospects'; 'The History of, Issues in, and Prospects for the Development of Modern Civilization', 'Science and Education in Present-Day Society', and others.

3. Results and discussion

3.1. Nations' current world rankings

Based on the World University Rankings (2016), South Korea is currently ranked 9th globally in higher education (QS. (n.d.-a)). Its overall score is 80.1 % (against a maximum score of 100 %, currently held by the highest-ranked country, the United States). Japan is ranking 10th with an overall score of 78.5 %. Thus, the education systems of both countries are currently ranked virtually the same in terms of their higher education performance levels.

When it comes to ranking the nations by their universities, Japan is looking here a lot better, with Korea having just 5 colleges ranked in the top 200 and just 2 ranked in the top 100 (QS. (n.d.-a)): Seoul National University (35), Korea University (99), Sungkyunkwan University (105), Yonsei University (111), and Hanyang University (170). To compare, Japan has 8 colleges ranked in the top 200 and 5 ranked in the top 100: University of Tokyo (34), Kyoto University (37), Tokyo Institute of Technology (56), Osaka University (63), Tohoku University (75), Nagoya University (115), Hokkaido University (129), and Kyushu University (134).

The other rankings, the QS University Rankings: Asia 2016 (QS, n.d.-b), are featuring the following Korean colleges among Asia's top 350 universities: KAIST (Korea Advanced Institute of Science & Technology) (6), Seoul National University (10), Pohang University of Science and Technology (POSTECH) (12), Korea University (16), Yonsei University (18), Sungkyunkwan University (19), Hanyang University (30), and others (a total of 18 colleges). Japan has fewer universities featured in these rankings, and these colleges are also ranked lower: University of Tokyo (13), Tokyo Institute of Technology (14), Kyoto University (15), Osaka University (17), Tohoku University (20), Nagoya University (26), Hokkaido University (28), and others (a total of 15 colleges).

The Academic Ranking of World Universities 2015 (Shanghai Ranking Consultancy, n.d.) is currently ranking Japan 8th in the world in higher education, with the nation having 4 colleges ranked in the top 100: University of Tokyo (21), Kyoto University (26), Nagoya University (77), and Osaka University (85). Japan has 7 colleges ranked in the top 200: all of the above plus Tohoku University (101-150), Hokkaido University (151-200), and Tokyo Institute of Technology (151–200). The nation has 9 colleges ranked in the top 300, 12 in the top 400, and 18 in the top 500.

In these rankings, Korea is placed just 22nd, with no Korean colleges ranked in the top 100 and just 1 college ranked in the top 200, Seoul National University (101-150). The nation has 5 colleges ranked in the top 300, 8 in the top 400, and 12 in the top 500.

Thus, a nation's ranking in global rankings for higher education is, in large part, determined based on a system of special indicators, which is why it may be ranked differently by different ranking agencies. On the whole, it may be concluded that Korean and Japanese universities are ranked pretty much the same in higher education development level. Education in Japan has been more fundamental on a number of indicators, but the nation has been moving more slowly than other developed APR countries along the path of education internationalization, and this is why Japan's colleges are currently losing out to their Korean counterparts in terms of mobility.

3.2. Characteristics of primary and secondary education

Education in Korea is comprised of 3 stages: general secondary education, vocational secondary education, and higher education.

General secondary education in Korea begins at the age of 6 and lasts the first 6 grades. The curriculum in these grades is uniform for all students. This is followed by the second stage – vocational secondary education, which incorporates core academic disciplines and also allows students to pick courses that best match their talents, interests, and career priorities. This stage takes 2–3 years to complete. Many Koreans also study at high school for 3 years, which is not a must, although future college-goers may well consider this as a plus going forward.

The secondary school curriculum is centered on 11 core courses, several optional disciplines, and also certain extracurricular activities. If students plan on working after graduation, they have to pick a technical or vocational-technical specialty to pursue for a career.

Korean school students moving on to study at higher-stage secondary school are provided with the option as to which type of school they would like to go to – general or vocational-technical. Students who would like to go to vocational-technical school must pass some exams. The course of study at such schools is centered on teaching students general and special disciplines, provided in equal measure, and preparing them for college.

In the Japanese education system, moral and social education and intellectual education go hand in hand, for which reason the system is characterized by a peculiar organization of the education process, tough exams, rigorous discipline, and single-mindedness.

In Japan, the race for the best education starts at an early age. To be able to get into a top school, you have to have attended a top kindergarten, one that operates not so much as a leisure facility intended to look after Japanese kids while their parents are at work but as an educational institution wherein the school day normally lasts until midday. Japanese children wear a single uniform emblazoned with the facility's emblem. This practice is upheld not only by kindergartens – it is intended to foster in you a sense of commitment to your kindergarten, school, or college.

Japan's school system consists of primary school (6 years), secondary school (3 years), and high school (3 years). Going to primary and secondary school is mandatory for everybody, while attending high school is optional. However, nearly 94 % of Japanese school students attend high school (Ministry of Education…).

The first 6 years constitute primary education for Japanese children and are known to be quite work-intensive due to the difficulties of learning the native language, as one gets to learn around 2,000 hieroglyphs, which is the minimum established by Japan's Ministry of Education. An interesting fact is that knowing even that many hieroglyphs may not be enough for one to be able to read books in Japanese, since to be able to read a book or a magazine fluently, without consulting a dictionary, one has to have a command of over 3,000 hieroglyphs. Senior high-school students in Japan are considered the busiest, as apart from their regular school they also get to attend classes at additional institutions of learning, which are paid too. Currently, Japanese parents spend on education an average of over 1 million yen (around $9,000) per child annually. This may explain the current demographic situation in Japan, characterized by a decline in the birth rate, as oftentimes parents are able to invest in just one child.

3.3. Characteristics of higher education

Getting a higher education in Korea is not mandatory, but it is no secret that ignoring this stage may prevent one from growing professionally and developing properly. Koreans are rightfully considered among the most hardworking and persevering peoples in the world. Based on official statistics, in 2014 Korea's universities and junior colleges were attended by a total of 2,130,046 students, and that is considering the fact that the nation's population is 51,091,352 people and out of them 2,166,305 are residents aged 15 to 19 years old. It is not difficult to calculate that in said period just 1.7 % of Korean students ended up not pursuing their further learning (Ministry of Education of the Republic of Korea).

Institutions of higher learning in Korea include higher schools, junior colleges, and universities. There are technical and vocational-technical junior colleges as well. The length of study at Korea's institutions of higher learning is 2 to 4 years (a bachelor's degree). In addition, there are also a master's degree (1.5–2 years) and a doctoral degree (2–3 years). Majors pursued at the master's degree level must be the same as those pursued at the bachelor's one.

To get into a university, one must complete the final appraisal in secondary school and pass the general national exam, known as the 'Suneung'. This test is similar to the American SAT Reasoning Test. The 'Suneung' assesses applicant skills in three areas: the Korean language, Math, and English. Applicants are also given a choice of general disciplines they will have to sit for an exam in – they need these courses for further study. Also, some institutions of higher learning in Korea practice creative selection, i.e. assessing a student's ability based on essay writing.

Issues relating to supporting and improving national education are taken care of by the Ministry of Education (formerly the Ministry of Education and Human Resource Development). Korean public authorities currently have total control of the nation's education process.

In Korea, the school year begins in March, not in September as in most countries. The spring term lasts 16 weeks and ends in June. After the June break, they proceed to their fall term, which starts in August and lasts until January.

Every Korean student aspires to get into a prestigious institution of learning, despite the tough procedure for completing the entrance trials. To be able to go to a state-run university in Korea, one gets to pass a general test that is similar to Russia's State Unified Exam. Private colleges have procedures of their own for admitting students.

Many Koreans are giving preference to private colleges. To get into one, you will need a diploma of secondary education and an English proficiency certificate.

When shopping for a course of study to pursue in a Korean college, it would not be very wise to assume that "if it is expensive it must be better". The thing is that you may pay $10,000 in Korea per year and receive a poor education or you could pay as little as $500 and later become a highly qualified specialist. Thus, for instance, going to Seoul National University will be cheaper and more prestigious than attending commercial universities. The state is interested in boosting the level of education among the population and allocates funds to finance this institution.

To get into a college, Japanese school students have to take 2 exams – the first one, the national exam, when finishing school and the second one when getting into a college. As a matter of fact, in Japan exams are dogging you at all stages of study, which is what sets Japanese education apart from other countries' systems. The entire education process is like preparing for exams, and only graduates with the highest scores go on to study at top colleges. Some students have the opportunity to get into a college without taking the exams, as most private universities in Japan incorporate kindergartens, primary, secondary, and high schools – so, if you have gone through all stages of study with them, you may get admitted without the entrance trials.

The aspiration of Japanese applicants to get into the nation's top colleges may be due to the fact that this is the only way to save big on education, since it will be 10 times pricier to go to a regular college. There is almost no such thing as free education in Japan. For instance, in 2011 out of 2,880,000 students just 100 received a scholarship from the Japanese government. Scholarships are granted only to the most talented students and the least financially advantaged ones, and these funds are subject to repayment and do not cover all of your tuition costs.

Higher education in Japan incorporates a bachelor's degree (4 years), a master's degree (2 years), and a doctoral degree (3 years). Medical-pharmaceutical departments do not carry a bachelor's degree. Getting a basic higher education in them takes 6 years and a doctoral degree 4–5 years.

In Japan, there are three major types of university: national, state, and private. The number of private colleges is 3.5–4 times that of state ones.

Japanese colleges are dominated by the Humanities, with just 25 % of all students pursuing engineering-technical majors. There are medical, pedagogical, and engineering strands. Most Japanese colleges have 10 departments and 10,000 students. But the nation's largest institutions of higher learning, like the University of Tokyo (13 departments and 16,000 students), may be regarded as an exception.

The school year in Japan begins in April. Classes are held Monday through Friday, rarely Saturday, depending on the college. The school year mostly consists of 3 trimesters, separated from each other by short breaks in spring and in winter. The summer break (July or August) is 1 month long. Some institutions offer a school year divided into 2 terms with a spring break and a fall break.

Japanese students may remain on the college books for up to 8 years. There is almost no such thing as expulsion. In the event you fail your exams you are awarded no credit hours and will have to retake the exams. The student's primary objective in getting a diploma is to gain the necessary

number of credit hours. Also, one of the distinctive features of study at Japanese colleges is that students may pick courses and draw up a school schedule of their own.

Japan is doing all in its power to nurture globally competitive human capital with a view to revitalizing its economy. In 2016, over 80 % of students were going to private institutions, mainly junior colleges and specialized schools. The private sector's dominance, at least in terms of the number of students, is one of the distinctive traits of the Japanese system of higher education.

The current system of higher education in Japan is quite ambiguous. On the one hand, despite the rapid pace of the process of reform and internationalization, the system still remains largely conservative and continues to resist innovation. On the other hand, it is these changes in the nation's education system that have been leading, and will lead, to revitalization in Japanese society.

3.4. Characteristics of the process of education internationalization

Korea, just like Japan, is witnessing unfavorable trends in demography, like a decline in the number of secondary school graduates due to low birth rates, which may result in a lack of students going forward. For this reason, the internationalization of Korean, just like Japanese, education, is of major significance not just in terms of the overall state of the nation's education system and rankings for its universities but also in terms of the well-being of its society, which depends largely on human capital replenishment.

The government of South Korea has declared a new national strategy – one of increasing the number of foreign students nearly 3 times by the year 2023, from over 85,000 to 200,000 students. This is also aimed at reversing the trend of declining numbers of foreign students: in 2011, Korea had a record 89,537 foreign students, but by 2014 the number declined by 5,000. A major reason behind this is limited employment opportunities for foreign graduates, especially when they have to compete with Koreans in the labor market. The greatest number of international students are from China (over 76 %), followed by students from Japan, Mongolia, and Vietnam (Ministry of Education of the Republic of Korea).

Over the last couple of years, many Korean colleges have been reoriented with a view to moving to an international level. The government has developed a whole array of measures to internationalize education, including instruction in English and all kinds of preferential treatment for foreign students, like free dorm space, scholarships, test preparation courses, etc.

Many Korean colleges are attracting prospective foreign students with their tuition prices, which are much lower compared with those offered in other countries and even domestically. Right now, some universities are offering foreign students discounts of up to 50 % off with a view to compensating for some of the costs of the making and growth of a new type of educational service – providing instruction in your native language. Right now, instruction to large ethnic groups and nations in Korea is increasingly provided in their native tongue: in Chinese to the Chinese, in Japanese to the Japanese, in French to the French, etc.

The government is intending to come up with a whole packet of new initiatives to back its goal of reaching the level of 200,000 foreign students, which will include the following items:

– opening up new departments and launching new curricula oriented to foreign students specifically;
– providing support for the employment of foreign students graduating from college and staying in the country;
– easing the requirements for a Korean visa;
– funding the marketing activity of Korean colleges;
– funding a scholarship-based 6-week program intended for 100 students from Asian countries invited to study in Korea;
– expanding English-language programs, especially in the area of the exact sciences, like high technology, engineering, and mathematics; Korea is currently leading the way in implementing instruction in the English language in colleges, with a third of all courses being currently taught in English.

Over the last few years, a significant boost has been given to student exchange arrangements, whereby a group of Korean students may pursue, say, a year-long course of study in a foreign college, say, in the UK, and a group of English students may do the same in South Korea.

There are numerous student exchange programs out there right now. One of the most prominent and broad-scale programs is the one offered through the National Institute for International Education Development (NIIED), whereby you have to undergo a 3-stage selection procedure to be eligible for a scholarship based on the NIIED's Korean Government Scholarship Program (KGSP). Under the program, you will be entitled to a monthly stipend in the amount of 900,000 Korean won (around $900) covering the student's room and board expenses, two plane tickets (to Korea and back to your home country as a graduate), and a research fund (around $ 230 per term). This program also covers your medical insurance costs and your entire course of study, including your language training expenses for up to one year. Each year, they establish participant quotas for each nation individually. Although it is quite doable to enroll through the program, it may still take some effort (Ministry of Education of the Republic of Korea).

In an effort to help foreigners with employment, the Korean government is easing the requirements for hiring foreign nationals for work in small and medium-sized companies, as most Koreans prefer to work for government organizations or large national companies, like Samsung or Hyundai.

All Koreans and foreigners can receive a higher education in Korean or in English. To learn in English, applicants normally have to pass a single language exam. Just about any college in Korea offers split-level English courses. However, many colleges have an even more simplified admission procedure for foreigners exempting them from the tests. All you have to do is present to the authorities your graduate certificate of secondary education. Good grades are a must. Also, a foreigner has to demonstrate considerable command of the English language (IELTS or TOEFL). Upon graduation, foreigners and Koreans alike have to undergo practical training in any Korean organization, which is arranged for by the university's administration.

Until recently, foreigners could study in Korea solely for a bachelor's degree or a master's degree. However, right now they can also pursue a doctoral degree in a number of fields. The roster of majors a foreigner may pursue is still a bit limited, though. Among the disciplines most popular with foreigners in Korea, due to the high quality of education provided in them, are information technology, computer programming, and Web design.

As part of Korea's policy on attracting foreign students, the government has been offering them special academic grants and providing them with financial support. Scholarships provided in most Korean colleges enable foreign students to pay their tuition costs on their own. Currently, Korean colleges are attended by students from just about any part of the world (over 100 countries).

Over the last few decades, Korea has witnessed an increase in the number of foreign residents, who currently account for 5 % of the nation's total population (Krechetnikov, Shoinkhorova, 2016). Korea's benign living conditions urge people to immigrate to and just stay in Korea as permanent residents. In recent years, the Korean economy has reached quite a high level of growth, with Korean society increasingly exhibiting a sustainable democratic spirit and transiting from mono-national to multi-cultural development.

The Korean government has been fully supportive of immigrants. In the late 1990s, it put into effect a special law on citizenship whereby all children born to multi-national families would qualify as full citizens of Korea. In 2003, the government also made some changes to the law on primary and secondary education, allowing all children of foreign workers to attend the nation's institutions of learning.

In the 1990s and 2000s, Korea witnessed an explosive increase in the number of international marriages. But by 2007, many pedagogues found themselves facing problems teaching foreign school students. The main problem was that foreign students did not speak Korean. The principal objective pursued by Korean schools was to arrange their education process in such a way as to take account of the personal characteristics of each and every child. Right now, the government is doing its best to facilitate the process of educating children born to international marriages. It is engaged in putting together a variety of Korean language and culture courses. Also, there have been set up special organizations engaged in providing consulting on legal issues and those related to enrolling children in institutions of general learning.

The process of internationalization of higher education in Japan started much earlier than in Korea, but it had been proceeding at a slow pace, mainly due to the fact that Japanese students

were quite reluctant to study abroad, while foreign students, in turn, were not particularly thrilled at the idea of coming to Japan due to high tuition costs and difficulties in getting employed.

However, the advent of globalization, the growing aspiration of Japanese universities to have global status, and Japan's demographic slump have made the internationalization process inevitable.

Japan was the first oriental nation to start implementing the internationalization of higher education. Despite employing a variety of programs, the nation has always been famous for its modesty in terms of international student exchange. For the most part, we have witnessed an almost complete lack of Japanese colleges outside Japan, limited student flows, and mostly one-way mobility. Japanese students do not really need to leave for another country in order to receive a quality education, get a nice job, and enjoy a decent career, since they can get all that in their own country, as most of them are guaranteed a job in an organization. What appears to be the problem here is that many Japanese students may never really fully integrate into the global scientific community, which may actually isolate Japan further from the rest of the world going forward. In an attempt to boost international student mobility, back in 1983 the Japanese government adopted a plan aimed at increasing the number of foreign students on home soil to 100,000 by the start of the 21st century. At that time, Japan had just 10,000 foreign students, and that kind of boost was necessary in order to try to overtake the world's other major industrialized nations and consolidate its status as Asia's top powerhouse nation (Ministry of Education…).

As a result, Japan experienced a rapid increase in the number of foreign students on its soil and became one of the top nations in this respect, with over 90 % of all foreign students in Japan coming from Asia. The major objective behind internationalization was to spread advanced Japanese science and technology around the world and share with other nations Japan's successful model for social-economic development.

However, the rapid progress of Asia's new industrial nations, like Taiwan, Singapore, and South Korea, and their robust activities on upgrading their systems of higher education to a world class level made the competitiveness of Japanese universities a matter of serious concern for the Japanese government.

In the 1990s, Japan's National Council on Educational Reform marked its education internationalization measures as top-priority. The Council came up with the following proposals on the matter:

1) easing the procedure for admitting foreign students;
2) enhancing the ways in which foreign languages will be taught;
3) enhancing the instruction of the Japanese language to foreign students;
4) transforming the Japanese system of higher education with a view to bringing it in line with international standards.

A goal was set to bring the number of foreign students attending schools in Japan up to 100,000 by the year 2000. However, only 60 % of the state's education internationalization plan was fulfilled (Krechetnikov, Shoinkhorova, 2016).

Currently, foreign students account for just 2 % of all students in Japan. In parallel with the implementation of the programs 'Global 30' and 'Top Global University', aimed at turning Japanese universities into world-class institutions and adapting Japan's system of higher education to the global system, Japan is planning to attract 300,000 foreign student by 2025 and bring the number of foreign students on its soil up to 10 % of the total number of its students (Ministry of Education, Culture, Sports, Science and Technology of Japan, n.d.). Japan has been mostly popular with students from China (94,000 in 2014), followed by Vietnam (26,000) and Korea (15,000) (Krechetnikov, Shoinkhorova, 2016).

The administration of the University of Tokyo has plans to split the school year into 4 terms, each two months long. Some of Japan's universities are planning to shift in the near future to new ways of organizing classes, which are expected to start from now on in fall (instead of spring). This is an attempt to align the progress of the Japanese school year with that of foreign colleges with a view to preparing a generation of globally oriented graduates. Moving the start of the school year to fall is expected to help attract more foreign students, as over 70 % of colleges around the world begin the school year between September and October.

The Japanese government is also expecting an increase in the number of Japanese students attending school abroad, but for the time being this has been hindered by the language barrier,

with just 3 % of Japan's population having a fluent command of English. Currently, already as many as 20 Japanese colleges have departments specializing in working with foreign students and are offering as many as 53 disciplines geared toward them. 11 colleges in Japan, which were set up not long ago, have the term "international" in their name (Ministry of Education…).

3.5. Ensuring the quality of education

A major role in the development of education in South Korea is played by the government, which provides financial support for it, orients it toward best foreign practices, and strives to adopt common global education standards and follow them consistently.

In an effort to enhance the efficiency of the national education system, the Korean government is trying to adopt all top methodologies employed in the systems of other nations. Comparative analysis is utilized as a way to help integrate some of those elements into the Korean system of education. Among the most popular systems for the Koreans to compare theirs with is that of the United States, which, among other things, is among Korea's major strategic partners and with which it has had diplomatic relations for over 60 years now.

Classrooms in Korea are equipped with information technology, computer equipment, and free 24-hour Internet access. Lectures are conducted in the form of presentations, and most materials are sent to students by email. There are a necessary number of labs for practical classes.

Korea is doing anything but treading water. The current changes taking place in Korea in the area of computerization are arousing the interest of numerous foreign colleges and international organizations alike. Electronic learning courses offered in Korea are considered the best in the world. This includes the service of conducting lectures in online mode, the Cyber Home and Cyber School learning systems, and the services of institutions providing technical assistance on electronic education in institutions of learning (Dondukova, 2014). The use of this methodology is regulated by the Korean government at the legislative level. Electronic learning in Korea is a domain managed by the following government agencies:

– The Ministry of Employment and Labor (the use of e-learning in occupational retraining and career enhancement);
– The Ministry of Education (the use of e-learning in regular education);
– The Ministry of Trade, Industry, and Energy (the development of the e-learning industry).

This new system of learning is really popular in Korea right now. Currently, there are over 500 organizations providing e-learning services, and about 30 of them have become really famous over the years they have been in the market. The e-learning system is exhibiting high indicators of volume growth in the foreign market as well. Currently, nearly 30 % of the total volume of these services is being exported. And there is more to come. Also, the number of individuals interested in getting an education via the Internet is increasingly growing.

Currently, over half of Korea's institutions of learning are providing e-learning services. There are over 20 cyber-universities in Korea. Electronic learning sets no limits for the consumer, which makes it a really convenient way to receive knowledge for foreign students and an efficient career enhancement option for those who are willing to study while continuing to work.

Korean scientists have achieved tremendous success in the study and implementation of information technology in the educational environment, which is testimony that the education policy pursued by the government has been quite productive.

In March, 2006, in an attempt to boost the quality of educational services in Korea the nation's Ministry of Education formally launched a system of control over the education process, known as the National Education Information System (NEIS). This innovation makes it possible to obtain college graduation documentation without ever leaving one's home. Teachers can use this system to draw up a study plan for students based on their individual characteristics. Korea's government agencies are currently considering the possibility of providing consultations to students over the Internet. Any student who has failed a test will be able to ask the teacher any questions they may have in online mode.

Foreign students are undertaking internships at the nation's prestigious factories alongside local students.

Korea is attracting applicants with its dynamically developing learning technology and favorable conditions for life's activity. The pluses of studying in Korea include comparatively low tuition costs ($7,000 to $10,000 per year; this does not apply to the nation's most prestigious universities and majors), the possibility of studying for a career in exciting and promising fields, the use of the latest pedagogical and information technology, and the high quality of education provided.

In addition, the nation still retains many of its age-old customs and traditions, which is something that foreign students have the chance to get familiar with while pursuing their course of study in Korea. Of particular note is the synthesis of ancient culture and new technology.

Going forward, the nation's education system is expected to be capable of developing entrepreneurial skills in Koreans starting from early childhood, as well as of stepping up the number of foreign students by attracting them with favorable learning conditions. This is attested to by the operation of Korean schools of various levels equipped with state-of-the-art labs and libraries and employing highly educated instructors.

Japan is one of the world's more economically developed countries, and by volume of investment in education the nation is ranked 2nd–3rd globally. By tradition, Japan has always attracted students with its high quality of education. The Ministry of Education, Culture, Sports, Science and Technology of Japan has a statutory right to influence the bylaws of the nation's universities and junior colleges. The ministry assesses the quality of education provided by these institutions of learning based on the University Standards and Junior College Standards, established by it. These standards set out key requirements as to organizing the operation of universities, selecting students, personnel qualifications, student–faculty ratios, HR, curriculum registration, graduation paper requirements, organizing campuses and other sites, and organizing the management of the college and the operation of its administrative establishment.

In addition, Japan has played a significant role in the creation of the international networks for quality assurance and the development of the OECD and UNESCO guidelines for quality assurance in cross-border education. Japan is now taking an active part in quality control programs implemented across the APR.

3.6. Issues in the development of the national education systems

Mindful that the traditions of Confucianism emphasize aspiring to learning, encourage respect for educated people in society, and link the status of members of Korean society to their education level, every Korean family strives to ensure their children the very best education and is ready to invest big in their development, at times so big as to suffice for the purchase of a dwelling in the city. For this reason, not many Korean families can afford having, and schooling, more than 1 child – today this has resulted in a deep demographic crisis, which is inevitably taking its toll on the education system.

The area of South Korea is comparable to that of Russia's Primorsky Krai, but there are as many as over 450 colleges operating in that territory, which need to be provided with work. The solution for the Korean system of higher education here is exporting educational services.

Korea's economic surge has been driven by the high level of education among the nation's population, but the more this fact is getting substantiated, the warier the Korean government is getting of the reverse side of such ardor for learning. In an attempt to manage the intellectual load on students, the authorities have begun enforcing a "curfew", prohibiting one from visiting an educational facility and seeing a tutor after 10 pm. But there is a good reason behind these restrictions. Based on statistics, each year Koreans spend nearly $19 billion on private education, which is virtually comparable to the budget of a large city in the "Land of the Morning Calm". This excessive desire to study is associated with the difficulty of getting into the nation's junior colleges and universities. Koreans have to sit for an entrance exam, CSAT (College Scholastic Ability Test), a special test that assesses the reasoning abilities of prospective junior college entrants. This knowledge check is a source of great stress for students. To many, this is a "do-or-die" matter (Krechetnikov et al., 2016).

Thus, growth in the Korea's education sector has led to the so-called "education fever", which has taken its toll on students in the form of continued depression and moral overload. Nevertheless, the government is doing its best to remediate the situation.

The demographic crisis has affected Japan's education system as well. The high costs of education have made having a family of 2 or more kids a luxury. The nation's rigorous test and exam practices have led to similar consequences as in Korea.

Note also the fact that foreigners have been reluctant to come to Japan, which mainly is due to the peculiarities of the nation's education system and the difficulty of finding a job after graduation. Today, around 43,000 Japanese nationals are getting an education in America, while there are just 1,192 Americans studying in Japan. Among the major reasons behind this is the tangible weakening of the positions of Japanese higher education in the international market, as well as Japan's persistence in preserving unified education. In point of fact, even today Japan's Ministry of Education will not readily honor the results for courses taken abroad. After the completion of their study program and return home, students have to study one more year in Japan if there is no document certifying that those courses match the Japanese curricula.

Nowadays, the Japanese government is still wary of the possibility that internationalization may destroy the Japanese education model. These doubts are even translating into proposals to "shut down the borders" and to start implementing a "protectionist" policy in respect of Japanese universities. But, since the nation is currently experiencing a demographic slump, increased financial instability, and the increasing independence of the nation's colleges, there is more focus on other objectives, like those associated with propelling Japanese colleges into leading positions globally, including through internationalizing national education, as well as helping the nation's colleges attain economic stability and growth.

4. Conclusion

The findings of the authors' analysis indicate that both in Korea and in Japan the process of internationalization of education is increasingly gaining momentum. The reasons here are pretty much the same – globalization and demographic declines. There are, however, some differences in the way the internationalization process is going in the two countries, like the fact that in Korea preference is given to the scientific component of universities, while in Japan it is the development of the educational segment.

In Korea, international education is entirely regulated by the state, while Japan's current internationalization model is transitive – there is a shift taking place from government regulation to market freedom. The prospects for the continuation of this research, apparently, lie in expanding the cross-border networked interaction of APR universities.

Comparing the Japanese and Korean experience of education internationalization helps identify certain similarities and differences. Firstly, university education in both countries is being fashioned after the Anglo-Saxon and American education models. Secondly, both nations are going through a demographic slump, which, if not tackled right now, may lead to mismatches between the number of student places allotted by universities and that of prospective students expected to fill those places. Thirdly, both countries have been actively engaged in creating various programs aimed at developing the higher education system and boosting its competitiveness. The results of these projects have been impressive, especially in South Korea, which has advanced into leading positions globally in just a couple of decades. This success achieved by both nations makes it possible to regard their experience and practices of internationalizing national education as advanced and worth being taken on board relative to the education systems in other APR states.

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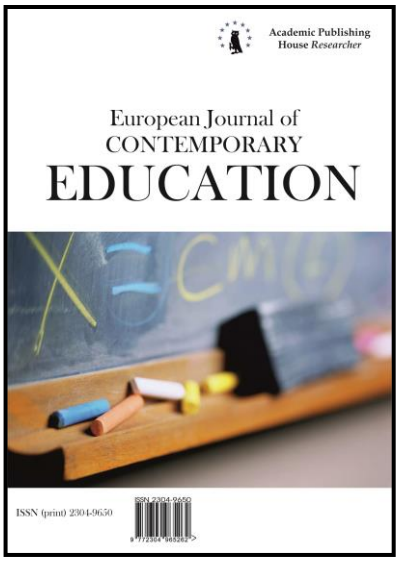

Formation of the Foreign Language Discursive Competence of Pedagogical Faculties Students in the Process of Intercultural Dialogue

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Abstract

The article presents the main ideas of concept of foreign language discursive competence formation among university and secondary school students by means of intercultural dialogue. The concept includes fundamental principles, activity stages of educational process, and criteria of foreign language discursive competence formation. Innovation of the research is in interdisciplinary approach to solving the problem of foreign language discursive competence formation. It combines principles, methods and diagnostic techniques used in Pedagogy, Methodology of teaching foreign languages and Linguistics. Integrated solution allowed to create the optimal mode of experimental activities and to get innovative experience of the results of empirical research. The author notes that intercultural dialogue is a means of formation of foreign language discursive competence, and the system factor is a special course «Discourse as the way of communication and understanding of the world». The originally developed special course includes studying the theory of discourse, and practical tasks for mastering various types of discourse and communication strategies. It is emphasized that the formation of foreign language discursive competence involves not only organization of intercultural dialogue between students and their foreign-language peers on the Internet, but also various interactive methods of foreign language teaching techniques. The results of research proved the effectiveness of the suggested concept of foreign language discursive competence formation. The reliability of the results is confirmed by calculations based on the χ^2 criterion (Pearson criterion). The paper proves that the proposed concept seems promising as it is significant for professional training of future teachers in modern conditions of education modernization and Russia's entry into the world educational space.

Keywords: discourse, foreign language discursive competence, intercultural dialogue, concept.

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1. Introduction

The integration processes in the world set a new goal to the Russian system of the higher education: to educate the generation having global thinking. Such way of thinking is characterized by the human ability to consider oneself not only as the representative of national culture, the citizen of the country, but also the citizen of the world perceiving oneself as the subject of dialogue of cultures and global universal processes. An individual is intended to live together with others in the context of globalization, multiculturalism, in agreement with other cultures, life types, nations, ethnicities, confessions. In this regard, it is necessary to speak about the escalating importance of formation of ability to intercultural communication, i.e. the acquisition of the required communicative competence level. Besides, it is impossible to consider the intercultural dialogue without the formation of a certain set of competences promoting not only to understand foreign speech, but also assuming possession of the whole complex of communicative behavior. One of the components of communicative competence is a discursive competence, the importance of which is noted in the Council of Europe document «Common European Framework of Reference for Languages» (Common European, 1997). As a result of the analysis of the different approaches to its definition, we mean discursive competence as a set of knowledge, skills and experience of creating and understanding utterances in communicative situations. The demand for intercultural communication has led to the need to form the foreign language discursive competence of pedagogical faculties students which involves not only obtaining linguistic knowledge, but also activity experience, willingness and ability for intercultural dialogue.

In connection with the aforementioned tasks the problem of teacher's personality formation designed to educate the younger generation in the spirit of peace and tolerance is increased. The aim of pedagogical education is not just training a subject teacher, but also development of future teacher's personality, capable for constructive dialogue, knowing how to understand and accept the different cultural attitudes and values, and possessing the skills of intercultural dialogue as a means of interaction in modern multicultural societies.

However, the problem of discursive competence formation in the professional training of pedagogical specialties students remains insufficiently developed. This is due to the fact that in the theory and methodology of professional education the concepts «discourse» and «discursive competence» are relatively new and are not widely used in practice of training specialists, who should build and expand their professional knowledge, using the languages of the world community. Thus, the problem field of discursive competence formation in the theory and methodology of higher education is not studied enough.

Both foreign and domestic scientists applied to the problem of discursive competence formation: N.V. Elukhina, O.I. Kucherenko, G.Cook, L.Chouliaraki, A. Hatch, S. Moirand, etc.

N.V. Elukhina studied the issues of formation of discursive competence among secondary school students (Elukhina, 2002). N.M. Vlasenko considered the problem of formation of discursive social competence among intercultural communication specialists (Vlasenko, 2004). O.I. Kucherenko researched the issues of formation of discursive competence in oral communication on the example of the French language (Kucherenko, 2005). S.N. Musulbes developed the method of teaching argues discourse in written communication in language high school at the advanced stage on the example of the English language (Musul'bes, 2005). All completed scientific studies were carried out by means of a complex of exercises developed by the authors. Thus, the aim of our study was to develop the concept of the discursive competence formation of pedagogical faculties students and test it in the process of intercultural dialogue.

2. Materials and Methods

Theoretical and methodological basis of the research were: methodological bases of professional work of the teacher in the context of the hermeneutic approach: (L.A. Belyaeva, A.F. Zakirova (Zakirova, 2001), N.B. Krylova, L.M. Luzina, I.I. Sulima (Sulima, 1996) et al.); theory of discourse (van Dijk T. (van Dijk, 1997), N.D. Arutyunova, V.P. Borbotko, V.Z. Demyankov, M.V. Iorgensen, Dzh. Linch, M.L. Makarov, M. Peshe, P. Serio, M. Fuko, L. Fillips, N. Ferklo, Yu. Khabermas, Z. Kharris); dialogue research in education (E.V. Bondarevskaya (Bondarevskaya, 2000), E.O. Galitskikh, V.V. Gorshkova, A.G. Zdravomyslov, M.S. Kagan, M.V. Klarin, S.V. Kulnevich, I.A. Kolesnikova, L.M. Luzina, et al.); scientific works on discursive competence of Russian and foreign scientists (N.M. Vlasenko, N.V. Elukhina, O.I. Kucherenko, S.N. Musulbes,

M. Canale, G. Cook (Cook, 2004), L. Chouliaraki, J. Potter (Potter, 1997), A. Hatch); researchs in the field intercultural learning theory (N.D. Galskova, E.V. Miloserdova, L.I. Petrova, V.V. Safonova (Safonova, 1996), P.V. Sysoev, S.G. Ter-Minasova (Ter-Minasova, 2000) et al.).

The study used the methods of theoretical research (analysis of philosophical, psychology and pedagogical, methodical literature; generalization, systematization, classification, analogy, synthesis, simulation, design); methods of empirical research (pedagogical observation, conversation, questionnaire, teaching experiment); mathematical statistics methods of experimental of data processing; test to identify value-sense orientation of students when studying a foreign language, diagnostic technique of rigidity and communicative purpose by V.V. Boyko, test to determine the communicative readiness of students to intercultural dialogue by E.G. Vrublevskaya, test for objectivity in the situations of intercultural communication, method of determining the empathic abilities by V.V. Boyko, test for evaluation of ability to self-development by G. P. Zvenigorodskaya.

Pedagogical experimental took place from 2005 to 2008. Students of Kirov Pedagogical College, Sovetsk Industrial-Pedagogical College and students of the Linguistic Faculty of the Vyatka State University of Humanities took part in the experiment. In total, 150 students were studied in experimental groups.

The results of research and methodological problems of general theoretical discourse, problems of methodology and methods of research of communicative competence, potential of hermeneutical approach gave the chance to develop the concept of discursive competence formation of pedagogical faculties students by means of intercultural dialogue. The concept includes the system of the basic ideas, guiding principles, strategies to create a discursive competence, comprising the successive steps; criteria and indicators of foreign language discursive competence formation (Ponomarenko, 2008).

The guiding principles of the proposed concept are: the principle of professionally-oriented communicative interaction between a teacher and a student determines the speech activity of the subjects of the educational process; dialogic principle in the interaction of teachers and students; hermeneutical principle of the formation of discursive competence; the principle of interdisciplinary integration defines the relationship of all the disciplines of subject preparation.

On the basis of the foregoing principles we have identified three stages of formation of discursive competence of students of pedagogical specialties: motivational and preparatory stage, stage of cognitive activity and communicative stage.

The main idea of the motivational and preparatory stage is to prepare students for the realization that the mastery of vocabulary, grammar and phonetics of foreign language does not guarantee the completeness and fluency in the language, understanding the mentality of other nations, and hence, the language itself. In addition, the integrity and coherence of the statements, the ability to maintain the topic and dialogue are ignored. Therefore, there must be the realization that a certain competence is required, which will focus students' attention on skills, necessary for integration of all the above components in a single action, and on achieving adequate understanding of the speaker. We call the first stage motivational, because it creates the mood for dialogue, own interpretation of new knowledge, formation of their personal meanings. At the motivational stage during the educational process the interaction between teachers and students, whose activity is stimulated by the use of interactive technologies (technology of problem studying of the topic, technology of reading and writing for development of critical thinking), through the forming of inner dialogue of perception of new information. At this stage, a new course for students are presented, relations of the subject training disciplines and their possible potential for a new course are established.

In addition, at this stage the attention of students are focused on the communication at various levels: teacher-student, student-student, student-foreign-language partner. Thus, there is the awareness and the formation of the initial experience of intercultural dialogue, attitude of students for the ability to listen, to hear and to understand each other, that is, to reproduce the speech of the interlocutor in their inner speech. At this stage, the students' ability to be open in their discussions and taking into account the presence of different subjects and the possibility of a mismatch of perception and understanding are updated, capacity for dialogue on professional issues is formed.

Preliminary aspect of this stage is shown in the preparation and creation of methodical support of the course «Discourse as the way of communication and understanding of the world»; in bringing the administration of educational institutions to create the best conditions of the educational process for the formation of discursive competence of students, for the full participation of all parties of the educational process in intercultural dialogue.

The result of this stage is the awareness of students of initial experience of intercultural dialogue. On the basis of theoretical analysis and interpretation of experimental experience indicators of formation of students' motivation for participation in intercultural interaction are revealed. They are: openness to dialogue, valuable and meaningful attitude of students to communicate in a foreign language, the ability to change their attitudes, stereotypes, ways of thinking, points of view.

The stage of cognitive activity involves the formation of discursive competence of students directly in the activities of the course «Discourse as the way of communication and understanding of the world». This stage begins with the introduction of students to the theory of discourse, which includes the concept, nature and the structure of discourse, discourse and text, communication facilities for the production of discourse, Grice's cooperative principles, Layoff's rules of politeness, some issues of the speech act theory, forms of discourse, types of discourse and their distinctive features, strategies of polite communication, potentials of discourse as a dialogue, understanding in a dialogue, role of the Internet in discursive competence formation. It should be noted, that at this stage the emphasis should be done on three components: discourse formation, keeping the dialogue and adequate understanding (interpretation) of the discourse.

We call this stage cognitive, because at this point the conditions for the acquisition and accumulation of new knowledge by students are provided. In addition, the prospects of application of this knowledge in practice and in life are shown, existing linguistic knowledge and skills are actualized, understanding is demonstrated as a process and as a result, mechanisms and patterns of understanding, interpretation of meaning are revealed. At this stage students have the opportunity to gain independence in a new discipline, formulate the problematic issues, which will be discussed in the classroom in the form of dialogue, open perspectives for further self-education, simulate possible communicative situations, predict the result of the application of new knowledge and skills. Formation of discursive competence is carried out in accordance with the programme of the special course «Discourse as the way of communication and understanding of the world». We call this stage active, because students are able to go from theory to practice. Once students pass the theoretical part of the special course, they begin to study practical methods of communication strategy combined with the use of this knowledge in practice. The teacher created the conditions for the Internet conversation between the Russian-speaking students and the students from Switzerland (Schaffhausen), i.e. conditions for dialogue between students belonging to different cultures, nations and ways of thinking were created.

For the implementation of the stage of cognitive activity it is necessary to pass the following steps: to diagnose the formation of discursive competence of students, to master the technique of teaching discourse, to reveal the mechanisms of understanding, interpretation and meaning formation, to integrate the existing linguistic knowledge and skills of students with new ones obtained during the special course and to organize intercultural dialogue through the Internet between the Russian-speaking students and the foreign students.

The result of this stage is the knowledge appropriation by students of the content of the special course «Discourse as the way of communication and understanding of the world». This result is shown in the ability of students to integrate the knowledge of discourse and initial intercultural experience, and to build holistic and coherent statements.

The communicative stage of implementation of formation strategy of discursive competence took place during the fifth year of training students by optional disciplines and electives. At this stage conditions were created for students to master various forms and types of discourse. They are: a dialogue with different communicative goals (exchange of information, assessment, description, persuasion, request for information), a letter of inquiry, a letter of explanation, a review of the read book; a polite refusal, a request, etc. At the same stage classes in the form of role-playing games, discussions, debate on cultural characteristics of the country of their foreign partners were offered to students. Classes were conducted as an exchange of opinions, points of view of the participants, clarification of the unclear points in other positions, confirmation or

refutation of their views. These dialogues form the necessary professional skills of the teacher: the ability to formulate their thoughts clearly and precisely in a foreign language, ability to perceive and interpret the point of view of another person adequately, ability to adjust their thoughts depending on the situation and choose the appropriate language tools, ability to understand their way of finding truth.

At this stage of the formation of discursive competence we used culturological and pedagogical texts to stimulate the meaning formation during pedagogical knowledge acquisition of future teachers, emotional and figurative material of art and literature, reflection on their own life experiences. Interpreting pedagogical texts, we used the hermeneutical methods of dialogic reflective understanding of texts offered by A.F. Zakirova (Zakirova, 2001): translation of scientific text in the living language of the pedagogical process, pedagogical text commenting, dialogue-debating with the author of the text (support and refutation of the main ideas), interpretation of the pedagogical text from the position of the various subjects of the pedagogical process, search for universal common cultural meanings of the text, compilation of terminological and metaphorical structure of pedagogical texts of different genres and styles.

For the implementation of the communicative phase, it is necessary go through the following steps: to diagnose formation of discursive competence of students and analyze the results, to organize discussion and dialogue sessions on intercultural communication issues and cultural features of discourse, to master the teaching methods of different types of discourse.

The analysis of research papers, psychological and pedagogical literature (Elukhina, 2002; Vlasenko, 2004 et al.) have revealed that currently there is no generally accepted method of discursive competence diagnosing. In this connection, the students' proficiency in discursive competence was measured by a variety of techniques, adjusted in accordance with the objectives of our study.

Table 1. Criteria and indicators of discursive competence formation of the students in the process of intercultural dialogue

Criteria	Indicators	Techniques
Motivation to communicate in a dialogue mode	- openness to communication - valuable and meaningful attitude of students to communicate in a foreign language - ability to change their attitudes, stereotypes, ways of thinking, point of view	- involved observation - method of determining the rigidity level - test for the identification of valuable and meaningful orientation to language studying - creation of problematic situations - V.F. Ryakhovsky test to detect the sociability level
The ability to demonstrate the discursive competence in created conditions	- content appropriation of the course «Discourse as the way of communication and understanding of the world» - ability to integrate discourse knowledge and the initial intercultural experience - ability to create a complete and coherent statements	- dialog - role-playing game - discussion - methods of diagnosis for empathic abilities by V.V. Boyko - hermeneutical methods of dialogic reflexive understanding of texts by A.F. Zakirova - reflexive evaluation methodology
Readiness to use the discursive competence in intercultural dialogue	- ability to use the acquired knowledge and experience in new environment - ability to adapt to the dialogue situation - ability to conduct intercultural dialogue	- methods of communication mood by V.V. Boyko - dialogue with a particular communicative task - role-playing game - objectivity test in situations of intercultural communication

	- ability to create well-structured statements, using a variety of discourse strategies	- adapted methodology of communicative readiness for intercultural dialogue by E.G. Vrublevskaya - discussion - creation of training projects

Let us dwell on descriptors of mastering discourse competence. Composing this description, we guided by the document of the Department of the Council of Europe language policy «Common European Framework of Reference for Languages: Learning, teaching, assessment» (Common European, 1997).

Table 2. Descriptors of foreign language discursive competence

Levels	**Motivation to communication in a dialogue mode**
Low	A person has a small number of positive motives to communicate; does not realize the importance of communication for their professional activity; the high level of rigidity; is interested in studying a foreign language, but only in «pure» knowledge beyond the person.
Average	Awareness of the importance of communication for their profession, inter-cultural dialogue; is inherent in the pursuit of another person as the carrier of certain values, to search for meaning, but these students do not always determine the role of foreign language in the development of themselves as individuals; the average level of rigidity.
High	Mobile and open views; studying a foreign language is important in terms of moral self-expression, self-analysis and self-assessment; focus on the integration of their activities with activities of other people; awareness of the need in foreign language for intercultural dialogue.

Levels	**The ability to demonstrate the discursive competence in created conditions**
Low	Knowledge of the simplest ways to start, maintain and finish a short conversation; can give a description of something as a simple sequence of sentences, using for their connections the most occurring conjunctions and connective words.
Average	Ability to express their thoughts, freely using a wide range of language tools; can switch to a different register of communication; knows how to attract attention and to engage in dialogue; knows how to build a logical expression, using a specific set of communication tools.
High	Ability to identify the hidden meaning of the statements and in accordance with this to create a coherent sentence; understands and applies principles of polite communication in a dialogue of P. Grice and R. Lakoff.

Levels	**Readiness to use the discursive competence in intercultural dialogue.**
Low	Manifestation of some components of negative communication purpose (disguised and open violence, negativism, grumbling); low level of general communicative tolerance; insufficient level of communicative readiness for intercultural dialogue.
Average	Manifestation of some individual components of negative communicative purpose, average level of general communicative tolerance; sufficient level of communicative readiness for intercultural dialogue.
High	Manifestation of positive communication purpose, high level of general communicative tolerance; sufficient level of communicative readiness for intercultural dialogue; able to create a complex, well-structured statement, freely using language tools, a variety of text patterns, strategies of polite communication and a wide range of conjunctive tools.

Thus, we have proposed the concept of discursive competence formation of students of pedagogical specialties, which is a consistent holistic process, providing a modern level of communicative culture of the future teachers.

3. Results

Effectiveness in conducting experimental research was determined by the quantitative and qualitative parameters, which made it possible to follow a positive trend on the formation criteria of discursive competence. The reliability of the results is confirmed by calculations based on χ^2 criterion (Pearson criterion) and statistically significant at the level of $p \leq 0,05$.

Calculation criteria χ^2:

$$\chi^2 = \Sigma \frac{\left(f_{эj} - f_{mj}\right)^2}{f_{mj}}$$

where $f_{эj}$ – empirical frequency, f_{mj} – theoretical frequency, j – serial number level.

In the special tables we determined the critical value $\chi^2_{crit}=5,99$ (at $p = 0,05$) (Sidorenko, 2000). Since $\chi^2_{emp} > \chi^2_{crit}$ (12,835>5,991), the distribution of students by the level of motivation to communicate in a dialogue mode before the experiment and after it differs really from each other.

In a similar way we determined the differences in the levels to exercise discursive competence in the created conditions. We got $\chi^2_{emp} = 24,194$, which is more $\chi^2_{crit} = 5,991$ and indicates the presence of differences in the results of ascertaining and control experiments.

As for the readiness of students to use discursive competence in intercultural dialogue, we got $\chi^2_{emp} = 27,587$, which is more $\chi^2_{crit} = 5,991$ and indicates the presence of differences in the results of ascertaining and control experiments. Final results of the experiment are presented in the form of comparative tables.

Table 3. The initial and final levels of students' motivation to communicate in a dialogue mode

Levels	Low		Average		High	
	number of students	%	number of students	%	number of students	%
Initial	12	8	91	60,7	47	31,3
Final	0	0	94	62,7	56	37,3

Table 4. The initial and final levels of students' ability to demonstrate the discursive competence in created conditions

Levels	Low		Average		High	
	number of students	%	number of students	%	number of students	%
Initial	62	41,3	76	50,7	12	8
Final	30	20	83	55,3	37	24,7

Table 5. The initial and final levels of students' readiness to use the discursive competence in intercultural dialogue

Levels	Low		Average		High	
	number of students	%	number of students	%	number of students	%
Initial	68	45,3	73	48,7	9	6
Final	32	21,3	85	56,7	33	22

The tables reflect the results of the ascertaining and the control experiments. When analyzing the results of the initial and the final measurement of motivation levels to communicate in a dialogue mode, it revealed that the number of low-level students decreased from 8 % to 0 %; at the same time, the number of average-level students increased from 60.7 % to 62.7 %; and the number of high-level students increased from 31.3 % to 37.3 %. The measurement analysis of the ability to demonstrate the discursive competence in the created conditions has shown that the number of average-level students increased from 50,7 % to 55,3 %; at the same time, the number of low-level students decreased significantly from 41,3 % to 20 %; and the number of high-level students increased considerably from 8 % to 24,7 %. When analyzing the results of the initial and the final measurements of levels of readiness of students to the use discursive competence in intercultural dialogue, it turned out that the number of low-level students decreased from 45.3 % to 21.3 %; at the same time, the number of average-level students increased from 48.7 % to 56.7 %; and the number of high-level students increased from 6 % to 22 %.

The following are the results of the questionnaires.

Table 6. The results of the test on value-sense orientation of students when studying a foreign language

Levels of values acceptance	**Low**		**Average**		**High**	
	number of students	%	number of students	%	number of students	%
Initial	57	38	75	50	18	12
Final	49	32,7	79	52,6	22	14,7

Table 7. The results of the test on rigidity and communicative purpose by V.V. Boyko

Levels of rigidity	**Low**		**Average**		**High**	
	number of students	%	number of students	%	number of students	%
Initial	53	35,3	62	41,4	35	23,3
Final	61	40,7	60	40	29	19,3

Table 8. The results of the test on the communicative readiness of students to intercultural dialogue by E.G. Vrublevskaya

Levels of readiness	**Low**		**Average**		**High**	
	number of students	%	number of students	%	number of students	%
Initial	43	28,7	61	40,6	46	30,7
Final	21	14	57	38	72	48

Table 9. The results of the test on objectivity in the situations of intercultural communication

Levels of objectivity	**Low**		**Average**		**High**	
	number of students	%	number of students	%	number of students	%
Initial	27	18	55	36,7	68	45,3
Final	21	14	46	30.7	83	55,3

Table 10. The results of the test on the empathic abilities by V.V. Boyko

Levels of empathic abilities	Low		Average		High	
	number of students	%	number of students	%	number of students	%
Initial	19	12,7	60	40	71	47,3
Final	15	10	56	37,3	79	52,7

Table 11. The results of the test on evaluation of ability to self-development by G.P. Zvenigorodskaya

Levels of ability to self-development	Low		Average		High	
	number of students	%	number of students	%	number of students	%
Initial	31	20,7	77	51,3	42	28
Final	27	18	79	52,7	44	29,3

Analysis of the results proved that the concept of discursive competence formation of students of pedagogical specialties that we have developed is effective and efficient.

During the analytical and productive stage of the experiment a survey of 150 students from the experimental group was conducted. The questionnaire revealed the attitude of students to the course «Discourse as the way of communication and understanding of the world». The responses demonstrated that there were:

- more opportunities for communication between students and teachers (84 %);
- greater opportunities to develop the ability to work in a group (89 %);
- conditions provided for the implementation of the work and to obtain teacher's evaluation (79 %);
- conditions for the practical solidification of theoretical knowledge in one lesson (92 %);
- conditions for deeper study of the foreign language (96 %);
- opportunities to participate in role-playing games (69 %);
- more creative improvisational educational activity during the preparation for the role plays and discussions (82 %);

Speaking about the disadvantages of the course «Discourse as the way of communication and understanding of the world», students mentioned:

- the lack of textbooks and teaching aids, adapted to the educational process of students of pedagogical specialties (45 %);
- the inability to study a particular issue independently if being absent at the lesson (12 %).

Thus, the survey results indicate a growing interest of students to discourse as an academic discipline.

4. Discussion

In recent years the interest to the formation of foreign language discursive competence has grown considerably. For example, N.V. Alekhina developed the formation of value-discursive competence of the future linguists (Alekhina, 2014). As we can see, the issues of discursive competence were relevant mainly to the areas of training associated with linguistic profiles. But the analysis of the executed researches has shown that foreign language discursive competence is in demand among non-language profiles. Thus, O.V. Kharapudchenko and E.A. Krasilova developed the method of foreign language discursive competence formation of radio physical faculties students (Kharapudchenko, Krasilova, 2012).

Research methods of forming this competence in the line of different approaches and the examples of different training areas are carried out in papers of M.G. Evdokimova (2012),

I.I. Zhdan (2012), O.V. Kharapudchenko and E.A. Krasilova (2012), I.A. Evstigneeva (2013), N.V. Alekhina (2014), A.G. Gorbunov (2014), E.V. Dumina (2014). At the same time, the aforecited studies do not apply to students of pedagogical areas, so the problem demands its examination and correction in the context of contemporary theory and methodology of professional education.

Implementation of the concept of discursive formation of foreign language competence in the university ensures the formation of the necessary level of discursive competence of the students which is expressed in the ability to create well-structured statements, to use polite communication strategies, to use a broad range of communication tools as well as to understand and interpret the statements in the process of intercultural dialogue.

At the same time our research opens up prospects for further study of this area in the following aspects: introduction of the concept developed by us in the training course of different profiles specialists; improving of teachers' language skills of all disciplines; formation of individual style of discursive activity of a future educator.

5. Conclusion

The results of the concept testing of formation of the foreign language discursive competence of students of pedagogical faculties in the process of intercultural dialogue demonstrated that the efficiency of formation of foreign language discursive competence is determined by including students in intercultural dialogue which is considered as means of forming the discursive competence among students.

Furthermore, the analysis of experimental research work and diagnostic results of the achieved levels of foreign language discursive competence of students has shown that educational process based on the conception that we have developed is promising, as it promotes quality students training of pedagogical specialties to real professional activity and meets modern requirements of the society.

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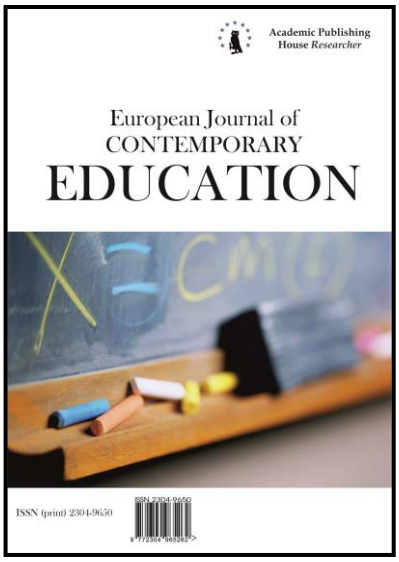

Geography Education Research in Serbia: a Teacher's Perspective

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Abstract

In all European Union countries have harmonized attitudes on the need and improving the quality geographic of education and his innovating. Modernization of geographic education is unthinkable without quality professional and personal development of teacher's geography. Renewal, modernization and supplement professional knowledge and skills acquired in framework of the initial of geographic education it is considered imperative of contemporary education. This paper analyzes the geographical education research on the example of Serbia, from the perspective of geography teachers, and makes an attempt to determine the extent to which teacher's geography use geography education research in their courses and which possible barriers prevent them use the results of geography education research in Serbian classroom environment. The results showed that 26 % of teachers reported that they subscribe to academic journals about geography education research, while 62.4 % of them said that they just follow the publications geography education research. More than 87.6 % of respondents believe that the use of geography education research improves learning, students' motivation and quality of courses, and almost half of the respondents does not think that it is time and excessive class sizes, a reason not to use geography education research in their courses. Geographic education research is a multidimensional concept and cannot be easily estimate only on the basis one study, and solutions should be sought in advocating for one multimodal approach, in which the quality of geographic education research defined through larger number of different, relevant determinants.

Keywords: Geography education research, Serbia, geography teachers, research.

1. Introduction considerations

During the development of human society an important place in the value system always belonged successful individuals, organizations, institutions or society in general. The success of

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individuals in the study or work in all advanced societies highly is valued, respected and represents of socially desirable category (see Butt, 2010; Bernadz et al., 2013). Modern society as a whole, as well as in its sub – systems, is oriented toward achieving success, because successful society is successful individuals. Many authors among which we highlight on this occasion Stoddart (1981), Keltie (1985), Papadimitriou & Kidman (2012) under valuation and evaluation in teaching geography include an organized process that consists of testing of the present and previous situation with specified plan and the final result and point out the ways of development of geographic processes in order to more secure achieving desired effects. According to Hill (1992), Murphy (2007), Solem, Cheung & Schlemper (2008) changes which are present in geographical education research have a unique purpose that nurture and develop the a successful geographical value.

In the last decade of the last century we have noted and the beginning of intensified interest among scientists in the field of geographic "research quality geographic education" and "the quality of education and educational systems" (Cheng 1997; Hanushek, 2005). In other words, “geographical research education is a multidimensional concept and cannot be easily assessing only on the basis one indicator" (Sheppard, 2001; Sarno, 2011), and solutions should be sought in advocating one multimodal approach, where the quality geographical education research defined through larger number of different, adequate determinants (Hanushek, 2005, Papadimitriou & Kidman, 2012). Williams (2003), Kagoda (2009), Butt (2003), suggests that choice of methods is used in geography education research has a direct impact on the quality of research and research findings. Firth & Morgan (2010) stress the need to consider the way the quality of educational research in relation to the capacity to engage theory. Slater (2003), Lidstone & Williams (2006), Genevois & Jouneau-Sion (2008) are citation that there is insufficient reference to geography education research in the development of educational policy in laws of many countries. Roberts (2000), Naish (2002), Slater (2003), Johnston & Williams (2003) emphasize that geography education research insufficiently uses in geography courses, primarily because of the negative perception of teachers. Hargreaves (1998), Roberts (2000) and Butt (2003) suggest that supposed to establish a connection between geography education research and teaching. According to Roberts (2010) teachers have little opportunity or time to read most of the research published in scientific journals or books. Hollowell et al (1998) and Slater (2003) point out that teachers do not use enough geography education research. Naish (2002) and Brkić – Vejmelka (2000) says that the teachers have a healthy skepticism towards geography education research.

However, according to Reinfried & Hertig (2011) citing on research Bronckart (1989), Reinfried, (2007), Butt et al (2006) and Geography Education Standards Project (1994) indicate that the teaching geography is not a question of copying or simplifying the contents of the academic discipline for its use in schools. It concerns more the identification of the academic knowledge that is relevant and necessary to comprehend the geographical concept in question and its structuring according to approaches referred to as upward didactic transposition or the model of educational reconstruction. Due to educational reforms in the last 25 years, associated with rapidly changing curricula, geography is facing stiff competition from other subjects. Reinfried & Hertig (2011) further point out that “this occurs whether geography is taught as a single, discrete subject oars a subject integrated in interdisciplinary subject areas or some other forms of “geographical studies” (rather than geography) in the curriculum. In many countries geography is seen as a vehicle for developing education about sustainable development, environmental concerns, citizenship and even political literacy rather than as a valuable subject in its own right. The goal of geographical education is to supply society with people, who are geographically literate. Geographic literacy is about understanding how human and physical systems are interconnected and how people and places interact. To achieve these goals geographical education asks the following questions: What should be taught to whom? Why should it be taught? When should it be taught? How should it be taught? How can we measure teaching success”?

Gecit (2010) citing on research Karakuyu (2008), Ünlü & Alkış (2006), Demirkaya (2008) and Öztürk (2005) indicate that geography teachers often execute an important function with regards perceiving the location where children live, and the global world. The issue of how to raise persons (teachers) to teach geographical knowledge and competence and which competences they should have, are very important. One of the most noticeable studies related with this field is the study with the subject of perception of global heating concept by candidates of teacher and their learning styles. Another study which could be considered important is the study in which education

of teacher is inspected in a process location becomes globalised on one hand, and becomes subject to localization on the other. Relying on study Incekara (2013) the aim of this research is to determine the position and influence of geography education research exploring the following areas: teacher attitudes of geography according to geography education research; factors which prevent teachers of geography to use geography education research in their works and possibly statistical differences between the independent and dependent variables in relation to demographic characteristics and attitude geography teachers according to geography education research.

2. Research Methodology

As a field of research according Bauer (2010), geographies of education have generally gained rather marginal attention in the discipline so far. Although this has changed to a certain extent more recently, there is still a pressing need to ground geographies of education conceptually or theoretically. We suggest, that it may be fruitful to discuss variegated geographies of educational experience in relation to the following research fields offering further connections to e.g. young people`s geographies, education and social studies.

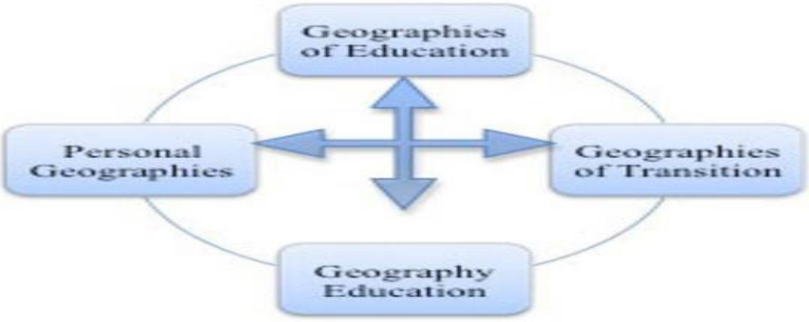

Fig. 1. What is "geographies of education" about? (Bauer, 2010).

Transitions within stratified school systems are important rites of passage revealing interesting data that needs to be critically interpreted and set into wider social and political context. Indeed, transitions are crucial events affecting the students' identity and personal geographies telling stories about multiple inclusions/exclusions with respect to class, gender, intellectual and "peer" performance (see Bauer, 2010).

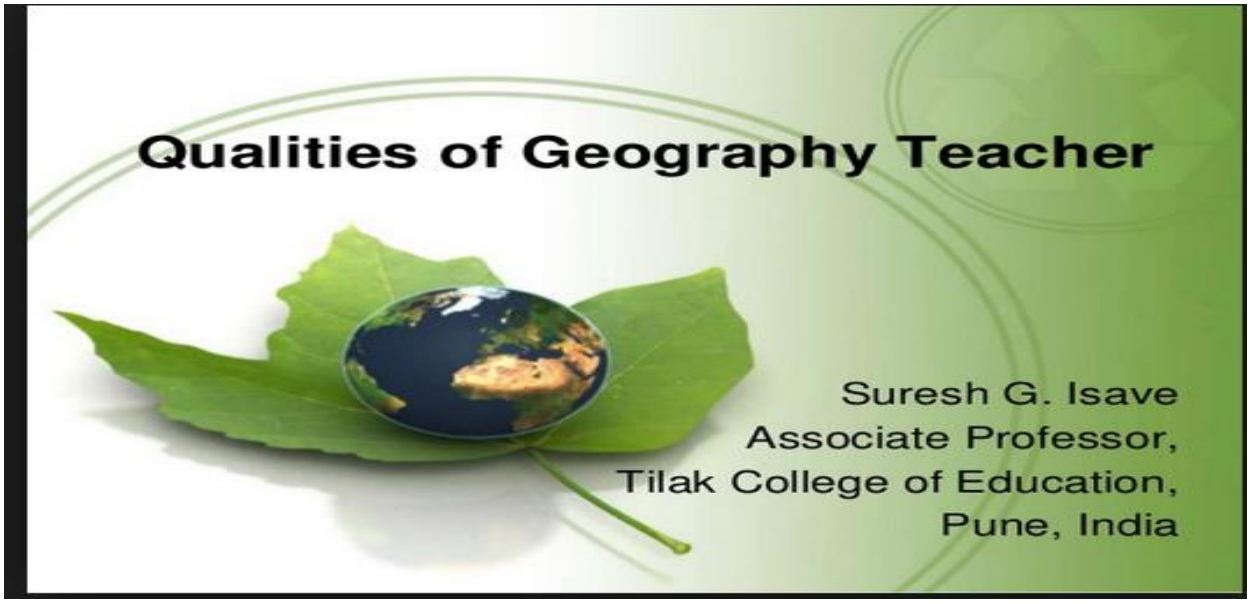

Fig. 2. Qualities of Geography Teacher (Isave, 2015).

Web – based questionnaires and email surveys can provide according to Madge & O'connor (2004), fast and cheap alternatives to postal, face – to – face and telephone surveys. Web-based questionnaires are designed as web pages and located on a researcher. Electronic surveys involve questions being sent as part of the email itself. The type of data yielded is quantitative and with a web-based questionnaire data can be loaded automatically into a spreadsheet or database increasing the speed and accuracy of data collection. Numerous examples of web-based questionnaires and electronic surveys according to Madge & O'connor (2004) exist in the literature (Coomber, 1997; Schaefer, Dillman, 1998; Hampton, Wellman, 1999; Litvin & Kar, 2001; Madge, O'Connor, 2002). More recent references compare online and onsite surveys (McDonald, Adam, 2003; Riva, Teruzzi, Anolli, 2003). Methodological procedure in article of the survey is based on research Incekara (2013), adapted for the purposes of this study, bearing in mind the research experience of the author of this article on similar research (see Rajović, Bulatović, 2008; Rajović, 2009; Bulatović, Rajović, 2011; Bulatović, Rajović, 2013; Rajović, Bulatović, 2015; Bulatović, Rajović, 2015a; Bulatović, Rajović, 2015d; Rajović, Bulatović, 2016; Rajović, Bulatović, 2016a). The survey covered 250 geography teachers. The questions referred to the demographic characteristics of the target group (including questions regarding the gender and age of the respondents), questions that asked teachers about their professional experience and teaching conditions; a statement section, which was developed to determine the attitudes of geography teachers towards geography education research. The survey was conducted in 2006 and 2012 & 2016. "In this section, three yes-no questions, one frequency question and ten statements on a five-point Likert scale were used (1 = "Strongly disagree," 2 = "Disagree," 3= "Neutral," 4 = "Agree," 5 = "Strongly agree"). In the analysis, the Likert scale was inverted for the statements with negative meaning. The statements section was designed to investigate whether teachers read and subscribe to academic journals about geography education research, whether they use them in their courses, their perceived benefit to the courses, and the factors preventing them from using geography education research in their courses. In this study, descriptive statistics were used to calculate frequencies and percentages. However, non-parametric tests were used, including the Mann – Whitney U test, to analyze the inferential statistics. This test was used because, according to a one-sample Kolmorogov-Smirnov test, the data did not have a normally distributed interval variable ($p < 0.05$). The reliability coefficient was 77.6 %, based on a factor reliability analysis of the dependent variables (Cronbach's alpha coefficient: 0.776)" (Incekara, 2013). Therefore, the whole information volume in this article was obtained through specific methods for the selective research, respecting all its stages from the methodological point of view: identification of the researched issue, research framework delimitation, information collection, data processing, analysis and interpretation drawing up the conclusions. Research also played an important role in the article, which consisted, on one hand, in the identification of other studies and articles on the same subject, and in the processing of survey, on the other hand. Hence, the information sources used can be classified into national publications (research institutes, university...) (see Komlenović, 2004; Rajović, 1997; Rajović, 2001; Rajović & Bulatović, 2002; Rajović & Bulatović, 2002; Rajović, 2003; Rajović, 2003; Rajović, 2007; Rajović, 2007; Komlenović, 2007; Komlenović, 2008; Radović, 2011; Teodorović, 2012; Radović, 2013; Simić, 2015; Teodorović, Milin, & Vujačić (2016); Baucal & Pavlović – Babić, 2016) and into non – governmental sources (independent publications) (see Inclusive Education – Road Development, 2008; Publications – Center for Education Policy, 2015; Educational Forum – Long – Term Development of Modern Education in Serbia, 2015). A special place in the study takes text from the international literature (see Downs, 1994; Lai, 1999; Corney, 2000; Sutton & Wheatley, 2003; Trigwell, 2006; Lambert, 2010; Butt, 2011; Guoa, 2014; Krechetnikov, Pestereva, Rajović, 2016; Romanova, Maznichenko, Neskoromnyh, 2016) based on similar studies. As the data on "Geography Education Research in Serbia: a Teacher's Perspective" very few, the research results are based on a series of mainly qualitative analyses, on the one hand, and on a series of logical rationales, on the other hand.

3. Analysis of results

Gbadamosi (2013) states that the research sets to investigate the following objectives: to determine the conventional sources of demographic information use in geography education policy making; to examine the uses of conventional sources of demographic in geography education policy

making process; to find out the demographic information (characteristics) utilized in geography education policy making process; and to find out the sources of information mostly utilized in geography education policy making. The study tests one hypothesis to examine relationship between demographic information utilization.

Demographic features. Our research records based on similar research Incekara (2013) indicates that demographic data indicates that of 250 respondents, the majority of geography teachers were male (69.6 %, n=174) and 30.4 % of them (n = 76) were female, while 45.6 % are between 33 and 40 years of age (30.4 %: 26–32, 21.8 %: 41+). More than half of the geography teachers (56.4 %) are employed in public schools, 30 % work in private schools, and the remaining 13.6 % are employed for private courses (educational institutions preparing students for different exams, including university and high school entrance exams). About 35.2 % of the respondents have more than 15 years of professional experience, followed by those with 10–14 years of experience (31.6 %) those with 5–9 years of experience (27.2 %), and those with 1–4 years of experience (6 %). The majority of the teachers (68 %) reported that they teach 21–30 hours of geography courses a week, and 76.8 % stated that they taught classes of 16–30 students while 17.2 % had class sizes exceeding 30 students. A large majority of the geography teachers (74 %) have an undergraduate degree while the rest (26 %) have graduate degrees (Fig. 3) (see Incekara, 2013).

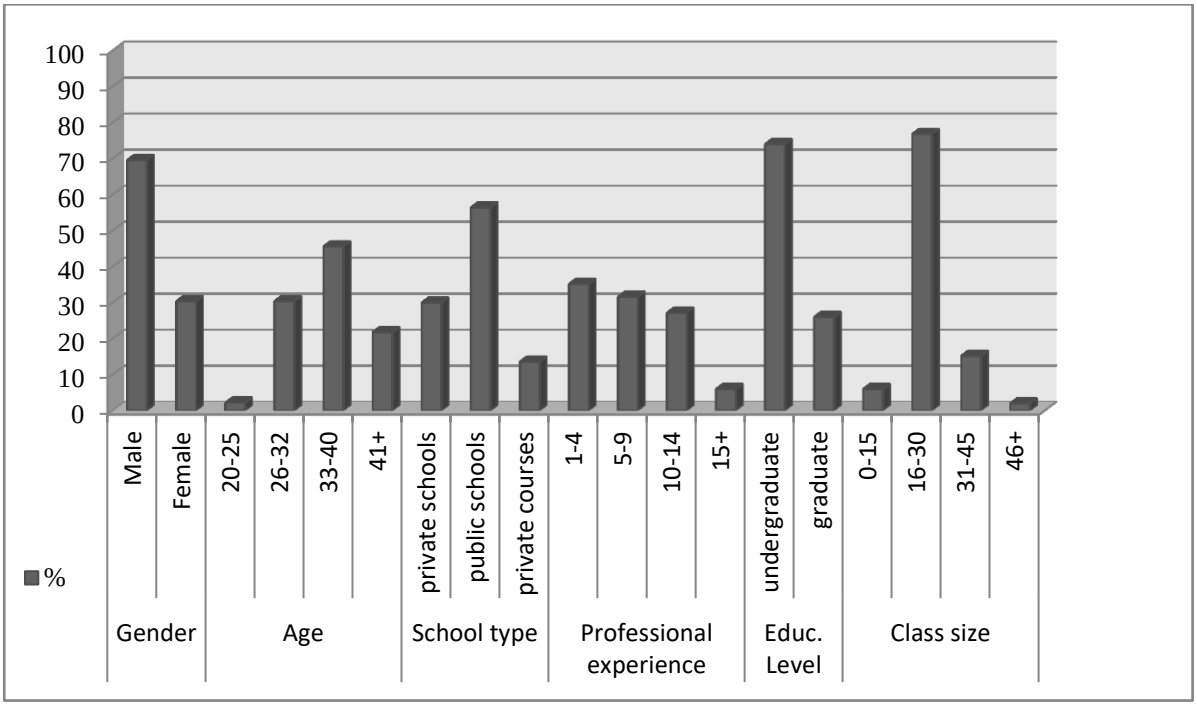

Fig. 3. Distribution of respondents by gender, age, school type, professional experience, class size and educational level (Calculation of data by the authors, according to Incekara, 2013).

Statement. Ensuring the quality of geography education is, consequently, of great significance to policy makers and education leaders internationally. It follows that those who teach geography in primary and secondary schools and in further and higher education need to be supported by research intelligence in at least five priority areas, in order to: clarify the purposes and goals of geography education, no matter how the geography curriculum is expressed locally; refine curriculum, pedagogic and assessment practices used in the teaching and learning of geography; deepen collective understanding of learning progressions in geography; improve ways in which high quality materials and resources for geography teaching and learning can be developed and provided; develop understanding of learners' geographical knowledge and experience, including their misperceptions, to enhance geography's teaching and learning (Catling, 2014). The outcomes of research in and relevant to geography education are to: provide and distribute evidence and/or conceptually robust arguments and practices that will improve the quality of geography education in national settings and internationally; encourage a 'research

orientation' among geography teachers and educators that enables reflective and critical engagement with habitual practices and a professional habit of mind that demands improvement in the quality of geography education (Catling, 2014). The International Geographical Union Commission on Geographical Education supports and promotes research in geography education in all nations and cross-nationally. It aspires to developing an international culture of research in geography education to enable the development of policy and practices that enhance the quality of geography teaching and learning for all in formal and informal education. It encourages policy makers and geography educators to build capacity in research and its application to the classroom and wider learning contexts through understanding the current state of research and by elucidating current knowledge, needs and trends in order to identify future research intentions, priorities and practices and the means to bring these to fruition (Catling, 2014).

Categories	Practices
Posing geographic questions	a. Identify problems or questions that can be addressed using geographic principles, models, and data; express problems and questions in geographic terms.
Acquiring geographic information	a. Identify geographic data that can help to answer a question or solve a problem.
	b. Collect data (including observations and measurements) about geographic phenomena, and/or gather existing data to help answer a question or solve a problem.
Organizing geographic information	a. Organize data and create representations of data to help solve a problem or answer a question.
Analyzing geographic information	a. Identify data analysis strategies that can be used to help solve a problem or answer a question.
	b. Find and describe spatial and temporal patterns in data, or find data that matches a pattern, to help solve a problem or answer a question.
	c. Construct an explanation or prediction for phenomena by comparing data to a model or theory.
Answering questions and designing solutions	a. Construct an answer to a question or a solution to a problem using geographic principles, models, and data.
	b. Evaluate one or more answers to a question or solutions to a problem using geographic principles, models, and data.
Communicating geographic information	a. Inform or persuade an audience using geographic principles, models, and data.

Fig. 4. Geographic Practices* (Bednarz et al., 2013).

Working from the skills described in Geography for Life, we identified six categories of geographic practice. Each of these categories represents an aspect of geographic inquiry or problem - solving, and encompasses specific practices that, either independently or in combination, can achieve a reasoning goal (Fig. 4). More detailed descriptions of the practices, along with examples representing how they are used by practicing geographers, ordinary people, and classroom instructors, can be found throughout the three Road Map Project committee reports (see Bednarz et al., 2013). Because it suited their goals better, the Geography Education Research Committee condensed these six categories into a smaller set. The Committee combined acquiring, organizing, and analyzing geographic information into a single category, and also combined answering questions and designing solutions with communicating geographic information. Thus, the Committee's three categories are: formulat geographic questions; acquiring, organizing, and analyzing geographic information and explaining and communicating geographic patterns and processes (Bednarz et al., 2013).

Ilić (2014) citing on research Airasian & Galikson (1997) and Schon (1983) highlights that many terms have been used synonymously with self – evaluation, including reflection, self – assessment, self – appraisal, self – monitoring, self – rating. Self – evaluation refers to that process by which "a person can make judgments about the adequacy and effectiveness of performance for the purpose of self – Improvement". Close analysis of teacher practices and the literature on self-evaluation reveals that the primary focus of teacher self – evaluation learning (and learning for professional development) is reflection and the term "teacher self – evaluation" has been almost synonymous to 'teacher reflection' or "reflective practitioner", term which was coined by Schön (1987). By Ilić (2014) citing on research Schön (1983) and Bolton (2010) reflection is the mental process involves intuitive thinking: we exhibit it by the competent behavior we carry out, but we are unable to describe what it is that we do. It involves paying critical attention to the practical values and theories which inform everyday actions, by examining learning practice reflectively and

* While the categories and practices are listed sequentially in the table following a widely used model of inquiry and problem-solving, we make no assumption that they will or should be conducted in that order in practice.

reflexively. "An important aspect relating to systematic reflection concerns the moment of reflection. Schön (1983) and Schön (1987) makes a distinction between three types: (a) reflection – in – action, in which the learner reflects on an action past and engages in retrospective sense making; (b) reflection - in - action in which reflection occurs as an attempt to "stop and think" in the midst of action, a time during which action can be modified; and (c) knowing – in – action, the most tacit of reflective processes in which knowledge is embedded in the action itself, rarely considered at a conscious level. According to Korthagen & Vasalos (2005) onion model", there are six different levels on which reflection can take place: mission, identity, beliefs, competencies, behavior and environment. Brookfield (1995) suggests that we employ four "critical lenses" through which to view and reflect upon our practice. These are: (1) our own view; (2) that of our students; (3) that of our fellow professionals; (4) and the various theoretical perspectives propounded in educational literature. Examining our own experiences as learners as well as teachers helps us "to uncover our most deeply embedded allegiances and motivations as teachers" (Ilić, 2014).

In the first part of the statement section as well as Incekara (2013), respondents were given three yes-no questions concerning their attitudes to geography education research, whether they are subscribed to any academic geography education research journals, whether they follow geography education research (papers or books), whether they use geography education research in their courses, and the frequency of geography education research use in their courses (Table 1).

Table 1. The Responses of Geography Teachers to Yes – No Questions

Questions				Answers	
				Yes	No
1	Are you subscribed to any academic journals about geography education research?			26% (n=65)	74% (n=185)
2	Do you follow Geography education research, including papers and books?			62.4% (n=156)	37.6% (n=94)
3	Do you use geography education research in your courses?			58.8%(n=147)	41.2% (n=103)
4	If yes, how often do you use geography education research in your courses?	Always	Often	Sometimes	Rarely
		6.7%	24.6%	37.3%	31.3%

Source: Calculation of data by the authors.

According to the descriptive analysis of yes – no questions, although the majority of the respondents (74 %, n = 185) stated that they do not subscribe to any academic journals on geography education research, 62.4 % of the teachers indicated that they follow geography education research. However, it is highly disappointing that just 58.8 % (n = 147) of geography teachers stated that they use geography education research in their courses. It is even more disappointing that just 24.6 % of the respondents stated that they always or often use geography education research in their courses, while 31.3 % stated that they rarely use geography education research in their geography courses. The remaining 37.3 % responded that they sometimes use geography education research in their courses (see Incekara, 2013).

In the second part of the questionnaire, respondents were given 10 statements regarding the benefits of geography education research and the factors affecting the use of geography education research in their courses (Table 2).

Table 2. Opinions of geography teachers about the use of geography education research in the courses

Statements		Level of agreement				
			Strongly disagree/ Disagree	Neutral	Agree/ Strongly agree	Total
			1/2*	3*	4/5*	
1	Using geography education research in courses improves the quality of the courses and learning	n	15	12	223	250
		%	6	4.8	89.2	100
2	Using geography education research in courses improves student motivation	n	14	17	219	250
		%	5.6	6.8	87.6	100
3	Because geography education research is theoretical, it is not related to the classroom environment	n	85	63	102	250
		%	34	25.2	40.8	100
4	I do not have enough time to find and use geography education research in my courses	n	120	58	72	250
		%	48	23.2	28.8	100
5	Excessive class sizes do not allow me to use geography education research in my courses	n	125	48	77	250
		%	50	19.2	30.8	100
6	Geography education research goes on elsewhere, outside and beyond school, and does not interest my class	n	113	61	76	250
		%	45.2	24.4	30.4	100
7	Because geography education research is intended to improve the CV of the researcher, it is useless	n	121	74	55	250
		%	48.4	29.6	22	100
8	Geography education research does not meet the needs of classroom teaching	n	95	82	73	250
		%	38	32.8	29.2	100
9	Because Geography education research is published in inaccessible journals and books, it is difficult to follow	n	106	65	79	250
		%	42.4	26	31.6	100
10	Geography education research is not the everyday reading matter of teachers	n	108	69	73	250
		%	43.2	27.6	29.2	100
*1: Strongly disagree 2: Disagree 3: Neutral 4: Agree 5: Strongly agree						

Source: Calculation of data by the authors.

According to the descriptive analysis of the statements as well as Incekara (2013), a large majority of the respondents agreed or strongly agreed that using geography education research in courses improves the quality of courses and learning (89.2 %) and improves student motivation (87.6 %), but 40.8 % of geography teachers said that they agreed or strongly agreed that geography education research is theoretical and not related to the classroom environment. However, 34 % of them strongly disagreed or disagreed with this statement, while 25.2 % remained neutral. In the next two statements, geography teachers were asked whether time and class sizes posed a problem for them in using geography education research. For both statements, almost half of the respondents strongly disagreed or disagreed that time and class sizes prevent them from using geography education research in their courses. For these statements, 28.8 % of the respondents agreed or strongly agreed that time

are a problem for them in using geography education research, while 23.2 % of the respondents were neutral. 30.8 % of the respondents also agreed or strongly agreed that large class-sizes prevent them from using geography education research in their courses, while 19.2 % were neutral. Forty-five percent of the respondents did not believe that because geography education research goes on elsewhere, outside and beyond school, it does not relate to classroom teaching, while another 30.4 % agreed or strongly agreed with this statement and the remaining 24.4 % remained neutral. Just 22 % of the geography teachers agreed or strongly agreed that geography education research is useless because it is done primarily to improve the CVs of the researchers. However, almost half of the respondents (48.4 %) disagreed or strongly disagreed that geography education research is done just to improve CV of researchers, while 29.6 % of the geography teachers stayed neutral.

According to Catling (2014) indicates that there are considerable variations in the provision in primary initial teacher education courses around the world. Time for geography in such programs is limited, where it exists, and geography almost always appears in the context of social studies or humanities units or modules, such as in the USA and England, though it may be linked with aspects of science, as in Finland and Greece. Catling (2014) according to Gersmehl (2014) noted that in the USA as few as one in eight teachers' training courses required a geography component for graduation. For very many non-specialist primary trainees this is likely to be no more than a few taught sessions amounting to just a few hours of lecture and/or workshop time. In those countries where there is no geography in the primary school curriculum, geography does not appear in primary initial teacher education courses. "Where opportunities exist for primary geography specialists, in comparatively few nations, there may be a small cohort taking a subject specialism component in their primary teaching course (alongside trainees who are taking other subject specialism's). In England, for instance, such specialisms have reduced heavily since the 1990s, which has meant a major decrease of knowledgeable geographers going into primary teaching. This is a situation into which there has been little research, in part because the strong emphasis in primary teaching programs across the globe lies in training the technology" (Catling, 2014).

The 29.2 % of the respondents agreed or strongly agreed that geography education research does not meet the needs of classroom teaching, but 38 % strongly disagreed or disagreed with this statement, and another 32.8 % remained neutral. Again, around 30 % of the geography teachers polled did not feel that geography education research is published in inaccessible journals and books and that geography education research is not relevant for geography teachers who are already hard-pressed. However, 42.4–43.2 % strongly disagreed or disagreed with these statements, while 26–27.6 % was neutral. For the analysis of whether the gender of the respondents significantly affects the geography teachers' responses to the yes-no questions and their agreement level with the statements; a Mann-Whitney U test was performed. P values indicated that there was a statistical difference as well as Incekara (2013) in the mean ranks of males and females on both the seventh statement (geography education research is directed improving the CV of the researcher, so it is useless) and the eighth statement (geography education research does not meet the needs of classroom teaching) ($p < 0.05$). The 76 female geography teachers had significantly higher mean ranks (143.35) than the 174 male geography teachers (117.70) did on the seventh statement (Table 3). The 76 female geography teachers also had significantly higher mean ranks (143.53) than the 174 male geography teachers did (117.63) on the eighth statement. Moreover, according to Incekara (2013), the r ($r = z/\sqrt{n}$) values indicated that the effect size was small.

Table 3. Mann – Whitney U test results for male and female geography teachers' views on statement 7

Statement*	Gender	N	Mean Rank	Sum of Ranks	U	z	p	r
Statement 7	Male	174	117.70	20480.50	5256.50	-2.657	0.008	-.168
	Female	76	143.35	10894.50				
Statement 8	Male	174	117.63	20467.00	5242.50	-2.753	0.006	-.174
	Female	76	143.53	10908.00				

Source: Calculation of data by the authors.

A Kruskal – Wallis analysis of variance as well as Incekara (2013) indicated that there was a statistically significant difference among the three age groups of respondents on the ninth statement (because Geography education research is published in inaccessible journals and books, it is difficult to follow) and the tenth statement (these journals are not the everyday reading matter of hard-pressed teachers) (Table 4). According to Catling (2014) it seems that globally we know and understand much less than we need to in order to provide effective and good teacher education in geography for pre – service primary teachers. We have a number of emerging concerns which must be noted. First, little really is known about future primary teachers' knowledge in and understanding of the range of topics within geography as a discipline and school subject. Second, a better appreciation of their attitudes to geography is needed, including about their prior experience of the subject in school and of their informal and daily experiences of geography, to understand to what extent their attitudes can be built on and/or need to be challenged, as well as used to engage them in the subject and motivate their valuing and teaching of it. Third, within geography a significant area is environmental values. This is linked with global learning and sustainability education.

Table 4. Kruskal – Wallis Test Results for Level of Agreement on Statements 9 and 10 Based on Age Groups

Statement	Age Groups	N	Mean Rank	df	X^2	p
Statement 9	20-25 26-32 33-40 41+	5 76 114 55	52.00 128.02 119.60 140.94	3	9.348	0.025
Statement 10	20-25 26-32 33-40 41+	5 76 114 55	182.40 112.38 123.89 141.80	3	9.391	0.025

Source: Calculation of data by the authors.

To determine which of the age groups have different means for the ninth statement as well as Incekara (2013) six post hoc Mann – Whitney tests compared two pairs of age groups on Statement 9 to indicate statistical significance? There was a significant difference on Statement 9 between the 26–32 and 41+ age groups and between the 33–40 and 41 + age groups. According to the analyses, the mean rank of geography teachers who are 41 years of age and older (74.55, n = 55) was significantly higher for Statement 9 than that of teachers who are between 26–32 years of age (59.81, n = 76), z = - 2.467, p = 0.014, r = - 0.215, a small – to – medium effect, according to Incekara (2013). The mean rank of respondents who are 41 + years old (93.35, n = 55) was also significantly higher in Statement 9 than that of teachers who are between 33-40 years of age (80.97, n = 114), z= -2.691, p = 0.007, r= - 0.215, a small – to – medium effect (Table 5).

Table 5. Post Hoc Mann – Whitney U Test Comparing the Age Groups on Statements 9 and 10

Statement	Age groups	N	Mean ranks	Sum of ranks	U	z	p
Statement 9	26-32	76	59.81	4545.50	1620.50	-2.467	0.014
	41+	55	74.55	4100.50			
	33-40	114	80.97	9231.00	2676.50	-2.691	0.007
	41+	55	93.35	5134.00			
Statement 10	20-25	5	60.80	304.00	91.0	-2.017	0.044
	26-32	76	39.70	3017.00			
	26-32	76	59.41	4515.50	1590.5	-2.540	0.011
	41+	55	75.10	4130.50			

Source: Calculation of data by the authors.

Another six post hoc Mann – Whitney tests were used to compare which of the paired age groups had different means on the tenth statement. Results suggested that the mean rank of the 20–25 age group of teachers (60.80, n = 5) was significantly higher than that for teachers aged between 26 and 32 (39.70, n = 76) on the Statement 10, z = - 2.017, p = 0.044, r = - 0.224, a small - to - medium effect. Geography teachers who are 41 + years of age had also significantly higher mean rank (75.10, n = 55) than those between 26–32 years of age (59.41, n = 76) on the same statement, z = - 2.540, p = 0.011, r = - 0.222, a small – to – medium effect size (Table 5). Other Kruskal-Wallis tests as well as Incekara (2013) were performed to indicate whether there were differences in teachers' responses to the yes-no questions and statements depending on the type of school in which the geography teachers are employed. The results suggest that there are significant differences among the three school types on the third, fourth, and fifth statements (Statement 3: because geography education research is theoretical, it is not related to the classroom environment; Statement 4: I do not have enough time to find and use geography education research in Serbia in my courses; and Statement 5: excessive class sizes do not allow me to use in my courses) (Table 6). How beautifully emphasizes Catling (2014) we ought to recognize what we do and, while not be satisfied with it, realize that research is of value and help, even where it presents us with international inconsistencies and though it may be limited. So, perhaps, our response should be 'just getting on with it' and that we should value and make use of what we have learnt and continue to learn.

Table 6. Kruskal – Wallis Test Results for Level of Agreement on Statements 3, 4, and 5 Based on School Type

Statement	School type	N	Mean ranks	df	X^2	p
Statement 3	Private schools	75	131.42	2	9.476	0.009
	Public schools	141	129.57			
	Private courses	34	95.57			
Statement 4	Private schools	75	130.29	2	12.992	0.002
	Public schools	141	131.65			
	Private courses	34	89.44			
Statement 5	Private schools	75	136.23	2	6.575	0.037
	Public schools	141	124.61			
	Private courses	34	105.50			

Source: Calculation of data by the authors.

To determine which of the school type means are different for the third, fourth, and fifth statements, three post hoc Mann-Whitney tests for each statement compared the school types on Statement 3, 4, and 5 to find the statistical significance (Table 7) (see Incekara, 2013). The results indicated a significant difference between the mean rank of geography teachers working in private schools (59.85, n = 75) and the mean rank of those employed in private courses (44.29, n = 34) on the third statement, in favour of the former group, z = - 2.852, p = 0.004, r = - 0.273, a small – to – medium effect. In addition, the mean rank of respondents employed in public schools (92.21, n=141) was significantly higher than the mean rank of those working in private courses (70.53, n=34) for the same statement, z = - 2.943, p = 0.003, r = - 0.222, a small - to - medium effect size (Table 7).

Regarding Statement 4 as well as Incekara (2013) the results showed that the mean rank of public school teachers (60.27, n = 75) was statistically higher than that of private course teachers (43.37, n = 34), z = - 3.052, p = 0.002, r = - 0.292, a small – to – medium effect size, while public school teachers had a significantly higher mean rank (93.65, n = 141) than that of private course teachers (64.65, n = 34) on the same statement, z = - 3.652, p = 0.000, r = - 0.276, a small – to – medium effect size. As for Statement 5, private school teachers also had a significantly higher mean

rank (59.64, n = 75) than private course teachers had (44.76, n = 34), z = -2.647, p = 0.008, r = -0.253, a small – to – medium effect. The mean rank of public school teachers (91.65, n= 141) was significantly higher than for public course teachers (72.88, n = 34) on the same statements, z = -2.460, p = 0.014, r = - 0.185, indicating a small – to – medium effect (Table 7).

Table 7. Post Hoc Mann – Whitney U Test Comparing Groups Organized by School Type for Statements 3, 4, and 5

Statement	School type	N	Mean ranks	Sum of ranks	U	z	p
Statement 3	Private schools	75	59.85	4489.00	911.000	-2.952	0.004
	Private courses	34	44.29	1506.00			
	Public schools	141	92.21	13002.0	1803.500	-2.943	0.003
	Private courses	34	70.53	2398.00			
Statement 4	Private schools	75	60.27	4520.50	879.500	-3.052	0.002
	Private courses	34	43.37	1474.50			
	Public schools	141	93.65	13204.00	1601.500	-3.652	0.000
	Private courses	34	64.65	2196.00			
Statement 5	Private schools	75	59.64	4473.00	927.000	-2.647	0.008
	Private courses	34	44.76	1522.00			
	Public schools	141	91.65	12922.50	1883.500	-2.460	0.014
	Private courses	34	72.88	2478.50			

Source: Calculation of data by the authors.

To analyze whether the professional experience of respondents has a significant effect on geography teachers' agreement with the statements, a Kruskal – Wallis analysis test (see Incekara, 2013) was performed. P values indicated statistical differences in the mean ranks of four professional experience groups for Statements 3, 4, 9, and 10 (Table 8). Apart from more general skills, according to Clausen (2016) e.g. citing research Jensen & Schnack (1997), Breiting et al (1999), Gustafsson (2007), Paulsen (2012), Sjøberg (2005) such as cooperation and reading, the development of action competence also requires knowledge/insight, commitment, vision and action experiences (Jensen and Schnack, 1997). In the Nordic countries, the importance of connecting scientific knowledge with aspects of democracy is also emphasized by several authors. In the Danish Education Act emphasis is actually placed on the development of students' action competence: "The school must prepare students for participation, joint responsibility, rights and duties in a society based on freedom and democracy". Each subject in Danish schools, including geography, must comply with this requirement.

Table 8. Kruskal – Wallis Test Results for Statements 3, 4, 9, and 10 for Professional Experience of Teachers

Statement*	Professional experience (years)	N	Mean ranks	df	X^2	p
Statement 3	1-4	88	141.10	3	9.843	0.020
	5-9	79	115.39			
	10-14	68	116.22			
	15^+	15	129.30			

Statement 4	1-4 5-9 10-14 15+	88 79 68 15	132.48 118.18 115.96 166.40	3	12.964	0.005
Statement 9	1-4 5-9 10-14 15+	88 79 68 15	112.72 141.45 117.74 151.67	3	12.817	0.005
Statement 10	1-4 5-9 10-14 15+	88 79 68 15	136.14 116.00 119.67 139.53	3	7.902	0.048
*See Table 2 for statements						

Source: Calculation of data by the authors.

To determine which professional experience group differed for Statements 3, 4, 9, and 10, six post hoc Mann-Whitney tests (see Incekara, 2013) for each statement compared these dependent variables to indicate significant variables (Table 9).

Table 9. Post Hoc Mann – Whitney U Test Comparing Groups Organized by Duration of Professional Experience on Statements 3, 4, 9, and 10

Statements	Professional experience (year)	N	Mean ranks	Sum of ranks	U	z	p
Statements 3	1-4 10-14	88 68	84.84 70.30	7465.50 4780.50	2434.00	-2.063	0.039
	5-9 15+	79 15	45.08 60.27	3561.00 904.00	401.00	-2.083	0.037
	10-14 15+	68 15	39.21 54.67	2666.00 820.00	320.00	-2.391	0.017
Statements 4	5-9 15+	79 15	44.33 64.20	3502.00 963.00	342.00	-2.728	0.006
	10-14 15+	68 15	38.29 58.80	2604.00 882.00	258.00	-3.207	0.001
Statements 9	5-9 15+	79 15	44.62 62.67	3525.00 940.00	365.00	-2.479	0.013
	10-14 15+	68 15	38.51 57.80	2619.00 867.00	273.00	-3.025	0.002
Statements 10	5-9 15+	79 15	44.40 63.83	3507.50 957.50	347.50	-2.705	0.007
	10-14 15+	68 15	39.51 53.27	2687.00 799.00	341.00	-2.150	0.032

Source: Calculation of data by the authors.

The results suggest that the mean rank of respondents with 1–4 years of professional experience was significantly higher (84.84, n = 88) than the mean rank of respondents with 10–14 years of professional experience (70.30, n = 68) on Statement 3, z = - 2.063, p = 0.039, r = - 0.16, a medium – to – large effect, while there was a statistically significant difference between the mean ranks of geography teachers with 15+ years of professional experience (60.27, n=15) and those with 5-9 years of professional experience (45.08, n = 79) on Statement 3 in favour of the former group, z = - 2.083, p = 0.035, r = - 0.21, a small – to – medium effect. However, another statistical difference was investigated between the mean ranks of respondents with 15 + years of professional experience (68.42, n = 65) and the mean ranks of those with 10-14 years of professional experience (39.21, n = 68) on the same statement, in favour of the former group, z = - 2.391, p =

0.017, r = - 0.26, a small – to – medium effect (Table 9). According to the analyses comparing the four professional experience groups on the fourth statement, there was a significant difference between the teachers with professional experience of 15 + years (64.20, n = 15) and those with 5–9 years of professional experience (44.33, n = 79), in favour of the former group, z = - 2.728, p = 0.006, r = - 0.28, indicating a small-to-medium effect size. The mean rank of the respondents with 15 + years of experience (58.80, n = 15) was significantly higher for Statement 4 for those with 10–14 years of experience (38.29, n = 68), z = - 3.207, p = 0.001, r = - 0.35, showing a small – to – medium effect (Table 9) (see Incekara, 2013). To spell out the basic characteristics of teaching as a professional practice, According to Chang (2002) citing research Squires (1999) adopted a multiple - paradigm view of looking into teaching, in which the term paradigm is used not only for describing "the way something is conceptualized or viewed, but also the whole package of beliefs, values, attitudes and practices that goes along with the view'. He stressed that paradigms of teaching shouldn't be viewed as one displaces another. Instead, a number of conflicting or competing paradigms somehow coexist. With substantial literatures attached, he explored seven paradigms of teaching: teaching as a common – sense activity, teaching as an art, teaching as a craft, teaching as an applied science, teaching as a system, teaching as reflective practice and, teaching as competence. Chang (2002) citing research Squires (1999) a "common – sense" view on teaching rests on two different kinds of argument: teachers teach by making use of their own experiences of schooling; and teaching is no different from what we do in everyday life. Same as the view of "teaching as an art', both paradigms are rather subjective and arbitrary in the sense and are lacking of concrete ideas and theories to support. While for views of teaching as "a craft', "an applied science', 'reflective practice' and 'competence', their value lies in illuminating 'the concrete aspects" of teaching as professional work and that teachers are conscious about their own practices. Squires (1999) by Chang (2002) indeed, among the seven paradigms, "system thinking" (teaching as a system) is seen to be the most rational or rationalistic paradigm as it helps people to think about "teaching as a complex whole" and it highlights the extent to which the "various components of the system impact upon or interact with one another". However, its process nature does not help the understanding of content in any particular teaching system, which to a certain extent becomes unable to tell about the uniqueness of the teaching practices.

The results also suggest that the respondents with 15 + years of professional experience had a statistically higher mean (62.67, n = 15) than those with 5–9 years of experience (44.62, n = 79) on Statement 9, z = - 2.479, p = 0.013, r= - 0.25, a small – to – medium effect size. Moreover, there was a significant difference between the mean rank of geography teachers with 15 + years of professional experience (57.80, n = 15) and the mean rank of those with 10–14 years of experience (38.51, n = 68) on the same statement, z = - 3.025, p = 0.002, r = - 0.33, a small – to - medium effect size (Table 9). Finally, there was a statistically significant difference between the mean ranks of geography teachers with 15 + years of professional experience (63.83, n = 15) and those with 5–9 years of professional experience (44.40, n = 79) on Statement 10, in favour of the former group, z = - 2.705, p = 0.007, r = - 0.28, a small - to - medium effect size. However, another statistical difference was investigated between the mean ranks of respondents with 15 + years of professional experience (53.27, n = 15) and the mean ranks of those with 10–14 years professional experience (39.51, n = 68) on the same statement, in favour of former group, z = - 2.150, p = 0.032, r = - 0.24, a small - to - medium effect (Table 9) (see Incekara, 2013). Chang (2002) citing research Kember (1997) and Munay & Macdonald (1997) highlights that clearly, these research findings are far from mature and there is probably a need to debate more extensively the methodologies used, such as the methods of interpretation and categorization of the data obtained by semi-structured interviews. As so far there still remains an issue of the high degree of subjectivity in interpreting the interview data, though Ho, Watkins, & Kelly (2001) argued that these conceptions of teaching were very similar; one could not deny that there still lacked of a general agreement about what the conceptions of teaching might be.

The results suggest that the 62 geography teachers who have graduate degrees had significantly higher mean ranks (137.92) than the 183 geography teachers who have undergraduate degrees (121.40) on the fourth yes – no question. The 65 respondents with graduate degrees had also significantly higher mean ranks (139.48) than the 185 respondents with undergraduate degrees (120.59) on the tenth statement (Table 10).

Table 10. Mann – Whitney U Test Results for Education Level of Geography Teachers on Responses to Yes-No Question 4 and Statement 10

Statement*	Education level	N	Mean Rank	Sum of Ranks	U	z	p	r
Frequency question	Undergraduate Graduate	183 62	121.40 137.92	22824.00 8551.00	5058.00	-2.015	0.044	-0.13
Statement 10	Undergraduate Graduate	185 65	120.59 139.48	22309.00 9066.00	5104.00	-1.994	0.046	-0.13
*See Table 1 and 2 for the yes-no questions and statements								

Source: Calculation of data by the authors.

Morgan (2012) is a timely reminder that at the heart of geography lay the concepts of interdependence, interactions and relationships that require a critical geographical eye. The geographer that asks critical and important questions about the interactions between is landscapes and societies. In reading the book Morgan (2012) we are encouraged to consider the implications of adopting broad thematic approaches in schools such as "global citizenship". Morgan makes a genuine link between theory, policy and practice in this book with a focus on interactions and interdependence of ideas. It considers how these might impact upon the way in which we teach geography through thematic approaches.

Core geographic ideas, practices, knowledge, and skills that are key to geography are central. The themes relevant to both geography and other disciplines are highlighted to make potential connections between geographic practices and education research in other fields. Such "crosscutting" themes include space, systems, scale, and change (Fig. 5) (see (Bednarz, Heffron, Huynh, 2013). Ozturk (2012) highlights study Wood (1987) which emphasizes that: The life history.... is particularly well suited to the appraisal of practice and career, especially at times of crisis or change. At such moments, it provides both a window on the world and deep insights into the self. It puts the present, crises or not, into perspective and in context, thereby increasing understanding and perhaps one's powers of copying.... the life history offers opportunities for reappraisal, suggesting perhaps new permutations and combinations of events and trends or reawakening old interests and desires temporarily submerged in answer to the experiences of those times.

Fig. 5. Crosscutting Themes and Core Ideas in Geography for Life (Bednarz, Heffron, & Huynh, 2013), according to (Heffron & Downs, 2012).

4. Discussion and Concluding Remarks

Our research records indicate the following:

1. Given the growth and impact of the Internet in recent years Madge & O'connor (2004) the ability to utilise online research methods is both timely and of utmost significance to geographers

in higher education. Their use, however, must be carefully considered. So Madge & O'connor (2004) cites Denscombe (2003) "A decision on whether it is appropriate to use "e-research" should be based on an. ...evaluation of the respective advantages and disadvantages in relation to the specific topic that is to be investigated", Smith (1997) "The new technology offers a spate of problems layered over the old", Imken (1999) "Caution should be stressed in an attempt to avoid the "cyberbole" and overdrawn opposition between "real" and virtual techniques" and Illingworth (2001)" we should avoid the use of the Internet as an "easy option" and `...encourage a more developed focus on the justification, applicability and benefits of Internet research to a particular project. What has become apparent is that the effectiveness of CMC (computer mediated communication) is much dependent on who is being researched, what is being researched and why",

2. Similar research Alexandre & Ferreira (2015) considering all the educational reforms that shaped the curricular and conceptual content of geographical education since the after World War II, it seems surprising that successive generations of Serbian geography teachers finish up describing the subject matter to which they were exposed as students in a qualitatively similar manner. They often portray geography as encyclopaedic, whose purpose was to provide lists of places, to present facts and statistical data, to portray the character of regions and continents, whose teaching methods were focused on learning by heart, centred on the use of textbooks and without any recognizable problem-solving approach. Indeed, a discipline whose contents recall the sort of school geography delivered in Serbian schools until the last quarter of the 20th century. The process of mass schooling gradually implied a more comprehensive perception of the teaching profession, whose profile was stretched with new teachers' roles regarding the students, regarding the curriculum, regarding participation in school and community life, and regarding in-service training. In fact, after World War II the set up of a massive in-service teacher education programmed was the answer given by the State to this problem, so that in-service attendance became an inherent part of being a teacher. In-service professional teacher certification thus developed into the easier way of access to the teaching profession for those non-certified graduates working in comprehensive schools all around the country. Like and Alexandre & Ferreira (2015) and also point out that in line with the in-service solution, the new Universities in the former Yugoslavia also began to formulate new models of initial teacher education in Serbia, thus bringing about a so called "integrated approach", during which teachers were trained and certified all along the same process. This entailed a structural change in teacher education, through which teacher education institutions tried to adapt to the new demands of mass schooling. Consequently, the new teacher education curricula began to include a significant number of new issues and topics from the emerging educational sciences (e.g. curriculum development, educational technology, sociology of education, psychology of education, didactics, school administration and management),

3. These research aims at knowing how geography teachers are involved in geography education research in Serbia. Being a school subject related to Social and Environmental issues, Serbian school geography presents itself as a subject particularly important in developing a world consciousness about many problems that concern societies worldwide. Its importance in the formation of young in terms of understanding the world around them has been proved by research in different countries. Thus according to Esteves (2013) it was important to understand what geography teachers believe they are doing when they state their importance and contribution to geography Education. It was also important to know how they do it. What kind of geographical subjects are prone to giving an important contribution to educating future citizens, as this is a transversal skill in Serbian educational curriculum. The research involved about 120 teachers and the data were collected through an open questionnaire. Using content analysis methods it was possible to understand teachers' views on the subject of "Geography Education Research in Serbia: a Teacher's Perspective" and how they position geography curriculum in order to develop practices contributing to geography education. How indicates and Incekara (2013) in similar research in Turkey and here results indicate that although geography teachers believe that geography education research in Serbia is quite beneficial in terms of enhancing course quality and student motivation, a lot needs to be done to make geography education research a common teaching method in geography courses. Some future steps towards this goal include devoting more time in teacher education to the incorporation of geography education research in Serbia into geography courses, organizing in-service training for geography teachers on the use and benefits of geography education research in their courses, improving the working conditions of geography teachers, and

informing geography teachers of the existing geography education research bibliography. These are among the most viable ways to make geography education research in Serbia a common tool and method in geography education,

4. Using research Ilić & Romelić (2013) we emphasize accredited programs for geography teachers with professional facilities are located in areas of natural sciences which account for approximately 10 % of the total number of programs in the catalogue (Fig. 6). "In addition to geography, in the natural sciences, there are also biology and ecology, chemistry, physics and natural science subfield, which lead us to conclude on the possible percentages of geographical seminars around 2 % of the total. However, the sub – group analysis program geography shows that they are represented with approximately 1 % of the total, which is less than the possible number. Similarly, 20 % of the possible representation in areas of natural science, geography programs has an average share of 12 %" (Ilić & Romelić, 2013).

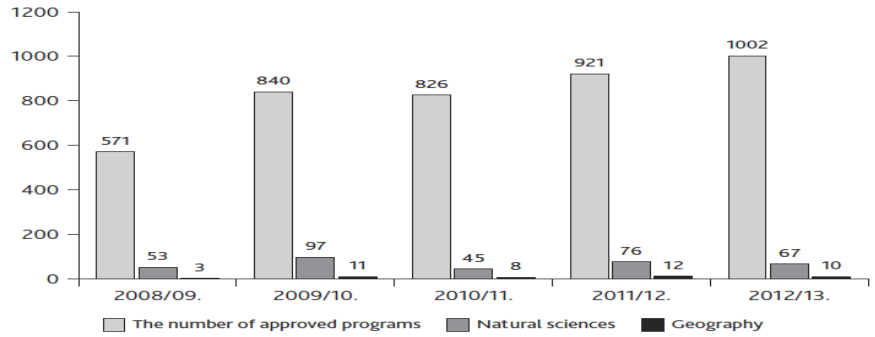

Fig. 6. Viewing share of geographical programs, the catalogue period 2008–2013 (Ilić & Romelić, 2013).

According to Ilić & Romelić (2013) Period of training 21st analyzed program ranges from one day to three-day seminars, and lasts from eight to more than 24 hours (Fig. 7).

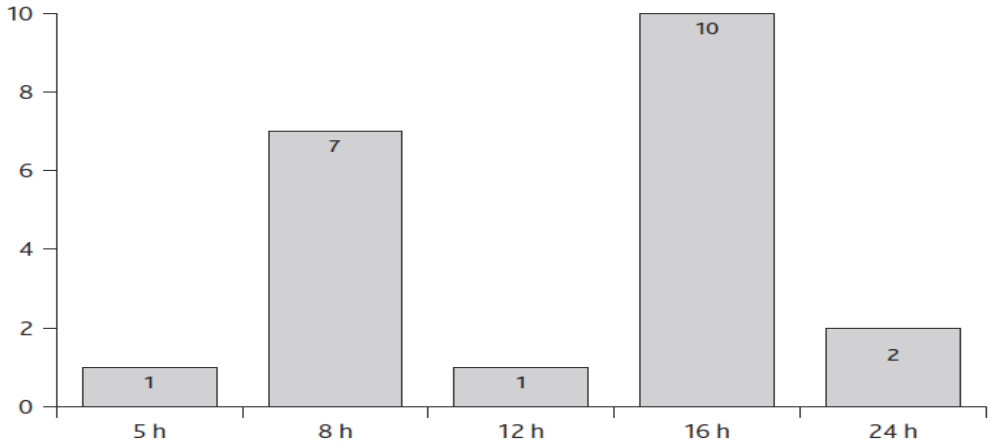

Fig. 7. Geographic seminars by duration (Ilić, Romelić, 2013).

"In the analysis program identified the following problems: too long or general topic name (for example, get to know the geography), or topics that intertwine the two areas (for example, natural-geographic and vegetation characteristics and eco-tourism...) or the program name formulate such objectives (egg more efficient use...); it is not a certain area of priority in all programs, although it is mandatory that the program successfully passed the accreditation process; uncertainty of which group they belong to the program, which is mandatory or optional. Data appear only for 2012/13 year, and some programs have crossed from election to the compulsory one year to the next; information on the program-makers have no affiliation; by the program are not always experts on the topic; It is unclear how the seminars are accredited with fewer hours than the anticipated norms (so there seminary day for five hours, two days of 12 hours and three days of 20 hours); there are different methods of evaluation program to determine its

quality" (Ilić, Romelić, 2013),

5. Teaching geography is one of the oldest of the academic disciplines to be included in a liberal or general education. It was perhaps due to the close proximity of geography and essential life skills that brought geography to the forefront of practical intellectual information and skills. In early times the common person needed to be knowledgeable regarding the seasons of the year, the response of vegetation and other biota to temperature regimes, and the general tempo of life. Many of the applied aspects of survival were closely associated with environmental conditions by virtue of the interaction between people and the environment (Schmeinck & Lidstone, 2014). Survival was dependent upon knowing place based geography, that rich knowledge of the locale, its water, soil, resources, and opportunities as well as being curious as well as cautious about the groups of people that occupied adjacent territories. With time the place based nature of geographic knowledge expanded to include more distant places. The nature of geography as a discipline and its structure became much more inclusive of people and the global environment. Among those changes was the increased accommodation that the discipline had for using crosscutting information from other subjects in the humanities, social, and physical sciences. From the earliest times, geography has been viewed as essential knowledge for the general citizenry as well as for the members of academy (Schmeinck & Lidstone, 2014),

6. Van der Schee (2014) cites studies Haubrich (1992) and Van der Schee (2012) writes that firstly, geography is concerned with human-environment interactions in the context of specific places and locations and with issues that have a strong geographical dimension like natural hazards, climate change, energy supplies, land use, migration, urbanization, poverty and identity. Geography is a set of fascinating stories of people that live on planet earth at different spots in different ways in conditions that change continuously. Secondly, geography is very practical and useful in everyday life. Geography helps us to get an overview of locations and regions. Location is a key factor in life, especially in an era of globalization and internet. Geography is the discipline where location has its base. Geographical knowledge and more recently also geospatial technologies offer unique opportunities to show policy makers that without geography we cannot make sense of the modern world nor make plans for its future. Thirdly, geography is a way of thinking and looking at the world around us. "The idea that geography education is a lesson in how to think geographically is clearly described in the manifesto "a different view" by David Lambert and his colleagues (Geographical Association, 2009). Connected with this way of thinking geography education has its core concepts. According to Taylor (2008) diversity, interaction, change, and perspective are key concepts. These concepts are what historians call "second order concepts" (Taylor, 2013) but not all of them are distinctly geographical" (Van der Schee, 2014),

7. The role of geography teachers in promoting geography in schools seems far more important than any other subject on account of two facts. First, geography is an inclusive subject. It draws heavily from sister subjects of natural sciences (e.g. geology, botany…) and social sciences (history, sociology, economics, political science…). Therefore, to be a good geography teacher, it is prerequisite for one to possess not only a reasonable knowledge of fundamental facts and concepts of sister subject but also the ability to connect these facts and concepts with the discipline of geography. Second, being an integrating subject, a good teacher of geography must cross boundaries of sister disciplines to indicate the interrelationship between the human and the physical to develop a holistic understanding of the earth. These skills are not at all easy to acquire (Alam, 2015),

8. Finding out what geography teachers think is really important according to for the work we carry out because according to Ozturk (2012) using on research Butt et al (1992) emphasizes that "the interpretation of teachers' autobiographies identifies the nature, sources and manner of evolution of the special kind of thinking, action and knowledge that pertains to their teaching". Likewise, Ozturk (2012) with reference to (Wood, 1993) emphasizes that …the present has a living connection with the past. Current meanings and interpretations are shown to have grown and developed over time. In tracing teachers' own histories, we acquire a fuller, deeper and richer understanding of them. Examining the interrelationships of incident, thought, people and place that underpin the current person provides a context that is just as relevant as, if not more than, the prevailing social, institutional and situational,

9. Nice concludes Van der Schee (2012) the position of geography in education is under pressure. In many countries the number of geography hours in schools is less than it used to be.

The question is how do we develop a new geography in education that will be seen as necessary for today and tomorrow? How do we get rid of the limited and sticky image of geography as the subject where you just learn about countries and capitals, an image that is reinforced by TV quizzes? How do we show the world that geography is future oriented and indispensable for tomorrow's world? To keep up with the changes in our digital global village geographical knowledge and skills should be flexible, analytical and collaborative. The task of geography to explore the world and to study the relation between man and nature is still there but in a different way. Modern technology helps us to learn more effectively and efficiently. Geography teaching can help to prepare youngsters for the world of today and tomorrow. Using modern technology and communication teachers and students all over the world can help each other to develop a different view and doing so to create new geography teaching.

10. Akelaitis & Malinauskas (2016) citing research (Zins et al., 2004; Payton et al., 2008; Weare & Nind, 2011; Durlak et al., 2011; Slee et al., 2012; Sklad et al., 2012) indicate that various reviews of studies have foun consistent evidence on the positive impact of school – based social emotional education programmes on students of diverse backgrounds and cultures from preschool to secondary school in social and emotional health. Further, according to Akelaitis and Malinauskas (2016) based on research (Payton et al., 2008; Weare & Nind, 2011; Durlak et al., 2011; Slee et al., 2012; Sklad et al., 2012) the largest average effect sizes appear to be in social and emotional skills education, but the programs also enhanced academic achievement and reduced internalized and externalized conditions, such as anxiety, depression, substance use and aggressive and antisocial behaviour. Weare & Gray (2003) by Akelaitis & Malinauskas (2016) reported a wide range of academic, social and emotional benefits, such as improved positive behaviour, better learning and academic progress, improved social cohesion and inclusion and better mental health. How extraordinary concludes Greenberg et al (2003) which are related to "*additional key research questions that will inform efforts to disseminate effective school - based prevention programs also must be answered. For instance, what research - based variables are most important to assure the successful replication of effective school - based interventions? Success requires clear fidelity in implementing core program features but may also include "positive" adaptations to local conditions. A related issue involves the development of research -based strategies that educators can use to coordinate the introduction of a new prevention program with those already in place. These questions about replication, program coordination, professional development, and sustainability are currently under researched. Yet in the long run, they will be most informative as schools nationwide implement coordinated prevention programs to improve the social, emotional, physical, and intellectual development of all children".*

Finally, we conclude like and Ilić (2014) "concerning the findings of the present study, following recommendation can be offered for further study: (1) a similar study may be conducted on the geography teachers in other countries; (2) a similar study can be conducted on primary and secondary school geography teachers separately; (3) the study can be conducted on junior and senior geography teachers separately; (4) the present study can be replaced with different gathering instruments".

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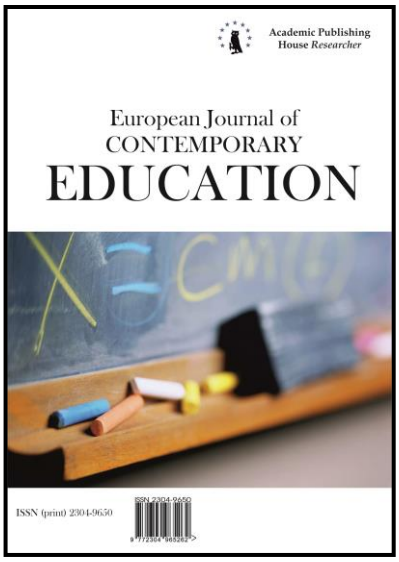

Head of a University Department: Competence and New Activity Priorities

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Abstract

The purpose of the article is to justify the increasing role of a university department in achieving the major objective of higher education, namely to train highly qualified specialists for the national economy. The article contains some of the results of monitoring (questionnaire) of 350 heads of departments of Russian universities, as well as 30 experts – experienced representatives of the university management. The factors that complicate the job of university departments and their heads have been identified; new requirements for professional competence of heads of departments have been established; the results of the analysis of changes in the structure, content and priorities of the activities of heads of departments have been stated. Based on the results of a survey of heads of departments and highly qualified experts, measures to improve management efficiency at a university department as a key element of a Russian University have been proposed.

Keywords: a department, a head of a department, an institution of higher education, a university, professional competence, priorities of activities.

1. Introduction

Over the last decades, the Russian system of higher education have been undergoing reforms in difficult socio-economic conditions under the influence of external factors (consumers, competitors, companies and organizations – employers, local and federal authorities, the international community, etc.). The conditions influencing universities include the following ones:

- integration of the Russian education system at the international level (After the accession of Russia to the Bologna Declaration on September 19, 2003 the tasks of integration into the all-European space of higher education have risen before it as a full participant of this process);
- enhancement of the role of teachers' and students' scientific research and publications in the evaluation of university activities;

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- demographic decline and increased competition between institutions of higher education in the sphere of provision of educational services;

- a need to address the problems of financing and extra-budgetary funding of a university, formation and development of business and other income-generating activities of universities;

- Russian entrants' preference in favour of administrative, economic and legal professions (while scientific and technical professions are not so popular), and engagement of the majority of Russian universities in provision of such education services;

- significant toughening of licensing and accreditation requirements for the universities.

Despite the fact that the institution of a university department, and along with it – heads of departments, is now being reduced in some Russian universities, and even lacks in a number of foreign universities, the role of a head of a department – a head of a training direction, and consequently a university department, remains quite significant. After all, it is the department that ensures a direct contact with students and has a direct impact on them – educational, scientific and moral one, and thus is a key element in a modern university management system. The main tasks of a university department is to meet the needs of students, graduate students, students of supplementary education courses in training or professional development, expansion of basic and applied research.

Scientists from various countries have always paid great attention to the problems of management in institutions of higher education.

Among foreign authors Francesca Pucciarelli and Andreas Kaplan (Pucciarelli, Kaplan, 2016), Carolin Plewa, Joanne Ho, Jodie Conduit, Ingo O. Karpen (Plewa et al., 2016), B. Sporn (Sporn, 2010), Juergen Enders (Juergen Enders, 2015), Chitra De Silva Lokuwaduge and Anona Armstrong (Lokuwaduge et al., 2015), A. Gornitzka, I.M. Larsen (Gornitzka, Larsen, 2004), B. Le Gall, Ch. Soulié (Le Gall, Soulié, 2009), Marion E. Broome (Broome, 2013) should be noted.

A number of scientific publications of scientists are devoted to studying of problems of gender asymmetry in the system of higher education, in particular such authors as Young-joo Lee, Doyeon Won, S.N. Makarova, Peterson Helen (Lee, Won, 2014; Makarova, 2014; Peterson, 2016).

During the last years the system of higher education in Russia undergoes essential changes. The problems which accompany these changes concern such scientists as M. Yudkevich (Yudkevich, 2014), Valentin Babintsev, Viktor Sapryka, Yana Serkina (Babintsev et al., 2015).

A number of publications of foreign authors (R. Smith, B. Smith, Tony Bush) (Smith, 2007; Smith, 2002; Bush, 2016) is devoted to studying of the role of the head in a management system of the educational organization, in particular a dean of a faculty in a management system of university.

The problems of management of a university department were considered in publications of such scientists as S.A. Druzhilov (Druzhilov, 2013), V. Petrov, V. Stegny (Petrov, Stegny, 2007), S.D. Reznik, O.A. Sazykina (Reznik, Sazykina, 2015; Reznik, Sazykina, 2016), N.N. Karmayeva, N.V. Rodina (Karmayeva, Rodina, 2016), A.R. Alaverdov, T.P. Alaverdova (Alaverdov, Alaverdova, 2013), V.P. Grakhov, S.A. Mokhnachev, Yu.G. Kislyakova, H.B. Anisimova (Grakhov et al., 2014), D.L. Kuznetsov (Kuznetsov, 2009), D.R. Makeeva, V.M. Bely (Makeeva, Bely, 2015), S.I. Chernomorchenko, O.A. Potapenko (Chernomorchenko, Potapenko, 2014), etc.

Russia is one of the countries where the university department and its head play a key role in the organization of educational process and scientific activity in any institution of higher education. The department is defined as a team of teaching staff and researchers (usually not less than 5) united on the basis of one or more closely related disciplines.

The new conditions of the market economy have changed and complicated the job of the immediate department's supervisor – its head. The challenges of the time substantially affecting the activity of heads of departments include the following ones:

- stricter requirements for evaluating universities' effectiveness;

- universities' merges (establishment of federal universities), establishment of the status of national research universities, creation of basic regional higher education institutions and making them more significant as compared to conventional regional universities;

- a very high average age of heads of departments reducing their organizational and publication activity;

- a need for enhancing the role of women leaders in the management of university departments;

- a need for formation and development of professional competencies of heads of departments that would be coherent with today's complex conditions;
- a need for professional management of departments, etc.

2. Materials and Methods

In 2003, in accordance with the order of the Ministry of Education of the Russian Federation, the Department of Management at the Penza State University of Architecture and Construction implemented the project "Development and implementation of the internal university's system for formation, training and development of the management capacity of Russian institutions of higher education" (State registration number: 01200103655") (Reznik et al., 2003), within which 390 heads of departments of 66 higher educational institutions of various regions of the Russian Federation were surveyed.

In 2015, we conducted a repeated monitoring of heads of departments of Russian universities, which aimed at assessing the changes in the composition and content of the activities of heads of departments of higher educational institutions, establishing professional competence of a head of a department that is necessary for effective activities of departments as a key link in the university management system. 350 heads of departments of 24 higher educational institutions of various Russian cities took part in the survey. 30 experienced representatives of university management from 20 Russian universities acted as experts. 26 experts, doctors and professors included two rectors, four vice-rectors, six deans, thirteenth heads of departments, three professors of departments, as well as the head of the Center for Regional Sociology and Conflict Management of the Institute of Sociology of the Russian Academy of Sciences.

The general population of the research included 24200 heads of departments in 2003 (Labor and employment, 2006), and 24600 heads of departments in 2015 (Russia in Figures, 2015). Selection of heads of departments for the questionnaire was carried out by an accidental method from the list of departments of higher educational institutions of Russia. According to a statistical technique of primary sociological information the results of the research have probability 0,95 with a margin error in 5 % in both cases.

To monitor the composition, content, activities and professional competence of heads of departments at Russian universities, special types of information collection were used:

- a questionnaire of a head of a university department;
- an expert's questionnaire.

The monitoring results were analyzed in accordance with several directions used to analyze the activities of university departments heads:

- changes in the composition of university departments;
- changes in the composition of heads of university departments;
- management of the teaching stuff of departments;
- organization of educational and methodical work in departments;
- management of research activities in departments;
- teaching activities of heads of departments;
- personal organization of heads of departments.

Reliability of results of the research is confirmed by the following:

– use of modern techniques of handling of initial information (by the results of a questionnaire databases are created. They were processed by means of software statistical data processing SPSS 10.0 and Microsoft Excel);

– use of the great amount of the state and municipal statistics, in particular, statistical data on the number of heads of departments of Russian higher educational institutions;

– a representative sample the results of which have probability 0,95 with a margin error in 5 %;

– statistical information on the research object – heads of departments of Russian higher educational institutions for the period of 2003–2015.

– confirmation of the results of monitoring of heads of departments by expert evaluations of specialists. There were 30 authoritative representatives of higher school management from 20 universities of Russia among them;

– comparison of the results of the research with the data of foreign and domestic experience (see bibliography, subitems Karmayeva, Rodina, 2016; Alaverdov, Alaverdova, 2013; Grakhov et al., 2014; Kuznetsov, 2009; Makeeva, Bely, 2015; Chernomorchenko, Potapenko, 2014);

– substantiality of analytical conclusions as the basis of the offered recommendations;

– experience of practical implementation of the results of the research in practice of activities of Penza state university of architecture and construction on the basis of which the School of managers was organized and successfully functioned for a number of years, and also when carrying out training seminars "Management in a higher educational institution", which were carried out by S.D. Reznik for the last years by the invitation of rectors at universities of Russia (Russian Peoples' Friendship University, Samara State University, Moscow State University of Economics, Statistics and Informatics, Southern Federal University, Moscow State University named after S.Yu. Witte, etc.);

– experience of use of the results of the research in scientific researches which have state registration ("Development and implementation of intra high school system of forming, training and development of managerial capacity of the higher school of the Russian Federation" (2001–2002, No. GR 01200103655),

– publications of the results of the research in the reviewed scientific editions (see bibliography, subitems Reznik, 2015).

3. Results and discussions

Changes in the composition of heads of departments at Russian universities.

The total number of heads of departments in Russian state and private universities amounted to 24.6 thousand people as of the beginning of 2014/2015 academic year, which is 3700 persons lower than that of 2012/2013 academic year (28.3 thousand) (Russia in Figures, 2015). At the same time the number of heads of departments has decreased by almost 20% over the last five years (the number of heads of departments made up 29.6 thousand persons in 2010/2011 academic year). This is due to the fact that university rectors tend to reduce the number of departments and merge them in order to optimize their financial resources.

While the ratio of women occupying the position of a head of a department was 26.4 % in 2000, i.e. slightly more than a quarter of the total number of heads, this indicator rose sharply in 2015 and amounted to 42.2 % of the total number of heads of departments at Russian universities. These figures show the development of the management capacity of women in the field of higher education, their ability to adapt to new, more complex conditions of Russian higher education.

The monitoring carried out in 2003 allowed to determine the average age of heads of departments, which amounted to 51.6 years. As shown by statistics, the average age of heads of departments already amounted to 54.2 years at the beginning of 2012/2013 academic year, and it grew even more and reached 54.7 years in 2015.

While there were only 6.5 % of heads of departments, who were 65 years or older in 2003, in 2015 already 16.4 % of heads of departments were of that age. Thus, the ratio of heads of departments of the retirement age increased by 9.1 % and amounted to 35.1 %. There were just a few young heads of departments: those who are younger than 40 years amounted to only 12.7 % of the total number of heads of departments. In order to occupy this position, you need to go a long way up the career ladder. On the other hand, the elderly age of heads of departments can demonstrate growth of conservatism of a large number of heads, obsolescence of their management practices, and requires involvement of young and professionally trained managers who are ready to innovate.

As shown by monitoring results, the average experience of working at the position of a head of a department at Russian universities makes up 10.2 years. At the same time, as in 2003, when more than a quarter of heads of departments had headed their departments for less than 3 years, and 37 % of heads of departments had occupied their positions for less than 5 years, in 2015 the situation was similar: a quarter of the surveyed heads of departments have headed their departments for less than 3 years, and a third of heads of departments have worked for less than 5 years. Thus, almost a third of existing heads of departments do not have a solid experience in managing a university department.

At the same time it should be noted that the position of a head of a department is one of the most attractive management positions at a university. This means that an employee, having taken the post of a head of a department, will work there for a long time and take the position several terms, including up to 20 years.

In 2003, more than a half of heads of departments (56.7 %) showed their interest in occupying a higher managerial position. The last monitoring held in 2015 showed that two-thirds

of existing department managers (75.1 %) were not interested in their career progress, and less than a third of the surveyed heads of departments had ambitions regarding their career growth. Such results are firstly due to a high age of heads of departments, and secondly, to the fact that the position of a head of a department is today the most comfortable for a scientist, a teacher working at a university, makes it possible to show one's organizational skills and at the same time to engage in research and teaching activities.

Features of managerial influence of heads of departments on other teachers and staff.

In recent years there were important changes in the system of Russian higher education, in particular:

- a new system of assessment of knowledge of school students (USE) is adopted;
- transition to the federal state educational standards (FSES) and three-level system of higher education is performed (bachelor-master-graduate student);
- federal and national research universities are created;
- payment terms for teaching staff are changed in connection with adopting "the effective contract" and others.

These changes entailed changes in priority activities of heads of departments, in their leadership style, etc. That is shown by the stated below results of researches.

70.9 % of heads of departments at Russian universities see themselves as informal leaders in their departments, 22.6 % said that there was no informal leader in the department, 6.5 % of heads believed that another teacher at the department was an informal leader. In comparison with the results of the monitoring held in 2003, the proportion of heads of departments being informal leaders in their departments increased by 7 percentage points (from 63.9 % to 70.9 %), which demonstrates an increase in reputation and significance of university leaders in the eyes of their subordinates (Table 1).

Table 1. Specific features of managing stuff by heads of departments

	2003	2015
See themselves as informal leaders	63.9%	70.9%
Management style Democratic Authoritarian Liberal	 32.9% 27.7% 39.4%	 57.7% 22.5% 19.8%
Rarely talk with their subordinates or do not talk at all	55.7%	56.1%
Are not interested in the problems of their subordinates	33.2%	43.1%
Think that the team of their department is not very tight-knit	27.1%	20.4%
Teachers participate in the management of the department	44.3%	86%
Hold informal meetings with their stuff	55.8%	68.3%
Actively contact with employers in order to find jobs for their graduates	32.3%	42.8%

The work of current heads of departments is usually of democratic nature (57.7 %), rarer – authoritarian (22.5 %) and even much rarer – liberal (19.8 %). In 2003, 40% of the surveyed heads were liberal in their practice, and today, only 20 % adhere to the "laissez faire" style in managing their departments.

It was found that 56.1 % of heads of departments rarely talk with their subordinates or even do not talk at all. 43.1 % of heads are not interested in the problems of their subordinates. 20.4 % of the surveyed department heads think that their teams are not tightly-knit.

While in 2003, only 44.3 % of heads indicated that their staff was involved in the management of the team, which demonstrated poor development of organizational skills and managerial culture of heads of departments, the new monitoring showed that the involvement of teachers in solution of their departments' management problems has increased, and already 86 % of heads of departments delegate their authorities to subordinates, and 68 % of heads of departments organize informal meetings with their teachers and staff.

On the priorities of activities of heads of departments.

The monitoring of heads of departments (Russia in Figures, 2015) shows that, according to heads of departments, their major priority is management of the department. The importance of management of the department was assessed by surveyed heads of departments at the level of 4.3 points. According to the respondents, 4.2 points were awarded to scientific and teaching activities (Table 2).

Table 2. Priorities in activities of heads of departments, average points (according to a 5-score scale)

Priorities in activities of heads of departments	Total	
	2003	2015
a) management of the department	4.3	4.3
b) personal scientific work	4.5	4.2
c) personal teaching activities	4.1	4.2

At the same time, according to experts, the priorities of management activities of heads of departments are distributed as follows (Table 3): academic work of the departments is the most important activity; the second place is occupied by scientific work, which is connected with the need to improve publication activities of the teaching staff. The third rank was assigned by the experts to the work of heads of departments with their personnel – teachers and staff of the department. Then the following activities of heads of departments come (in decreasing order): methodological work, document support and innovation (rank 4), economic support of the department (rank 5), external relations (rank 6), pre-university work with schoolchildren (rank 7) and morale-building work with students (rank 8).

Table 3. Priorities in activities of heads of departments (experts' ratings)

Priorities in managerial activities of heads of departments in 2015	Ranks
Organization of the educational process (training, presenting course and final thesis, methodical providing, etc.)	1
Organization of the scientific work (scientific researches, publications of scientific monographs and articles, etc.)	2
Work with stuff (selection, motivation, professional development, creation of favourable social and psychological climate, etc.)	3
Methodological work, document support of the academic process and innovations	4
Economic support of the department's and university's activities	5
External contacts (Education review office, universities, companies, etc.)	6
Pre-university work with schoolchildren	7
Morale-building work with students	8

On professional competence of heads of departments.

The issue of professional competence of heads of departments at Russian universities currently becomes more and more acute. Based on a manager's qualities model, the authors proposed a model of organizational and managerial qualities of a head of a department, where professional competence is the most significant element (Table 4).

Table 4. Model of organizational and managerial qualities and competence of heads of university departments [32]

No.	Qualities	Head of a department	
		ranks	percentage, %
1	Professional competence	1	27.0
2	Organizational skills	2	19.0
3	Business qualities	3	18.0
4	Moral qualities	4	15.0
5	Political culture	5	14.0
6	Efficiency	6	7.0

Organizational and managerial field of activity is a basis for the work of any manager. A head of a department should cover all the spheres of the scientific and the teaching staff. This criterion is met by the organizational and managerial classification reflecting the general management requirements for a manager at an institution of higher education (Reznik, Sazykina, 2015a).

The complicated conditions, in which Russian universities exist today, place increasing requirements for training of heads of departments, especially for their professional competence. In this case, "professional competence" means professional knowledge and skills in the field of university management, knowledge of specifics of the work in the position of a head of a department, comprising five groups of competencies – managerial, scientific, educational, economic and legal ones (Table 5).

Thus, the above data show that the new conditions determine significant changes in the composition, nature and priorities of activities of heads of departments at Russian universities.

Table 5. Structure of the professional competence of a head of a department at a Russian university

Composition of professional competence	Ranks
Managerial competence: professional knowledge and skills in the field of university management, and in particular the department management, as well as in the organization of collective morale-building, methodological and scientific work	1
Scientific competence: knowledge in the relevant fields of science, ability to organize scientific research, experience in independent research work, many publications	2
Pedagogical competence: pedagogical knowledge and skills, experience in pedagogical activities, ability to apply innovative educational technology	3
Economic competence: economic knowledge, ability to use economic methods of management, ability and experience in earning money in the university environment	4
Legal competence: knowledge of the economic, labor and other kinds of law, legal and regulatory framework of functioning and development of the education system, ability to use this knowledge	5

Ways to improve the efficiency of managerial activities of heads of departments.

Based on the results of our research, we established five major directions to further enhance the effectiveness of work of heads of university departments: enhancing the role of the departments in the university management system, organizing document control, reducing the paper flow, increasing importance of direct communication with teachers, entrants and students, further training of heads of departments, stabilizing the academic load of heads of departments, improving the scheme of remuneration of heads of departments.

1. In order to enhance the role of departments in the university management system, it is important to focus on the following issues:

- Greater independence of heads of departments in the implementation of educational programs;
- Elimination of functions overlapping with the middle management;
- A need to fundamentally revise universities' regulations on their administrative and managerial staff (middle-ranking);
- Enhancing the role of deputy heads of departments;
- Enhancing the participation of heads of departments in the activities of educational and methodological associations;
- Enhancing capabilities of integration with international professional communities;
- Development of the laboratory base of departments, provision of modern equipment.

2. Organizing document control, reducing the paper flow, increasing importance of direct communication with teachers, entrants and students:
- To make electronic copies of all the educational and methodological documents;
- To create an electronic database of reporting indicators that will allow the university to collect data from departments, without the need to submit certificates;
- To reduce numerous orders to provide information, whose forms frequently change.

3. Further training and increasing professionalism of heads of departments:
- To systematically organize training for heads of departments based on the study of the best practices of leading universities;
- To arrange annual seminars with heads of departments of universities having a similar profile;
- In order to fill the position of a head of a department, to include additional vocational training in the sphere of "Management" and "Human Resources" as a required competence;
- Development of a long-term staffing policy providing for training of a personnel reserve in each university.

4. Stabilization of academic (teaching) load of heads of departments:
- According to 63.2 % of the experts, the academic workload of heads of departments should not exceed 400–500 hours per academic year.

5. Improving the scheme of remuneration of heads of departments:
- A head of a university department should have a decent salary and a possibility to effectively manage the department.

Organizational and functional structure of managing a university department.

Effective implementation of educational training technologies and organization of scientific work at departments is possible only subject to creating appropriate organizational, personnel and material conditions, which in its turn requires a lot of resources. For the purpose of optimal use of such resources, the department should operate on the basis of a flexible organizational and functional management structure.

The management structure of a department may include five functional units: the department development strategy and external relations, educational work, scientific work, social work, and inventory and logistics management of the department. The major units of the management structure shall be supervised by a deputy head of the department, in particular, by deputy heads on educational and scientific work. All the department's staff should be involved in the development and continuous improvement of such a structure. This will improve the quality of the management structure, improve its psychological perception, and increase the reliability of implementation of decisions taken at the department.

On the experience of forming a personnel reserve and improving professionalism of the university managerial staff.

As shown by the results of the study, 33.3 % of departments do not prepare a personnel reserve to the position of the head. Officially, there is a person who may take the position of the head only in a third of the surveyed departments. At the same time, 89.3 % of the experts consider it appropriate for any university to establish a system of preparing the personnel reserve. It must be regulated by special documents (either a development program for the personnel reserve, or a regulation on work with the personnel reserve).

In 2000, the Penza State University of Architecture and Construction started work on formation of the personnel reserve to occupy managerial positions. In parallel, it organized a School for managerial personnel to train personnel reserves and improve the qualification of

existing managers. Over this time, 428 people have studied there, including 12 employees of the rector's office, 27 deans and their deputies, 40 heads of departments, 85 deputy heads of departments, 20 heads of services and divisions, 94 employees enrolled in the personnel reserve, as well as graduate students as a strategic reserve of the university. Such training helped to improve the efficiency of their own work and the work of their divisions, which in its turn positively affects the work of the entire university (Reznik, Sazykina, 2013).

For the purpose of training of various manager categories (vice-rectors, deans, heads of departments), special programs have been developed allowing to master managerial functions in an institution of higher education.

This program has been tested by the authors on corporate training seminars held for the managerial staff at the leading universities of Russia: the Russian Peoples' Friendship University, the Samara State University, the State University of Management, the Southern Federal University, the Moscow State University of Economics, Statistics and Informatics, the St. Petersburg State Engineering and Economic University, the Saint-Petersburg State University of Economics and Finance, the Chuvash state University named after N.I. Ulyanov, etc.

Scientific and methodological support of university managers.

To ensure methodological support of the university management and, in particular, professionalization of the work of heads of departments, special textbooks and practical manuals have been developed: "Management of the Department" (Reznik et al., 2003), "University Teacher" (Reznik, Vdovina, 2016), "University Student" (Reznik, Igoshina, 2015).

The issue of scientific support of heads of the departments is touched upon in the following monographs: "Heads of departments at Russian Universities: stages of growth" (Reznik, Sazykina, 2015), "Teachers of Russian universities: the formation and development of professional competence" (Reznik, Vdovina, 2016a), "Postgraduates in Russia: selection and preparation for independent research and teaching activities" (Reznik et al., 2015), "Preparing students for post-graduate training at a university: the management system and mechanisms" (Reznik, Ustinova, 2016), "Orientation on competence and competitiveness of Russian students: experience, problems and prospects" (Reznik et al., 2016).

The task of the above scientific and methodological complex of textbooks and monographs is to maximally contribute to the high quality of university management, good mutual understanding and interaction of all participants in the educational process (Reznik, 2015).

The use of textbooks, manuals and scientific research results in practical activities of university managers will improve the quality and efficiency of their work.

4. Conclusion

In this context a number of the following conceptual conclusions can be made:

1. Rigid government policies aimed at reducing the number of institutions of higher education has led to the situation, in which the number of institutions of higher education has returned to the level of 2000 at the beginning of 2014/2015 academic year, when there were only 950 universities, including 548 state and 402 private ones. As of the beginning of 2014/2015 academic year, the total number of heads of departments at Russian state and private universities amounted to 24.6 thousand people, which is 3700 lower than the number of heads of departments in 2012/2013 academic year (28.3 thousand people). At the same time, the number of heads of departments has decreased by almost 20 percent over the last five years.

2. The monitoring results have allowed to reveal significant changes in the composition of heads of departments and to get a portrait of an average head of a department at a modern Russian university, whose characteristics demonstrate presence of a greater work experience in a managerial position and a higher scientific potential.

3. The need to improve the professional competence of university leaders, including heads of departments of Russian universities, becomes more and more acute. An organizational and managerial model of qualities and competencies of a head of a department has been proposed. The classification of organizational and managerial qualities of a head of a department determines its professional competence, business characteristics, organizational skills, moral qualities, political culture and performance. The structure of professional competencies of a head of a department has been ranked by the experts as follows: managerial competence – 27 %, scientific competence – 23 %,

pedagogical competence – 19 %, information competence (use of computer technology, knowledge of foreign languages) – 11.0 %, economic competence – 10 %, legal competence – 10.0 %.

4. On the basis of the results of a survey of heads of departments and highly qualified experts, we have systemized and summarized the measures to improve the efficiency of department management to be implemented by institutions of higher education within their management systems:

- Enhancing the role of departments in the university management system,
- Organizing the document control, reducing the paper flow,
- Further training of heads of departments,
- Stabilizing the academic load of heads of departments,
- Improving the scheme of remuneration of heads of departments.

5. A list of scientific and methodological books helping to increase the professionalism of heads of university departments has been developed, including textbooks and monographs touching upon various aspects of the work of heads of departments with university leaders, teachers, graduate students, entrants, etc.

The implementation of the proposed measures to improve the efficiency of work of heads of departments at Russian universities largely depends not only on the state policy in the sphere of education, but also on the real efforts of the universities.

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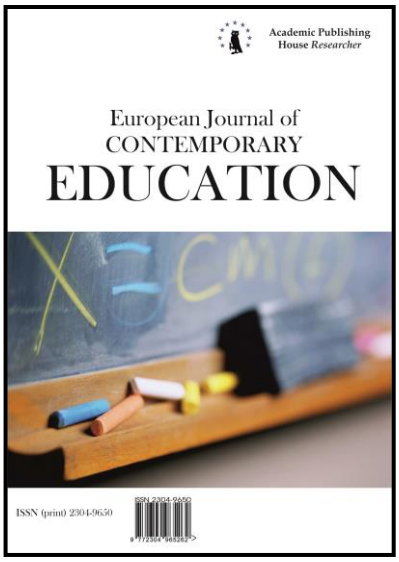

Variables Affecting Proficiency in English as a Second Language

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Abstract

This study explores different variables leading to proficiency in English as a second language. Level of English on a placement exam taken upon entering a private university in Mexico was correlated to several variables. Additionally, participants (N=218) were asked their perception of their own proficiency. A linear regression and a one-factor ANOVA were carried out. Three variables best explain the level obtained on the placement exam. These are: number of instruction hours, type of school, and how frequently the learner reads in English. Findings also show that the participants' perception of their proficiency corresponds to the results obtained on the placement test.

Keywords: English as a second language, proficiency, placement test

1. Introduction

English is the language of technology, of business and of science (Graddol, 2006) and it is becoming increasingly common for speakers of other languages to learn English. In Latin America, for example, several countries have established educational policies designed to increase proficiency in English among their populations. Mexico, Colombia, Chile, Brazil, Argentina, Ecuador, Uruguay, Honduras, Peru, Costa Rica, and Paraguay have all implemented educational policies in the past two decades with this end in mind (Sanchez, Diez, 2014).

In Mexico, for example, English as a second language was included in educational programs beginning in 1993, first, in secondary and high school, and later in elementary schools. The National English Program in Basic Education (NEPBE) was implemented in 2009 and expanded in 2012, replacing local or state-wide programs. Mexico thus became the first Latin

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American country to mandate English instruction in levels K-12 in public schools (Sayer, 2015). In higher education, the Mexican Secretariat of Public Education (SEP) has included as an objective "Encouraging the teaching of, at least, one second language (mainly English) as part of the curriculum, and favoring its inclusion as an exit requirement from higher education" (SEP, 2007: 45).

In spite of these efforts, the results have not been altogether favorable. The citizen group Mexicanos Primero has been a strong critic of the PNIEB program, concluding that "in Mexico, English has been taught little, badly, and late" (O'Donoghue, Calderón, 2015: 73). A British Council study (2015) mentions that only 18 % of Mexican public schools have implemented PNIEB, reaching only 6.7 million students, in a country of roughly 120 million people.

In the private sector, however, the English language fares better. Access to more instruction hours with better prepared teachers and in smaller groups contributes to a better level of English among students in private schools. Davies (2009) describes a study which compares the level of English between students from private universities in Mexico and students from public universities. The study found a strong correlation between the socio-economic level of the participants and the level of English as shown by an exam. The study explicitly compares two universities in central Mexico – one is public and the other private. In the public university, 7 % of the students surveyed demonstrated a higher level of English proficiency, with 78 % placing in basic or elementary levels. On the other hand, 16 % of the students from the private university placed in basic or elementary levels, with 41 % placing in advanced levels.

This present study was carried out at a private university in Mexico. It aims to explore the variables which can lead to a better learning of the English language in primary, secondary, and tertiary education. The study correlates the level of English obtained by participants on a placement exam taken upon entering the university, with variables such as instruction hours, type of institution, and type of teacher.

Few studies have looked at the gap between the quality of learning in private and public institutions in Latin America. The few which have done so tend to be qualitative (Mejia, 2016). Understanding the variables which really make a difference in language learning is necessary in order to use resources more effectively, and to reach a country's goals for bilingual education.

2. Literature Review

Second language acquisition has been extensively studied from both cognitive and the sociocultural perspectives. The first view emphasizes individual characteristics of the learner, whereas the second considers the social context of learning. Most linguists, however, tend to believe in the Fundamental Differences hypothesis which states that adults and children approach language learning in different ways. Adults, for example, tend to be more analytical; thus, they learn better by direct instruction and explicit explanations of linguistic concepts (Fromkin et al., 2011; Brown, 2000). Proficiency of the mother tongue also has an impact on second language learning (Lightbown, Spada, 2013).

Though most people learn their first language easily, the same cannot be said for the second language. Facility or difficulty in learning a second language depends on a variety of factors, both individual and contextual. The individual differences can be divided into two categories: affective factors and cognitive factors (Brown, 2000; Lightbown, Spada, 2013; Mitchell, Myles, 2004). The social context where the language learning takes place is also important. This includes elements such as learning opportunities – either formal classroom instruction or informal acquisition, perhaps by contact with native speakers (Mitchell, Myles, 2004).

2.1. Cognitive factors

Cognitive factors include intelligence, aptitude, and learning strategy use. Persons with above average intelligence, for example, tend to be better language learners, especially in the context of the classroom (Mitchell, Myles, 2004).

Though it is not easy to distinguish language aptitude from general intelligence, some studies (among them Gardner & MacIntyre, 1992, quoted in Mitchell & Myles, 2004) show that some specific abilities correlate to language learning facility. Among these are phonemic coding ability, grammatical sensitivity, inductive language learning ability, and associative memory. Harley &

Hart (1997) quoted in Mitchell & Myles (2004) state that these skills have shown to be the best predictors of success in second language learning.

Some studies – for example, that of Ranta (2002), or that of Erard (2012), both mentioned in Lightbown & Spada (2013) – have shown that learners with ability for language analysis tend to be more successful learners, including those who study in programs without a grammar focus: "... learners with greater aptitude can figure out the rules of language based on input" (p. 32). Likewise, successful learners show, besides aptitude, a willingness to work hard to reach their goals.

Learning strategy use is another cognitive factor. Though it has been shown that more capable language learners tend to use more strategies, it is not clear if they are more capable because they use these strategies, or if they use strategies because they are more capable learners. The metacognitive strategies are the ones with greatest impact on second language learning (Brown, 2000; Santana, 2005).

2.2 Affective factors

The affective domain includes a variety of factors: empathy, self-esteem, extroversion, inhibition, imitation, anxiety, attitudes, among others. Attitudes toward the language are of particular importance because the greater the learner's interest in the language and its culture, the easier learning will be (Mishan, 2005).

Attitude is linked to motivation. Gardner & MacIntyre (1992) quoted in Mitchell & Myles (2004) explain motivation as the desire to reach a goal, the effort devoted towards the goal, and the satisfaction obtained in the doing the activities needed to reach the goal. Dornyei & Chan (2013) state that "learning motivation in second language comes from three different possible sources: (a) the learners' internal desire to become an effective L2 user, (b) social pressures coming from the learner's environment to master the L2, and (c) the actual experience of being engaged in the L2 learning process" (p. 439). Different studies have shown a significant correlation between motivation and success in language learning.

One final decisive affective factor is language anxiety, a phenomenon which has been the object of several studies (Horwitz, 1988, among others) and which has a negative impact on performance. Its counterpart, self-confidence or Willingness to Communicate (WTC), contributes to second language proficiency (Lightbown, Spada, 2013). This is partly due to the important role of output- the opportunity to put into practice that which has been learned. The practice may take place within the classroom, or outside the classroom, through everyday activities.

The importance of input – access to oral and written examples of the language is widely recognized. Fewer authors, however, has written about the importance of output. Swain (1985) and her colleagues (Swain, Lapkin, 1995) highlight that it is not necessary to know the grammar of a language in order to understand it, whereas it is necessary to know the grammar in order to create spoken or written messages. Thus, output may be more effective than input in reaching language proficiency (Mitchell, Myles, 2004).

It is also necessary to consider the sociocultural context in learning a second language. Learning not only occurs within a social environment, but the reason for learning a language is also social: one learns a second language in order to communicate with others.

2.3. Age as a factor in language learning

Contrary to what many people believe, the age at which a learner begins his or her studies does not seem to be a determining factor in language learning. A study carried out by Lightbown (2012) and cited in Lightbown & Spada (2013), showed that age is not as important as the number of hours of instruction. Muñoz (2006) found that "...late starters outperform early starters on most ... oral fluency measures ... and support the view that an early start does not necessarily imply an advantage in the acquisition of a second language in the formal learning context" (p. ix).

Brown (2000) mentions that children at age seven or younger do not have a greater advantage in language learning than children at age 11 or 12. There is strong evidence for a critical period for the acquisition of a "native" accent, but not for other aspects of language learning. In Mexico, as in other countries, there has been a strong push to implement English classes in pre-school, based on the belief that the younger learners start, the more effective their learning will be. However, the only advantage there seems to be for an early start is better pronunciation.

As more governments seek to implement mandatory English learning in school, the number of studies on the effectiveness of these measures increases. The following are a sample.

Ardasheva & Tretter (2013) carried out a study involving 840 English language learners from third to tenth grade in 37 schools throughout the United States. They used Hierarchical Linear Modeling for their study, which showed that four variables – spoken proficiency, metacognitive strategies, reading skills in their native language, and the quality of teaching at their school contributed in an important way to the participants' reading comprehension in the second language.

A study in Chile (Rodriguez, 2013) used Inferential Bivariate Analysis to find the differences in achievement between students in public and in private schools. The study took advantage of the national database, which contains data on over 65 thousand students. The study showed that levels of achievement are low in both reading and listening comprehension in both types of institution. There was a slight advantage for private schools, which was explained in terms of socioeconomic context. Once this variable was controlled, it was found that students from public schools showed greater communicative competence.

Baker-Smemoe, Dewey, Bown & Martinsen (2014) studied 102 English speakers who participated in study abroad programs to Mexico, Spain, France, Russia, Egypt and China. The researchers sought to understand the factors which come into play in taking advantage of the time abroad to learn the local language. The variables studied were: time abroad, opportunities to use the language, cultural sensitivity, sex and age of the participants, personality, and participants' social networks (the size, dispersion, and density of the networks). They found that the variables which better predict an increase in proficiency were cultural sensitivity and social networks.

A Spanish study (Valero, Jimenez, 2015) examined the possible existence of a specific language learning difficulty. They interviewed teachers and tutors to detect low performing students, and to determine if the difficulty existed only in the English class, or if it was generalizable to other subjects. The study showed that 79 % of the students who failed English classes failed other subjects as well. In only 21 % of the cases did they find a specific difficulty in learning English as a second language.

A study carried out in Costa Rica (Lopez et al., n/d) looked at the impact of social context on second language learning. It attributes this considerable impact on, in part, the availability in higher socio-economic levels to resources such as the internet, books, works of art, and other cultural goods.

Finally, a Colombian study (Mejia, 2016), sought to explain the achievement gap in English language learning between students of private and public schools, and if this gap has narrowed as a result of government implement policies designed to make Colombia a bilingual country. The study compared exam results from 2008 and 2013. No significant differences were found in terms of achievement, but there was a significant increase in student motivation toward learning the language.

3. Design and Method

This was a non-experimental cross-sectional quantitative study which sought to explain which variables best explained English language proficiency among the selected population. The variables included: study abroad, reasons for studying the language, how often the participant read in English, the hours of instruction, measured in years, the type of school, access to private language tutors, and classes at a language institute.

3.1. Participants

Participants were incoming students at a private university in western Mexico, who took an English language placement test at the beginning of their university studies in August, 2016.

3.2. Sample

897 students registered for the fall term in 2016. They all took an English placement test to determine in which of the eight levels offered at the university they would begin their English studies. These students were all sent a questionnaire. 291 responses were received, of which 218 had complete data (identifying information and placement level).

3.3. Instruments

The placement test used is WebCAPE, administered by Perpetual Works. It is a computer-based adaptive test which determines language knowledge through multiple choice questions and it has been calibrated according to the standards of the American Council of Teachers of Foreign Languages (ACTFL). The results adjusted according to the levels specific to the user institution.

The questionnaire sent to the participants was designed by the first author specifically for this studies. The questions are based on the variables which, according to the literature, are the ones which most impact second language learning: number of instruction hours, study abroad, and motivation for study, among others. The questionnaire was made using Google Forms and was distributed to the students via their institutional email accounts.

Incoming students at the university take placement exams in the week prior to the start of their first semester of classes. It takes between five and 20 minutes to answer the test, and students are informed immediately on finishing of their results. The university offers eight different levels of English, as shown in Table 1, with their corresponding level according to the Common European Frame of Reference (CEFR).

Table 1. English levels

Institutional level	CEFR
Basic 1	A1
Basic 2	A2
Intermediate 1	B1
Intermediate 2	B2
Advanced 1	B2.2
Advanced 2	C1
Upper Advanced	C1.2

Table 2 shows the breakdown of where the participants placed, according to the WebCAPE test.

Table 2. Percentage placing in each level

Level	Number of students	Percentage
Basic 1	7	3.21
Basic 2	14	6.42
Intermediate 1	18	8.26
Intermediate 2	60	27.52
Advanced 1	70	32.11
Advanced 2	31	14.22
Upper Advanced	18	8.26
Total	218	100

3.4. Procedure

The statistical procedure consisted of a multiple linear regression and a one-factor ANOVA. Firstly, it was sought to measure the possible influence of the independent variables X1...X11 on the dependent variable (Y1). Later, an ANOVA was carried out to contrast any possible difference among the population variables X1 to X11 with variable factor Y1. Some theoretical perspective on each procedure are given in the following section (Hair et al, 1999; Triola, 2006).

4. Data analysis

A). Multiple Regression Model

For the first regression analysis, two groups of variables are formed. The first is made up of the following variables: INSTHOURS (X1), TYPESCHOOL (X2), LANGINST (X3), PRIVTEACHER (X4), STUDYABROAD (X5), REASONSTUDY (X6), FREQREAD (X7) corresponding to group related to study background. The variables in the second group SPEAK (X8), WRITE (X9), LISTEN (X10), READ (X11) correspond to self-perception of skills. Both groups are predictor variables which are confronted with the score obtained for variable Y.

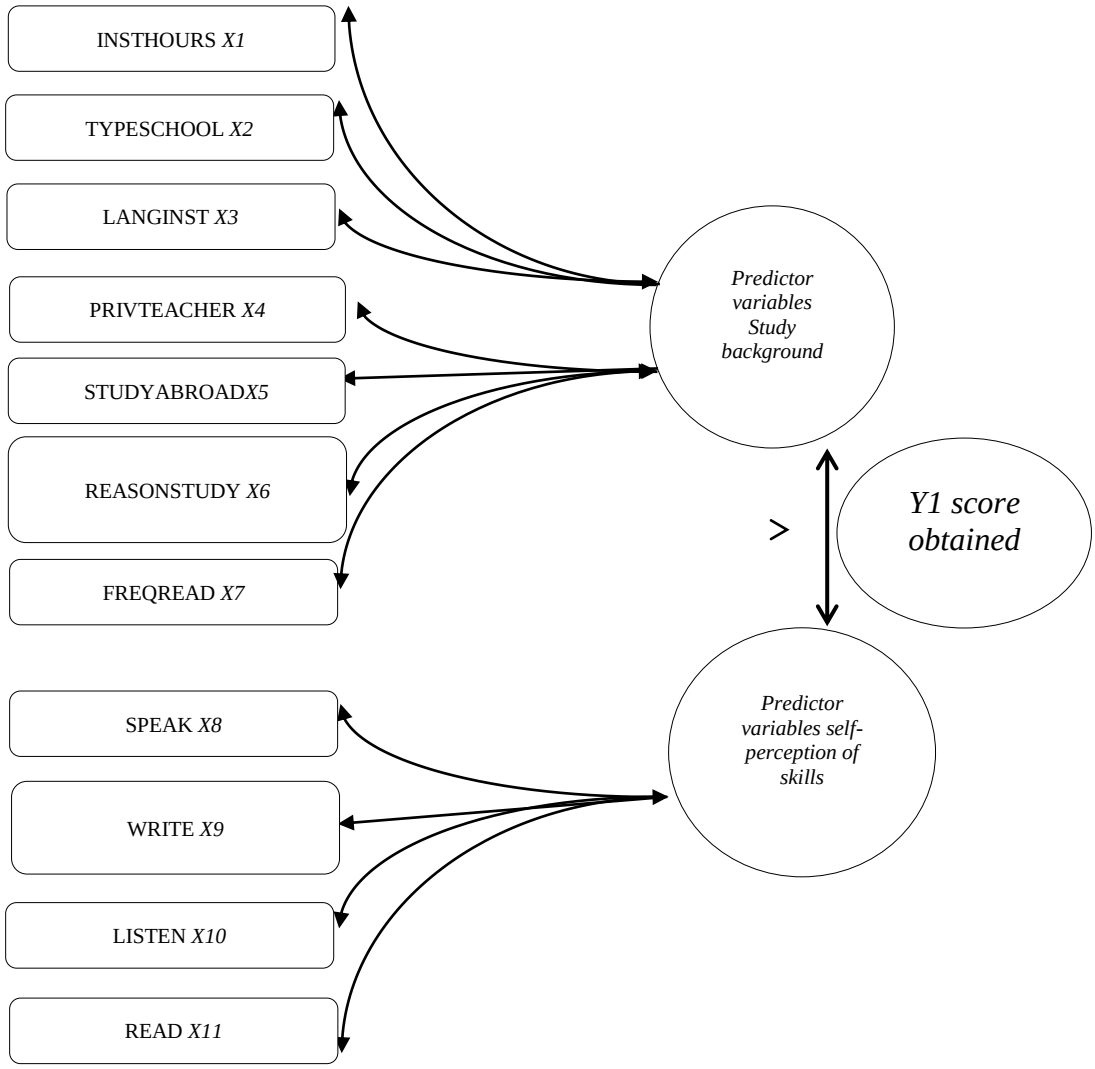

Fig. 1. Regression model by groups of predictor variables (Source: Own)

Following are the results for the group of predictor variables on study background. Table 3 shows the statistics for the regression. The value of the coefficient R^2 (0,324) reveals that the regression equation explains 32.4 % of the values observed. The value of the correlation coefficient (0.569) indicates an acceptable association between the variables. The standard error (1.16) indicates that the model does not have a good fit.

Table 3. Statistical values of predictor variables

Parameter	Value
Multiple Correlation Coefficient	0.569
Coefficient of determination R^2	0.324
R^2 Adjusted	0.302
Standard error	1.163
Observations	218.0

Source: Own

However, the statistical value $F^{7}_{210}(14.394)$ of the test shows a greater value for F in Tables; likewise, the significance value is less than de 0.05 (Table 4); this indicates that the explanatory variables influence jointly and linearly on the dependent variable.

Table 4. Contrast Model (background)

Model	Sum of squares	gl	Quadratic mean	F	F Tables	Sig.
Regression	136.300	7	19.471	14.394	1.747	.000(a)
Residual	284.085	210	1.353			
Total	420.385	217				

Source: Own

Table 5 shows the regression coefficients, the values of the column of non-standard coefficients contain the coefficients that define the equation together with the significance shown in the final column.

Table 5. Signficance values of independent variables

Model	Non-standardized coefficients		Standardized coefficients		
	B	Typ. error	Beta	T	Sig.
(Constant)	1.037	.776		1.337	.183
INSTHOURS	.213	.052	.258	4.088	.000
TYPESCHOOL	.813	.408	.122	1.991	.048
LANGINST	-.186	.166	-.066	-1.122	.263
PRIVTEACHER	-.208	.188	-.066	-1.109	.269
STUDYABROAD	.280	.096	.171	2.929	.004
REASONSTUDY	.073	.091	.047	.811	.419
FREQREAD	.618	.120	.306	5.137	.000

Source: Own

It is observed that only four variables are significant; thus the equation is represented as follows.

Y = 1.037 + .213INSTHOURS + .813TYPESCHOOL + .280STUDYABROAD +.618 FREQREAD

Each value of each independent variable corresponds to a prediction in the dependent variable (Y) based on a constant increase of (1.037) and each of the variables included in the equation.

Results for the group of predictor variables on self-perception of English skills.

Table 6 shows the statistics of the regression; the value of the coefficient R2 (0,324) reveals that the regression equation explains 46.8 % of the observed values. The value of the correlation coefficient (0.684) indicates an acceptable association between the variables. The standard error (1.02) indicates that the model does not have a good fit.

Table 6. Goodness of fit model of dependent variables

Parameter	Value
Multiple correlation coefficient	0.684
Coefficient of determination R^2	0.468
R^2 Adjusted	0.458
Standard error	1.02

However, the value of the test statistic F_213 ^ 4 (46.911) has a value greater than the value in F in Tables; in addition, the value of significance is less than 0.05 (Table 7). This indicates that the explanatory variables influence jointly and linearly on the dependent variable.

Table 7. Contrast model (perception)

Model	Sum of squares	gl	Quadratic mean	F	F_{Tables}	Sig.
Regression	196.891	4	49.223	46.911	1.747	.000(a)
Residual	223.494	213	1.049			
Total	420.385	217				

Table 8 shows the regression coefficients. The values of the non-standardized coefficient column contains the coefficients that define the equation in conjunction with the significance shown in the final column.

Table 8. Regression coefficients (perception)

Model	Non-standardized coefficients		Standardized coefficients		
	B	Stand. Error	Beta	T	Sig
(Constant)	1.515	.245		6.177	.000
SPEAK	.235	.144	.129	1.635	.104
WRITE	.526	.128	.312	4.100	.000
LISTEN	.232	.138	.128	1.676	.095
READ	.398	.145	.213	2.735	.007

It can be observed that only two of the variables are significant. Thus, the equation can be stated as follows:

$Y = 1.515 + .526WRITE + .398READ.$

Each value of each independent variable corresponds to a prediction in the dependent variable (Y) based on a constant increase of 1,515 and each of the variables included in the equation.

ANOVA Results for INSTHOURS (X1), TYPESCHOOL (X2), LANGINST (X3), PRIVTEACHER (X4), STUDYABROAD (X5), REASONSTUDY (X6), FREQREAD (X7) which make up the group study background and SCORE Y1.

Table 9 (ANOVA) allows us to see that the significance of the variables INSTHOURS, TYPESCHOOL, LANGINST and FREQREAD are lesses than 0.05, which indicates that the students's scores on the placement test varies according to these variables. On the other hand, variables LANGINST, PRIVTEACHER, STUDYABROAD and REASONSTUDY are not significant; that is, these variables do not influence the dependent variable.

Table 9. Significance of the dependent background variables

		Sum of squares	gl	Quadratic mean	F	Sig.
INSTHOURS	Inter-groups	121.520	6	20.253	8.702	.000
	Intra-groups	491.072	211	2.327		
	Total	612.592	217			
TYPESCHOOL	Inter-groups	1.462	6	.244	6.365	.000
	Intra-groups	8.079	211	.038		
	Total	9.541	217			
LANGINST	Inter-groups	3.646	6	.608	2.581	.020
	Intra-groups	49.679	211	.235		
	Total	53.326	217			
PRIVTEACHER	Inter-groups	.894	6	.149	.763	.600

	Intra-groups	41.202	211	.195		
	Total	42.096	217			
STUDYABROAD	Inter-groups	12.220	6	2.037	2.965	.008
	Intra-groups	144.954	211	.687		
	Total	157.174	217			
REASONSTUDY	Inter-groups	3.047	6	.508	.647	.692
	Intra-groups	165.526	211	.784		
	Total	168.573	217			
FREQREAD	Inter-groups	20.353	6	3.392	8.663	.000
	Intra-groups	82.624	211	.392		
	Total	102.977	217			

Table 10 shows that the level of significance of all variables is less than 0.05, which indicates that the students' scores vary according to these variables. Therefore, it is concluded that the populations defined by the dependent variable (SCORE) differs in relation to the variables SPEAK, WRITE, LISTEN, READ; i.e., the score will vary according to whether they believe they speak, write, understand, or read English well.

Table 10. Significance of the dependent perception variables

		Sum of squares	Gl	Quadratic mean	F	Sig.
SPEAK	Inter-groups	48.440	6	8.073	21.585	.000
	Intra-groups	78.918	211	.374		
	Total	127.358	217			
WRITE	Inter-groups	62.251	6	10.375	25.535	.000
	Intra-groups	85.731	211	.406		
	Total	147.982	217			
LISTEN	Inter-groups	48.099	6	8.016	20.904	.000
	Intra-groups	80.915	211	.383		
	Total	129.014	217			
READ	Inter-groups	49.708	6	8.285	24.477	.000
	Intra-groups	71.416	211	.338		
	Total	121.124	217			

5. Discussion of the findings

According to the tests carried out, there are three variables related to learning background which have a greater impact on the level of English, as measured by the placement test.

The first of these, instruction hours, agrees with the literature consulted; a higher number of instruction hours in the second language leads to greater language proficiency (Brown, 2000; Lightbown, Spada, 2013; Muñoz, 2006). This is regardless of the age in which the learner began his or her studies.

The second significant variable – the type of school- also agrees with studies carried out throughout Latin America (Davies, 2009; Mejía, 2016; Rodríguez, 2013), where the academic level tends to be greater in private schools than in public schools. This may be due to the difference in the number of students per group in both types of institution. In Mexico, for example, 70 % of public secondary schools have 30 students or more per group (INEE, 2005).

One last variable, frequency of reading in English, has also shown to influence language proficiency as measured by the placement exams. This element is not included in the literature consulted, though numerous authors (Andersen, 2013; Guo, 2012; Krashen, 2004; Robb, Kano, 2013) have studied the impact of extensive reading on language proficiency.

Finally, as to the variables related to perception of proficiency, it can be seen that the participants' perception of their own mastery of the language corresponds to the reality. Believing

that one speaks, reads, writes and understands the language well all correlated significantly to the level on the placement test.

6. Conclusion

The present study shows that – contrary to common belief – neither the age at which language learning begins, nor learning a language in a country where it is spoken have a significant impact on language proficiency. However, the study also shows that the number of instruction hours devoted to the language is important. Likewise, one element which receives little attention – how often the learner reads- can also lead to greater proficiency.

The findings seem to show that government policies should not focus so much on early start programs for English language learning, but rather on increasing the number of instruction hours devoted to language learning, as well as to implementing reading programs. Both actions will lead to greater proficiency among learners.

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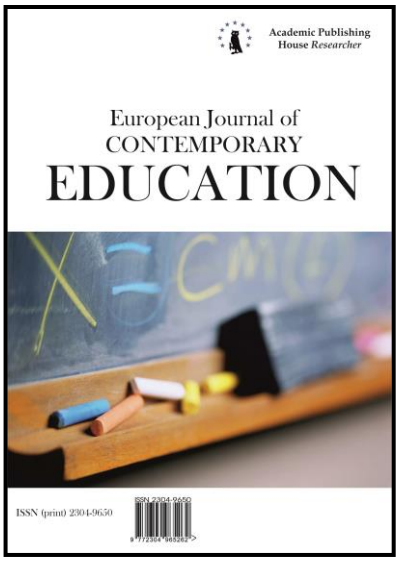

Designing Economic Socialization System in the Educational Process of Technological University

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Abstract

The relevance of this study is related to the fact that the necessity of compliance between the professional education system and progressive tendencies of world economy development demanded the formation of a new generation of economically socialized engineering and technical specialists, who own a sufficient level of economic competences, that will allow successful integration into the socio-economic environment.

The purpose of the paper is to create the scientific basis of content, structure clarifying, creating and implementation the pedagogical conditions of students' economic socialization, considered as a process and the result of individual inclusion into the system of socio-economic relations in the society.

The leading method of studying this problem is the project method, allowing to design a system of economic socialization of students on the basis of the relationship between the essential characteristics of the process of economic socialization, identified by socializing potential of the educational environment in technological university and transformative actions for realizing this potential to achieve the goals and objectives of the students' economic socialization.

In the paper it is determined that the pedagogical activity on the designing of economic socialization system includes the following stages: the first (preliminary) stage involves planning of educational activities for the realization the target component of underway project (diagnosis, promotion of ideas, identification of goals and objectives of economic socialization, expected outcomes and the criteria for their evaluation), and, ultimately, development of the project. The second stage of the design is the project realization phase including the content, activity and

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technological components of the educational process. Third (reflective) stage includes analytical, corrective and remodeling aspects of pedagogical activity.

The data from this paper have practical value in designing of economic socialization systems for future engineers, prove the causal dynamic nature of searching and the improvement of the educational process and offer opportunities to apply our approach to design educational systems in technological universities.

Keywords: economic socialization, student youth, pedagogical designing, pedagogical conditions.

1. Introduction

The education system, no doubt, plays a crucial role in socialization and enculturation of society members. During this process there is a transfer of moral values and norms from one generation to another, the formation of youth's prescriptions, values and stable socio-cultural standards with the aim of their integration into the social system of society. In the context of solving educational problems, the goal of students' economic socialization is the successful integration of future professionals with high professional level, competitiveness and mobility, possessing a sufficient level of economic competence, formed in the process of education in high school, into a dynamically developing socio-economic environment (Amirov, Shaidullina, 2014).

The concept of "economic socialization" was included into the scientific approach relatively recently. It was first used in the neo-marxist analysis of socialization in the works of S. Cammings and D. Taebel, 1978, B. Stasey, 1982 and was considered as process of social experience assimilation in the economic sphere by individual. Interest to the problems of economic socialization of different age groups among the Russian scientists appeared in the late 90s of the XX century (Boyarintseva, 1994; Semya, 1998).

The end of the twentieth century is characterized by the fact that the economic socialization of the Russian youth was realized in conditions of economic and value transformation of public foundations: there was a "throw-in" of the new, primarily market, values, to which young people was mostly not ready and perceived them as the desire of economic subjects to optimize their own benefit and the pursuit of particularistic self-interest, ignoring the moral regulation of economic activity. Therefore, from a certain moment some aspects of person socialization are in focus of pedagogical science. In this regard, a problem of scientific substantiation and construction of special educational system focused on solving problems of youth's economic socialization, including students, studying in technological universities, become relevant in pedagogical science and practice. New economic conditions, increased social demands on the education system, pose the problem of finding such pedagogical conditions that promote increase in efficiency of the process of students' economic socialization.

2. Materials and Methods

During the research the following methods were used: theoretical (analysis of philosophical, economic, sociological, psychological, pedagogical and methodological literature on the topic of research); empirical and diagnostic (study of pedagogical experience, questionnaires methods (polling, tests), analysis of the results of training and practical work of students, pedagogical experiment, statistical methods of experiment data processing, analysis and synthesis of experimental data).

Experimental research was conducted in Branch of Ufa State Petroleum Technological University in the City of Oktyabrsky (342 students); Almetyevsk State Oil Institute of the Republic of Tatarstan (30 students), Branch of Ufa State Aviation Technical University in the City of Tuimazy (25 students). Experiment was carried out in 2011–2014 period.

3. Discussion

In the field of economic socialization problems some experience was already accumulated. Investigation of economic socialization in the context of economic psychology are based on: the study of the economic consciousness, its formation and development (Deineka, 1999) and subject awareness of economic identity (Dittmar, 1997); creation and justification of the theoretical concepts of economic socialization (Boyarintseva, 1994; Zhuravlev, Drobysheva, 2011); definition of economic socialization stages (Drobysheva, 2011); identifying of macro and microsocial factors,

including regional, ethnic, socio-cultural factors, determining the process (Vinokurov, Karnyshev, 2007); subject-role approach to economic socialization (Vyatkin, 2010); study of individual and socio-psychological characteristics of the person as an "internal" factors of economic socialization (Vyatkin, 2010).

Surge of interest of Russian scientists to the problems of economic socialization of different age groups occurred in the late 90-s of the XX century in connection with the change of economic principles and the emergence of new factors that influenced the formation of the younger generation: implantation of market values, family institution crisis, excessive rational thinking, consumerism, popularizing ideas of freedom from society and social environment. According to modern researchers (Vyatkin, 2010; Drobysheva, 2011), change in socio-economic conditions as a consequence of the global economic crisis in 2008-2009 years again intensified study of economic socialization problems of forming personality by national experts (teachers, economists, sociologists, psychologists) and revealed difficulties that were defined earlier during the previous period of its scientific development: it is few and fragmented research of the economic socialization phenomenon, unformulated categorical apparatus which led to terminological differences in the author's definitions, the complexity of the economic socialization measurement in terms of its results and others.

It should be admitted that in the field of economic socialization problems the most developed issues at the moment are those related to the primary economic socialization of children and adolescents (Leiser, 1983; Furnharn, 1984; Lunt, Furnharn, 1996; Fenko, 2000; Grass, 2008). But few works are devoted to the economic socialization problem of students (Kavkaeva, 2010). Accordingly, those aspects of socialization were weakly developed in science. It is clear that in adolescence period young man faces special problems: the transition to adult independent living, the desire for financial independence, career choice, formation of value orientations, self-positioning in the labor market, etc. It determines not only importance, but also the specifics of economic socialization of young people, carried out in educational institutions. The features and capabilities of socializing potential of higher technical university are still unexplored. Theoretical and methodological approaches and pedagogical principles, ensuring the successful economic socialization, are covered superficially, as well as the specifics of substantial components of students' economic socialization. Pedagogical problem of the design process of students' economic socialization in technological universities requires further development. So organizational and pedagogical maintenance of this action in the higher education process needs further study. In modern conditions education content at the university is intended to focus not only on the qualitative development of students' professional competencies and their acquisition of necessary professional and personal qualities, but also to the formation of economic competence of future specialists' with engineering profile through the optimization of economic disciplines content, use of innovative pedagogical technologies in teaching, students participation in a variety of activities (educational, industrial, scientific, extracurricular, self-government and so on), that are an integral part of the educational university environment.

Implementation of the system analysis in pedagogical design has allowed us to identify a set of problems related to the process of student's economic socialization: disclosure of the structure, characteristics and factors affecting this process, taking into account social, economic, historical and recent educational trends. Our approach to the definition of "economic socialization" take into account new factors, manifested in the socio-economic life in the first decade of the XXI century: structural changes in the labor market; acceleration of scientific and technological progress, affecting mainly workers, whose professional work related with equipment and technologies; the deepening of globalization and virtualization, and, therefore, the change in the goals and objectives of education; the transition to a competence model of specialists training as a requirement of modern innovative economy and others. Technological university graduate should possess a completely different set of qualifications, knowledge, skills and during his education in university he should also develop economically significant personality qualities demanded by all professions, such as mobility, autonomy, efficiency, enterprise, teamwork, ability to self-learning, communications and others, which will allow adaptation to new social working conditions, to technology evolution, to change of the content of professional activity.

This change in the key requirements for the economic training of technical specialists allowed us to formulate a refined definition of the term "economic socialization of technological university

students", by which we mean the process of assimilation of socio-economic experience (knowledge, skills, values) by young people; the formation of a competent person capable not only to the efficient operation on the specialty, that is competitive in the labor market, but also possessing significant economic qualities and mobility, in order to optimize their inclusion into social and economic relations after graduation and their successful adaptation to production and economic conditions changing, as a result of scientific technical progress, and their integration into dynamic market environment.

We proposed the following structure of students' economic socialization process, which includes the following components: cognitive, evaluative, activity, adaptation and communication, jointly revealing the basic content of the process. Cognitive component forms a system of knowledge, ideas and concepts of the methods of economic system functioning. This knowledge will influence the system of value orientations in the economic sphere, and the activity component gives the experience of economic knowledge and skills application in order to achieve economic goals. We consider communication in this system as communication of all components, mediating their relationships, and adaptive component performs one of the most important functions of youth socialization process.

Process of socialization is influenced by factors that differ in content, level and mechanism of action. With an increase of the role of the media and communications network as a virtual ways of socialization, we have determined that factors influencing the process of students' economic socialization include: the socio-economic situation in the country, state youth policy, socio-cultural environment, scientific and technological progress, economic values and family priorities, educational environment of high school, and others.

4. Results

4.1. Content-technological basis of pedagogical design of students' economic socialization system in technological university educational process

Pedagogical system designing of students' economic socialization is an activity devoted to building the relationship between the essential features of economic socialization process, identified by socializing potential of educational environment in technological university, and transformative actions for realization of this potential to achieve the goals and objectives of students' economic socialization. Pedagogical activities on the design of economic socialization (ES) system were carried out by us in stages (Figure 1).

At **the first stage** of pedagogical designing, we have formulated the goal of designing of economic socialization system and defined criteria and diagnostic indicators of economic socialization, which were tracked in subsequent stages. The main goal of economic training of graduates is an effective (successful) economic socialization of future specialists with engineering profile, allowing them to become an active participant in economic activity of society and company. The results of the economic socialization of technological university students were related to the economic literacy, maturity of personal economic qualities, economic competence, providing success of economic activity and being an indicator of successful socialization. At the first stage the economic socialization system was also designed, program of action of educational process subjects was built, educational-methodical documentation was prepared and, finally, the project itself was designed.

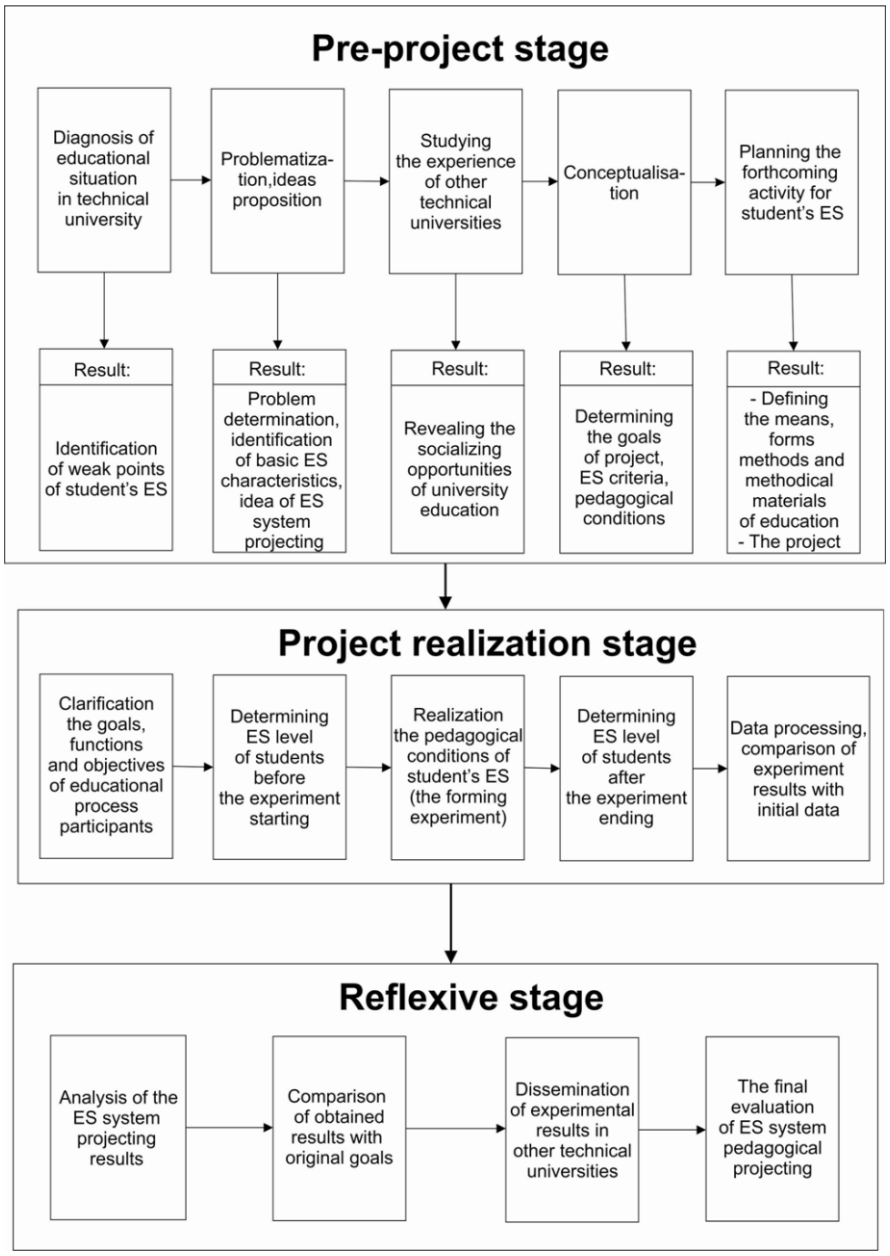

Fig. 1. Stages of pedagogical designing

The educational process, during which the purposeful economic socialization of students was implemented, is considered as a process of development of the economic socialization system, basic structural units of which are: economic socialization in the process of economic disciplines studying (economic education); economic socialization in extracurricular activities (economic training); economic socialization outside the university educational environment (Figure 2).

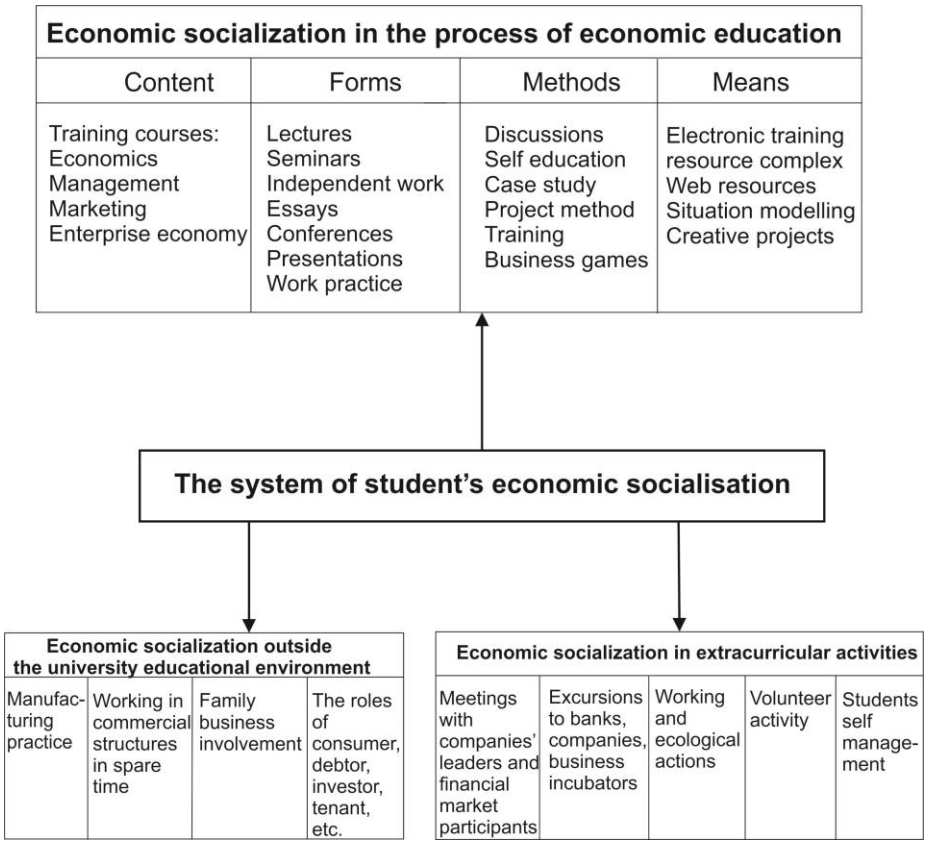

Fig. 2. Structural units of student's economic socialization system

Designing of economic socialization system at the first step involves identifying the resource potential of the university educational environment. We have expanded the boundaries of socializing opportunities of technological university education environment in the following directions: enhancing the use of information resources in the case-technologies; interdisciplinary integration of high school disciplines (reflection of the specific production problems into cases preparation by teachers of economic disciplines); teaching and research work of students on the basis of projects, created to develop research and business skills; including economic issues in the list of practical training tasks to expand the socializing potential of production practices; involvement of professional subjects of the market economy in economic, business, financial education of future engineers; building a model of cooperation and partnership relations in the system "teacher - student" during the students independent work to create author's cases and other creative projects.

Emphasized socializing opportunities were the basis for the pedagogical design of the economic socialization system of future engineers and for implementation of pedagogical conditions that ensure the success of this process in educational environment of technological university. We defined the following conditions: the fullness of the economic content in the technical (engineering) education; use of practice-orienting potential of case-based technologies in the educational process; orientation of the educational process on the development of mobility as a condition of social, professional and personal self-realization of the future specialist.

The second stage is the implementation of the project with inclusion of content, activity and technological components of the educational process (the construction of the teacher's work on the basis of selected principles, approaches, methods, models and education technologies, including stages, operations, actions and practical implementation arrangements).

The third (reflective) stage included analytical, corrective and remodeling aspects of pedagogical activity (comprehension of changes in the actions of project participants, summarizing, adjustments and others.).

4.2. Stages of experimental work

Experimental work on designing the system of economic socialization of technical university students involved the implementation of the following stages:

- definition of criteria and diagnostic indicators of economic socialization; identifying initial levels of the experimental and control groups of students, followed by monitoring of these parameters on the implementation phase of the project;
- implementation of the designed system of economic socialization in practice, verification of proposed pedagogical conditions; description of approbation results of theoretical model of system design of future engineers' economic socialization.

4.2.1. The ascertaining stage

At ascertaining stage of our experiment we revealed baseline indicators that form the level of students' economic socialization, which will be measured during the formative experiment (Table 1). To determine the level of economic socialization we have used the methods of diagnosis from the following authors: E. Rogov, T. Ehlers, O. Potemkin, A. Maklakov, S. Chermyanin, E. Fantalova, N. Fetiskin, M. Semenov, etc.; modified by us on the basis of the research problem; author's questionnaires were also developed.

Table 1. Criteria and indicators of economic socialization efficiency

Criteria	Indicators
Cognitive	P-1. Economic literacy (level of comprehension of the theoretical basis of economic science) P-2. Maturity of economic thinking, which allows identifying and analysis of economic reality problems
Valuation	P-3. Economic orientation of the personality (the ideological aspect, values, interests) P-4. A positive attitude to assimilation of economic knowledge P-5. Orientation on application of economic knowledge and skills in practice
Activity	P-6. Inclusion of petroleum profile specialist into the sphere of economic interaction between society and industry P-7. The presence of economic skills that enable the educational, cognitive and planning activity in the implementation of case technologies P-8. Economic behavior and adoption of economic roles in different spheres of life. P-9. The manifestation of communicative and organizational skills in a team environment
Adaptation	P-10. The presence of economically important qualities of the person: enterprise (orientation on achievements, business activity, organizational skills), mobility (activity, creativity, adaptability) P-11. Skills of self-solving their life problems

4.2.2. Formative stage

At the formative stage we developed and implemented scientific support and methodical maintenance of economic socialization process of technological university students, including electronic training complex on economic subjects, methodical manuals on preparation for seminar work, a set of economy case studies, tests for economic knowledge monitoring, a textbook on the application of case technology in a technological university (Shaidullina, 2013), as well as approbation of the forms and methods of economic education of students in extracurricular time. During the experimental work in accordance with a predetermined direction of pedagogical technology design and dedicated educational conditions we formed two groups of students (experimental and control groups with 30 people in each, studied according to their specialty "Oil and Gas&Oil field Development and Operation") to validate our hypothesis.

4.3. Implementation of educational conditions in the pedagogical design process of the economic socialization system of technological university students

We offered to increase the effectiveness of socializing potential of education in technical university environment through the organization of the educational conditions that ensure optimal inclusion of young people into economic activity and complicated system of socio-economic relations after graduation. For testing the first pedagogical condition – filling of the technical (engineering) education with economic content - we used the developing potential of pedagogical methods, instruments and organizational forms of education, providing filling of technical (engineering) education with economic content: tasks associated with specific industrial problems (case-technology); mainstreaming of interdisciplinary problematic content during lections; educational and research work of students on the basis of projects that require an integrated application of knowledge. For realizing the idea of interrelationship and interdependence of economic and professional socialization during the pedagogical experiment, socializing potential of industrial practices was involved. For the formation of the socio-economic competence students from the experimental group performed tasks that were included in the plan of industrial practice and subsequent report for third-year students.

The introduction of the second pedagogical condition (use of practice-orienting potential of case-based technologies in the educational process) in the course showed that application of case-based technologies during the study of economic theory has significant advantages, since it provides an opportunity for students to independently analyze the processes that often take place in the economy. In addition, this technology provides the involvement of students into the collective work for discussing the situation, taking into account opinions and estimations of other participants. It is necessary to overcome the thinking of narrow technical specialists, instilling social interaction skills through discussion, i.e. formation of communicative skills necessary for effective economic socialization. During the formative experiment we were able to discover new aspects of case-based technologies in the context of innovative technologies in engineer's training. Originality of our approach for conduction of experimental work on the economic socialization of students from oil and gas university was the fact that we have changed the role functions of subjects of the educational process, based on the principle of duality. At economics seminars we discussed the cases not only developed by a teacher, but also the author's cases of the students themselves.

In the process of implementation of the third pedagogical condition – orientation of the educational process on development of person mobility as a condition for social, professional and personal self-realization of the future expert – we selected and tested during the experiment course the most effective methods and forms of work with students, allowing to develop such personal qualities, as activity, creativity , willingness to change, adaptability and flexible orientation in dynamic economic environment, the desire of constant improvement of their education, skills and development of innovative technologies and techniques, i.e. mobility. Developing technologies include: discussion seminars, workshops, blitz games, trainings, project methods and others. Educational technologies corresponding to modern requirements were directed to the development of student abilities to independently cope with the urgent problems of life: taxes, personal budget, mortgages, insurance, pensions, savings, development of their own entrepreneurial skills and others. Experimental work on the organization of this pedagogical condition was built on the principle of "inviting learning". Our students got acquainted with the basics of business organization at the meeting with the experts from the Oktyabrsky business incubator, where students were provided with information on how to register as an individual entrepreneur, how to register in the tax office and choose the best tax system. During the study of Economics course students were offered such topics for the organization of the project activity, as a solution of employment problems in the city, creating their own startup businesses and others. The concept of "inviting learning" was implemented during the formative experiment by organizing sessions with structures, which work directly in the financial markets: investment companies that have demonstrated practical skills on the stock exchange; banking institutions, acquainting students with the principles of operation of this economy sector.

4.4. Effectiveness evaluation of the experimental work on the designing of students' economic socialization system

We tracked dynamics of level indicators, revealed at the first stage of economic socialization designing, in the experimental group compared with the control group (students, which economic socialization occurs in natural and partially controlled conditions of the educational process at the university). The results of the level diagnosis of students' economic socialization demonstrated that our conducted experimental work had a positive impact on the process of personality formation of future engineers as a subject of economic activity and economic relations in the society.

Comparison of the control and experimental groups showed significant changes in economic socialization indicators in the experimental groups where our pedagogical conditions were complemented. So, by the end of the experimental work number of students who have a high level of economic socialization showed 30 % increase and number of students in the same group with a low level of economic socialization showed 26.6 % decline. In the control group these indices are lower – 6.7 % increase and 6.7 % decrease, respectively. Analysis of diagnostic results of the economic socialization level in control and experimental groups at the beginning and the end of the experimental work is presented in Table 2.

Table 2. Level of students' economic socialization at different stages of experimental work

Groups	Economic socialization level					
	Low		Medium		High	
	Number of students	%	Number of students	%	Number of students	%
Before experimental work						
Experimental	10	33,3	17	56,7	3	10,0
Control	8	26,7	16	53,3	6	20,0
After experimental work						
Experimental	2	6,7	16	53,3	12	40,0
Control	6	20,0	16	53,3	8	26,7

In order to estimate whether the experimental impact was a determinant factor of changes of the students' economic socialization in the experimental group compared with the control group, we used the method used in mathematical statistics – ANOVA (Fisher criterion F). Fisher criterion counted prior to the experiment (F_{emp} = 0.04) showed that groups under investigation were initially relatively equivalent. The calculation of this criterion after the experiment (F_{emp} = 4.2) revealed that with 95 % probability ($p \leq 0,05$) the difference in the level of economic socialization between groups is more pronounced than random differences between the groups. Hence, we have shown that an experimental impact was the determining factor of changes in the economic socialization level. And we have shown that increase in the level of economic socialization is not random, using G sign criterion. To prove the importance of the changes (based on the occurrence frequency of economic socialization effect interesting to us) in experimental groups compared with the control we used Fisher criterion φ * (Fisher angle conversion).

5. Conclusion

It was found that designing of students' economical socialization system is the kind of activity for building the relationship between the essential features of economical socialization process, identified by socializing potential of learning environment in technological university, and transforming actions for realizing this potential to achieve the goals and objectives of the students' economic socialization. System design of economic socialization during the educational process involves such interaction of students and teachers, where the next goal is realized – effective (successful) economic socialization of future specialists of engineering profile. Special education system should be formed to achieve the educational objectives, which structurally consists of the following units: economic socialization in the process of economic disciplines studying (economic education); pedagogically-driven and controlled economic socialization (economic training); economic socialization outside the educational environment of high school. The success of the project depends on the implementation of identified pedagogical conditions.

Article submissions may be useful for teachers of economic disciplines in technological university in the context of the active use of inter-subject relations during economic disciplines teaching through the introduction of case-technology method into the educational process, practical work tasks to show the scope of application of economic knowledge and skills to future engineers; communion of students to the creative work on case studies, which will promote economic development of competencies; the use of various forms of educational technologies affecting the strategy of young people economic behavior and corresponding the realities of modern society.

The study shows the perspective for further studies of problems of students' economic socialization caused by cardinal changes in global trends in economic and social development.

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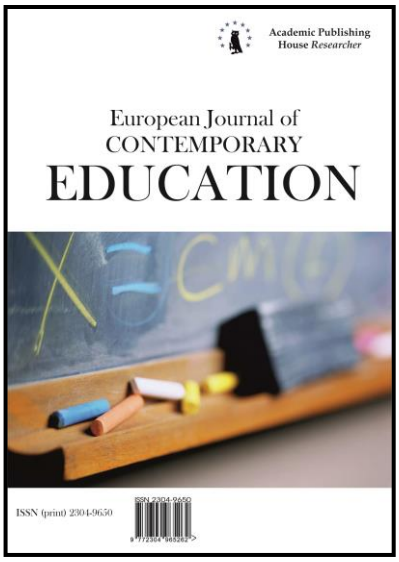

Museology as a University Subject in Slovakia: History, Program and Course Design

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Abstract

This paper examines the development of museum studies and museology as a field of scientific inquiry and a university course in Slovakia. First I examine the role of memory institutions in the formation of this field in response to the need for the specialized education of their staff and describe the fundamentals and the development of program and course design and the motivation behind them. I then analyze the current program and course offerings in the field of museology at various institutions in Slovakia and the differences between them, concluding with a number of proposals for improvement and providing a brief forecast for the future development of the field.

Keywords: Slovakia, museum studies, cultural heritage, university program and course design, memory institutions.

1 Introduction

1. Prehistory of museum studies in Slovakia

Owing to their small scale and largely non-professional nature, for a majority of their existence, memory institutions in Slovakia felt no need to either hire professionally trained staff or provide specialized education to their existing staff. This changed with the formation of Czechoslovakia when Slovakia, formerly a part of the Kingdom of Hungary, began a significant transformation of its administration which included a reorganization of the new nation's archives, libraries and museums.

In Slovakia, museums have developed in a unique and idiosyncratic manner which was tied to the social and cultural needs of the region or population segment in question and as such, it often played an important role in the nation's politics. In the 19th century, when museums were often involved in the cultural and ethnic politics of the country and its ruling ethnic group, the idea of creating a national or ethnic museum found much support among the Slovak political

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leadership primarily as a declaration of opposition to the Hungarian majority's official cultural and political aims.

Those aims, however, did not translate to a large-scale creation of memory institutions in Hungary or even any wide support. The cultural landscape of Hungary was therefore dotted with small museums managed by dedicated societies and created for the specific purpose of maintaining their collections. As such, they were financed through membership fees or collections and staffed with volunteers and non-professionals. Even after the formation of Czechoslovakia, most museums continued to be volunteer-run and volunteer-financed and consequently, the demand for professionals in the field of museum studies continued to be low and so did the need for specialized education of persons working or preparing to work in that field. In contrast, other memory institutions such as archives and libraries, which also underwent a significant reorganization after the formation of Czechoslovakia, could draw on the talent provided by the State Archivist School (Státní archivní škola) and the State Librarian School (Státni škola knihovnická) (Tišliar, 2013). These were founded in Prague in 1919 and 1920, respectively, and their first graduation classes included a number of Slovaks. The creation of these educational institutions also provided the first impetus towards the professionalization of these types of memory institutions. For museums, however, no comparable institutions existed and would not for a long time. In Slovakia, the only institution which provided education related to museum studies was the Faculty of Arts of the Comenius University in Bratislava which offered an Art History program starting in 1923.

1.2. The birth of museum studies in Slovakia

In early 1950s, the museum landscape of Slovakia began to undergo fundamental changes not only with regard to its organization and other practical matters (transfer to state ownership, new legislative frameworks, etc.), but also with regard to its professionalization. In 1947, the Slovak Union of Librarians (Zväz slovenských knihovníkov) petitioned the State Superintendent of Archives and Libraries, Branislav Varsik, to initiate the creation of a school for the education of "archivists, librarians and even museum curators", since they were confronted with a lack of adequately trained professionals (Tišliar, 2016; Fircáková, 2016; Tvrdoňová, 2016). However, Varsik responded arguing that there wasn't a wide interest in such as school in Slovakia and if there indeed existed such a need, it was adequately covered by specialized institutions in Prague, easily accessible – so Varsik – to anyone from Slovakia (Tišliar, 2013) Despite his attitude, two new specializations – Archival Studies and Library Studies – were introduced to the 1951 study offerings of the Faculty of Arts at the Comenius University. Museum Studies or Museology, however, could not be offered as a program of study, largely due to the complexity of the subject and a lack of a broad theoretical basis. Museology was thus taught only as a part of the Ethnology and Archeology study programs at the Faculty of Arts of the Comenius University, with the first students enrolling in the lectures and seminars in 1951 (Mlynka, 1997; Mlynka, 1999).

1960s saw the first attempts at providing museology with a solid theoretical basis worthy of an independent scholarly discipline. These were directly inspired by the developments in Czech museum studies where at that period, two schools emerged: the Prague School of Museology (1967–1982) lead by Josef Beneš, Jiří Neústupný and Jiří Špét and the Brno School of Museology (1962 and onwards) which is associated with the recently deceased Zbyněk Z. Stránský (Mlynka, 1999). The latter played a fundamental role in the education and development of the Slovak museum profession, as many of its members studied at the graduate school of museology in Brno (Mlynka, 2006). The Brno university also contributed to the growth of museum studies in Central Europe by hosting the Museology Summer School, the 8th of which, taking place in 1994, was dedicated to exploring museology as a university subject (Mlynka, 1999).

In addition to the opportunities offered to Slovak students by the Brno graduate school of museology, there were other options available in Prague in the form of a distance course of study in "applied art and museology" (Tišliar, 2016). The National Museum in Prague established, in cooperation with the Museum of Decorative Art and the Department of Art History and Esthetics, a Center of Museology Education which offered a four-semester graduate-level course for employees of museums and similar institutions focusing on decorative art, architecture, interior design, material culture and alike. Approximately a fourth of the lectures was devoted to general museology where in addition to cultural policy, the topics discussed included museum organization, the role of museums in science and research as well museum presentation and

interaction with the public. In terms of museology as an academic discipline, much attention was devoted to collecting, collection management, conservation, presentation and publication of documentation related to collection items. As with any graduate program, acceptance to this one assumed the completion of an undergraduate program in a related field.

As noted above, Slovak museology was in effected created at the university in Brno (currently Masaryk University, previously University of Jan Evangelista Purkyně), where until 1992, most of Slovak museum professionals got their education in the field. The Brno graduate school of museology was a part of the Department of Archeology and Museology and offered a distance course of study aimed primarily at employees of museums and other memory institutions which focused on theoretical and applied museology (Prelovská, Gogová, 2003). With the dissolution of Czechoslovakia in 1992, the Brno graduate program became much less accessible Slovak students. This provided an impetus for the introduction of museology study programs at Slovak universities which, in turn, necessitated the creation of a solid theoretical and practical foundation for museology as both a scientific discipline and a profession.

2. Materials and methods

2.1 Institutional and theoretical foundations of museology as a university program in Slovakia

Designing a new university program requires not only detailed knowledge of the society's demand for specialized education in the relevant field, but also an intimate knowledge of the current state of the development of the institutional foundations of the future application of the program. The needs of applied museology and the memory institutions where it is practiced are still closely tied to their perception by the general public which creates a certain natural pressure on the universities to ensure that the field of study be not only theoretically sound, but also that it ensure the practical application of the knowledge and skills the students acquire during their studies. Museology is thus somewhat unique among humanities in that it requires a synergy between the theoretician and the practitioner and this must be taken into account when designing any university-level course in the subject. As such, the foundations of museology as an academic discipline, a profession and a university program must be grounded in: a) deep theoretical knowledge, b) an intimate familiarity with Slovak museum landscape, its history, its current state, its legal framework, its role in Slovak society and especially their relationship to other memory institutions and c) archival research which in the Slovak context provides solid foundations for all of the above.

3. Discussion

3.1 Museum studies and museology in present-day Slovakia

In the academic year 1993/1994, the first dedicated university-level program in the field of museology opened at the Department of History of the Faculty of Humanities (today's Faculty of Arts) of the Matej Bel University in Banská Bystrica. This BA program, offered as a distance learning study module, was designed "*for high-school graduates working in museums, galleries and other similar state and local government institutions with the intent of imparting on them fundamental theoretical and methodological knowledge regarding various approaches to tangible cultural heritage, the genesis of its forms, up until the current trends*" (Tišliar, 2016). The program included courses on ethnology and ethno-museology, culture and cultural heritage in general which were supplemented by course in history and archival studies. Graduates of this program had the opportunity to join the graduate school which was and continues to be to this days also a part of the Department of History of the Faculty of Arts.

At the Faculty of Arts of the Comenius University, the first course in museology was offered in the 1993/1994 academic year as a six-semester distance BA program at the Department of Archeology (Mlynka, 1997). This program was modelled after the programs at the Brno graduate school of museology and, much as its model, it was aimed at museum professionals who had already obtained their university education. The program was centered around courses in archeology (taught by P. Valachovič), ethnology (L. Mlynka), natural sciences (I. Okáli) and various courses on theoretical and applied museology and practical matters taught by a number of members of the staff of the Slovak National Museum – Museum Information Center led by A. Habovštiak.

Starting in the 1996/1997 academic year, various changes were introduced to this program: first, it was transferred to the auspices of the Department of Ethnology (today's Department of Ethnology and Museology). Second, the Department recruited a number of staff from the Slovak National Museum and the National Center for Monuments and Traditions (today's Monuments Board of the Slovak Republic). In terms of organization, the BA program continued to be implemented as a distance course of study, but with a significantly updated curriculum, compiled by Ladislav Mlynka and Marianna Šášky ová with Ján Michálek acting as the main accreditation sponsor (Mlynka, 1999). This program was intended as a post-tertiary course aimed at those museum professionals who had already obtained their university education and who were employed by museums, but also conservation agencies and various state and local government institutions with responsibilities related to cultural heritage and memory preservation. As a distance course of study, the program was taught in monthly two-day blocks and focused on applied museology as well as monument studies, i.e. the preservation of and care for intangible cultural heritage. The courses taught sought to impart both theoretical and methodological knowledge and skills in the fields of museum management, museology and preservation of cultural heritage with planned additional courses on broader subjects such as library science, art theory and archival studies which, however, were ultimately not offered due to personnel issues. In addition to the primary focus, the program also included courses on fundamentals of applied cultural heritage protection (art history, culture studies cataloguing, documentation, conversation, collection management etc.). The program, however, failed to attract many students: its main target, i.e. museum professionals with university degrees, could not use it for career growth and so their only motivation was their interest in expanding their knowledge of the field under the guidance of seasoned professionals. Applicants with secondary degrees for whom the successful completion of the program would mean a promotion or a higher pay grade, could not enroll in the program.

Even the first drafts of the BA program as a distance course envisioned its transformation into a full-time double-major MA study program. Ladislav Mlynka planned for this transformation to take place in the academic year 1999/2000 by which "we would succeed in providing institutions working in the field of the protection of cultural heritage with specialists, proper museologists, with deep theoretical and methodological knowledge and a full set of versatile skills and experience" (Mlynka, 1999). Ultimately, however, no MA program was introduced while the BA program continued as originally designed. In the academic year 2006/2007, the BA program was transformed into a full-time university-level BA program in museology and cultural heritage aimed at – as is practice in Slovakia – high-school graduates (Mlynka, 2006). The MA program in museology at the Faculty of Arts of the Comenius University was accredited in 2012 and first courses were offered in the academic year 2012/2013. This brought with itself some changes to the BA program as well: the BA program shifted its focus to applied disciplines such as history and its auxiliary sciences while the MA program concentrated on matters related to ethnology and material culture. In terms of museum studies and monument studies, this meant the inclusion of courses on protection and management of cultural heritage, specialized museology and management as well as marketing of cultural institutions (Dolák, 2013; Dolák, 2016; Ananiev, 2016). Graduates of the MA program can thus find employment as curators of historical and ethnographic collections (Kačírek, Tišliar, 2012). At the moment, further expansion of the program is being planned by turning it into a double major. The full accreditation has been awarded to the Faculty of Arts of the Comenius University in Bratislava by the Ministry of Education for the double-major programs in ethnology and museology, history and museology and library and information science and museology. These programs are designed to provide their graduates with the knowledge and skills that go outside of the scope of museology proper, but are desirable for those intending to work as museum curators in one capacity or another (Pavlikánová, 2015).

The third institution in Slovakia that currently offers course on museology is the Faculty of Arts of the Constantine the Philosopher University in Nitra (FiF UKF), starting in the academic year 1995/1996. The program was initially offered by the Department of Archeology as a minor for students majoring in history, but starting in the academic year 1999/2000, FiF UKF began to offer a 5-year long-distance course on museology as a double major with history. In the next academic year, the university's museology portfolio was expanded by a single-major full-time program and a distance program (Lalkovič, 2006) and starting in 2006, all these programs are offered under the auspices of the new Department of Museology. The core of these programs at the BA level

comprises an introduction to museum studies, a museum management course and a course on marketing of cultural regions of Slovakia, while specialized courses focusing on individual aspects of museology (such as selection and collection, museum presentation, legal framework or museum types) are offered as selectives which also included courses on the history of Slovakia and its regions. The final examinations are compiled using material from the following areas: Collection Creation and Management, History of Museums and Artifact Preservation and Cultural Habitus of the European Civilization (Tišliar, 2016). In general terms, the study of museology in Nitra focuses strongly on archeology which is also reflected in the composition of its faculty.

The Matej Bel University in Banská Bystrica (UMB), founded in 1992, established in 1998 a Department of Ecomuseology as a part of the Faculty of Natural Sciences. The Department, headquartered in Banská Štiavnica and headed by Z.Z. Stránský, focused on ecology and environmental education and offered a number of programs starting in the academic year 1998/1999. A full-time ecology MA course with an ecomuseology specialization was aimed at high-school graduates who intended to pursue careers in museums, while a BA distance ecomuseology program with a museum conservation specialization was aimed at those museum professionals who had already obtained university education and worked as conservators. The core of the BA program imparted theoretical knowledge of the fundamentals of ecomuseology and the scientific principles of museum conservation, as well as practical conservation skills in all types of material areas, including restauration and taxidermy. The distance study program in ecomuseology was aimed at those working in museums and other memory institutions who had already obtained university education in a related field, but wished to specialize in museology. The core of the program comprised the fundamentals of general museology with a focus on current issues in environmental protection, as Z.Z. Stránský intended the program to enable museums to contribute to the solution of humanity's current cultural and environmental crisis as in his understanding, the future of museology lay in environmental protection and conservation (Stránsky, 1999a; Okáli, 1998; Stránský, 1999b). Starting in the academic year 2005/2006 when a new round of university program accreditations took effect, the UMB Department of Ecomuseology began to offer new BA and MA programs with a specialization in environmental management of museum institutions (Lalkovič, 2006). In September 2007, the Department was fused with the Department of Environmental Studies and Environmental Education to form a new Department of Environmental Management. The department continues exist to this day, albeit with another name (Department of Environment), and its five core concentrations include the management of preservation, restoration and use of natural, cultural and social heritage (Zelený, 2008).

The Department of Mediamatics and Cultural Heritage at the Faculty of Humanities of the University of Žilina is another institution of higher learning which offers courses related to museology. The department (which was split out of the Department of Library and Information Science originally formed in 2004 at the Faculty of Natural Sciences when the Faculty of Humanities was founded in 2010) continues its original fully accredited focus while also working in the fields of digitation and digital humanities. It offers both full-time and distance programs in mediamatics and cultural heritage at BA and MA levels, where students in the former can opt for concentrations in cultural heritage, media management and information technology while MA programs include courses on cultural heritage, visual communication, information management and new media. The department also offers a PhD program focusing on the intersection of cultural heritage and technology, such as digitation, digital archiving, digital humanities, collaborative methods in information and knowledge management and the confrontation of new media with old information sources (Tišliar, 2016; Menkouski et al., 2016).

And finally, museology as a university subject has a long tradition at the Faculty of Natural Sciences of the Comenius University in Bratislava starting with a specialized course taught by a veteran leading member of the Natural Museum of the Slovak National Museum (NM – SNM) Ilja Okáli. This practically-focused course was intended to provide the students with the skills necessary for the work with various types of collections housed at natural science museums. Starting in the academic year 2009/2010, the Systematic Biology / Systematic Biology and Environmental Studies and the Zoology and Anthropology study programs began to offer a selective course on the foundations of museology to freshmen and sophomore students lead by K. Hensel (Biology program) and by J. Kautman of NM – SNM and K. Hensel (Zoology and Anthropology program) (Kačírek & Tišliar, 2012).

4. Results

As we've shown above, even after the last round of accreditations in 2014, the only universities that offer fully accredited museology programs are those in Banská Bystrica (distance BA program only), Nitra (full-time and distance, BA as well as MA programs) and in Bratislava. Those are the only programs satisfy all the conditions of the definition of the Museology study program 2.1.24 pursuant to the complete guidelines for the accreditation of university study programs in Slovakia. These define museology as a sub-branch of history which is motivated by the general need to improve the protection of cultural heritage in museums, galleries and institutions tasked with the protection of tangible and intangible cultural heritage; as such, its closest sibling disciplines include ethnology, history, art theory, art history and culture studies (Tišliar, 2016). In formal terms, programs in museology define two types of museum professionals:

Level 1 (equivalent to BA): a practitioner in the field of cultural heritage protection

Level 2 (equivalent to MA): an experienced practitioner in the field of cultural heritage protection

A level 1 museum professional is described as having a basic knowledge of the field of cultural heritage protection, i.e. theoretical and specialized museology, with a focus on applied museum studies, i.e. documentation, presentation and protection. A level 2 museum professional should by the end of their studies acquire a thorough knowledge of museum studies and cultural heritage protection with a focus on theoretical and specialized museology, ethnology and social history. These guidelines adopted by the Slovak Ministry of Education also defined a specific common core which is to make up 3/5 (60 %) of all accredited museology programs in Slovakia while the remaining 40 % should reflect the specialization of the institution offering the course (Kačírek, Tišliar, 2012).

One of the primary challenges facing museology as a university subject is the lack of sufficiently qualified personnel. The older generation and the middle generation of those currently teaching museology have obtained their advanced degrees in related fields (history, archeology, archival studies, ethnology, library science, art history, natural sciences and alike) while only some have practical experience with museums or galleries or have attended the distance courses offered by the Brno university. The future of the field, however, must be built on those with PhDs in the field and at the moment, those cannot be obtained in Slovakia. Those wishing to specialize in museology and go on to teach it must therefore enroll in PhD programs in related disciplines such as history, archeology and ethnology which offers some types of concentration on museum studies and protection of cultural heritage. The same is true of associated and full professorships which in Slovakia require a process similar to obtaining a PhD.

As graduates of accredited museology programs generally go on to find employment in museums and galleries as curators, museum education experts or cataloguers, it is crucial that their education provide them with practical skills – in fact, in questionnaires asking students for their feedback, the necessity of cooperation between the universities and memory institutions is one of the top priorities. Such cooperation shouldn't rely on visiting lecturers only, but should also involve joint projects in which students would be involved during their studies and which would lay foundations for their future work in the field. The adoption of a proposal put forward by the Directorate of the Slovak National Museum which would establish positions of assistant curators staffed by students of the Faculty of Arts of the Comenius University as set forth in the 2015 contract between the two institutions would be a major stride in that direction (Díte, 2016).

5. Conclusion

The job prospects of museology graduates in Slovakia would be best served by the creation of a double major with another memory- and sources-focused discipline. The Ministry of Education has currently issued the Faculty of Arts of the Comenius University a license and the first such program will be offered in 2018. This will bring Slovak museology in line with that in the Czech Republic where such programs have become the norm (Brno, Opava) while in Slovakia, accredited museology programs are single majors only, each with a specific focus: in Banská Bystrica, the program specializes in the curation of historical collections; in Bratislava, the focus is on the curation of historical and ethnographic collections and the Nitra program concentrates on museum and gallery education and archeology.

As experience from the failed experiments with supplementary distance education in Brno and Bratislava have shown, such programs are unattractive to applicants and ultimately pointless: those with university degrees who have already found work in museums have little incentive to continue their education in the museology as it is neither appreciated, nor reflected in their career development. This sad state of affairs is the direct responsibility of the management of memory institutions and until they take steps to improve it, it falls on the public universities to ensure that those who intent to work in museums, galleries and other similar institutions are well equipped for this task.

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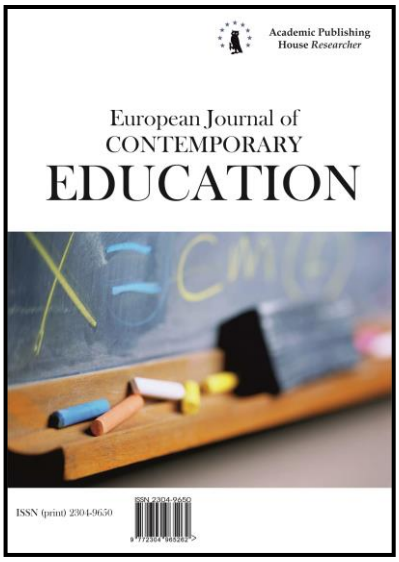

Classification of Innovation Objectives set for Continuing Professional Teacher Development

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Abstract

The present demand for teachers, showing advanced aptitude for innovations, is an important reason for promotion of innovative practices in the continuous teacher training. For the on-going development of a continuous training system preparing teachers for innovative activities, it is necessary to have a complete taxonomy of practical objectives. They reflect in a certain way the diversity of innovative practices, and act both as an important prerequisite, and a starting point for generation of the main project solutions and procedures. The solution to the problem of classification tasks involves methodological justification for three fairly distinct procedures: definition of grounds for classification; building classification criteria, taking into account the essential characteristics of foundation classification; grouping tasks by specified criteria.

The article discusses the methodological approach to classification tasks innovation, built on the structural components of the subject-object relationship educator in the field of innovative change. Describes the structure of the classification criterion, a triad of classifications based on categories of subject-object relations: "the subject of innovation", "innovation", "relation between subject and object of innovation".

Keywords: teacher's innovation objectives, classification of objectives, subject-object approach to classification, the overall structure of a classification criterion, types of practical objectives, kinds of practical objectives.

1. Introduction

The need for continuing professional teacher development, as well as for greater efficiency of teachers' innovative activities, is essential by default, due to the urgency and value of the education

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continuity. The present demand for teachers, showing advanced aptitude for innovations, is an important reason for promotion of innovative practices in the continuous teacher training. Another, but in no way less important, reason is associated with availability of the continuing professional development system framework, embracing relevant methodological, theoretical and project-based materials, as well as instructors' manuals.

In provisions of this kind, practical objectives relating to innovative activities (hereinafter referred to as innovation objectives) play a significant role. They reflect in a certain way the diversity of innovative practices, and act both as an important prerequisite, and a starting point for generation of the main project solutions and procedures. However, when considering the content and process of teacher training designed to prepare teachers for innovative activities, one is likely to report a number of challenges primarily associated with the classification of innovation objectives, and methodological rationale for their types and kinds. The free composition and weak structure of the innovation objectives adversely affect the content of professional competencies, the learning objectives, the syllabi content and priorities, phased-in training design and development involving special didactic and diagnostic tools. Clearly, for the on-going development of a continuous training system preparing teachers for innovative activities, it is necessary to have a complete taxonomy of practical objectives. Meanwhile, the desk research on some educational innovations has revealed that the methodological feasibility of classification of teachers' objectives of innovative activities has not been specifically examined so far.

2. Resources and Methods

According to a number of researchers, classification serves a number of functions: explanatory, predictive, systematizing, synthesizing, methodological, practical (Kozhara, 1982; Meyen, Schrader, 1976; Subbotin, 2001).

Methodology of classification relies on the context of subject domains, initial assumptions, and principles (Kedrov, 1962; Rozova, 1986; Subbotin, 2001); it is expected to provide a fundamental outline of the classification structure (Kalygin, 2000; Fedotov, 2013), criteria (Rozov, 1995; Subbotin, 2001), methods and rules of the objects' clustering (Voronin, 1982). In this regard, there are heuristic opportunities for the subject-object modeling (Kireyeva, 2006), including the methodological potential of classification by the subject-object attribute of management decisions (Okhotskiy, 2008). When developing the methodology for the subject-object approach to classification of teachers' innovation objectives, the author has taken into account some earlier findings of his own research (Tyunnikov 2013; Tyunnikov 2014).

3. Discussion

In recent studies, various aspects of the system of continuing professional development designed to prepare teachers for innovative activities have been actively discussed: the composition and content of professional competences (Zvyagintseva, 2009; Shkerina, 2009), principles of modeling (Lazarev, Stavrinova, 2007; Slastenin, Podymova, 1997; Khutorskiy, 2008), the content of educational programs and learning technologies (Lazarev, Stavrinova, 2007; Slastenin, Podymova, 1997), specifics of the innovative information environment (Vaindorf-Sysoeva, 2009; Kazakov, 2011), the key areas of psycho-pedagogical support available to teachers (Podymova, 2012), mechanisms of teachers' motivation and professional self-determination (Alekseenkova, 2016; Pryazhnikov, 2012), complexes of diagnostic tools (Afanasyeva et al., 2016; Tyunnikov, 2016).

The framework and theoretical rationale of the above-mentioned continuing professional development aspects are derived from real innovative experience and are connected, in one way or another, with the goals of education modernization. Clearly enough, it would only be with reference to such projections, that we could contemplate the construction of a well-disposed system of professional development that would prepare teachers for innovative activities. However, there are questions to answer about the scope of practical objectives, the way they are clustered, and the criteria used.

Researchers studying various aspects of teacher training (designed for teachers-to-be, and for the already working ones), suggest certain clusters of objectives related to innovative activities (Ivanova, 2010; Lazarev, Martirosyan, 2006; Slastenin, Podymova, 1997 and others). As a rule, when designing a set of objectives, they put attributes of innovations at the forefront. In particular,

they highlight *functional orientation* and *stages of innovative activities*. Herewith, they refer teacher's objectives primarily to the teacher's project and experimental work (Afanasyeva, Novikova, 2016; Kharisova, Shukaeva, 2015 and others). Since such objectives have not been classified and are set forth as a list of random objectives, their logic suffers certain discontinuities.

Furthermore, not all of the above-mentioned objectives are articulated as objectives, since some of them fail to prescribe an activity leading to a specific desired effect, but, rather, they outline a direction of innovation ('participation in the design of future pedagogical system of an educational institution' (Ushakov et al., 2010), 'problem-oriented analysis' (Afanasieva, Novikova, 2016; Dodueva, 2016). Moreover, objectives are different in scope, which encumbers their comparability. Some of them are so ambitious that instead of addressing a specific need, they target rather complex challenges ('to explore pedagogical innovations' (Afanasieva, 2016, etc.), 'to identify and classify flawed (malfunctioning) pedagogical situations' (Slastenin, Podymova, 1997: 78). Some are part of a larger goal, such as 'to introduce innovations' (Slastenin, Podymova, 1997: 78), and for this reason, they lack autonomy.

One should also note, that any advancement of an educational system tends to affect different dimensions of the teaching and learning process and suggests a variety of innovative activities. The 'fan-like' scope of innovations covers different types of objectives that go beyond the mere conceptual design and experimental validation of the innovative processes.

In our view, it is hardly possible, if at all, to perform classification of practical objectives while relying solely on attributes of innovations. The reason for this limitation is associated not only with application of some discrete innovation attributes, such as the logic of conceptual design and experimental validation activities, etc.

In fact, certain difficulties arise due to the specific nature of practical objectives of innovative activities. Firstly, they act as the link between two fundamentally different realities – *the practice of the innovative transformation of the pedagogical system*, in other words, the practice of innovative processes, and *the practice of an innovative activity*. Secondly, they bridge these realities as the *goal* and *means* in a scope of diverse situations. In this connection, let us quote one of the definitions, interpreting an objective as 'the human mind's reflection of the relations between the goals and the specific situation' (Military pedagogy, 2008). Situations reveal various aspects of interaction of a teacher with the pedagogical system subject to modernization; situations help to specify the objectives, terms, and methods of their delivery.

This means that when classifying practical objectives, one needs to take into account not only some individual attributes of an innovative activity, but also the no less significant features of the process of the pedagogical system's innovative transformation.

In other words, classification of practical objectives needs a broader context, which would encounter their relevance to different realities and follow the principle of harmonizing necessity with sufficiency. Besides, it is important not only to suggest the unbiased rationale for classification, but also to link some meaningful attributes of the chosen rationale with the structure and content of the relevant criteria.

Therefore, the challenge of classification of innovation objectives is resolved through methodological substantiation of three quite distinct and yet interrelated procedures:

- identification of the rationale for classification;
- compilation of the classification criteria, taking into account classification of essential attributes of the rationale;
- clustering of the objectives of innovative activities by specific criteria.

Let us consider each procedure individually.

3. Results

The Rationale for Classification of Innovation Objectives.

The rationale for classification of objectives for an innovation activity is performed in the following logic:

(1) identification of the rationale for classification;

(3) ontologization of the rationale for classification.

As mentioned above, it is important to consider ontological aspects of practical objectives when performing classification. The 'hybrid' nature of innovation objectives – pertaining both to

the subject, and the object – makes one study the subject-object relations, when searching for a classification rationale. At present, the self-developing events, including general professional activities and practices, are described following the subject-object model, which allows to simulate the subject-object interaction in various modifications according to the changing needs of one's own self-development.

The subject-object relations (SO-Relations) make it possible to consider innovative activities as a holistic phenomenon, rationally depict the practical orientation and structure of the innovation process, to determine the functional status and roles of the teacher in this process. In our opinion, these very subject-object relations provide the objective rationale for classification of practical innovation objectives and for selection of the necessary criteria.

Ontologization of the classification rationale should start with an outline of the subject domain of innovation. Let us quote the following definition: "The subject domain is a part of the real world, viewed within a given context. Herewith, the context means, for example, an area of research, or an area that is an object of certain activities".

In our present outline, the subject domain is defined by means of description of properties and relationships of its object and subject.

The main object of an innovative pedagogical activity is the innovative pedagogical process. We proceed from the definition, according to which an innovative pedagogical process is a significant social shift in the quality of education through the development of existing innovations, as well as the development of professional competencies of the subjects of an innovative activity.

An innovative teaching process becomes the reference scenario of transformations, as it integrates all the key milestones of the educational system modernization. In relation to innovation, it appears in different plans and dimensions or, in other words, in different modalities. Obviously, the more completely and accurately we determine modalities of the innovation process, the more meaningful is the subject domain of innovations, and the wider is the reference base for classification of practical objectives.

However, it should be noted, that the choice of modalities to describe the subject domain of an innovative activity should not be haphazard. Some incorrect choice of modalities can lead to elimination of the innovative process as an autonomous integrity. The danger arises in case of excessive fragmentation of the innovative process , as well as in the case of its substitution with individual forms, that are hardly interrelated or do not have anything in common.

In this regard, one can legitimately raise the question about which modalities to prefer. Obviously, one should pay special attention to those modalities that, firstly, highlight the qualitative uniqueness of the innovative process in relation to the main vectors of innovative activity, and, secondly, feature continuity connections with other modalities in the general logic of the innovative process. Thirdly, they create the effect of replication, i.e. multiply and repeat the information in the course of transition from one modality to another.

Having said that, an innovative pedagogical process (IPP) should be described by the following mix of modalities:

IPP as a Project Vision. The project vision is the result of interpretation of the concepts and innovative development ideas of the educational system, from the perspective of socio-cultural strategy. In methodological terms, this means that innovation should be focused on predictive description of the innovative process, taking into account the main trends of the interaction of the society and culture, trends in the development of education, and the capacity of a particular educational organization.

IPP as a Project Design. In this case, the process of innovation takes the form of a project assignment to develop the system of project attributes and procedural attributes allowing to master innovation and to develop the pedagogical system on such grounds.

IPP as an Object of Experimental Validation Tests. The innovative process is presented in relation to innovation in the form of a modernized pedagogical system that needs to be validated for efficiency on the basis of tests in specially arranged conditions.

IPP as an Object of Professional Communication. In the context of this modality the innovative process performs the role of the main subject matter of professional communication in the pedagogical environment, including presentation, discussion, negotiation, coordination, peer review, mutual support.

IPP as a Management Object. The innovative pedagogical process is regarded from the standpoint of its planning, organization, coordination, control and regulation.

IPP as a Regulator of the Self-Directed Competence Development. In this case, the innovative process is related to the innovative activity in the reflective-evaluative terms and gains more importance as the catalist of the teacher's aptitude to innovation.

Let us consider another characteristic of the subject domain, i.e. the subject of an innovative activity. Indeed, the subject domain of innovation can be most adequately understood if we consider the very innovative activity as a certain variable, in other words, as a set of emerging forms of subjectivity. Subjectivity is defined as a person's ability to be the agent (subject) of an action, to be independent from other people. Each individual subjectivity is characterized within an innovative activity not only by its functional roles, objectives and modes of action, but also by its specific object. Therefore, when analyzing innovative activities and while defining the subjectivity of a certain type, it is necessary to review the innovative process as an object of a particular modality.

In functional terms, one can specify at least six kinds of subjectivity manifested by a teacher who maintains different types of objectives in the course of an innovative activity: the pre-project subject, the project subject, the experiment subject, the communication subject, the management subject, the subject of self-directed competence development.

The Pre-Project Subject delivers its function in the formation of an innovative pedagogical process in socio-cultural and psycho-pedagogical perspectives as vision of the future. This innovative process is studied from the standpoint of social and cultural features of the reality, the state and social order, trends and resource capacity of the education development.

Functions of *the Project Subject* are set to design the project of an innovative pedagogical process or its integrated model in the landscape of new operating conditions.

The Experiment Subject is directly related to the development of experimental validation tests to assess the efficiency of the project development of the innovation process in the real world of education.

Activities of *the Communication Subject* are aimed at gaining understanding of the concept, objectives and challenges of the innovative process; optimization of conditions and forms of cooperation; generation of a positive and responsible attitude to the process and results of innovation.

The Management Subject realizes its function in handling objectives of organization, retention and development of the innovative process as a holistic phenomenon, according to its designed specifications, under given educational conditions.

The Self-Directed Competence Development Subject delivers the function of self-regulation of one's aptitude to innovations, as soon as it detects barriers to innovative activities that do not surrender to the available experience. Thus barriers become a starting point for reflection and external procedures related to professional self-learning and self-development. The subject's functions in this case are geared to assess one's own aptitude for innovation and foster the experience with new elements, so that in the long run an upgraded level of the aptitude for practical solutions is accomplished.

The classical and modern schools of Philosophy have set forth some principles that reveal the nature of the SO-Relations in cognition: activity of the cognition subject; the proxy links between the subject and the object; the sociocultural heteronomy of knowledge (Philosophy, 2012). These guiding principles deserve attention in research of the SO-Relations in a teacher's innovative activities. The main features of such SO-Relations include, first of all, the following attributes:

- functional integrity
- interrelation of the subject-object relations of different types
- unity and mutual transition of objectal and activity-related structures,
- spatial-temporal localization.

Functional Integrity means that the structural components of the system of SO-Relations are subject to the overall mission of education development involving some pedagogical innovation. This attribute indicates the need to consider SO-Relationship as a unity of three components: the subject of an innovative activity, the object of an innovative activity, and their interaction.

The innovation subject – Is a single teacher or a team of teachers, who deliberately set forth and deliver objectives of planning, organization and practical implementation of some activities designed to modernize the existing educational system. Any innovative activity is a subject-related factor, as it is indicative of the subject's ownership. Therefore, in a given system of relations, the subject (a teacher or a team of teachers) is identified primarily by the target, nature, and content of innovation.

In relation to the subject of an innovative activity, the object appears in the form of a holistic pedagogical innovation process. Hereby we proceed from the possibility and feasibility to present the innovative process as some set of specific modalities, which was shown in the description of the subject domain of a teacher's innovative activity.

Interaction between the object and the innovation subject, in its essence, is a functional relationship with a distinct practical orientation. To differentiate this functionality, it is important to detect some objective relations between the subject and the object within the system of SO-Relations.

Interrelations of Different Types of SO-Relations. An innovative activity is performed within some quite specific environment of SO-Relations that raise and resolve a number of very specific issues. In order to use the SO-Relations as a rationale for classification, they need to be considered as local systems of interconnected relationships of different types within the subject field of innovation.

In this case, the SO-Relations system is treated in a single analytical projection of the 'type of the innovation subjectivity - modality of the innovative process.' This allows to specify the functional features of the innovation subject while maintaining practical objectives of various types; as well as to establish the objectives' relation to an innovative pedagogical process of a particular modality.

Let us explain the above-said by an example. Efficiency of an innovative activity is much dependent on intensity of exchange of ideas, thoughts and experiences associated with the need to resolve some issues of education development. This exchange develops in various forms of discussion about principles, conditions and procedures of acquisition of pedagogical innovation. While organization and development of a directed discourse serve their objectives, the innovative process appears as an object of professional communication, i.e. with its particular structure and some meaningful content; in other words, in a specific modality. In this context, in our opinion, Innovative Management deserves special attention as an emerging independent discipline in science and education (Zhdankin, 2017). As you can see, this activity has its own subjectivity and its object for targeted actions.

Let us offer a brief outline of those activities that are integrated into the overall framework of innovation. Even at a glance one can register different impacts of different activities on the innovative transformation of educational practice. Such activities as the pre-project, project, experimental and management activities are of primary importance, as they directly influence the innovative reforms and their outcomes. In this sense, such activities as communication and self-development are merely indirect agents of transformation and can be qualified as secondary. However, secondary activities are interlinked with the primary basic ones. Thus, communication is developing amid some issues that arise and are discussed in the course of search for pedagogical innovations, development of innovative projects, organization and management of innovation, etc.

Unity and Mutual Transition of Object Structures and Activity Structures. The unity and mutual transition of object and activity structures within the SO-Relationship system means the actual opposition and interdependence of innovation and innovative pedagogical process as the product of this activity. To convert a pedagogical system, produce an innovative impact, generate and implement regulators and controls for their own innovations and aptitude to innovations, there should be not only the direct and inverse link between the subject and the object, but also the direct and inverse bond of the object with the subject. This gives rise to a situation where the teacher interacts not only with an educational innovation, but also with other elements of the innovative process, including that very innovation which is being designed, monitored and developed by the teacher. This opposition and interdependence is a condition for promotion of self-development of innovative educational practices and of self-development of its subjects.

Spatial-Temporal Localization. SO-Relationship - is a system of relations that create an inner framework of innovation, in which the subject and the object are with different degrees of detail localized 'on the site and at the time of activity'. The specifics of spatial-temporal localization of SO-Relations are mainly determined by the logic of innovation and the associated challenging aspects of the innovative pedagogical process. To address these very issues within the logic of innovation, the practical objectives are set, functions get updated and roles of teachers as agents of innovation are recognized.

These properties of SO-Relations indirectly yet mutually complement each other. Obviously, they should all be considered as basic requirements in detection and selection of Classification attributes, relevant to a particular criteria.

Classification Criteria for Innovation Objectives

The procedure for designing criteria follows a particular logic:

(1) definition of requirements needed for the selection of criteria for classification of innovation objectives;

(2) establishment of a framework for classification criteria.

The content of the criteria is determined by classification attributes of innovation objectives. It is clear that the classification criteria should somehow relate to the essential features of the SO-Relations. This can be achieved by translation of the essential features of the SO-Relations into the requirements to the selection of classification attributes of practical objectives (see Table 1).

Table 1. Harmonization of the Essential Attributes of the SO-Relations with the Requirements to the Selection of Practical Objectives' Classification Attributes

Essential attributes of the SO-Relations in innovations	Requirements to the selection of classification attributes
Functional integrity	Relevance of the classification attributes' interrelations
Interrelations of different types of SO-Relations	Congruence of classification attributes to the type of functional structures
Unity and mutual transition of object structures and activity structures	Compliance of classification attributes with practical situations
Spatial-temporal localization	Level-aligned classification attributes

The requirement of *Relevance of the Classification Attributes' Interrelations* means that their link to each criterion should be established on the basis of research of the three main categories: 'the subject of innovative activity' (innovation subject), 'the object of innovative activity' (innovation object), 'interaction between the subject and the object of the innovative activity' (interaction between innovation subject and object). With consideration of these categories, the overall structure of the classification criterion for innovation objectives looks as follows:

Cc = S(CA1):O(CA2):I(CA3).

The Classification Criterion (*Cc*), regardless of the level of classification, includes three structural components of SO-Relations: S – a teacher or a team of teachers as a innovation Subject; *O* – an innovative pedagogical process as an innovation Object; *I* – Interaction between the subject and the object of the innovative activity. Each structural component of the criterion is represented at a given level of the classification by a certain Classification Attribute (*CA*). For element '*S*' it is *CA1*, for component 'O' – *CA2*, to component '*I*' – *CA3*.

The requirement of *Congruence of Classification Attributes to the Type of Functional Structures* means that the selected attributes, by their range and content, should reflect the relationship between different kinds of subjectivity of innovation and their most typical modalities of the innovative process.

The requirement of *Compliance of Classification Attributes with Practical Situations* indicates the need to align the situation of the innovative process development with its analysis as an object of innovative activity.

Within the methodological framework of the subject-object approach, the classification can be made following the 'Type-Kind' principle, by two conjugated criteria: the criterion of Type-Value classification, and the criterion of the Kind-Value classification. Consequently, the first level classification attributes of innovation objectives shall prompt the standard Type-Value objectives, and the second level attributes prompt the Kind-Value objectives.

Let us outline the classification procedure.

Clustering of Innovation Objectives According to the Given Criteria

This procedure means:

(1) formation of a set of classification attributes of objectives within each criterion by defining attributes of SO-Relations;

(2) specification of the content of the classification attributes of objectives by labeling the structural components of SO-Relations.

(3) identification of homogeneous clusters by classification attributes within the specified criteria;

The first level classification, i.e. typology, of the innovation objectives is conducted by the Type-Value classification criterion. Classification attributes for this criterion are set within three structural components of SO-Relations as specified by the requirements (see Table 1).

In order to come up with the suitable classification attributes for such typology, one must conduct an inventory of level-specific values for practical objectives, i.e. determine what objectives may or may not fit into the Type category. For this very level of classification it is important to add weight to the attributes of structural components of the SO-Relations, so that they could approach certain upper limit values. When data is packed in such an intensive way, the peak value of such structural component as the 'innovation subject' corresponds to the classification attribute of the 'kinds of innovation subjectivity'; the maximum value of such structural component as the 'innovation object' corresponds to the classification attribute of the 'modality of innovative pedagogical process'; the maximum value of such structural component as the 'interaction of the subject and innovation object' refers to the classification attribute of the 'dominant function of innovation'.

Thus, the Type-Value classification of objectives is defined by the classification triad of 'the IA subjectivity type – IPP modality – the IA dominant function'. The labels applied to this triad allow to identify the following types of relationships:

<the Pre-Project subject – IPP as the project vision – the search function of IA>

<The project subject – IPP as the project development – the transforming function of IA>

<The experiment subject – IPP as the experimental validation object – the testing function of IA>

<The communication subject – IPP as the subject of professional communication – the conventional function of IA>

<The management subject – IPP as the Management Object – the organizational function of IA>

<The subject of self-development competences – IPP as a regulator of the self-development competences – the regulatory function of IA>.

As we can see, the standard SO-Relations, besides the project and experimental validation activities, feature other specific activities, as well as specific modalities of innovative pedagogical process and dominant functions.

* IPP – innovative pedagogical process, IA – innovative activity.

Given below is the list of types of innovation-related practical objectives related to the specified classification attributes (see Table 2).

The second level of the innovation objectives classification is relevant to the criterion of Type-Value classification that involves division of the previously identified types of objectives into smaller ones. Just like in the objectives typology, classification attributes within this criterion are chosen with respect to the structural components of the SO-Relations, according to the previously formulated requirements (see Table 1).

The level-aligned classification for each individual type of objectives is achieved, on the one hand, through identification of classification attributes that allow to benchmark the value of objectives of a certain type, and on the other hand, due to the meaningful description of

classification attributes by labeling the structural components of the SO-Relations in a given area of innovation.

Table 2. Classification of Practical Objectives of Innovative Activities by the Type-Value Classification Criterion

Classification attributes of practical objectives of innovations			**Types of practical objectives of innovations**
Type of subjectivity of innovation	**Modality of innovative pedagogical process**	**Dominant features of innovative activities**	
The pre-project subject	Innovative process as a project vision	Search function	Pre-project search objectives of IA
The project subject	Innovative process as a project	Transforming function	Project-transformational objectives of IA
The experiment subject	Innovative process as an experimental validation object	Testing function	Experimental validation objectives of IA
The communication subject	Innovative process as a subject of professional communication	Conventional function	Conventional communication objectives of IA
The management subject	Innovative Process as a management object	Organizational function	Managerial objectives of IA
The subject of self-directed competence development	Innovative Process as a regulator of competence development	Regulatory function	Competence-building and regulatory objectives of IA

As mentioned above, the objectives' values are defined within the upper and lower limit values of the SO-Relationship attributes. As the objectives' values are specified within limits set for each particular type, the values need to be enlarged by clustering an extended range of attributes of structural components of the SO-Relationship, that are subject to more detailed analysis within the classification of kinds. Concurrently the attributes need to gain the status of classification criteria allowing to register objectives with reference to the value of their final results, functional autonomy and operational perfection.

The transition of classification from the level of types to the level of kinds requires to specify the structural components of SO-Relations in more detail by adding some extra attributes:

attribute 'The Kind of Subjectivity of Innovation' is reduced to an attribute '*The Functional Role of the Innovation Subject*';

attribute 'Modality of Innovative Pedagogical Process' is reduced to an attribute '*Features of an Innovative Pedagogical Process*";

attribute 'Dominant Function of Innovation' is reduced to an attribute '*Practical Situation of an Innovative Activity*".

Thus, we arrive at the triad of classification parameters, including 'Functional Role of the IA Subject –IPP Attribute – Practical Situation of IA' that define the type and value of innovation objectives.

Clustering of practical objectives within each type is carried out by labeling the SO-Relationships according to a predetermined triad of classification attributes. One should start with practical situations as they reveal the nature and content of the interaction between the subject and the object, and their composition and sequence correspond to the logic of the main activity stages (pre-project, project, experimental, and others.). With consideration of the content of practical situations, it is possible to identify the main functional roles of the teacher, and to determine the

most important characteristics of the innovative process. We will demonstrate how this is done with reference to each type of innovative objectives.

Pre-Project and Search Objectives of Innovative Activities. Differentiation of this type of objectives by their kinds begins with the layout of the structural component < Interaction between the Innovation Subject and the Innovation Object>. Labeling is performed on the basis of classification 'Practical Situation of an Innovative Activity' with regard to the main stages of the pre-project activity that allows one to select:

- the situation of Problems Detection in the Development of the Pedagogical System;
- the situation of Identification of Innovative Strategies;
- the situation of Expert Screening of Pedagogical Innovations;
- the situation of Forecasting the Development of the Pedagogical System.

Since each practical situation includes subjective and objective aspects, it becomes possible to perform a consistent labeling of the other two structural components of SO-Relations.

The label <Innovation Subject> is performed on the basis of the classification attribute 'Functional Role of the Innovation Subject' and is associated with manifestation of teachers' functional roles that are typical for situations of pre-project activities:

- Analyst;
- Problem Detector;
- Strategy Setter;
- Expert;
- Forecaster.

The label <Innovation Object> on the basis of the classification attribute 'Features of Innovative Pedagogical Process' allows to register the attributes of the innovative process , which a teacher needs to apply when performing a pre-project activity to resolve some challenging situation. These important attributes of the innovation process include:

- Relation to IPP;
- Institutional IPP;
- Socio-Cultural Dynamics of the IPP;
- Eventfulness of the IPP;
- Factorial Determinism of the IPP.

Project Reform Objectives of Innovative Activities. Labeling of structural components of SO-Relationship is performed in a similar way. The label of structural component <Interaction between the Innovation Subject and the Innovation Object> is awarded on the basis of the classification attribute 'Practical Situation of an Innovative Activity' with regard to the main stages of the project activity that allows us to distinguish:

- situation of Problem Detection for the IPP;
- situation of Conceptualization for the IPP;
- situation of Modeling for the IPP;
- situation of Methodical Support for IPP.

The label of the structural component <Innovation Subject> is awarded on the basis of the classification attribute 'Functional Role of the Innovation Subject' and allows to differentiate functional roles of the teacher, which are common for a project activity:

- Problem Identifier;
- Concept Developer;
- Methodologist;
- Designer;
- Methodist (curriculum developer).

The label of the structural component <Innovation Object> is awarded on the basis of the classification attribute 'Features of an Innovative Pedagogical Process' and allows to establish a set of key characteristics of the innovative process, with which the teacher has to deal in different situations of the project:

- the System Integrity of the IPP;
- the Spatial-Temporal Development of the IPP;
- Integration of the IPP;
- Resource Capacity of the IPP;
- Operational Capacity IPP.

Experimental Validation Objectives of Innovation. The label of the structural component <Interaction between the Innovation Subject and the Innovation Object> in the framework of this type of practical objectives is awarded on the basis of the classification attribute 'Practical Situation of an Innovative Activity' with regard to the logic of the experimental stages of the activity. The results of this labeling are:

- The situation of Planning the Research And Experimental Validation of the IPP;
- The situation of Empirical-Experimental Validation of IPP;
- The situation of Processing of the Results.

The label of the structural component <Subject Innovation> is awarded on the basis of the classification attribute 'Functional Role of the Innovation Subject' which allows the teacher to identify the functional roles performed in experimental situations. Among the typical roles of the teacher are:

- Experiment Conductor;
- Diagnostician;
- Evidence Data Interpreter.

The label of the structural component <Innovation Object> is awarded on the basis of the classification attribute 'Features of an Innovative Pedagogical Process' and allows to highlight the key features of the innovative process , with which a teacher operates in the experimental activity:

- Changeability of Variables of the IPP;
- Specific Nature of Experimental Conditions;
- Validity of the Diagnostic Tools of the IPP Efficiency;
- Accuracy of the Experimental Validation Results.

Conventional Communication Objectives of Innovation. The label of the structural component <Interaction between the Innovation Subject and the Innovation Object> is awarded on the basis of the classification attribute 'Practical Situation of an Innovative Activity' and allows to specify, with regard to the logic of the communicative activity, the following situations:

- Situation of Business Communication;
- Situation of the Presentation of Pedagogical Innovations;
- Situation of Reasoning in Support of Some Innovative Opinion.

The label of the structural component <Innovation Subject> is awarded on the basis of the classification attribute 'Functional Role of the Innovation Subject", allowing to identify the most typical role of a teacher performed in communication situations:

- Presenter;
- Moderator;
- Sense-Maker;
- Critic;
- Expert;
- Consultant.

The label of the structural component <Innovation Object> is awarded on the basis of the classification attribute 'Features of an Innovative Pedagogical Process' allowing to highlight the characteristics of the innovative process , along with the most important ones in business communication situations related to efforts to resolve certain problems:

- Functions-And-Role-Specific Content of the IPP;
- Dispositional Discourse of the IPP;
- Conventionality of the IPP.

Managerial and Organizational Objectives of Innovation. The label of the structural component 'Interaction of the subject and the object of an innovative activity' is awarded on the basis of the classification attribute <Practical Situation of an Innovative Activity> and is based on the logic of management, allowing one to specify the following typical situations:

- the situation of Starting an Innovative Team;
- the situation of Organization of the Innovative Activity;
- the situation of Management of the Innovative Process .

The label of the structural component <Innovation Subject> is performed on the basis of the classification attribute 'Functional Role of the Innovation Subject' allowing one to identify the most typical role of a teacher performed in communication situations:

- Leader;

• Planner;
• Organizer;
• Coordinator;
• Controller;
• Motivator.

The label of the structural component <Innovation Object> is awarded on the basis of the Classification attributes 'Features of an Innovative Pedagogical Process' allowing to highlight the characteristics of the innovative process that are most important for management of different innovative situations involving efforts to resolve certain problems:

• Controllability of the IPP;
• Organization Structuring of IPP;
• Regulations for IPP;
• Functions-And-Role-Specific Coordination of the IPP;
• Functions-And-Role-Specific Motivation of the IPP.

Competence-Regulatory Objectives of Innovation. The label of the structural component < Interaction between the Innovation Subject and the Innovation Object> is awarded in the framework of this type of practical objectives on the basis of the classification attribute 'Practical Situation of Innovative Activity' with regard to the logic of competence-based self-regulation of aptitude for innovation. Such labeling allows differentiation of the following typical situations:

• situation of Self-Diagnosis of Aptitude to Innovations;
• situation of Self-Design of the Aptitude To Innovations;
• situation of the Professional Self-Directed Learning.

The label of the structural component 'Innovation Subject' is awarded on the basis of classification attribute "Functional Role of the Innovation Subject" and allows to identify specific functional roles that the teacher performs in situations of competence-based self-regulation of innovative activities:

• Self-Controller;
• Self-Designer;
• Self-Organizer;
• Autodidact.

The label of the structural component <Innovation Object> is awarded on the basis of the classification attribute 'Features of an Innovative Pedagogical Process' allows to identify the specific features of the innovative process that are the most important for competence self-regulation in innovative situations:

• Reflective Descriptiveness of the IPP;
• Professional and Personal Conditioning of the IPP.

Therefore, we arrive at a triad of classification attributes that are at the core of classification of Kinds of practical objectives of innovative activities. Herewith, it is important to observe the following requirements: clustering of objectives is possible only in case they are properly connected to each other and refer to a sequence of activities of a certain kind (pre-project, project, experimental, communicative, etc.).

Let us summarize the overall classification scheme for objectives pertaining to a teacher's innovative activities.

Pre-Project Objectives of an Innovative Activity

• to identify the state order for education development;
• to define students' educational needs;
• to analyze parents' expectations for their kids' education;
• to analyze development trends in a given field of education;
• to prioritize the innovative transformation of an educational organization;
• to analyze the socio-cultural situation from the standpoint of objectives of an educational organization's innovative transformation;
• to select innovations in a given field of education;
• to assess opportunities for resourcing an educational organization's innovative development;
• to forecast innovative development of an educational organization.

Transforming Project Objectives of an Innovative Activity

• to develop the conceptual design of the innovation process;
• to set goals of the innovation process;
• to design the content of the innovative process;
• to identify the logical and semantic structure of the process;
• to establish the relationship of the innovative process with other educational processes;
• to secure technological support to the innovative process;
• to develop tools to assess the innovative process efficiency.

Experimental Objectives of an Innovative Activity

• to develop a concept of empiric experimental validation of efficiency of the innovative process;
• to plan empiric experimental validation of the innovation process;
• to develop criteria and indicators of the efficiency of the innovative process;
• to develop diagnostic tools to assess the efficiency of the innovative process;
• to conduct the empiric experimental validation tests of the innovative process;
• to process the experimental data.

Conventional Communication Objectives of an Innovative Activity

• to identify the functions-and-role-specific profile of innovation;
• to conduct the joint assessment of the innovative project;
• to make a presentation of the innovation process;
• to conduct a joint discussion of challenges of the innovative process;
• to adopt collective decisions;
• to harmonize and coordinate innovative activities;
• to exchange experience of innovative activities;
• to mutually consult and interact in the process of innovation;
• to discuss the results of the innovative process;
• to virtualize interaction in the dynamics of the innovative process.

Managerial and Organizational Objectives of an Innovative Activity

• to plan the innovative process;
• to develop a management system for the innovative process;
• to organize the discussion of the innovative process;
• to allocate and distribute resources to innovation process;
• to organize collective innovative activities;
• to coordinate of innovation;
• to organize monitoring of the innovative process;
• to organize counseling in support of innovative activities;
• to assess results of the innovative process;
• to organize the discussion of the progress and results of IPP;
• to provide incentives and motivational support to innovations;
• to organize training of teachers to prepare them for innovative activities.

Competence-Related Regulatory Objectives of an Innovative Activity

• to identify one's own functions in the innovative development of an educational organization;
• to self-assess one's aptitude to innovations;
• to set goals of self-development of one's aptitude to innovations;
• to define the content of self-development of one's aptitude to innovations;
• to select methods of self-development of one's aptitude to innovations;
• to identify means of self-development of one's aptitude to innovations;
• to organize the process of self-development of one's aptitude to innovations;
• to self-monitor one's aptitude to innovations.

5. Conclusion

To sum up the mentioned above points, let us share our opinion of the proposed approach. In our view, implementation of the methodology of the subject-object approach to classification of the innovation-related practical objectives allows us to draw a distinction between different objectives, and to identify their clusters' specific attributes. In the meantime, the prospects of

creating a system of training teachers for innovative activities are gaining necessary prerequisites, including the updated educational objectives, educational content and didactic tools being adjusted to different stages of training and development. It is also important, that this approach does not mean to reject in any way other systems designs and other lists of innovation objectives, which have been proposed by other researchers. On the contrary, it is intended to complement them as an essential addition, provided that the classification rationale is well understood as the innovative activities' framework of subject-object relations meeting the requirements of integrity and completeness.

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New Approaches and Emerging Trends in Educational Technology for Learning and Teaching in Academia and Industry: A Special Issue

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Dear Colleagues,

It is well known that the definition of educational technology and instructional technology can be used interchangeably. The field of educational technology consists of both theory and ethical practice in the educational process across different sectors. In this process, instructional design strategies provide contributions to global emerging technologies for learning and teaching in the educational technology and learning environments. Considering the importance of the above statements in contemporary education, as the guest editors of the special issue of the **European Journal of Contemporary Education** (ISSN 2304-9650, E-ISSN 2305-6746, website: http://ejournal1.com/en/index.html), we invite you to submit your manuscripts to the special issue entitled **"New Approaches and Emerging Trends in Educational Technology for Learning and Teaching in Academia and Industry"**. The special issue will cover the topics related to instructional design, educational technology, instructional technology, pedagogy, industrial education, measurement and assessment, new information technologies, multimedia learning and other topics such as learning environments and digital designs, gamification, applications of virtual reality, cloud-applications, integrated e-learning, mobile learning design, interface design, visual designs, multimedia learning methods and the use of instructional design models and networks in education for the future of learning.

Author(s) who are interested in the mentioned topics are requested to consider the following important notes:

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- Author full name[s]/affiliation[s] and a short bio of each author (up to 100 words).
- Author(s) should propose at least two peer reviewers and their names, affiliations and contacts.
- The manuscript should be carefully copy-edited by a native speaker who are professionals in the field of education. The proof or the copy-editing certificate should be submitted at the last stage after necessary revisions.
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- deadline for receiving full-length manuscripts is **April 15, 2017**. Please use both ismailipek34@gmail.com and ziatdinov@kmu.ac.kr for manuscript submission.
- deadline for sending papers to peer-reviewers or rejecting a manuscript is **May 1, 2017**.
- deadline for receiving reviewers comments is **June 1, 2017.**
- Guest Editors' decisions will be sent to the authors before **June 20, 2017.**
- deadline for receiving revised versions is **August 20, 2017**.

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The Guest Editors maintain the right to refer any single paper to alternative or additional peer assessment, and to refuse any papers that are not recommended for publication by alternate reviewer(s).

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Short bio of the guest editors

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