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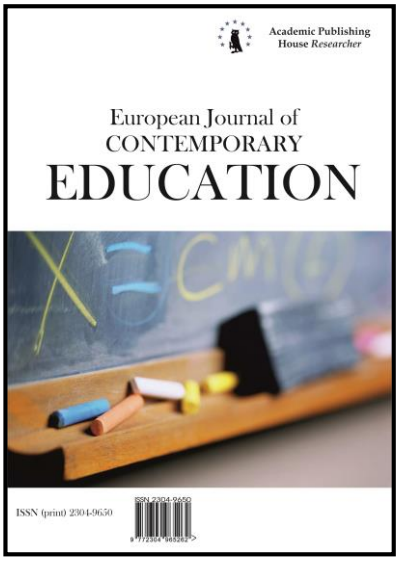

The Next Step to the Bright Future: Editors' Note

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We are happy to announce that our journal was recently accepted for indexing in both Web of Science (ESCI) and Scopus databases. It means that all the manuscripts from forthcoming issues will get a better online visibility. We also believe that it will help the popularization of the Russian educational system among the foreign scientists and researchers, and we hope to establish a fruitful collaboration with the international academic organizations.

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Our journal aims to facilitate shaping a novel, broader view of issues in present-day education, enhancing the caliber of Humanities research through active use of best domestic and foreign practices, and integrating the achievements of various sciences and knowledge areas with unconventional approaches. It seeks to familiarize specialists and all interested readers with the latest achievements of scholars from various knowledge areas in resolving issues in present-day education, facilitate the development of interinstitutional and international scholarly partnership in the frame of relevant scholarly issues, and boost the scholarly ethics and publication activity of young researchers.

The journal publishes scholarly articles that introduce innovative approaches to resolving issues in present-day education from the perspective of various sciences, scholarly paradigms and methodological approaches, as well as peer reviews of scholarly and research-and-methodology

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publications and surveys of scholarly activities on these issues in the English language. Among the qualities that set our journal apart is its consistent ability to present the reader with a variety of theoretical and empirical data and feature the latest methodological approaches to resolving current issues in education, as well as its continued focus on the diversity of opinions, researcher stances, worldview concepts, and interdisciplinary approaches to resolving issues in education.

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* Can be translated from Russian language as "The Journal of the Ministry of Education".

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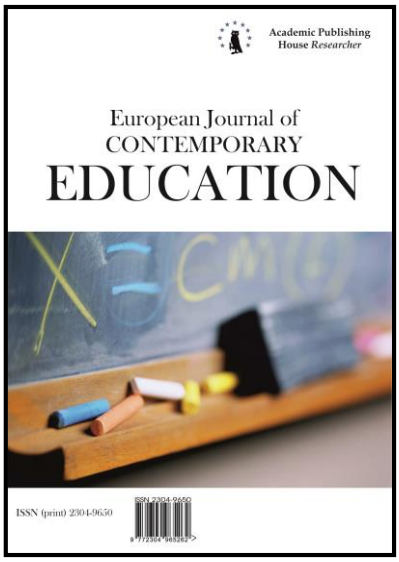

"If I Should Stop Teaching Now, Where Will I Go?" Turnover Intentions among High School Teachers in Ghana

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Abstract

Teachers form one of the essential professional groups in the development domain of every country. Although most senior high school teachers in Ghana complains about poor conditions of service, a lot of them are still at post. The key research goal was to explore the retaining factors of senior high school teachers, within their existing demotivating Ghanaian socioeconomic context. Eighteen individual interviews were conducted among senior high school teachers in the Eastern Region using an interview guide. By means of an Inductive Content Analysis, three major themes emerged; (a) teachers' retention factors, (b) teachers' motivation factors and (c) Helping factors. It is remarkable that, motivation to these participants did not necessarily mean job satisfaction and job retention. Intrinsic motivation was rather perceived as influencing job performance while extrinsic motivations were needed to retain them. In general, the absence of these extrinsic motives were replaced with other retention factors like less tress at work, increasing liberty at work, and absence of alternative employment opportunities.

Keywords: Senior High School Teacher; Job Retention; Job Motivation; Turnover Intention; Eastern Region; Ghana.

1. Introduction

Teachers in Ghana have a long history as one of the most essential occupations in the drive for national development. As far back as the post-colonial era, Ghana's first president, Dr Kwame

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Nkrumah placed their training and welfare as essential. To his government, teachers ought *"to give service that is second to none"* (McWilliam, & Kwamena-Poh, 1975: 97). In this regard, teachers in Ghana's first Republic, enjoyed one of the best wages and conditions of service as compared to all professions with analogous qualifications (McWilliam, & Kwamena-Poh, 1975). After the coup d'état of the Nkrumah government, several governments had tried in their best capacities to improve Ghana's educational system with varying outcomes on teachers' training and employment conditions (Sarfo, & Adusei, 2015).

Though Ghana's educational system has been experiencing an undulating effect, the dark period of the nation's economy between the 1970s and the early 1980s was its worst era. Due to poor remuneration and conditions of service, several professional teachers migrated from Ghana to many countries, with Nigeria being the topmost. This made the percentage of basic school teachers, for example, to drop from 67.95% [1978] to 59.49% [1984] (Pecku, 1998). As a result, this crisis left a demand gap for teachers in the country to fill across the different cycles.

The issue about the demand for secondary or high school teachers surpasses the supply in most African countries including Ghana. Mulkeen, Chapman, DeJaeghere, and Leu (2007) attributed this to *"factors such as secondary teacher attrition, bottlenecks in the teacher preparation system, and perceived unattractive conditions of service"* [p. v]. In addition, being a teacher can be generally stressful in most settings (Kottler, & Zehn, 2000). When job stress becomes chronic, burnout is often a negative response that often wears teachers down (Maslach, Schaufeli, & Leiter, 2009). Taking it from the classroom environment; high level of boredom, high job stress, poor job motivation and poor job satisfaction were associated with high turnover by several studies within Ghana and beyond (Jiang, & Klein, 2000; Jiang, Klein & Balloun, 2001; Nyarko, Twumwaa, & Adentwi, 2014; Sarfo, & Adusei, 2015).

Teachers in Ghana have intrinsic and extrinsic motivations that are very vital to their career goals and output (Nyarko, Wiafe, & Abdul-Nasiru, 2013). In addition, satisfaction with salary is significantly associated with the intention of public school teachers to quit post (Cobbold, 2015). On the contrary, little have been done to bring to light the puzzling nature of teachers' poor motivation and what is retaining them at post in Ghana. This debate in Ghana has been battled for a while in the quantitative domain with varying findings. In a recent study among Junior High School teachers in the Accra metropolis, Nyarko et al. (2014) showed a positive relationship between teachers' motivation and their job satisfaction. However, they were silent on whether motivation and their job satisfaction necessarily will cause teachers in Ghana to be retained in their jobs.

Nonetheless, Hedges (2002) indicated that teachers in Ghana experiences hardship due to late payment of salaries. In a more critical sense, some teachers in Ghana chose the profession because of some potential benefits like job security and remuneration, rather than the love for the profession. In some instances, teaching as a profession seem to be the only haven for the less qualified candidates as approximately 69% and 40% of trainee teachers had the lowest possible passes in English and mathematics respectively (Akyeampong, & Stephens, 2002).

This qualitative study is vital as recent quantitative studies in Ghana (Aglomasa, & Avoke, 2013; Nyarko et al., 2014) were quiet on suggesting the possible experiences that may be leading to this paradoxical situation. Interestingly, a recent qualitative study by Sarfo and Adusei (2015) paints the picture that teachers' job dissatisfaction within Ghana's Primary School system usually affects pupils' overall satisfaction and future achievements. The purpose of this study is to provide answers to the question: what is retaining teachers in the senior high school within the existing demotivating Ghanaian socioeconomic context?

2. Method

Participants

Using purposeful and snowball sampling methods, interviews were conducted among teachers in senior high schools in the Eastern Region. The Eastern Region of Ghana was selected because of the agitation record of the Eastern Regional Branch of National Association of Graduate Teachers (NAGRAT) in the country. These NAGRAT members a decade ago stood vehemently to go on an indefinite strike against the government in request for better conditions of service (Ghana News Agency, 2006). With an inclusion criteria of graduate teachers who have taught for more than five (5) years in public senior high schools in the Eastern Region, eighteen (18) participants

were interviewed till theoretical saturation. Table 1 gives a summary of participants' demographic characteristics.

Measures

A semi-structured interview guide was developed from previous studies in Ghana (Nyarko et al., 2014; Mulkeen et al., 2007). The guide was used to elicit responses between 30 to 60 minutes per session. The questions asked included:

1. What is your perception about leaving your job as a teacher?
2. What is your view on satisfaction as a graduate teacher in the senior high school?
3. Can you explain why you are still keeping your job as a teacher?
4. What do you want to be improved by your employers?
5. What will be an acceptable net pay for a graduate teacher based on your entry grade in the current economic situation?

Asking these questions allowed the teachers the freedom to tell their story without any restriction. We asked prompt questions like: "can you highlight that…?"; "did you say that…?" etc. to assist clarification rather than serving as leading questions (van Manen, 2000). At the close of the interview, a leading question: "is there something you feel it is important that you want to add?" was asked. This was supposed to bring out any new information that was left out.

Table 1. Summary of Participants' Demographic Characteristics

Gender	
Male	**Female**
TRm1, 34 years old, PS, 11 years in the service	TRf1, 52 years old, DD I, 32 years in the service
TRm2, 39 years old, PS, 10 years in the service	TRf2, 37 years old, PS, 14 years in the service
TRm3, 40 years old, PS, 16 years in the service	TRf3, 32 years old, PS, 10 years in the service
TRm4, 40 years old, PS, 13 years in the service	TRf4, 35 years old, PS, 15 years in the service
TRm5, 33 years old, PS, 9 years in the service	TRf5, 40 years old, PS, 15 years in the service
TRm6, 48 years old, DD II, 23 years in the service	TRf6, 34 years old, PS, 6 years in the service
TRm7, 35 years old, PS, 10 years in the service	
TRm8, 34 years old, PS, 10 years in the service	
TRm9, 36 years old, PS, 9 years in the service	
TRm10, 39 years old, PS, 13 years in the service	
TRm11, 40 years old, PS, 14 years in the service	
TRm12, 32 years old, PS, 8 years in the service	

Notes: Teacher Respondent, Male = TRm; Teacher Respondent, Female = TRf; PS = Principal Superintendent; DD = Deputy Director.

Procedures

Ethical authorisation to carry out the study was sought from the Institutional Review Board of the International Network Center for Fundamental and Applied Research. Teachers from senior high schools in the Eastern Region were then contacted through their colleagues and heads after

our intentions were made clear through introductory letters from the authors. We used purposeful sampling technique to get to the primary informants. Using the snowball sampling technique, some of the colleagues of the primary informants who were always sharing thoughts of leaving their present teaching jobs were directed and contacted.

After piloting the guide with a graduate teacher who was teaching in a primary school, we made various changes to enhance the validity and reliability of guide. Ensuring all other ethical issues, and reliability and validity in qualitative research; we undertook individual interview sessions in person or on mobile phone [if the person was far due to distance]. After the interview data collection, all participants were thanked for their cooperation.

Data Analysis

We employed the Inductive Content Analysis to allow themes to emerge out of the data. The authors audio-recorded all interviews and manually transcribed them. Since interviews were concurrently collected, transcribed and analysed manually until reaching theoretical saturation, we were much familiar with data before the end of the data collection. Nonetheless, two (2) weeks were used to compare one transcript's themes with the other till we finally completed our analysis. During the analysis, we anonymised names using pseudonyms and codes to guarantee confidentiality. The aim of the induction process was to enable us to systematise emerging themes to bring to light answers from respondents themselves while bracketing our experiences and feelings as teachers (Marshall, & Rossman, 1999; Morse, 2007).

3. Results

At theoretical saturation, 3 main themes emerged during our Inductive Content Analysis. These were; (a) teachers' retention factors, (b) teachers' motivation factors and (c) Helping factors. Table 2 shows a summary of themes and their respective sub-themes.

Table 2. Thematic Output of the Summarised Data

Themes	Sub-themes [N = 18]
1. Teachers' retention factors	i.Stress at work [n = 18] ii.Liberty at work [n = 11] iii.Alternative employment [n = 10]
2. Teachers' motivation factors	i.Love for students [n = 14] ii.Love for the teaching profession [n = 12]
3. Helping factors [conditions of service]	i.Remuneration [n = 18] ii.Accommodation and transportation [n = 10] iii.Promotion system [n = 8]

Notes: N = total sample; n = number of sample for a particular sub-theme

Theme 1: Teachers' retention factors

Teachers in the senior high school, notwithstanding their turnover intentions were still keeping their jobs for some reasons. It became evident that although these extrinsic factors were not essentially motivating their work output as graduate teachers, it was only serving a purpose of keeping them in the classroom. During the inductive process, three (3) subthemes emerged.

The first sub-theme was the perception that teaching at the senior high school was less stressful, as compared to other jobs. From their expressions, these graduate teachers appraised stress at job as one of the strongest points to leave or stay in a particular job.

Quote from TRf6:
"The workload is somehow manageable; we do not teach the whole day. Sometimes, you may have 2 periods in a day while in some cases, there is no period at all in the day. I'm still teaching because it's a less stressful job".

The second sub-theme under the retention factors was the perceived liberty at work. This theme had both primary and secondary effects. In the primary sense, some of this graduate teachers felt at home within the serene and friendly school work-environment.

Quote from TRf2:
"Are you coming to fight with me because of the chalk or what? We all sit under these trees when we are all free."

On the other hand, a secondary effect of the perceived liberty at work can be seen when teachers base on this perceived freedom to engage in other forms of businesses. Although this may seem quite supportive in the economic sense, such acts during classes' hours may be detrimental.

Quote from TRm3:
"Even as you're interviewing me now, I am from one business. I sell spare-parts and also work as a Taxi driver."

The absence of alternative employment, which is the third sub-theme was very vital. It is worth mentioning that once there are other available options, most of these graduate teachers will vacate their posts.

Quote from TRm1:
"If I should stop teaching now, where will I go? Even those who have recently finished universities in this country are even not getting jobs to do."

Theme 2: Teachers' motivation factors

The sense of motivation among these teachers were expressed more as an intrinsic drive to perform. Although this second major theme can surely lead to some level of retention, it was more recognised within the scope of job satisfaction and the energy to increase productivity. Under this theme, two sub-themes emerged; the love for students and the love for the teaching profession.

With respect to the first sub-theme, respondents placed so much emphasis on their relations with students. It was as if, some form of affection, bonding and responsibility strings were built in the process of teaching and learning.

Quote from TRm4:
"Whenever I see these students, I am very happy. I feel so responsible for their future when I am with these children."

In addition, the achievements of students whether in school or after school, had a lasting drive to make graduate teachers impart knowledge the more. This increased their desire to work more each time. These teachers placed a more priceless value on students' performance as their *"finished products"*.

Quote from TRf4:
"Once we impart knowledge to these students and see them pass their exams, we are pushed to do better."

Finally, the second sub-theme that emerged in the analysis is the love some of these teachers have for their profession. Such a sense of affection for their job brought in a concept of loyalty. It became obvious that these respondents saw their lives to revolve around their profession as more of 'an *innate call*' than an *'employment'*.

Quote from TRf3:
"…as for me, I see myself as a person born for the job and I take delight in teaching."

Theme 3: Helping factors

The third major theme that emerged in our analysis is what we termed as 'helping factor'. They were helping in the sense that these graduate teachers noted them as missing motivating and retention factors that cannot be fully recovered. In a sense, they expressed them as factors that can only improve their conditions of service but not as current motivating and retention factors. These helping factors were in as expressed as 'dreams' or 'wishes' that is being sought rather than 'realities' that is going to be achieved soon.

Under this theme, 3 sub-themes emerged; remuneration, accommodation and transportation, and promotion system.

Remuneration as the first sub-theme was expressed as a necessity that is missing in their lives. Looking at their graduate /post-graduate qualifications, all the respondents felt that they were being paid below their qualification qualifications.

Quote from TRm1:

"You just look at me; a degree holder who has taught for ten years now and taking a net of 1300 Ghana Cedis a month. I have two children and a wife. Looking at the value of our Cedi, salary range between 2000 to 2500 Ghana Cedis will be adequate."

At a point, salary was equated with prestige.

Quote from TRm1:

"There is no prestige attached to our job as teachers when you look at our salaries. It is time the government show us some respect as compared with other professions like medical doctors and nurses."

The state whereby graduate teachers will be accommodated and offered a means of transportation to work was seen as the second sub-theme under the helping factors. Respondents felt that these offers would have made their lives better.

Quote from TRm10:

"If all staff members will be provided with accommodation and even means of transport, it will relieve the burden that most of us teachers go through each day."

Finally, the third sub-theme that emerged under this theme is promotion system. Respondents felt that the system of promotion and upgrade in ranks is not fair and clear. This sub-theme was crucial because promotion is often linked with upgrade in conditions of service.

Quote from TRf1:

"In some of the government organisations, when you're due for promotion, there is a tracking system that is fair and will identify those who are due. Ghana Education Service has a cumbersome system which is also ineffective."

A summary of the results reveal that:

- High school teachers were retained within the poor conditions of service by less stress at work, liberty at work, and alternative employment.
- High school teachers were motivated to perform better by their love for students and love for the teaching profession.
- High school teachers wished they could have some improvement in their conditions of service. Key aspects included; better remuneration, possible accommodation, available means of transport, and better promotion system.

Our work has the following novelties:

- For the first time, our study discovered three major themes; (a) teachers' retention factors, (b) teachers' motivation factors and (c) Helping factors
- Essentially, the hope for a better remuneration, availability of accommodation, means of transportation and better promotion systems were observed as 'helping factors'. These factors were noted as 'dreams' or 'wishes' that may never be achieved.
- We have used an Inductive Content Analysis explore the factors responsible for the retention of teachers even when they are poorly paid.

4. Discussion

The data analysis revealed an interesting display of issues affecting job performance, job satisfaction, motivation at work and retention of graduate teachers in Ghana. It became obvious that though all 3 themes [retention factors, motivation factors and helping factors] logically could lead to some form of motivation and possible retention, they are not equally perceived as such. From the analysis, graduate teachers in the senior high school although had turnover intentions, kept their jobs because of the less stressful nature of their job, perceived liberty at work, and the relative absence of alternative employment. Despite the fact that these factors appears to be extrinsic forms of motivation, they were perceived as serving more as retention factors. Granting both intrinsic and extrinsic motivations as indispensable to career goals and output of teachers in Ghana (Nyarko et al., 2013), it is clear from this study that extrinsic motivation retain more than intrinsic factors. Even in the developed countries, research have documented that *"teachers are primarily attracted to teaching by intrinsic motivation, but extrinsic factors play a major role in retaining them"* (Cooper, & Avarado, 2006: 17).

The results also indicated that intrinsic factors such as love for students and the teaching profession were linked more to job satisfaction than retention (Cooper, & Avarado, 2006). As supported by Cobbold (2015), intrinsic drives increased the job/career satisfaction of Ghanaian teachers. Since these intrinsic factors were not the main anchorage for retention to a greater extent among these graduate teachers, any better extrinsic offer would cause them to vacate their posts. Recent estimations showed that majority of teachers with Certificate or Diploma in Education who took study leave with pay from the Ghana Education Service leave after attaining their degrees (Cobbold, 2015; Sam, Effah, & Osei-Owusu, 2014).

The third major theme that emerged were the helping factors. We discovered from the interviews that these were factors the respondents wished they should enjoy, though they were not sure they could attain them. These factors did not only affect their drive to give their best but their turnover intentions also. It is important to note that salary for example, was linked with their professional image and brand. As confirmed by studies in the field of attrition, employees who were paid lesser than they felt they should, perceived a greater sense of 'devaluation' (Cobbold, 2015; Griffeth, Hom, & Gaertner, 2000). These factors though can help the graduate teachers to stay and give their best, can equally also help them to leave because they present themselves as extrinsic drives that have been desired for long.

5. Limitations

The use of only public Senior High School teachers, may not be very adequate. Future studies will benefit from other institutions where graduate teachers may teach like private senior high schools, vocational and technical schools etc.

6. Conclusion

Graduate teachers in Ghana have qualifications that are equivalent to many professionals in other fields of employment. As every employer aims not only at retaining personnel, but also to maximise their output, the Ghana Education Service (GES) have not fully achieved its best because of some of these factors.

Senior high school teachers in the Eastern Region are still at post because of extrinsic factors like less stress at work, liberty at work and the absence of alternative employment. On the other hand, their love for students and the teaching profession intrinsically motivated them to bring out their best and to enjoy their professions as teachers.

As these two major factors sit on the extremes, helping factors like better remuneration, good promotion system, availability accommodation and transportation were daily dreams that could make them to stay or leave the classroom if offered a second look by GES.

7. Recommendations

We recommend that Ministry of Education and Ghana Education Service should strengthen their policies on improving the extrinsic factors that motivate teachers in Ghana. This will enable them to make the teaching profession attractive and lucrative.

Similarly, we recommend an additional investigation into the findings by researchers, educational institutions and policy makers. This effort will aid in finding more answers to problem of poor teacher motivation, satisfaction and retention in Ghana.

Novel themes like 'helping factors' can be looked further in future studies. Even so, findings from this qualitative study have significant implications for pedagogy, human resource management, research and policy.

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9. Conflict of interest statement

The authors declare that they do not have any conflict of interest.

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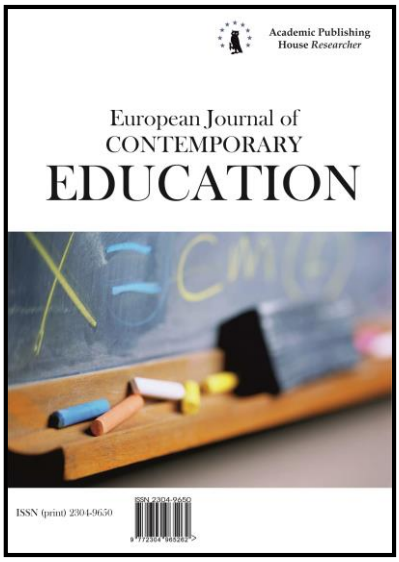

A Study of Differences in the Degree to Which Instructors are Prepared to Manage the Development of the School They Teach at

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Abstract

This paper relies on the ideas that underpin the scholarly school of developing pedagogical systems to assess the degree to which instructors are prepared to manage the development of the school they teach at. The authors propose a structural/functional model for instructor preparedness to be the subject of innovation activity, provide a relevant methodology for it, and describe the content and findings of their empirical substantiation of it. The study identifies instructor groups with a high, medium, and low degree of preparedness to manage innovation activity in a school and establishes statistically significant differences between them in terms of the degree to which the motivational, cognitive, technological, and organizational components of preparedness have been formed. The authors come up with a proof that the instructor's preparedness to be the subject of innovation activity depends on the degree of his/her preparedness to fulfill particular duties in managing this activity. The paper identifies specific factors behind the differences between instructors in this characteristic and determines the degree of their impact. The authors establish a close link between the instructor's preparedness to be the subject of innovation activity and his/her actual participation in resolving objectives in managing the school's development. The use of the authors' methodology for assessing instructors' preparedness to manage innovation activity in a school could help determine specific factors affecting it and develop individual trajectories of increase in their innovation competence, as well as facilitate their productive involvement in the process of working out the school development program.

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Keywords: instructor's preparedness to be the subject of innovation activity, objectives in innovation activity, components of one's preparedness for innovation activity, subject of innovation activity, duties in managing innovation activity.

1. Introduction

The proper implementation of a new Federal State Educational Standard in general education requires modernizing all of the components of a school's pedagogical system: the objectives and content of educational programs, educational technologies, forms of control over educational activity, and ways to assess its results. However, research into the practice of schools' innovative activity indicates that most of them are not prepared for the systemic modernization of their pedagogical systems (Lazarev, 2014; Lazarev, 2015; Novikova et al., 2013), which in large part is due to the fact that instructors fail to become the genuine subjects of innovation activity because most of the time they tend to participate in resolving innovation issues as mere executors (Lazarev, 2013).

In order to identify and explain specific factors determining the instructor's preparedness to be the subject of his/her school's development, as well as obtain statistically significant material for conclusions about the instructor's actual participation in resolving practical objectives in innovation activity, one needs to work out and test a special diagnostic methodology. It is to the discussion of these relevant objectives that this paper is devoted to.

2. Materials and methods

This investigation is grounded in the key tenets of the theory of developing pedagogical systems (Lazarev, 2015), whereby innovation activity is a type of activity that involves effecting purposive changes in the pedagogical system that can facilitate boosting its efficiency. The development of the pedagogical system is possible thanks to its innovation potential, i.e. its ability to effect purposive changes to its components (objectives, content, technologies, forms, means, conditions for educational activity) and structure in alignment with objective needs and potential for boosting productivity and efficiency. The greater the innovation potential of the pedagogical system, the higher the caliber of innovation activity.

The authors utilized a questionnaire survey method for diagnostic data collection and a method of analysis of instructors' subjective assessments for the assessment of their preparedness to manage innovation activity.

The empirical study featured 170 instructors from Kaliningrad, Moscow, Moscow Oblast, Khanty-Mansi Autonomous Okrug, and Yamalo-Nenets Autonomous Okrug. Most of them (82 %) taught at schools of general learning at the time. There also were pedagogues from lyceums (8 %), gymnasiums (6 %), and other institutions of general learning (4 %). Each study participant assessed himself/herself for the degree of awareness of existing problems faced by the system of education as a whole and by their school in particular, preferred ways to resolve these problems, degree of motivation for participation in managing innovation activity, command of the tools needed for managing innovation activity, and degree of involvement in resolving objectives in managing the school. The school's innovation activity was assessed by them in terms of the usefulness of innovations implemented in it, educational results achieved, factors impeding its development, etc.

The authors processed the source data using SPSS Statistics 22.0 to come up with scores for each instructor and determine the degree of formedness of the cognitive, motivational, technological, and organizational components of his/her preparedness to be the subject of innovation activity, as well as scores on the integral scale of preparedness.

3. Discussion

In recent years, most of the research into the subject has focused on enhancing innovation mechanisms for educational institutions (Lazarev et al., 2015; Kharisova & Shukayeva, 2015; Afanasyeva & Novikova, 2016), developing criteria and methods for the integrated assessment of the caliber of schools' innovation activity (Kharisova & Shukayeva, 2016), assessing the impact of the caliber of the motivational environment on pedagogues' innovation activity (Alekseyenkova et al., 2015; Alekseyenkova, 2016), constructing a system of preparation of future pedagogues for

innovation activity (Tyunnikov & Krylova, 2015), and developing models for effective support for schools' innovation activity (Moiseyeva, 2015).

Psychological research has provided a rationale for the linkage between the preparedness of the pedagogical team to be the subject of the school's development, the school's current potential for engaging its teachers in the management of innovation activity, and its effectiveness (Lazarev & Razuvayeva, 2009; Lazarev & Yeliseyeva, 2015).

The achievement of objectives in innovation activity is governed by its caliber, which is construed as the relationship between actually attained results and results that are objectively desired and possible under existing conditions. The higher the school's caliber of innovation activity, which is determined by how effectively specific objectives in it are resolved, the greater the school's capacity for development.

Among the major objectives in innovation activity are: analyzing the state of educational activity and identifying the need for changes to it (identifying specific issues); searching for and perceiving specific novelties (ways to resolve the issues) with a view to effecting the changes deemed necessary; designing specific objectives for development; planning specific innovations; implementing these innovations.

The ability to resolve objectives in innovation activity is determined by: the degree to which the subject of this activity is motivated; the subject's command of the knowledge needed to be able to resolve objectives in innovation activity; the subject's command of the latest technologies for resolving objectives in innovation activity; the subject's ability to utilize the more effective forms of organizing innovation activity.

The subject of activity is characterized by that his/her own motive for this activity overlaps its socially significant (objective) motive and that he/she takes on responsibility for effecting this activity, is active in effecting it, and has a command of specific (cultural) ways, developed in society, to effect it.

Innovation activity in a school has a hierarchical structure. It can be effected on a level of the system as a whole, on a level of its sub-systems, and on a level of particular elements in a sub-system. By acting as the subject of the school's innovation activity, the instructor fulfills specific duties in managing this activity, such as determining the content and form of processes related to the school's development (determining the overall strategy for the school's development; identifying specific issues; looking for ways to resolve these issues); setting goals (projecting an image of the desired future); planning the school's development; organizing the process of carrying out specific plans; controlling and regulating the change processes).

Although every instructor can be engaged, to one degree or another, in the management of innovation processes on these levels, as the subject of innovation activity he/she will self-actualize in full measure on a level of the educational system as a whole when he/she engages in the process of resolving specific objectives for the school's development on all three levels of innovation activity. As a result, he/she develops a general insight into relevant issues facing the school, objectives in its innovation activity, and ways to attain them, with responsibility for performing portions of joint work getting distributed and assumed.

To characterize the instructor's ability to effectively resolve objectives in managing the school's development, the authors introduce the term "instructor preparedness to be the subject of innovation activity". The term reflects the degree to which the instructor's mindset with respect to engaging in the process of resolving objectives in managing innovation activity, employing specific methods for achieving these objectives, and coming up with specific forms of organizing joint innovation activity, as well as the relevant knowledge he/she possesses, matches the image of "the ideal subject of innovation activity" (Afanasyeva, 2016).

The ideal subject of innovation activity possesses the following characteristics:

- is keen to take part in managing the school's development and prepared to take on responsibility for fulfilling all duties associated with managing innovation activity (the characteristic reflects the level of the motivational/ethical component of one's preparedness to be the subject of innovation activity);
- possesses the knowledge required to resolve objectives in innovation activity (the cognitive component).
- has a command of technologies for resolving objectives in managing innovation activity (the technological component);

- is capable of teaming up with other instructors in putting together proper forms of organizing the process of resolving objectives in managing innovation activity (the organizational component).

The authors introduce the concept of "ideal subject of innovation activity" in order to put together a special scale for assessing instructor preparedness to be the subject of innovation activity. The degree of the teacher's actual preparedness to be the subject of innovation activity is determined by how far he/she is from being an ideal one.

3. Results

The term "instructor preparedness to be the subject of innovation activity" characterizes the degree to which one's mindset with respect to engaging in the process of resolving objectives in managing innovation activity, employing specific methods for achieving these objectives, and coming up with specific forms of organizing joint innovation activity, as well as the knowledge one possesses, matches the image of the ideal subject of innovation activity.

The authors assumed that the degree of instructor preparedness to be the subject of innovation activity can be determined based on its specific characteristics (the motivational, technological, organizational, and cognitive components of one's preparedness to manage the school's development), as well as based on one's preparedness to fulfill specific duties in managing this activity (identifying specific issues within the educational system, looking for specific novelties to implement going forward, planning changes to educational activity, motivating innovation activity, and controlling and regulating innovation activity). The instructor's preparedness to fulfill a particular duty in managing the school's development is formed when he/she marks this duty out among all others, becomes fully aware of its significance, and takes on responsibility for fulfilling it, having at his/her disposal all relevant information and culture-congruent means needed for fulfilling it.

Figure 1 displays the authors' model for instructor preparedness to be the subject of innovation activity, which incorporates relevant criteria and indicators for one's level of preparedness to engage in resolving objectives in managing the school's development and brings to light specific factors that determine this level.

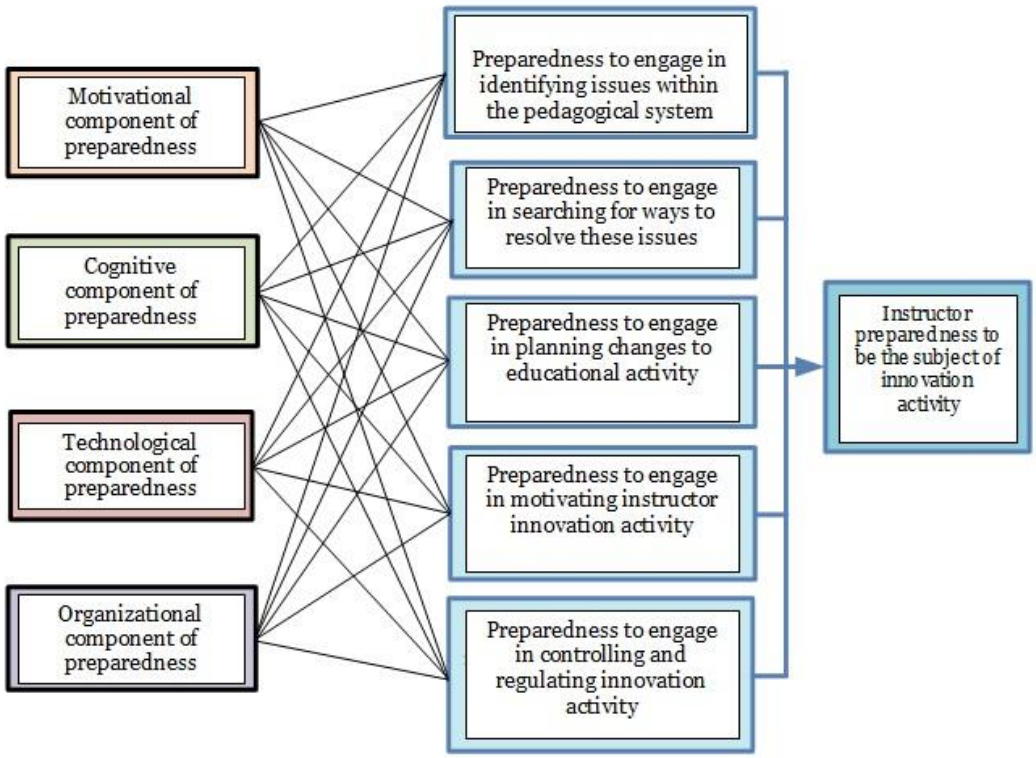

Figure 1. Structural/functional model for instructor preparedness to manage the school's development

The teacher's preparedness to be the subject of innovation activity characterizes his/her inner potential for engaging in the process of resolving objectives in managing the school's development. His/her real participation in resolving these objectives – his/her engagement in managing innovation activity – reflects the amount of effort he/she puts into resolving the various objectives in managing innovation activity and helps factor in the distribution of these efforts across particular objectives, as well as the forms and degrees of teacher participation in innovation activity.

The authors also assumed that the teacher's engagement in managing innovation activity depends on his/her preparedness to be the subject of innovation activity.

It is the verification of the above suggestions that constituted the main object of the authors' empirical study.

To resolve the study's first objective, which was determining the differences in the degree of teacher preparedness to be the subject of innovation activity, the authors marked out groups with a high (16 % of all the teachers), medium (65 %), and low (18 %) level of this characteristic. Assessing the differences between the neighboring groups using the Mann–Whitney *U* test indicated their significance across all the components (Table 1). The high significance of these differences led the authors to suggest, with sufficient certainty, that they are not accidental (Sidorenko, 2003).

Table 1. Assessment of the differences between teacher groups with a high, medium, and low degree of preparedness to manage innovation activity, across the components of preparedness

Components of teacher preparedness to be the subject of innovation activity	Degree of statistical significance of differences between teachers across components of teacher preparedness to be the subject of innovation activity		
	with *high* and *low* preparedness to participate in managing school development	with *high* and *medium* preparedness to participate in managing school development	with *medium* and *low* preparedness to participate in managing school development
Motivational	0.000	0.000	0.000
Cognitive	0.000	0.000	0.000
Technological	0.000	0.000	0.000
Organizational	0.001	0.004	0.002

The differences show up in that the teacher group with a high degree of preparedness to be the subject of innovation activity is distinguished by a high degree of formedness of the motivational (90 % of cases), cognitive (95 %), and technological (86 %) components, as well as by a high (67 %) and medium (25 %) degree of formedness of the organizational component of preparedness.

The teacher group with a medium degree of preparedness to be the subject of innovation activity is mainly distinguished by a medium degree of formedness of the motivational (62 %), cognitive (56 %), and technological (44 %) components, as well as a medium (46 %), high (30 %), and low (24 %) degree of formedness of the organizational component.

The teacher group with a low degree of preparedness to be the subject of innovation activity is mainly distinguished by a low degree of formedness of the motivational/ethical (85 %), cognitive (82 %), and technological (75 %) components, as well as a low (70 %), medium (11 %), and high (19 %) degree of formedness of the organizational component.

The study also produces a proof of there being a link between the teacher's preparedness to be the subject of innovation activity and his/her preparedness to engage in fulfilling duties in managing this activity.

The authors established that the degree of the instructor's preparedness to be the subject of innovation activity is influenced the most by his/her preparedness to engage in planning innovations in the pedagogical system, preparedness to engage in identifying issues within the pedagogical system, and preparedness to engage in searching for ways to resolve these issues. By contrast, the degree of the instructor's preparedness to be the subject of innovation activity is

influenced the least by his/her preparedness to engage in controlling and regulating innovation activity (Table 2).

Table 2. Assessment of the link between teachers' preparedness to be the subject of innovation activity and their preparedness to engage in fulfilling particular duties in managing this activity

Teacher preparedness to engage in fulfilling particular duties in managing innovation activity	Value of Pearson correlation coefficient	Significance level
Preparedness to engage in identifying issues within the pedagogical system	0.708	0.000
Preparedness to engage in searching for ways to resolve issues within the pedagogical system	0.692	0.000
Preparedness to engage in planning changes in the pedagogical system	0.755	0.000
Preparedness to engage in motivating teacher innovation activity	0.653	0.000
Preparedness to engage in controlling and regulating innovation activity	0.626	0.000

According to the findings of an analysis of data obtained by the authors, the majority of the teacher group with a high degree of preparedness to be the subject of innovation activity are instructors with a high degree of preparedness to identify issues within the pedagogical system (88 %), search for ways to resolve them (83 %), engage in planning changes in the pedagogical system (79 %); less than half of the instructors have a medium degree of preparedness to motivate teacher innovation activity (46 %), and half of the teachers – to engage in the control and regulation of innovation activity.

The teacher group with a low degree of preparedness to be the subject of innovation activity includes 78 % instructors with a low degree of preparedness to engage in motivating teacher innovation activity, 70 % with a low degree of preparedness to engage in controlling and regulating innovation activity, 67 % with a low degree of preparedness to engage in identifying issues within the pedagogical system and engage in planning changes in it, and just 59 % with a low degree of preparedness to engage in searching for ways to resolve issues within the pedagogical system.

In the teacher group with a medium degree of teacher preparedness to be the subject of innovation activity, 90 % have a medium degree of preparedness to engage in planning changes in the pedagogical system and about 80% have a medium degree of preparedness to engage in fulfilling the rest of the duties related to innovation activity.

Thus, the study empirically substantiated the suggestion that it is possible to determine the degree of a teacher's preparedness to be the subject of innovation activity through his/her preparedness to engage in resolving objectives in managing this activity, as well as the supposition about the structure of teacher preparedness for innovation activity and means of assessing it.

The study's second objective consisted in identifying specific factors behind the differences in the degree of formedness of the components of teacher preparedness to be the subject of innovation activity.

A deeper analysis of the differences in the motivational/ethical component of a teacher's preparedness to be the subject of innovation activity helped establish the extent to which it is influenced by the motivational/ethical components of preparedness to engage in fulfilling particular duties in managing innovation activity (Table 3).

Table 3. Assessment of the impact of the motivational/ethical component of a teacher's preparedness to engage in fulfilling specific duties in managing innovation activity on the motivational/ethical component of his/her preparedness to be the subject of innovation activity

	Value of Pearson correlation coefficient	Statistical significance level
Motivational/ethical component of preparedness to engage in identifying issues within the pedagogical system	0.690	0.000
Motivational/ethical component of preparedness to engage in searching for ways to resolve issues within the pedagogical system	0.697	0.000
Motivational/ethical component of preparedness to engage in planning innovations in the pedagogical system	0.738	0.000
Motivational/ethical component of preparedness to engage in motivating teacher innovation activity	0.709	0.000
Motivational/ethical component of preparedness to engage in controlling and regulating innovation activity	0.687	0.000

Teachers with a high level of the motivational/ethical component of preparedness to be the subject of innovation activity are distinguished by that they are keen to take part in resolving most of the issues arising in managing innovation activity. Those with a medium degree of motivational/ethical preparedness to be the subject of innovation activity are willing to take part in resolving half of such issues and up. Lastly, teachers with a low degree of motivational/ethical preparedness to be the subject of innovation activity are willing to take part in resolving less than half or the least number of these issues.

An analysis of the cognitive component of teacher preparedness for managing innovation activity established that, based on the Mann–Whitney *U* test, the study's teacher groups with a high, medium, and low level of this characteristic differ most significantly (significance level $p \leq 0.000$) in:

- the degree of awareness of issues within the educational system, their causes, and possible ways to resolve them on a global, federal, regional, and municipal level;
- the degree of awareness of shortcomings in the outcomes of education and the current state of the pedagogical system within one's institution, as well as of their causes, related upcoming changes, ways to engage teachers in innovation activity, etc.;
- the degree of awareness of new pedagogical solutions available at the moment.

Within the teacher group with a high level of the cognitive component of preparedness to be the subject of innovation activity, 70% are instructors with a high degree of awareness of the current state of and issues faced by the educational system, as well as possible ways to resolve these issues, around the world, within their country, region, or their city (district), and a high degree of awareness of currently available pedagogical solutions that could boost the caliber of education if implemented. Yet, just a little over half of this group's members (56 %) have a high degree of awareness of shortcomings in the outcomes of education and the current state of the pedagogical system within their institution, as well as of their causes and related upcoming changes.

Teachers with a medium level of the cognitive component of preparedness to be the subject of innovation activity are mainly distinguished by a medium degree of awareness of currently available pedagogical solutions that could boost the caliber of education if implemented (88 %); a medium degree of awareness of shortcomings in the outcomes of education and the current state of the pedagogical system within their institution, as well as of their causes and related upcoming changes (79 %); a medium degree of awareness of issues within the educational system, their causes, and possible ways to resolve them on a global, federal, regional, and municipal level (75 %).

Teachers with a low degree of cognitive preparedness to be the subject of innovation activity are mainly characterized by a low degree of awareness of currently available pedagogical solutions that could boost the caliber of education if implemented (82 %), a low degree of awareness of shortcomings in the outcomes of education within their institution, their causes, and expected changes in the pedagogical system (68 %), a low (57 %) and medium (43 %) degree of awareness of issues within the educational system, their causes, and possible ways to resolve them on a global, federal, regional, and municipal level.

Also, the cognitive component of teacher preparedness to be the subject of innovation activity is most significantly influenced by the cognitive components of preparedness to engage in fulfilling particular duties in managing innovation activity (Table 4).

Table 4. Assessment of the impact of the cognitive components of a teacher's preparedness to engage in fulfilling particular duties in managing innovation activity on the cognitive component of his/her overall preparedness to be the subject of innovation activity

	Value of Pearson correlation coefficient	Statistical significance level
Cognitive component of preparedness to engage in identifying issues within the pedagogical system	0.682	0.000
Cognitive component of preparedness to engage in searching for and perceiving novelties from the outside	0.681	0.000
Cognitive component of preparedness to engage in planning innovations in the pedagogical system	0.667	0.000
Cognitive component of preparedness to engage in motivating teacher innovation activity	0.552	0.000
Cognitive component of preparedness to engage in controlling and regulating innovation activity	0.426	0.000

Based on the findings of an analysis of the differences between a high, medium, and low level of the technological component of teacher preparedness to manage innovation activity, the authors came to the conclusion that this component is influenced to a virtually similar extent by the degree to which he/she has mastered specific methods for resolving objectives in managing innovation activity and his/her experience of applying them (the Pearson correlation coefficient is 0.726 and 0.669 for a significance level of $p \leq 0.000$).

Note that the teacher group with a high level of it is mainly characterized by a high degree (79 %) of mastering tools and technologies for resolving objectives in managing innovation activity, as well as high (69 %) and medium (31 %) scores with respect to having experience of using them in practice.

Teachers with a medium level of the technological component of preparedness to be the subject of innovation activity (94 %) are characterized by a high degree of mastering tools and technologies for resolving objectives in managing innovation activity, and mostly medium (82 %) scores regarding experience of applying them.

Teachers with a low level of the technological component of preparedness to be the subject of innovation activity (79 %) are characterized by a low (68 %) and medium (32 %) degree of mastering tools and technologies for resolving objectives in managing innovation activity, as well as mostly low (76 %) and medium (24 %) scores regarding experience of applying them.

The study's teacher groups with a high, medium, and low level of the organizational component of preparedness for innovation activity differ significantly based on the Mann–Whitney *U* test (significance level $p \leq 0.000$) in the ability to:

- independently distribute specific duties within the task team concerned with preparations for the implementation of novelties;
- coordinate teachers' actions;
- control the work of the teacher task group implementing a novelty;

- independently resolve differences among group members that may arise in implementing a novelty;

- make decisions in the event of unforeseen circumstances arising during the group's preparations for a certain activity.

Teachers with a high level of the organizational component of preparedness to be the subject of innovation activity are distinguished by that they tend to: more often distribute independently the duties within the task team concerned with preparations for the implementation of novelties, although they may sometimes do so in concert with the person in charge; more often coordinate their actions independently, while from time to time this is done by the person in charge; most of the time, control their work on implementing novelties independently in concert with other teachers, although now and then it is done by the administration; be capable of resolving independently most of the differences that may arise in the course of joint work; independently make half of all decisions regarding changes in plans in the event of unforeseen circumstances arising, the other half taken care of by the administration.

Teachers with a medium level of the organizational component of preparedness to be the subject of innovation activity are distinguished by that they tend to: distribute the duties within the task team concerned with the implementation of novelties in concert with the person in charge, although it is the latter who makes these decisions more often after consulting with the group members; from time to time coordinate their actions independently, but it is the person in charge who does it more often; control their work on implementing novelties independently in concert with other teachers, but it is the administration that does this more often; be capable of resolving independently most of the differences arising in the course of joint work; be capable of making plan changes independently in the least number of cases, with the school's administration taking care of most of them.

The low degree to which teachers are organized shows up in that most of the time they need the school's administration to interfere to help resolve issues related to the distribution of duties within task groups concerned with implementing novelties, coordination of teachers' actions, resolution of differences among team members, correction of plans, and administration of control over the course and results of the activity of task groups.

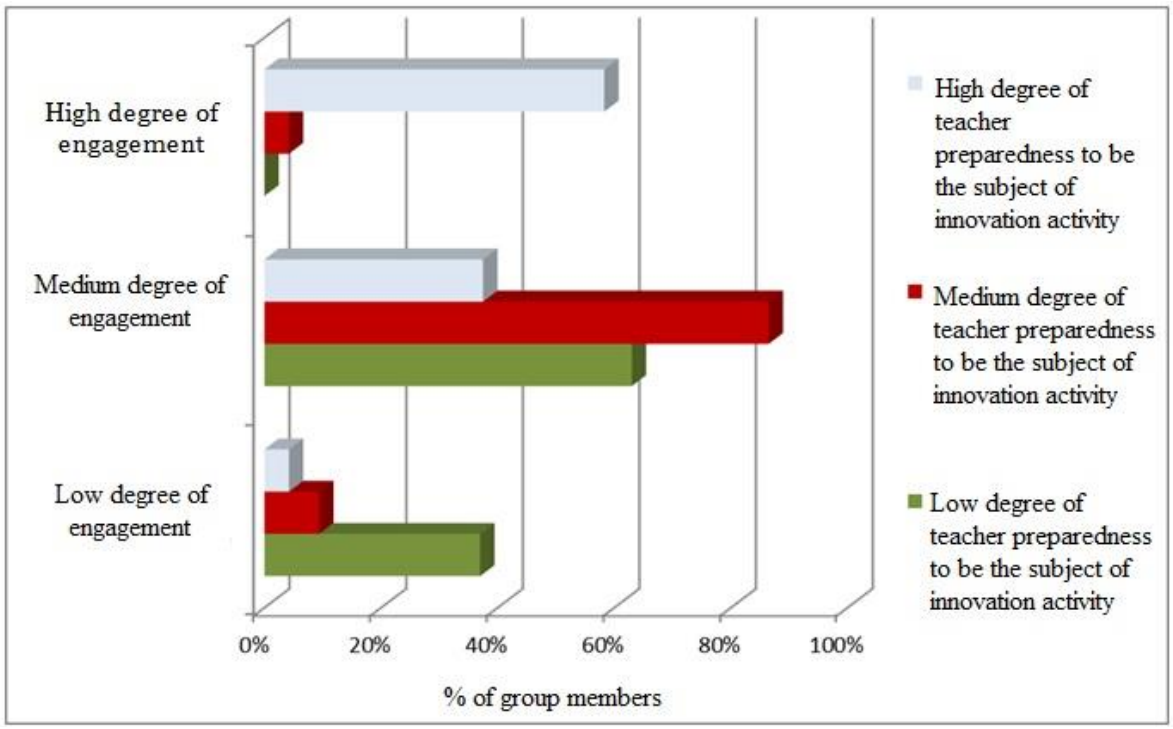

Figure 2. Distribution of the degrees of teachers' preparedness to be the subject of innovation activity within groups with different degrees of their engagement in fulfilling duties in managing this activity

The differences in the organizational component of teachers' preparedness to manage the school's development are influenced the most by their ability to independently resolve differences among team members arising in implementing novelties (the Pearson correlation coefficient is 0.624 for a significance level of $p \leq 0.000$) and the least by their ability to distribute duties within task groups concerned with implementing novelties or preparations for major activities (the Pearson correlation coefficient is 0.456 for a significance level of $p \leq 0.000$).

The study also substantiates the existence of a relationship between teachers' preparedness to be the subject of innovation activity and their actual engagement in managing this activity. The distribution of levels of teacher preparedness to be the subject of innovation activity within teacher groups with different degrees of engagement in managing innovation activity is illustrated in Figure 2. The Pearson correlation coefficient for data obtained is 0.524 for a significance level of $p \leq 0.001$.

Based on the Mann–Whitney *U* test, groups with a high, medium, and low degree of preparedness to be the subject of innovation activity differ significantly in teachers' engagement in managing innovation activity (Table 5).

Table 5. Assessment of the differences between teacher groups with different degrees of preparedness to be the subject of innovation activity by degree of teachers' engagement in managing this activity

	Assessment of significance of differences by degree of engagement in managing innovation activity		
	Between groups with a high and low degree of preparedness to be the subject of innovation activity	Between groups with a high and medium degree of preparedness to be the subject of innovation activity	Between groups with a medium and low degree of preparedness to be the subject of innovation activity
Value of Mann–Whitney U test	98.5	529.0	903.5
Significance level	0.000	0.000	0.000

As a result of this study, the authors found empirical substantiation for the dependence of teachers' preparedness to be the subject of innovation activity on the motivational, technological, organizational, and cognitive components of preparedness to manage the development of their school, as well as on preparedness to fulfill particular duties in managing this activity (identifying issues within the educational system, searching for novelties to be implemented going forward, planning changes in educational activity, motivating teacher innovation activity, and controlling and regulating teacher innovation activity).

The study established that there exists a positive correlational relationship between each of the components of teacher preparedness to be the subject of innovation activity and similar components of preparedness to fulfill particular duties in managing the school's development.

The authors statistically substantiated the hypothesis that the degree of the instructor's engagement in the process of managing the school's development depends on the degree of his/her preparedness to be the subject of innovation activity. Consequently, the teacher's engagement in the process of managing the school's development could serve as an external criterion for validating a methodology for assessing the degree of teacher preparedness to engage in managing the school's development. While the findings of the authors' assessment (in terms of the overall degree of teacher preparedness to engage in managing the school's development, levels of its particular components, and factors behind the differences in the degree of their formedness; degrees of teacher preparedness to fulfill particular duties in managing innovation activity) could serve as the basis for the development of a program for boosting teacher preparedness to be the subject of innovation activity (Tyunnikov, 2013; Tyunnikov, 2016; Tyunnikov, 2016a).

5. Conclusion

The authors' theoretically and empirically substantiated instrumentarium for assessing the degree of instructor preparedness to be the subject of innovation activity in a school could serve as the basis for the assessment and development of this characteristic going forward. The methodology could be used to determine specific factors affecting teachers' degree of preparedness to manage the development of their school, work out individual trajectories of increase in their innovation competence, and ensure their productive engagement in the process of working out the school development program. All this should result in improvements in the caliber of the school's innovation activity.

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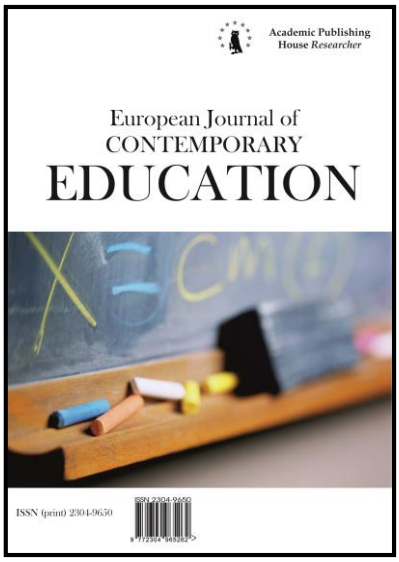

Reform of Higher Education in Russia: Habitus Conflict

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Abstract

This article discusses changes that actually occur in the Russian Higher Education in the process of reform. The thesis that the functioning of the educational system increasingly detects formal rationality, not focused on the senses, and their imitation. It is noted that the Russian system of higher education refers to a specific type, which can be rightly defined as "culture-centric". This type have a number of traits: dominance conception of education as a complex of practices, with the aim of translation of cultural codes from older to younger generations; the idea of the sacred nature of the educational process as a student-deterministic; installation of universality, according to which university graduates must be not only professionally prepared and fully developed; priority of content and semantic aspects of education in relation to formal, often even to the detriment of the latter; belief in the special position of the higher education sector, as well as education in general in relation to other spheres of activity. It is emphasized that the logical consequence of the transition to the formal rationality becomes a management simulation in which real values and meanings are replaced and replaced by a formal reproduction of operations and procedures, followed by their demonstration, declaration and decoration. It is proved that the main source of formal rationalization is a corporate bureaucracy. What evidence, unwarranted expansion of the administrative apparatus of the university, which is a logical consequence of the formalization of the educational process, excessive standardization and regulation of educational activities, as well as the deformation of the controlling function.

Keywords: higher education, rationality, formal rationality, bureaucracy, imitation, gamification.

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1. Introduction

The past two decades have been witnessing a large-scale introduction of new developments into the Russian higher education system provoked mainly by the necessity to tackle two interrelated tasks: to increase the quality of educational services and to bring the education industry in line with the international standards. Such developments include constantly changing admission regulations, introduction of distance learning, adopting the two-tiered education system (Bachelor – Master) with further transformation of doctorate into the third tier thereof. Special attention has been given to ranking systems assessing higher education institutions, their departments and individual employees that have significantly changed the focus and attitudes of the whole academic community. The dynamics of new developments is so intensive that they maybe be misleading not only for students but also for academics. Fluid educational standards, moreover, have resulted in a certain impasse, where the academic staff with their limited personal resources is unable to meet numerous and excessively rigid requirements, as the majority of academics lack time, material resources, social support and do not have the necessary change-oriented mindset.

When facing the need to adjust to new rules, members of academic community often see a solution in simulation practices which formally comply with the established rules but do not require additional efforts. In view of this, a natural question is whether such developments, though considered as innovations, bring the educational process to a higher level, filling it with new meanings and adequate vision of an individual in the new post-industrial society. If not, we have to admit the futility of such innovations that create only a façade of effective reforms.

Besides, some aspects of higher education do not and cannot enter official reports focused mainly on the formal side of the processes. These reports do not consider the content and meaning of certain educational processes which cannot be grasped by crude statistics and require a deeper analysis with the help of sociological methods, including qualitative ones (in-depth interviews, case-studies etc.), that we have used in our present study.

The problem we tackle lies in the contradictions between two main group actors of the reformation process in the Russian higher education, namely, the academics and the administrative officers, whose attitudes determine their behaviour strategies in the context of the system reformation, development and introduction of innovations. It is of critical importance for development of the Russian higher education to understand the causes of this opposition and detect possible solutions.

2. Material and methods

The present analysis is based on the research conducted by the specialists of Belgorod State National Research University in 2010–2013, including a monitoring of students' satisfaction with the education quality (annual poll among candidates, students and instructors using multistage quota sampling, total SN = 1052); the questionnaire survey "Management of Innovational Development of a Higher Education Institution" performed by Ya. I. Serkina in September – November 2012 (conducted in higher education institutions in Belgorod, Volgograd, Kursk, Lipetsk and Orel regions using quota sampling; the respondents included: administration officers: 161 pers., academic staff: 603 pers.); an in-depth interview with experts on improving coordination between university divisions: we have interviewed 17 experts, including deans, heads of chairs, professors with long university careers, and heads of bureaus and divisions; a questionnaire survey conducted among heads of chairs on the educational process organization (2011, N = 78).

Development of Russian educational system has been in the focus of researchers' attention both in Russia (Agranovich, 2000; Lukatskii, 2006; Panfilova, 2010; Savinkov, 2015; Tavokin, 2012) and abroad (Itskovits, 2010; Chesbrough, 2003; Morgan, Kliucharev, 2012). Organization of the educational process was specially addressed in a number of studies (Arutyunov et al., 2005; Viktorov, 2005; Kalinin, 2005; Kolotova, Temkina, 2010; Kravchuk et al., 2011), yet it was analyzed chiefly as a technological challenge. Little, if any, research was conducted on its axiological aspect in the frame of which we may treat innovational reforms as an interaction of its participants' habitussen. Even in studies that take the axiological aspect into account, the current situation is often explained in simplistic terms or within the conspiracy theory.

For instance, D.B. Sandakov, while analyzing education reforms, claims: "In order the program of destruction of education to be not publicly opposed, it should be disguised. The lies

should be large-scaled. As social psychology states, the bigger the lie, the more it will be believed. People tend to think that they may be deceived by bad people (enemies), surreptitiously and on trifles, but few would believe that they are deceived by good people (us), blatantly and in large. Specific actions are needed. First of all, mass media should make constant information noise around modernization, innovation, Bologna-zation etc. To ensure this, individual achievements (victories in contests, academic competitions etc.) should be regarded as the success of the whole system. Secondly, the public attention should be drawn to minor questions. This can be achieved with periodic pointless reforms: substituting the 5-grade systems with the 10- or 20-grade one, changing the duration of the education from four to five years and then back to four, introducing and then abandoning Bachelor's and Master's programs or subject-oriented training, offering to reduce or prolong (there will always be opponents) summer holidays and so on. Let the proactive staff members waste their protest energy on the fight against minor changes" (Sandakov).

He sees current processes as a direct sabotage attack on Russian educational system. There may indeed be reformers aiming at destruction of Russian education because we do live in the state of global competition, and the higher education system, among other functions, builds up the competitive strength of a state, society, and its social institutions. To destabilize it in Russia means to weaken a potential or a real rival of large international corporations.

Nevertheless, we find the conspiracy version one-sided and lacking proofs because it is impossible to claim that the conspiracy covers almost all university administrators and a large part of academics who, if do not initiate reforms, do not oppose them either.

Yet, it is evident that the academic community rather strongly opposes the reforms. They are evaluated negatively by many specialists who do not believe in conspiracy theories. For eample, a member of the Institute of the Problems of Continuing Education of the Russian Academy of Education (Krasnoyarsk) writes: "Modernization of Russian higher professional education along the lines of the West-European system, which began almost 15 years ago, was not a natural stage of development of Russian higher school and it played a more negative than positive role" (Kochetkov, 2014). At the same time, to justify this opinion, the author emphasizes the West European origin of educational innovations which, in our opinion, may give only a partial explanation to the current opposition.

We believe that such contradictory assessment of the reforms can be explained with the help of the concept of habitussen by P. Bourdieu. P. Bourdieu defines a habitus as a system of predispositions to a certain demeanour in typical life situations according the specific statuses. In his opinion, habitussen are "systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is, as principles which generate and organize practices and representations that can be objectively adapted to their outcomes without presupposing a conscious aiming at ends or an express mastery of the operations necessary in order to attain them and, being all this, collectively orchestrated without being the product of the orchestrating action of the conductor" (Burd'e, 2001).

Evidently, habitus has a complex structure based on certain mental dispositions acquired and preserved by subjects due to their belonging to a certain cultural tradition. A child adopts knowledge, rules, norms and values based on the habitus, formed by previous experience which exists in the form of schemes of perception and apprehension which, never having been constituted as explicit principles, ensure consistency of practices (Burd'e, 2001).

These dispositions are legitimized by the system of values and meanings and are embodied in the behavioral patterns within different spheres, including professional activities. Habitussen of social actors are durable, and the attempts to externally change them frequently end in conflicts.

3. Discussion

For many years, the Russian higher education system has been using its all resources to build a separate type of habitus, substantiating it with numerous educational process theories (Kolesnikov, Turchenko, 1991; Nechaev, 1992; Novikov, 2000; Sheregi et al., 1997). This type of habitus can be rightfully defined as 'culture-centric' with the following key characteristics:

- prevailing vision of education as a set of practices aiming at the transmission of cultural codes from the elder to the younger generation. For instance, B.S. Gershunksiy, pondering over the dual nature of education, gave top priority to the "reproductive (transmitting, preserving, consolidating) functions of education shaping the public mindset" (Gershunskii, 1998);

- idea of the sacred nature of education rooted in Ancient Greek tradition which viewed educational as a personal, even intimate interaction between the Teacher and the Student with the former being a certain spiritual parent for the latter (Il'in, 2002);
- orientation to wide general knowledge, with a university graduate becoming not only a trained professional, but also a well-rounded person. Typically, education was treated as "a way of initiation of a person within the coherent cultural existence, of comprehension and embodying of generic and specific life purposes by an individual. Even the modern state of the cultural conscience protests against narrow and pragmatic, oriented to rational knowledge and technocratic education, aggravating the problem of its embracing a new paradigm, or, to be more specific, a new conceptual and structural concept of education" (Ushakova, 2000);
- priority of the content over the form, often even to the prejudice of the latter, which was manifested in the still existing lack of regulation of the educational process and imperfection of its assessment tools;
- belief in a special place of higher education and of education as a whole among other domains (with the sole exception of science as an intrinsically connected field) justified by a high status of knowledge in the society and the fact that its reproduction and distribution was limited to professional educators. A symbolic proof of this specificity was such a high value of academic degrees and titles, that many managers and officers from different industries, public administration and law enforcement agencies tried to obtain them as a proof of their belonging to the academic circles either by writing or simulating writing a thesis;
- combination of encouraging 'out-of-the-box' thinking in certain scientific fields and conservatism of the educational process and to a certain extent of the teaching methods. Evidently, the higher education system should be rather conservative to ban ill-grounded developments, but is should remain open to promising innovations;
- specific status-based hierarchy determined not only by the formal position of an individual within the administration system (title), but also by his/her capacity for intellectual activity. The university was perceived both by its employees and by external agents as an intellectual community with a specific perception of the social reality based mainly on conceptual and logical structures and application of scientific concepts to life strategies. Obviously, in reality it was not always true, but the stereotype was preserved for years and still exists to a certain extent;
- belief that the process of entering the academic circles is long and requires special procedures and sharing, even only formal, of its inherent corporate values. The basic values included devotion to science, teaching and formative mission, group solidarity and ideological loyalty (in times of the USSR).

Having these features, the habitus of academic circles, including the university administration (most managers started their career as instructors) has been formed and reproduced thanks to a number of factors. The first factor was related to a specific form of administration which until the 90s prevented any interference in the process of the genesis of the 'educational' habitus but supported it by reproduction of traditions. The administrative and management personnel respected the rules adopted in the higher education (with their involvement) and did not try to introduce its organizational principles. The second factor was a high level of autonomy of higher education and its unwillingness to respond to global educational tendencies. The last aspect was consolidation of the academic community around its corporate culture.

Still, radical reforms in Russian education have changed the vectors of each and every abovementioned factor.

The first reform declared introduction of a new educational and academic paradigm to fit the times. In principle, it corresponded to the changes in the new post-industrial society which became a reference for Russian management. V. Lektorskiy spoke of these processes: "The specificity of our times lies in the fact that science, on the one hand, is increasingly getting involved in an argument with the developers of new technologies, and on the other hand, is fusing with their production.

It significantly impacts both the way science is done and the people engaged in it. The German term 'technoscience' appears (Lektorskii, 2015). Similar processes can be seen in higher education, a sphere closely connected with science. In their turn, D.L. Konsantinovskiy, A.A. Ovsyannikov and N.Ye. Pokrovskiy write: "In past, knowledge and science were based on the educational worldview and were treated as an absolute and boundless value, the present is dominated with the concept of

useful knowledge, i.e. knowledge, which is limited in principle, focused on specific tasks and oriented towards a result that brings immediate economic benefit" (Sovershenstvovanie, 2005).

Education, similarly with science embraced 'technoknowledge' which required new types of managers and performers. Their cre ideas include chiefly pragmatic vision of a higher education institution, perception of the educational process as another type of management that has its specificity but no principal differences from other spheres, and aiming at 'profitability of education". Finally, such managers tend to unconditionally accept rules adopted by Federal agencies and to scrupulously implement them.

The traditional 'culture-centric' habitus turned out unable to embrace the changes. It was first understood by the education managers of all levels who tried to rapidly change their dispositions. Those who were unable or unwilling to change had to leave the system or lost their titles and resumed their teaching activities.

Within a decade a new reference disposition model for higher education agents was proposed, formally based on innovative development. The effectiveness of this approach was seen in innovations as in the non-losing stake, the importance of which could not be questioned. Innovational development of any university was seen as an 'objectively required, dedicated and irreversible, unfolding in time process of transition of education to the next stage. It is implemented mainly through the introduction of new elements, attributes and features in the activities of an educational institution. Without it, universities have no future" (Volodin).

Yet, the innovationists did not limit their reforms to introduction of new educational and social practices, but took decisions and actions which were aimed at changing the habitussen of education actors. This characteristic was pointed out by P. Tavorkin who emphasized that "the meaning of the undergoing 'reforms' is reduced to destruction of traditional life attitudes and ideals and imposition of values inconsistent with the most Russian citizens' mentality" (Tavokin, 2012). This resulted in continuous reduction of meanings of managerial activities in three main areas:

First of all, long-term objectives were "cleared" of its conceptual aspect. Administrators were continually losing their interest in the result of their actions. Instead, the key indicator of success was the formal compliance to a set of rules initially adopted by the authorities.

Secondly, the system has adopted an adhocratic attitude to reality, with the focus on finding solutions to current problems and considering the long-term perspective as an obligatory but less important element. In particular, higher education institutions have been trying to admit more candidates and maintain the number of students turning a blind eye to their capacities. It is understandable, as the student body directly impacts the financial security of the university, including the personnel's salaries. Still, admission of students who are not capable of mastering the required syllabus, even if it decreases current risks for the university, will unavoidably increase them in the long run.

Thirdly, with the content being secondary to the process in many aspects, which is difficult to conceal from the academic staff and the public, managers take measures to decorate the equivocation. This, in its turn, leads to carnivalization of the educational process that is manifested, for instance, in a cycle of routine activities to celebrate real or invented memorable dates. It can be treated as a present-day variant of the cultural behavior based on "inversion of binary oppositions" and the logic of the "inside-out" (Bakhtin, 1965). Nowadays, the carnival elements are not contraposed to administrative practices, but they agree with such practices and are even supported by them. Such intensification of the carnivalesque element has the following characteristic features:

- symbolization and a growing role of the external attributes. These features underlie numerous anniversaries and publication of books and booklets of remembrance which mythologize the history of universities. The university administration invents even more official festive events on different occasions;

- pathos. Administrators' wish to display themselves to advantage breeds statements and actions that exaggerate the positive aspects of the university life and conceal the drawbacks. It results in a gradual decrease of the level of public and individual reflexivity and to the adoption of system complementarity as the most appropriate way of interaction, even if contradicting the principles of the scientific and academic work. Importantly, they find pride not in real achievements (which is understandable) but in formal indices, such as different ratings;

- compulsory ludification. The education system is adopting the model which transforms natural ludic experiences in formal and compulsory simulation processes. Ludic practices are considered to be a tool of socialization and stress-relieving activities to help individuals overcome the stress of the excessively formalized social environment.

As a result of these changes the reference (modal) habitus of Russian higher education actors has become techno-centric, formal and bureaucratic. This habitus is characterized by an emphasis on the formally organized process over the meaningful result embodied in formal rationality as an administrative standard and principle of organization of university as corporation. Formal rationality is a principle of administration where a statutory procedure becomes an inherent value and prevails over the content. At universities is manifests itself, for instance, in the exaggerated role of quantitative indices of the academic personnel's performance, in misapplication of ratings to assess the work of individuals and departments and in "quasi-planning".

This principle has limited the freedom of instructors, scholars and students with prejudice to creativity. According to our survey, this effect was pointed out by numerous experts. A typical expert opinion is the following: "Rigid short-term and medium-term planning with a system of "road maps" bans long-term and large-scale scientific work because such planning requires immediate results which may be absent, for example, at early stages of research. In the system of "road maps" and constant academicians' assessment, scholars who conduct fundamental research, such as Mendeleev who was working on his periodic system for two decades, would be underachievers".

A natural consequence of adopting formal rationality is the simulation of administrative activities, where real content and meanings are replaced with formal reproduction of operations and processes along with their demonstration, declaration and decoration.

Such simulation of academic practices becomes evident in the domain of innovations, perceived by higher education reformers as a key area for implementation of new developments. In view of this, it is interesting to know the opinion of D. Peskov, Director of Agency for Strategic Initiatives, expressed at a roundtable within the framework of the "Open Government" project. He stressed that universities have learned to simulate innovations introducing Western models. They reduce innovations to a fashion, simulating heavy activity in the field of innovational development of higher education institutions. Such simulation of innovations by the university administration leads only to wasting away budgetary funds" (Razvitie innovatsionnogo, 2012).

In many cases, simulations are a natural reaction to the excessive formalization of administration. Analyzing the results of social research at Russian universities, Ye.G. Kamenskiy concludes that the "inadequacy of criteria to assess the academic system performance provokes simulation of achieving good results in line with such criteria by complication and manufacturing of bureaucratic processes and making up formal reports that would meet the established standards" (Kamenskii, 2015).

Formal rationality in higher education, as well as in the public administration as a whole, appeals to bureaucracy, to be more precise, to corporate bureaucracy. While charismatic bureaucracy has the leader as its central figure and rational one is based on legal regulations and processes, corporate bureaucracy is closed on oneself, i.e. on its group egoistic interests. Such interests are guarded by an intricate system of rules which require significant resources for their development and implementation, the situation we are currently facing in the higher education system.

To the extent formal rationality is a corrupted form of "correct" (material, in Weber's terms) rationality, oriented towards meaningful goal definition, corporate bureaucracy is a corrupted form of the rational one. It dominates the modern society, including the system of education.

In view of this, we can cite Vladimir Burmatov, First Deputy Chairmen of the State Duma Education Committee: "To my regret, at present higher education institutions are literally strangled by such bureaucracy. Many universities are forced to create bulky departments within their structure with the only function to maintain correspondence with the Ministry of Education and supervisory agencies and to write frequently overlapping reports. These departments employ a large number of people whose salaries are higher than those of the academic staff. They receive rooms which could have been used for lectures. Chairs and dean's offices also suffer from such bureaucracy: drawing up meaningless reports and plans has become almost the principal activity of universities chairs" (Burmatov).

Findings. Our research has proved the hypothesis of the excessive bureaucratization of the academic environment. Almost all experts named it as one of the most negative and long-term tendencies, pointing at several crucial aspects.

The first aspect they name is unjustified expansion of the university administrative staff which is a natural consequence of formalization of the educational process. As a result, the system loses reasonable restrictions leading to mushrooming of administrative divisions that frequently duplicate one another. Bureaucratization of the academic environment grows significantly, which was frequently reported by the expert respondents. Yet, the experts were not unanimous in the causes of such growth. A part of them attributed it to the general trends in the society, particularly, in the informational society (an expert opinion: "Computers become a fetish. The educational activities become adjusted to the errors in software. As a result, we have two processes: virtual and real; this trend is typical for the country as a whole").

The second aspect is excessive standardization and regulation of education. Obviously, universities require standards and regulations, but in reality the number of rules exceeds all possible limits and is subject to constant changes due to the lack of a consistent educational strategy. It results in increasing of the number of reports and growth of the paperwork for low-level managers, particularly, for heads of chairs. The number of their administrative functions significantly grows, which is clearly whom in public opinion. For instance, our survey among the heads of chairs has showed that 54.39 % of the respondents agree that the volume of paperwork has grown over the past years. Besides, 29.49 % of the respondents name a large number of formal functions distracting them from their principal activities the main reason of dissatisfaction with their job.

The respondents of the expert interview have also emphasized the intensification of unjustified inquiries and decrees. (Expert opinions: "We can see an increased flow of inquiries and decrees from various ill-coordinated agencies, which prevents appropriate processing of any of them", "Drawing up of multiple (and constantly changing) plans and reports distracts lecturers and scholars from their principal activities, reducing their effectiveness. Therefore, one of the crucial ways to increase effectiveness is to take planning and reporting functions (their drawing, agreement and bureaucratic support) away from chairs, departments and laboratories to administrative divisions. It is critical to render maximum organizational, administrative and to a certain extent economic freedom to non-administrative divisions, such as departments, chairs, RECs, and laboratories").

Finally, there exists a certain distortion of the supervising function. The wish to focus mainly on supervision is typical for any bureaucratic system, as bureaucrats consider it to be not only a tool to ensure a certain development level of the managed object, but also as a means to secure their own corporate interests, especially significant in a potentially unstable environment. Such instability is natural for universities with their orientation to intellectual and cognitive activities and underlies their aspiration for the maximum freedom from supervision which is traditionally viewed as a prerequisite for creative work.

Our research has proved that at present the majority of the academic staff still do not perceive supervisory practices as excessive. For instance, 64% of the heads of chairs are generally satisfied with the supervision organization. At the same time, such level of satisfaction reflects the status of this group as supervisors. Yet, even among them one third of the respondents are unsatisfied with the level of control. As the main reasons of dissatisfaction, the heads of chairs name a redundant number of supervisors (61 %) and the formal nature of control (30 %).

Bureaucratic intervention in all areas of society is one of the most notable trends of modern development. Higher education, in this context, is one of the most attractive objects.

To a certain extent, it is justified by the aspiration to maintain stability and public security in the volatile environment. To ensure this, administration cannot but impose control over the education system because it provides socialization of a large number of people and the state has its interest in this process. Besides, higher education attracts significant resources and the way they are used is also important. A special role is given to the intellectual resources that define the social development but frequently become a source of undermining the system ideas which is clearly seen by administrators.

Another important factor is the specific public officers' interests. Traditionally, they perceive the domain of higher education as one of the most prestigious in the society with the exertion of state and municipal administration. For instance, many state and municipal officers aspire to obtain a scientific degree not as a proof of their advancement in science, but as a way to secure managerial positions at universities in case they leave state or municipal agencies. Besides, public officers bear in mind that the education system may give them an opportunity to manage large numbers of people (in line with their leadership ambitions) and to control significant financial flows.

When entering the higher education system, public officers naturally introduce the rules of the game traditional for state and municipal administration. Yet, these rules are an inconsistent with the higher education that requires academic freedom to function effectively.

Being unable to openly oppose the bureaucratic intervention that leads to meanings misconception and excessive formalization of its traditional relations, the higher education system finds indirect means to express protest. The main way is simulation of the required actions in the form of ludification. Ludification, in its turn, is an "activity deprived of expediency with all actions taken 'in pretence'" (Sotsiologiya molodezhi, 2008). It is manifested in forging of interests, invention of reports (which no one reads and even cannot be analyzed because of their number and volume).

Such activities become everyday practices for established specialists who console themselves with the thought that ludification penetrates many spheres of life, such as business, education, politics and art. Socially constructed gaming practices are introduced in economic, political and social structures. According to Jean Baudrillard, ludic activity shapes our attitudes to objects, people, culture, leisure, sometimes to work and politics (Bodriiyar, 2006).

Therefore, ludification becomes nowadays a sole possibility for the education system to survive in the Russian society. At the same time, it predetermines a future crisis of the higher education, manifested in the decrease of the common cultural level of graduates, their incapacity of logical thinking and moral disorientation.

Being bureaucratic in their nature, reforms in the higher education system inevitably lead to the conflict of the "techno-centric" and "culture-centric" habitussen of its agents. While the latter still remains inherent for a significant number of academics (and for the majority of seniors), the former is referential for the administration staff and younger specialists who do not have such tradition. It should be noted that university employ an increasing number of specialists from other domains, chiefly from state and municipal administration. Many of them possess neither scientific degrees and titles, showing a certain level of competence in education and science, nor any experience in university management. Yet, the prevailing concept in management that a so-called effective manager can run any entity regardless of its specificity enables intensive administrative labour migration.

The traditional habitus bearers naturally disagree with such state of affairs. They try to oppose it, but their protest rarely goes public because academicians usually depend on administration in resource allocation. Besides, "traditionalists" cannot present feasible arguments for the necessity of the former (culture-centric) academic paradigm. While defending it, they usually appeal to the general ideas of humanism. For instance, that was the most popular argument against bureaucracy in the expert survey we conducted. Typical expert opinions were as follows: "Dehumanization leads to the loss of the meaning of life and of satisfaction with one's work; it induces deep inner discomfort for teachers and students. The university should not turn into a despiritualization factory producing robot-like unhappy people instead of content, enthusiastic and creative personalities capable of leadership and of setting and achieving their own life objectives *pro bono publicum*"; "a real university environment is created not only and not so much by rigid administrative incentives and disinsentives, but by careful breeding of a self-regulating intellectual and moral space which encourages the academic staff to create and to develop new insights. They receive moral grounds for devotion to their work and for satisfaction with their life and work. Without such environment, our university will have to further "import" talented scientists promising them accommodation instead of breeding our own scholars".

Nevertheless, as reformers appeal not to content-related arguments, but to formal rationality, all references to humanism and the need of harmonic personal development and the freedom of creativity are now considered as insignificant.

Evidence suggests that the higher education system is not immune against the techno-centric habitus bearers for multiple reasons. First of all, it is rooted in the specificity of the selection of academic staff in the 90s – 2000s. In order to earn more and to develop careers(which was difficult in education) a part of the most intellectually advanced, therefore, independent and ambitious young specialists decided to leave the domain. As a result, universities became limited to, if we may call it, "professionally dull" personnel. At the same time, a decrease in education and culture of students contributed to less effective selection of academics. Mediocre specialists were adequate to mediocre students.

Besides, the need to create favourable conditions for performing of their work and to maintain certain life standards without being forced to the outside labour market has made academic staff loyal to administration. Such loyalty is considered as a certain cost of the social status and possibilities, though limited, to gain profit from their position using, among other means, corrupt practices.

Finally, a part of academics have grown significantly affiliated to bureaucrats serving their corporate and individual interests. An example of such practices is a simplified process of obtaining scientific degrees and titles through defending a corresponding thesis by public officers.

4. Conclusion

Therefore, the analysis of the reformation of the higher education system in Russian proves that many existing challenges are not of a technical but of an axiological nature. They may be attributed to the conflict of habitussen of the education agents and cannot be resolved by formal administrative and regulatory actions. The main issues are not the selection of a rating system for the university or the academic staff, nor the form of distance learning, but the objective of innovations and their benefits to the society and individuals. Answers to these questions depend on the prevailing ideas about the functional role of higher education in the society. We can claim that the higher education system currently sees two opposing paradigms that determine the higher education agents' habitussen: culture-centric (traditional) and techno-centric (innovational).

Bearers of both habitussen show exceedingly low interest in finding a balance of their interests and values which leads to difficulties and confrontation within the education system. Without such balance, the educational process is increasingly devolving to simulation with reformers having to tolerate the fact that most developments are implemented only formally while their opponents have to simulate innovations.

In view of this, the effective development of higher education is hardly probable without the consensus between two parties.

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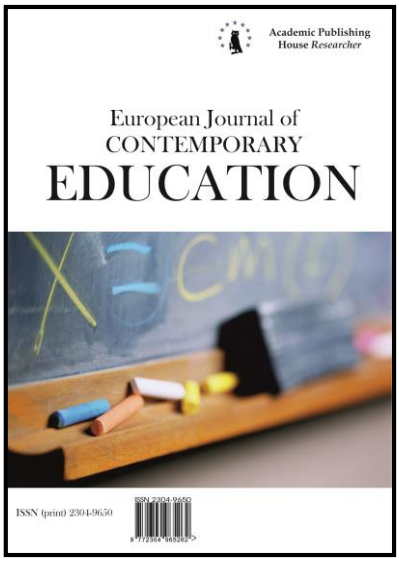

An Analysis of Pre-Service Teachers' Attitudes and Opinions Regarding the Teaching Profession via Q-Methodology

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Abstract

One of the factors influential on teacher achievement is their attitudes towards the profession. Teacher attitude influences a teacher's satisfaction with their profession, devotion to the profession, belief in the necessity and importance of the teaching profession, and belief in professional development. General evaluation of pre-service teachers' attitudes has yielded positive and high results in a lot of studies. It is believed that pre-service teachers having high attitudes will also have job satisfaction, which will be promising for the future of the teaching profession. However, there are also studies indicating low levels of attitudes among pre-service teachers. In this study, Q-methodology, a reliable method that takes individuals' unique perspectives, was employed to determine students' opinions and perceptions. The present study was carried out with the fourth year students (i.e. pre-service teachers) studying at a university located in the southern part of Turkey. Q-sort results indicate that majority of the pre-service teachers have positive attitudes towards the teaching profession. Qualitative analyses indicate that they have both positive and negative perceptions. Furthermore, three different groups of teachers were formed in the study: idealists, forced teachers, and confused teachers.

Keywords: Pre-Service Teachers, Attitudes, Q-Methodology, Teaching Profession.

1. Introduction

The expectations regarding the quality of educational outcomes increase as social expectations rise. Some important factors influential on educational outcomes are learning process, teaching process, and the quality of teachers and students. Teachers' influence on the quality of outcomes is undeniable. Providing the society with qualified teachers is a priority for nearly all the countries (Furlong, Cochran-Smith, & Bernnan, 2009: 1).

One of the factors influential on teacher achievement is their attitudes towards the

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profession. Teacher attitude influences a teacher's satisfaction with his profession, devotion to the profession, belief in the necessity and importance of the teaching profession, and belief in professional development (Güneyli & Aslan, 2009). If future teachers have positive attitudes and opinions regarding their profession, they can easily improve the intrinsic motivation of their students, communicate with them, and spend more effort to personalize and diversify the learning situations in the future (Andronache, Bocoş, Bocoş, & Macri, 2014).

Pre-service teachers' perceptions regarding their professional attitudes and opinions (i.e. their ways of perceiving the profession) are as important as the knowledge they have. Teachers' attitudes towards the profession are not defined clearly. They are shaped by teaching, student, classroom environment, and the subjects which are covered unintentionally in general. They are influential on teachers' thinking processes, classroom activities, professional changes, improvements, and teaching skills to a great extent (Güneyli & Aslan, 2009).

Some of the studies in the literature based on Turkish context that deal with pre-service teachers' attitudes and opinions can be summarized as follows:

The study conducted by İpek, Kahveci, & Camadan (2015) revealed that female pre-service teachers have higher positive attitudes regarding the teaching profession compared to male pre-service teachers. Another result of that study is that the second year pre-service teachers have higher positive attitude scores regarding the teaching profession compared to the fourth year students.

Altunkeser's (2014) dissertation study on pre-service primary school teachers proved that the scores pre-service teachers get from Student Selection and Placement Exam (OSYS) and academic achievement are not significant predictors of their attitudes towards the teaching profession. In addition, no significant difference was found between pre-service teachers' attitudes by gender and the type of high school they graduated from.

A study conducted with pre-service primary school mathematics teachers indicated that students' mean attitude scores regarding the teaching profession were at medium level, which refers to a positive attitude towards the teaching profession meaning "suitable". Moreover, the study determined no statistically significant difference between students' attitudes towards the teaching profession by gender. Furthermore, no statistically significant difference was detected between students' attitude scores regarding the teaching profession according to the type of high school they graduated from and grade (Taşdemir, 2014).

According to the results of a study conducted with the 4th year pre-service primary school teachers studying at the Faculty of Education at Muş University, pre-service teachers' had positive and highly positive attitudes regarding the teaching profession. That study also identified a significant relationship between pre-service teachers' attitudes towards the teaching profession and their departments (Kesen & Polat, 2014).

In another study focusing on attitudes towards the teaching profession among the first year pre-service teachers attending the Faculty of Education at Sakarya University, pre-service teachers' attitudes were found to be high, and a significant difference in favor of female pre-service teachers was determined. In addition, a variation was detected in the attitudes towards the teaching profession from department to department. In this sense, it was seen that the opinions of the students studying at the Department of Computer and Instructional Technologies, the Department of Science Education, and the Department of Primary School Mathematics Education differed from those of the students attending the Department of Primary Education, the Department of Social Sciences Education, and the Department of Pre-School Education (Gür Erdoğan & Zafer Güneş, 2012).

Another study dwelt on the relationship between education faculty students' attitudes towards the teaching profession and their levels of concern. The results of that study indicated that attitudes were positive while the levels of concern were low and there was a low negative significant relationship between the two variables. It was also seen that gender was influential on their attitudes with female pre-service teachers having more positive attitudes (Doğan & Çoban, 2009).

A study was conducted in the Department of Turkish Language Education at Gazi Faculty of Education. This study revealed that pre-service teachers generally have positive attitudes towards their profession and like it (Temizkan, 2008).

General evaluation of pre-service teachers' attitudes has yielded positive and high results in a

lot of studies (Akpınar, Yıldız, & Ergin, 2006; Çetinkaya, 2009; Andronache, Bocoş, Bocoş, & Macri, 2014). It is believed that pre-service teachers having high attitudes will also have job satisfaction (Taşdemir, 2014), which will be promising for the future of the teaching profession (Kesen & Polat, 2014). However, there are also studies indicating low levels of attitudes among pre-service teachers (Kahyaoğlu, Tan, & Kaya, 2013).

There are studies indicating that there is a difference (Şahin Taşkın & Hacıömeroğlu, 2010; Gökçe & Sezer, 2012; Gür Erdoğan & Zafer Güneş, 2012) and also studies claiming that there is no difference between pre-service teachers in terms of attitudes towards the teaching department (Bozdoğan, Aydın, & Yıldırım, 2007; Hacıömeroğlu & Şahin Taşkın, 2010; Üstüner, Demirtaş, & Cömert, 2009; Bozdoğan, Aydın, & Yıldırım, 2007). These studies report that all the pre-service teachers have high attitudes, but pre-service teachers studying in certain departments have higher attitudes. It is not possible to make a generalization about this difference over the departments.

Ceylan and Turhan (2010) attempted to reveal pre-service teachers' opinions regarding education and instruction. The data were collected from 134 pre-service teachers via interviews. Through the coding of the interviews, pre-service teachers were seen to have both positive and negative views regarding teacher quality and education in the beginning. However, at the end of the course, they did not state any negative concept.

Şener (2015) conducted a study with pre-service teachers from the Department of English Language Teaching and revealed that pre-service teachers had positive attitudes. The general mean score of the positive statements regarding the teaching profession was 4.19 out of 5. When asked about the reasons for selecting the teaching profession, 65.25 % of the pre-service teachers stated positive reasons and denoted that they willingly selected their department.

According to the results of a study conducted with students studying at the Department of Physics Education, students studying physics do not have much concern regarding the profession of teaching. It was seen that students have most concern about appointment, but have less concern about personality and conflicts. Another result of that study is that male students think that the education they receive is not enough for them to be physics teachers. In addition, it was seen that the majority of the students had chosen that department not because they were willing to. Less than two-fifths of the students stated that they selected that department because of their interest in physics courses (Kaya & Büyükkasap, 2005).

Research dwelling on whether having a teacher in family influences attitudes towards the teaching profession generally assumed that children with a family member working as a teacher would have more positive attitudes towards the profession of teaching. Though certain studies confirmed this assumption (Korkmaz & Usta, 2010), some other could not (Aydın & Sağlam, 2012; İlter & Köksalan, 2011).

2. Method

Q-methodology was employed to determine students' opinions and perceptions. Q-methodology is considered as a reliable method that takes individuals' unique perspectives as a reference (Brown, 1996). It refers to the analysis of people's subjective opinions and ideas. The basic tool of Q-methodology is Q-sort technique involving a series of expressions from "I agree" to "I disagree" (Brown, 1996). Though it was originally coined in the field of psychology, Q-methodology later started to be used in social sciences as well. It is a method in which the strong sides of both quantitative and qualitative methods are used, and the data analysis process is carried out via a special software (Brown, 1996; Demir & Kul, 2011).

Thanks to Q-methodology, it is possible to distinguish between groups with dramatically different opinions in relation to the issue focused on in a study. Basically, Q-methodology is comprised of six steps (Reid, 1999): selection of the particular issue; development of the Q-sort statements; implementation of Q-sort; interviews with participants; and statistical analysis and interpretation.

The present study was carried out with the fourth year students (i.e. pre-service teachers) studying at a university located in the southern part of Turkey during the fall semester of the 2015–2016 academic year. Since pre-service teachers were taking teaching practice course in the schools during the period when the survey was administered, they had the opportunity to observe the working conditions of teachers. The pre-service teachers were classified by department, gender, and academic achievement. An attempt was to put equal number of participants in the groups.

Datasets were prepared and administered to the students. The process took 10 to 15 minutes for each student. The students were initially asked to classify the given statements into "Positive", "Neutral", and "Negative". Afterwards, they were asked to classify them based on "-4, +4" grading in accordance with the Q-methodology scale form. Under each grade, the students could put as many statements as shown in Q-sort given in Figure 1 below. After completing the classification of the items, the students filled the Q-sort template. A total of 43 students participated in the process. However, data obtained from 3 students were incomplete, and some of the statements included repetitions. Therefore, data obtained from these 3 students were excluded.

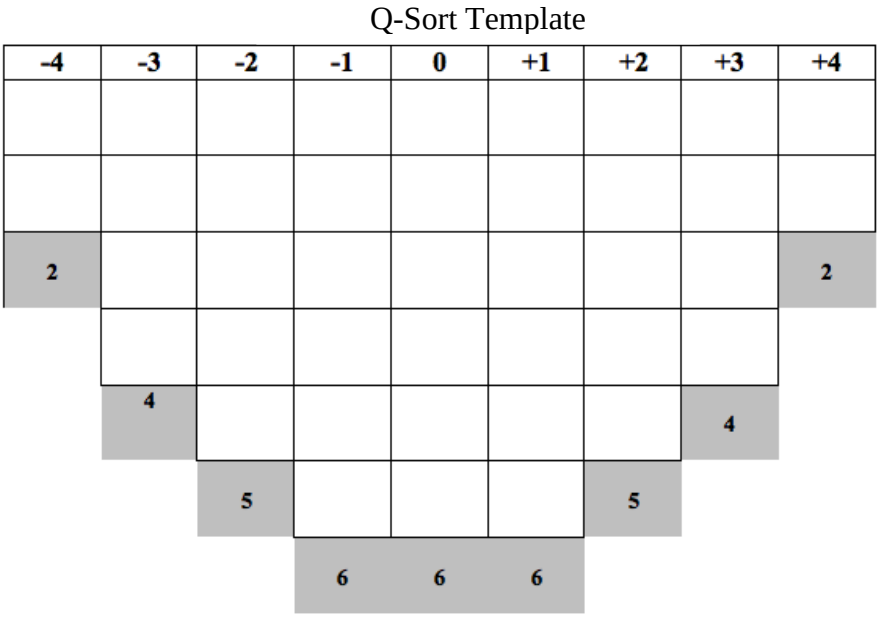

Fig. 1. Q-Sort Template

In addition, the students were asked to respond the questions below for qualitative analysis.

1. Why did you put the statements into the -4 category?
2. Why did you put the statements into the - +4 category?

Data Analysis

The PQMethod program was employed for data analysis. Classification of the participants was based on department (Turkish Language Education=t, Primary Education=p, Mathematics Education=m, English Language Teaching=e), gender (Male=m, Female=f), GPA (from 2.00 to 3.00 =3, from 3.00 to 4.00 =4), high school (Anatolian Teacher Training High School=a, Others=o), and having teacher relatives (Yes=y, No=h). The limit of significance was calculated to be 0.41.

Content analysis method was employed for the analysis of qualitative questions. The responses given by the pre-service teachers were coded freely. The data were re-coded after six weeks. Code similarity rate was found to be 0.86. Free codes were combined under relevant categories and themes. Four themes were created in the study: perception, affective situation, preference, and competence. The definitions of these themes, categories, and codes as well as sample statements concerning them are given in Table 1.

The perception theme involves codes regarding how pre-service teachers perceive teaching. Secondly, the affective situation theme includes codes concerning what they feel in regard to teaching. Thirdly, the preference theme contains codes about pre-service teachers' voluntariness when choosing the departments which they are attending now. Lastly, the competence theme incorporates codes regarding whether their characteristics are suitable for teaching and whether they have appropriate knowledge and competence for it.

Table 1. The table of theme, category, and code definitions

Theme	Category	Code	Explanations and sample sentences
Perception	Positive perception	Willingness	Willingness to be a teacher "*I would like to be a teacher*"
		Fun	Thinking that teaching profession is fun "*I think it will be a fun job*"
		Positive perception of teaching	Thinking that one will gain prestige when he becomes a teacher "*I think the people around me will appreciate me enough when I become a teacher*" "*Teaching is a prestigious profession*"
	Negative perception	Negative perception of teaching	Thinking that teaching will not be appreciated enough "There is no prestige"
		Difficult conditions	Thinking that teaching has difficult conditions "*Teachers have difficult working conditions*"
Affective Situation	Affective characteristics regarding the necessity of the profession	Loving teaching	Being happy for teaching "*Thinking that I will teach people the things they do not know makes me happy*"
		Liking	Liking teaching "*I liked teaching*"
		Not liking	Not liking teaching "*I do not recommend a profession I do not like to others*"
	Positive feelings	Not being afraid	Not being afraid of and worried about teaching "*Thinking that I will be a teacher never makes me afraid*"
		Excitement	Excitement about being a teacher "*The teaching profession makes me excited*"
	Reflection of negative feelings	Worry	Being worried about being a teacher "*The idea of being a teacher worries me*"
		Being in fear of making a mistake	Being aware of the responsibility of teaching and being in fear "*I am in fear of behaviors that are likely to have a wrong and adverse effect on my students*"
Preference	Negativities	Choosing another profession	Possibility of choosing another profession "*I would not choose teaching if I had a right to do so*"
		Forced choice	Unwillingness and choosing because of nonobjective guidance "*I did not want to be a teacher myself*"
	Positive	Voluntary choice	Voluntary choice of teaching "*I myself chose and wanted to be a teacher*"
		Not being regretful	Not regretting choosing to be a teacher "*I do not regret choosing to be a teacher*"
Competence	Dimension of confidence	Self-confidence	Believing in oneself for teaching "*I think I have teaching in my very nature*"
		Considering competent	Considering oneself competent at teaching "*Teaching suits my competences*"
		Believing that one will succeed	Believing that one will be successful when he starts teaching "*I do not think I will be unsuccessful in teaching*"
	Personal dimension	Being fit for personality	Thinking that teaching suits one "*Teaching is a suitable profession for my personality*"

		Being skillful	"I believe that I have the skill of teaching"
		Being keen on researching	Being able to research "*Research and discussion are my job*"
		Being talented	"I think I have the talent to do this job"
		Willingness to discuss	"Discussion is my job"
		Not being fit for personality	"Teaching does not suit me"
		Existence of suitable professions	"There are other professions that are suitable for my personality"
	Dimension of knowledge and education	Good education	"I think I have received a good education"
		Being knowledgeable	"…I think I will be a knowledgeable teacher."
		Overcoming the difficulties	"… I think I will be able to overcome the difficulties I confront with"

Findings and Interpretations

In the presentation of the findings, information will be given on factor analysis in the first place. Then the characteristics of the emerging groups will be evaluated, and the items on which the groups agreed will be indicated. Finally, the findings obtained through qualitative analysis will be presented.

Table 2. The table of factor loadings

Participant/Factor	**1**	**2**	**3**
1 tb4de1	**0.7864X**	-0.1571	0.3066
2 tb4de2	**0.8572X**	0.0873	-0.0528
3 te3de5	-0.2386	**0.6366X**	0.1086
4 tb4de6	**0.8346X**	-0.3546	0.0298
5 tb3de7	**0.6937X**	-0.0340	0.0357
6 te3de8	**0.8086X**	0.1209	-0.0014
7 tb3de10	0.1633	-0.3613	**0.5939X**
8 sb4de11	**0.8300X**	-0.2799	-0.0718
9 sb4de12	**0.8641X**	-0.2242	-0.1600
10 sb3de13	**0.7269X**	0.0206	0.1542
11 sb3dh14	**0.7642X**	-0.0265	0.1557
12 sb4de15	**0.9016X**	-0.1854	-0.0533
13 se3dh16	**0.6097X**	0.3663	-0.0325
14 se3dh17	**0.7875X**	0.2061	0.2622
15 se4dh18	0.5623	**0.6493X**	0.3118
16 se4dh19	**0.8098X**	-0.3813	-0.1089
17 sb3de20	**0.5261X**	0.3885	-0.4216
18 mb3de21	**0.6608X**	-0.2896	-0.1363
19 mb3de22	**0.8290X**	-0.0182	0.0818
20 me3de23	**0.8114X**	-0.1377	0.0802
21 me4de24	**0.8156X**	0.0592	0.0411
22 mb4ae25	**0.7781X**	0.2804	-0.1261
23 mb4be26	**0.8290X**	-0.1198	0.1747

24 me3dh27	**0.7826X**	-0.2717	0.0267
25 me4dh28	**0.7378X**	0.0011	-0.1237
26 me3dh29	**0.8303X**	0.1379	-0.0454
27 mb4de30	**0.6451X**	-0.0133	0.4385
28 mb3de31	**0.7139X**	0.3705	0.0082
29 ie3de32	0.3081	**0.8223X**	0.2256
30 ib3dh33	**0.5905X**	0.5136	-0.2924
31 ib4de34	**0.7307X**	0.1268	-0.1271
32 ie3dh35	**0.7798X**	-0.2200	0.0199
33 ib4be36	**0.9033X**	-0.1153	-0.1588
34 ib3de37	**0.6529X**	0.0851	-0.1459
35 ie4dh38	-0.7292	**0.4390X**	0.0811
36 ib4dh39	**0.8259X**	-0.2647	0.1555
37 ie4de40	**0.6938X**	-0.3973	-0.0611
38 ib4dh41	-0.1765	**0.7291X**	0.0586
39 ie4dh42	**0.7523X**	0.0685	-0.2293
40 ie3de43	**0.8374X**	0.0022	-0.0970

x indicates the factor the person is included in.

The Table 2 shows the factor results of 40 people constituting the sample. The participants are enumerated and presented as 1, 2, etc. in the table. Principal component analysis and rotation indicated that 40 participants grouped under 3 factors. 34 grouped under the first factor (column), 5 under the second factor, and 1 under the third factor. That 34 of the participating 40 students (i.e. 85 % of the entire study group) grouped under a single dimension may be implying that it is a general character of the group. Hence, it can be said that the pre-service teachers had similar views regardless of their department, achievement level, gender, high school graduation, and having a relative that is teacher. The common ground of such similarity and the statements to which more importance was attached will be presented in the following sections.

Table 3. The Z-scores and ranks of importance of the items

Factor / Item	Factor 1		Factor 2		Factor 3	
	Z	**Rank***	**Z**	**Rank***	**Z**	**Rank***
I think I will be successful in teaching.	1.551	1	0.650	12	-1.366	37
Thinking that I will teach people things they do not know makes me happy.	1.362	2	1.563	3	1.366	3
I am glad that I have chosen the teaching profession.	1.303	3	-1.364	37	0.911	9
I think teaching is a suitable profession for me.	1.256	4	-0.552	27	1.366	5
I am self-confident about the requirements of the teaching profession.	1.200	5	0.551	13	0.455	17
I think I will be a knowledgeable and competent teacher.	1.127	6	1.008	6	-0.000	21
Teaching is the primary profession that suits my personality.	1.026	7	-1.765	39	-0.911	33
I believe that I can maintain teaching in a professional way.	1.013	8	0.514	14	0.911	10
I myself wanted to be a teacher.	0.972	9	-1.027	34	0.455	16
The teaching profession makes me excited.	0.971	10	-1.124	36	-0.000	18

I believe that I will be able to overcome the difficulties I will confront with in the teaching profession.	0.911	11	0.832	8	-0.911	31
I believe that I have a special talent for teaching.	0.887	12	-0.325	23	-0.000	22
The idea of being a teacher does not worry me.	0.734	13	0.093	19	-0.000	20
I discuss and talk about education, learning, and teaching.	0.718	14	1.041	5	0.911	11
The possibility of mistreating my students distresses me.	0.681	15	0.973	7	-0.455	24
Teaching profession is not appreciated enough.	0.594	16	0.808	10	-0.911	34
Teachers have difficult working conditions.	0.518	17	0.826	9	1.366	4
I would still choose teaching if I had a chance to choose a profession again.	0.388	18	-2.025	40	0.455	14
I will recommend teaching as a profession to my students.	0.256	19	-0.584	30	0.455	15
I would like to teach even under difficult conditions.	0.211	20	-0.419	24	-0.455	29
I think the people around me will appreciate me enough when I become a teacher.	0.047	21	-1.051	35	-0.455	25
There are other professions than teaching that suit me.	0.047	22	1.956	2	-1.822	39
The working conditions of teaching attract me.	-0.119	23	-1.740	38	-0.455	27
The people around me would appreciate me more if I had chosen another profession.	-0.456	24	0.451	17	1.822	1
Teaching is a prestigious profession in the society.	-0.488	25	0.782	33	1.822	2
I do not recommend teaching to those who are about to choose a profession.	-0.546	26	0.494	16	-1.822	40
I do not have enough knowledge and competence for teaching.	-0.556	27	-0.170	21	1.366	6
If I had a chance, I would like to have another profession.	-0.643	28	2.157	1	-1.366	35
I will give up teaching if I have problems.	-0.694	29	0.001	20	-0.000	23
I think I will not be able to overcome the difficulties I will confront with during teaching.	.1.065	30	-0.619	31	-0.455	26
In general, I do not like talking about topics related to teaching.	-1.104	31	-0.533	26	-1.366	38
I think I am incompetent at teaching.	-1.110	32	-0.650	33	0.455	12
I think I will not be able to teach at a satisfactory level.	-1.187	33	-0.264	22	0.911	7
I find teaching boring.	-1.195	34	0.732	11	0.911	8
The teaching department was a forced choice for me.	-1.276	35	1.245	4	-0.911	32

Thinking that I will become a teacher makes me afraid.	-1.386	36	-0.575	29	-1.366	36
I think teaching does not suit my personality.	-1.439	37	0.510	15	-0.911	30
I think I will be unsuccessful in teaching.	-1.485	38	-0.504	25	-0.455	28
I think I do not have the skill of teaching.	-1.494	39	-0.563	28	0.455	13
I regret choosing teaching as a profession.	-1.526	40	0.233	18	-0.000	19
THE VARIANCE EXPLAINED (%)	53		10		4	

* The rank of the importance attached by the individuals included in the factor to the item.

The Table 3 presents the items, their Z-scores, and their ranks of importance in each group (factor). The items were listed based on the degrees to which 34 students grouping under the factor 1 attached importance to them. In other words, the item to which the 34-person group attached the most importance was "I think I will be successful in teaching." whereas the item to which the group attached the least importance was "I regret choosing teaching as a profession." The fact that the positive items were the items to which the students grouping under factor 1 attached the most importance and those items had positive Z-scores may prove that the overall attitude is positive. In the second group, the highest Z-score (2.157) was obtained from "If I had a chance, I would like to have another profession." whereas the lowest score (-2.025) was obtained from "I would still choose teaching if I had a chance to choose a profession again." It is clearly seen that the second group chose the teaching profession forcedly. In the third group, the highest Z-score (1.82) was obtained from "The people around me would appreciate me more if I had chosen another profession." whereas the lowest Z-score (-1.82) was obtained from "I do not recommend teaching to those who are about to choose a profession." It is seen that the individuals in this group think that more prestige can be gained in professions other than teaching, but they would still recommend the teaching profession to others. The items characterizing the groups are presented in Table 4.

Table 4. The Items Characterizing the Groups

	Factor 1		**Factor 2**		**Factor 3**	
	Z	**Item**	**Z**	**Item**	**Z**	**Item**
POSITIVE END	1.55	I think I will be successful in teaching.	2.16	If I had a chance, I would like to have another profession.	1.82	The people around me would appreciate me more if I had chosen another profession.
	1.03	Teaching is the primary profession that suits my personality.	1.96	There are other professions than teaching that suit me.	1.82	Teaching is a prestigious profession in the society.
	1.01	I believe that I can maintain teaching in a professional way.	1.24	The teaching department was a forced choice for me.	1.37	I do not have enough knowledge and competence for teaching.
NEGATIVE END	-1.48	I think I will be unsuccessful in teaching.	-1.36	I am glad that I have chosen the teaching profession.	-1.37	I think I will be successful in teaching.

	-1.49	I think I do not have the skill of teaching.	-1.74	The working conditions of teaching attract me.	-1.82	There are other professions than teaching that suit me.
	-1.53	I regret choosing teaching as a profession.	-2.03	I would still choose teaching if I had a chance to choose a profession again.	-1.82	I do not recommend teaching to those who are about to choose a profession.

The items characterizing the groups show that 34 people under the factor 1 have positive perceptions regarding teaching whereas the other factors involve negative perceptions. Those who are in the first group are the people who have chosen the teaching profession willingly and enthusiastically and feel themselves competent to maintain the profession in the future. This group was named "*idealists*". Those who are in the second group have chosen the teaching profession forcedly. They do not find teaching interesting. They would like to have another job if they had an opportunity. This group was named "*Forced teachers*". Finally, those who are in the third group find the teaching profession prestigious, but less prestigious than other professions. They believe that they are not completely competent at teaching and so will not be successful in this profession. This group was named "*Confused teachers*".

Table 5. The Items on Which There Was an Agreement among the Groups

	Group1		Group2		Group3	
Item	Q-SR	Z-Score	Q-SR	Z-Score	Q-SR	Z-Score
* I discuss and talk about education, learning, and teaching.	1	0.72	3	1.04	2	0.91
I think I will be a knowledgeable and competent teacher.	3	1.13	3	1.01	0	0.00
*Thinking that I will teach people things they do not know makes me happy.	4	1.36	3	1.56	3	1.37
*Teachers have difficult working conditions.	1	0.52	2	0.83	3	1.37
I believe that I can maintain teaching in a professional way.	2	1.01	1	0.51	0	0.00
*I think I will not be able to overcome the difficulties I will confront with during teaching.	-2	-1.06	-2	-0.62	-1	-0.46
I think I am incompetent at teaching.	-2	-1.11	-2	-0.65	-3	-1.37

***** It does not lead to a difference that is significant at 0.05 level.

The Table 5 demonstrates the statements on which the groups agreed. It indicates that while the first five items were considered positive or neutral by all the groups, the last two items were deemed negative by all the groups. The items imply that the pre-service teachers think that they can overcome the problems may confront with and they are competent in professional terms. It is significant that even those pre-service teachers who have chosen this professional forcedly are willing to cope with these problems. All three groups welcome the happiness felt for teaching people the things they do not know at a high level.

Qualitative Findings

Table 6. The Categories, Codes, and Frequencies Concerning the Perception Theme

Category	Code	Frequency	The Number of People	Group	Group	Group
Positive Perception	Willingness	3	3	3	0	0
	Fun	1	1	1	0	0
	Positive perception of teaching	6	5	3	1	1
Negative Perception	Negative perception of teaching	8	6	5	1	0
	Difficult conditions	5	4	2	2	0

The pre-service teachers used 10 positive perception codes and 13 negative perception codes. They have negative perceptions regarding teaching and find working conditions difficult.

Table 7. The Categories, Codes, and Frequencies Concerning the Affective Situation Theme

Category	Code	Frequency	The Number of People	Group	Group	Group
Affective characteristics regarding the necessity of the profession	Loving teaching	5	5	5	0	0
	Liking	5	5	5	0	0
	Not liking	1	1	0	1	0
Positive feelings	Not being afraid	7	7	7	0	0
	Excitement	2	2	2	0	0
Reflection of negative feelings	Worry	1	1	0	1	0
	Being in fear of making a mistake	1	1	1	0	0

In the affective situation theme, two negative statements were delivered by the people in Group2. Group1, on the other hand, stated the negativity "being in fear of making a mistake". The pre-service teachers repeated the positive codes "Loving teaching", "Excitement", "Not being afraid", and "Liking" 19 times. It can be said that the pre-service teachers generally have positive perceptions in affective terms.

Table 8. The Categories, Codes, and Frequencies Concerning the Preference Theme

Category	Code	Frequency	The Number of People	Group	Group	Group
Negativities	Choosing another profession	8	7	2	4	1
	Forced choice	2	2	0	2	0
Positive	Voluntary choice	12	8	8	0	0
	Not being regretful	7	7	7	0	0

In the preference theme, negativities were mainly stated by Group2 and Group3. The members of Group1 said that they chose their profession voluntarily and do not regret choosing it. Hence, it can be said that students' voluntary choice of profession is influential on their maintaining it.

Table 9. The Categories, Codes, and Frequencies Concerning the Competence Theme

Category	Code	Frequency	The Number of People	Group	Group	Group
Dimension of confidence	Self-confidence	3	3	3	0	0
	Considering competent	6	4	4	0	0
	Believing that one will succeed	11	10	10	0	0
Personal dimension	Being fit for personality	15	12	12	0	0
	Being skillful	9	8	8	0	0
	Being keen on researching	1	1	1	0	0
	Being talented	6	6	6	0	0
	Willingness to discuss	1	1	1	0	0
	Not being fit for personality	4	2	0	2	0
	Existence of suitable professions	2	2	1	1	0
Dimension of knowledge and education	Good education	1	1	1	0	0
	Being knowledgeable	1	1	1	0	0
	Overcoming the difficulties	7	7	6	1	0

The competence theme consists of the dimension of confidence, personal dimension, and the dimension of knowledge and education. In the dimension of confidence, the pre-service teachers in Group1 consider themselves competent and believe that they will be successful. In the personal dimension, most of the pre-service teachers stated that teaching suits their personality and they are skillful and talented in teaching. In the dimension of knowledge and education, they think that they can overcome the difficulties thanks to the education they receive. It can be said that the pre-service teachers using the codes, "Not being fit for personality" and "Existence of suitable professions" do not have a professional identity developed enough.

3. Conclusion and Discussion

Q-sort results indicate that majority of the pre-service teachers have positive attitudes towards the teaching profession. Qualitative analyses indicate that they have both positive and negative perceptions. However, they had more positive codes in the affective dimension. Many previous studies report that pre-service teachers generally have positive and high attitudes towards their profession (Akpınar, Yıldız, & Ergin, 2006; Çetinkaya, 2009; Andronache, Bocoş, Bocoş, & Macri, 2014; Duatepe & Akkuş-Çıkla, 2004; Uğurlu & Polat, 2011; Kayan Fadlelmula, 2013; Akbulut & Karakuş, 2011). It is believed that pre-service teachers having high attitudes will also have job satisfaction (Taşdemir, 2014), which is promising for the future of the teaching profession (Kesen & Polat, 2014). However, there are also studies indicating that pre-service teachers have low attitudes (Kahyaoğlu, Tan, & Kaya, 2013). Furthermore, while some studies suggest that pre-service teachers have low levels of concern (Doğan & Çoban, 2009), some others indicate that they do have certain concerns (Kaya & Büyükkasap, 2005).

Three different groups of teachers were formed in the study: idealists, forced teachers, and confused teachers. Qualitative analyses yielded codes that support the characteristics in these groups. In the competence dimension, the pre-service teachers have high levels of self-confidence and think that they will be successful. There are pre-service teachers who think that the profession suits their personality while there are also those who just have the opposite view. The pre-service teachers consider themselves competent. It is important to choose teaching willingly to maintain it.

The presents study revealed that there are both willing and forced pre-service teachers selecting the profession. Similarly, Mtika and Gates (2011) state that there are pre-service teachers who have selected the teaching profession as a last resort while there are also those who have opted for the program because they like teaching. Temizkan (2008) reports that pre-service teachers like teaching while Şener (2015) states that majority of pre-service teachers opt for teaching willingly. However, Kaya and Büyükkasap (2005) argues that there are pre-service teachers that select the department not because of their willingness, but due to other reasons.

Pre-service teachers have both negative and positive perceptions. Ceylan and Turhan (2010) found out that pre-service teachers used both negative and positive concepts at the beginning of the course. However, they used only positive concepts at the end of the education process. In the present study, some of the pre-service teachers stated that they are not suitable for the profession. There are also those who want to engage in other professions. These findings support the claim that the pre-service teachers do not have a teaching profession identity developed enough. Teaching profession identity plays an important role on many issues from motivation to maintaining the profession (Hong, 2010).

In the competence dimension, the pre-service teachers believe that they will be successful. They also think that they receive a good education. The study conducted by Lamote and Engels (2010) also revealed that pre-service teachers have high perceptions of competence. Having high intrinsic motivation is more important for being a teacher (Bruinsma & Jansen, 2010). That the pre-service teachers stated positive concepts particularly in the affective dimension indicates high motivation. This increases the possibility of maintaining the profession for a long period of time. According to the Expectancy Theory, it is important for pre-service teachers to have high motivations to maintain their profession.

The statements on which an agreement was reached are as follows:

- ✓ They use the concepts about education and instruction in their daily lives.
- ✓ They like teaching things to people.
- ✓ They think working conditions are difficult.
- ✓ They think they will overcome the problems they will confront with while teaching.

There was no variation in terms of the independent variables. Different groups of the pre-service teachers stemmed from their opinions. Department, gender, and having or not having a teacher relative, taken as independent variables, were not influential on the formation of these groups.

There is a common belief that teaching is suitable for women (Yaman, Yaman, & Eskicumalı, 2001; Özyurt & Eren, 2014). However, the factor analysis results of the present study, which employed Q-methodology, indicate that the pre-service teachers' attitudes towards the teaching profession do not change by gender, department, academic achievement, and whether they have a teacher relative. No difference was detected by gender, department, the type of high school of graduation, and having or not having a teacher relative in the family. Though there are some studies with results similar to that of ours (i.e. gender is not influential on the attitude) (Hacıömeroğlu & Şahin Taşkın, 2010; Can, 2010; Üstüner, Demirtaş, & Cömert, 2009; Dinçer & Yılmaz, 2015; İlter & Köksalan, 2011), there are also studies indicating that female pre-service teachers have more positive attitudes (Akpınar, Yıldız, & Ergin, 2006; Çetinkaya, 2009; Çapa & Çil, 2000; Duatepe & Akkuş-Çıkla, 2004; Gürbüz & Kışoğlu, 2007; Çağlar, 2013; Kızıltaş, Halmatov, & Sarıçam, 2012; Tümkaya, 2011; Güneyli & Aslan, 2009; Gürbüz & Kışoğlu, 2007). There are also some studies reporting that male pre-service teachers have more positive attitudes (Eraslan & Çakıcı, 2011; Çapa & Çil, 2000).

There are studies claiming that there are differences between pre-service teachers by department (Şahin Taşkın & Hacıömeroğlu, 2010; Gökçe & Sezer, 2012; Gür Erdoğan & Zafer Güneş, 2012) while there are also studies which assert that there is no such influence (Bozdoğan, Aydın, & Yıldırım, 2007; Hacıömeroğlu & Şahin Taşkın, 2010; Üstüner, Demirtaş, & Cömert, 2009). The present study revealed that all the pre-service teachers have high attitudes, but some of them have higher attitudes depending on the department. It is not possible to make a generalization about this difference over the departments.

Generally speaking, the pre-service teachers have positive opinions and consider themselves competent. Having a high perception of competence is important for pre-service teachers to overcome the difficulties encountered while working. Moreover, most of the pre-service teachers

like their profession. In this sense, it is possible to say that faculties of education serve their purposes. Majority of teachers do not regret selecting this profession.

4. Recommendations

Study results indicate that if departments to study are chosen voluntarily and individuals are allowed to pursue different professions even after making these choices, more teachers who are committed to their profession will be introduced. This study is an attempt to reveal the situation of fourth year students. It is recommended for future studies that longitudinal research be carried out and the first year students' attitudes be measured.

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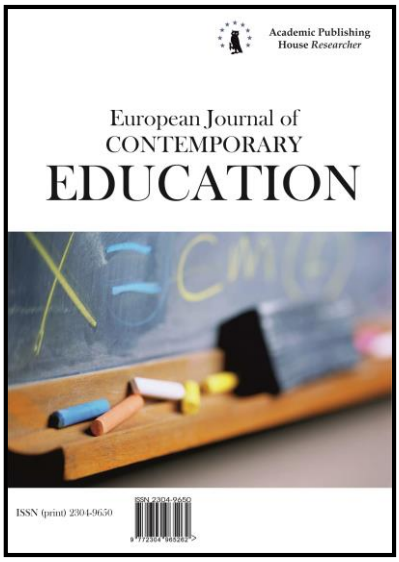

Anxiety Towards Mathematics and Educational Level a Study on Means Diferences

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Abstract

The aim of this research work is to analyze whether there is a difference in the degree of anxiety towards mathematics among students of different educational levels. The study is not-experimental and cross sectional, and it is based on difference of means between groups. The sample is not-probabilistic, and consisted of 226 students from Tuxtepec, Mexico of different educational levels: basic, middle, upper-middle and upper. For this purpose, the questionnaire designed by Muñoz and Mato-Vázquez (2007) was utilized. It comprises five factors: anxiety toward evaluation, anxiety toward temporality, anxiety toward understanding of mathematical problems, anxiety about numbers and mathematical operations, anxiety toward mathematical situations of the real life. The results shows that anxiety toward mathematics is different by level of study, that significant differences exist between groups, and that anxiety toward assessment is higher among upper, upper-middle and middle levels, while for elementary students there is no perceptible anxiety toward mathematics.

Keywords: Anxiety, math, student, study level.

1. Introduction

Setting of the studied phenomena

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As an extension of the study made by García-Santillán, Edward Wurzinger and Tejada-Peña (2015) on the factors that explain anxiety towards the study of mathematics by students of basic level, now, in this study, we look for determining if there are differences in the anxiety level towards mathematics between the students from basic school, junior high school, high school and bachelor level at the region of Tuxtepec, Oaxaca, México.

Following this idea, once more the departure point is the result of the evaluation applied to basic or primary school in Mexico on the academic performance of the students from the sixth grade. It can be seen that, after having applied different tests and questionnaires, is at the mathematics area where 48 % of the students were able to reach a good or excellent level in this subject, while 52 % got an insufficient and basic level, all this, according to data from the National Evaluation of Academic Achievement at Schools (Enlace, 2013).

In that sense, and according to the PISA (2012) (Program of International Students Assessment) results, 55 % of the students are not able to reach the basic competences level according to this indicator. Level 1 means that Mexican students show a delay of almost two years at their educational level, compared to the average of the nations of the OECD, Organization for Economic Cooperation and Development that show an average of 494. Mexico ranks 52 among the 65 countries that took part in the test in 1912, which means an achievement, since in 2003 Mexico ranked 37 among 41 countries that were analyzed. The aforementioned raises questions such as which factors are associated to low performance? Which is the reason for this behaviour? What are the academic authorities doing? These questions lead us to develop an empiric study, with the aim to obtain evidence on the phenomena, departing from the student's attitude towards mathematics and specifically, at basic, junior high school, high school and bachelor degree students.

About the academic authorities, we can point out that the bodies in charge of designing and implementing the educational policies, are focused in transmitting the students the skills so they become able to develop all their potentiality, in a daily basis they might be able to face challenges related to conflicts solution, decision making or managing unexpected situations. Nevertheless, young students are not being trained the right way to count with the mathematics tools that are required in a world economy that is each time more interconnected, since there is a high percentage of scholar incompetence in this area. Some authors (De la Peña, 2002; Velázquez, 2008; Sosa, 2009; Gómez, 2009), have disclosed the higher education students' current situation related to their academic performance.

De la Peña (2002) demonstrated that 40.5 % of the students at the Autonomous National University of Mexico (UNAM), are not competent in mathematics; In that same sense, Velázquez (2008), remarks that in a mean average of the Management students at the Autonomous University of Chihuahua (76 %) counted with the abilities to solve mathematics problems. On the other hand, Sosa (2009), expressed that a high percentage (90 %) of the students at the Faculty of Accounting and Management of the Autonomous University of san Luis Potosí, UASLP, showed a lack of basic knowledge on mathematics and Gómez (2009), explained that the students of the Universidad Veracruzana, Coatzacoalcos Campus, also showed failures in this field.

Students consider that the mathematics course is one of the most difficult and therefore, there are prejudices towards this discipline that do not allow them to learn the concepts the right way; this negative attitude leads to a very high state of anxiety which impedes learning (Stubblefield, 2006, cited by Kargar, Tarmizi, Bayat, 2010; Aliasgar, Riahini, Mojdehavar, 2010). Richardson and Suinn (1972 cited by Sherman and Wither, 2003), conceptualize the term anxiety as a state of anguish that diminishes mathematic reasoning, performance and the student's attitudes and leads to avoiding or not electing courses with mathematics content (Garry, 2005).

In this idea, Carmona (2004) has found with respect to the anxiety phenomena towards mathematics that many students tend to face mathematics subjects with negative attitudes towards the topic, frequently associated to high levels of anxiety when they face the classes, exercises or tests about these subjects. The same way, we retake a study made by Onwuegbuzie (1993), on the prevalence of anxiety towards Statistics. He estimates that approximately 75 % of the students experience high levels of anxiety.

Is then anxiety towards mathematics the phenomena associated to the student's low academic performance? With the aim to clarify this, we take advantage of Fenemma and Sherman's (1976) study who designed a scale of 108 factors with the aim to assess the anxiety level towards

mathematics in the student and concurrently, inside the topic of mathematics but very specifically in the field of Statistics.

From the initial statement, and taking as a reference the theoretical reasoning exposed, now it is set out the following question: Is there a difference in the anxiety degree towards mathematics among the students from different educational levels? And therefore, we set as an objective analyzing if there is a difference in the anxiety level towards mathematics among the students of different educational levels.

2. Literature review

Researchers have carried out several studies in order to identify structures on latent variables that might permit the understanding of perception, attitude, beliefs and anxiety of the student towards mathematics. As an example, in Mexico, García-Santillán, Venegas and Escalera, (2013), García-Santillán, Venegas, Escalera and Córdova (2013) have carried out studies with the aim of identifying latent variables that might explain attitudes towards mathematics and specifically towards Statistics at some university students, either at public or private universities. Even being true that Statistics is a mathematics branch, and that the students relate both terms as mathematics, it must be clarified that what we are looking for at this study is assessing the level of anxiety towards mathematics in general.

Another research study carried out by Moreno-García, García-Santillán and Cristóbal-Hernández (2014) on evaluation, temporality, numerical skills and daily mathematic calculations, as factors that explain anxiety towards mathematics at junior high school students, the research demonstrated that from the five variables that conform the 24 units of Muñoz's and Mato's scale (2007), anxiety towards calculations with numbers, anxiety towards evaluation and anxiety towards comprehension of mathematics problems, showed the highest factorial weight (0,909, 0,905 and 0,897, respectively) at the extracted component.

On the other hand, Al Mutawah1 (2015), carried out a study about anxiety towards mathematics at students from the 8^{th}, 9^{th}, 10^{th}, and 11^{th}, grades in Malaysia, finding that beginning at the 11^{th} grade, students showed a higher anxiety level and mentions that anxiety increases as the students get to a higher grade.

Kok (2015) found that Mathematics anxiety has an impact at pre undergraduate students at the mathematics subjects and points out that there is a lineal relation between anxiety and evaluation, this is, when they face exams, besides, there is a relation between anxiety and the daily implementation of this topic. The author mentions that Yousef et al. (2010), got to the same conclusion, because he demonstrated the positive relation between anxiety when facing exams and Mathematics performance.

Harari, Vukovic and Bailey (2013), explored anxiety towards mathematics at students of first grade through a multidimensional construct that included a) negative reactions related to fundamental basic concepts, b) numerical certainty related to calculations ability and worry. His findings let us know that negative reactions and numerical certainty are the most relevant dimensions of mathematic anxiety.

Nuñez, Suarez and Bono (2013) examined at undergraduate students, if anxiety towards affects academic performance, his findings showed that low performance of the student in this subject, was due to anxiety towards this topic. That research also demonstrated that students, who have a background of having studied at a humanistic or social junior high school, show higher levels of anxiety towards mathematics. Besides, they refer that these students also show negative attitudes towards mathematics and therefore, get low grades at their final exams.

Departing from here, it could be demonstrated that anxiety reached its highest level at students from the Tuxtepec high school in Oaxaca when they are evaluated, when they solve a numerical problem or when they have to understand mathematics calculation within a limited time. These situations share that the student could feel an "exposition" during the process of understanding and solving a mathematics problem, and being possible that a student might choose his or her career with the aim of avoiding mathematics, but does not count with the same skill to relief the fear for a numeric problem in real life.

On the other hand, in Spain, Muñoz and Mato (2007), developed a scale in order to measure anxiety towards mathematics at students of mandatory junior high school in that country. The study's population was conformed by 1220 students form public and private schools.

The instrument they got is made of 24 items with a Cronbach's Alpha validity of 0.954 (>.9), very acceptable according to Hair's et al (1999) theoretical criteria, which is conformed by five dimensions: anxiety towards evaluation, anxiety towards comprehension of mathematics problems, anxiety towards numbers and mathematic calculations and finally, anxiety towards real life mathematics.

The results reported by Muñoz and Mato (2007), correspond with the purpose they has set when they began their research on the anxiety test and with this, they identified the theoretical level of this construct. Besides, as an interesting data to be remarked, they found differences in the median distribution of anxiety scores with respect to the factors, turning out to be that exams are responsible of the highest levels of anxiety at the students.

This evidence that they show and considering the importance that the element anxiety has in the field of mathematics, and above all, the role that it has in the student's life, Muñoz and Mato (2007), suggest that it is necessary to count on that kind of valuable information that allows to advise, the best possible way, to the students. Besides, they end suggesting that the scale can be taken as an evaluation platform that might permit making decisions associated to prevention, treatment or instructional change inside the classroom and that at the same time it may favour the improvement of that attitude, besides the fear or emotionalism associated to the mathematics field and whatever is derived from it. But what is anxiety?

feeling of tension and anxiety that interferes with the manipulation of numbers and solving of mathematics problems in a wide variety of daily and academic situations as well.

The factors for low performance of the students in mathematics has been the object of study in many researches, that is the reason why we take the seed works of Fenneman y Sherman (1976), who point out that the affective variables, including attitudes, have an impact not only on the effort that the student is willing to do in order to achieve a mathematical learning, but also determine the subject's motivation when choosing his or her professional studies. This instrument has been chosen duet to the fact it is a reference when measuring attitudes towards mathematics.

About this scale, there are numerous research works, which have made use of it, as an example: (Pérez-Tyteca, 2007; Leedy, LaLonde and Punk, 2003; Martin, 2002; Kloosterman and Stage, 1992). Also considered a seed work, are the studies made by Auzmendi (1992), who designed a scale that seeks measuring anxiety, trust, usefulness, liking and motivation towards that subject. There are other studies like those of Cervini (2001), who emphasizes that during the last two decades, the amount of researches on the factors that influence students' academic performance has extended notably.

After having set the phenomena of the study in its theoretical and empiric reality, it is confirmed the question on: Is there a difference in the level of anxiety towards mathematics at the different educational levels? Its objective is: Determining if there is a difference between the students of the different educational levels and anxiety towards mathematics.

3. Methodology

The study is no experimental trans- sectional, of median differences between groups, because it is of interest for this research, analyzing the difference and statistical significance between five dependant variables based in a cluster of categorical variables that act as predictors (Hair, 1999). It is transversal considering that data obtaining is given only once during a determined time.

For this research's purposes the sample is not probabilistic because the selection of the elements does not depend of the probability, but of causes related with the research's characteristics (Hernández, Fernández, Baptista 2010). The study sample was conformed by 226 students from different educational levels: basic, junior high school, high school and higher education from Tuxtepec, Oaxaca. The research makes use of the questionnaire designed by Muñoz and Mato (2007), which includes five factors: anxiety towards evaluation, anxiety towards temporality, anxiety towards comprehension of mathematics problems, anxiety towards numbers and mathematics calculations and anxiety towards daily life mathematics situations (Table 1).

Table 1. Dimensions of anxiety towards mathematics

KEY	DIMMENSION	ITEMS
Y_1	Anxiety towards evaluation	1, 2, 8, 10, 11, 14, 15, 18, 20, 22, 23
Y_2	Anxiety towards temporality	4, 6, 7, 12
Y_3	Anxiety towards comprehension of mathematics problems	5, 17, 19
Y_4	Anxiety towards numbers and calculations	3, 13, 16
Y_5	Anxiety towards daily life mathematics situations.	9, 21, 24

Cronbach Alfa Reliability Quotient was used, which itself is not a statistical proof, but a way to test the reliability of the instrument and data collection, in order to validate the stability and consistency of the measurements.

This reliability or internal consistency coefficient takes values between 0 and 1. Table 2 shows that all the variables have values higher than 0.5. For data processing it was used the SPSS v23 Program.

Table 2. Reliability Statistics

Variable	Cronbach Alfa
Y_1	0.803
Y_2	0.838
Y_3	0.700
Y_4	0.710
Y_5	0.745
X	0.810

Hypothesis

There is a difference at the anxiety level towards mathematics between the students of different educational levels. The hypothesis representation is as follows:

$$H_0 = \sigma_1^2 = \sigma_2^2 = \sigma_3^2 = \sigma_4^2$$

$$H_1 = \sigma_i^2 \neq \sigma_j^2 \text{ for some } i \neq j$$

The conceptual model is represented in Figure 1.

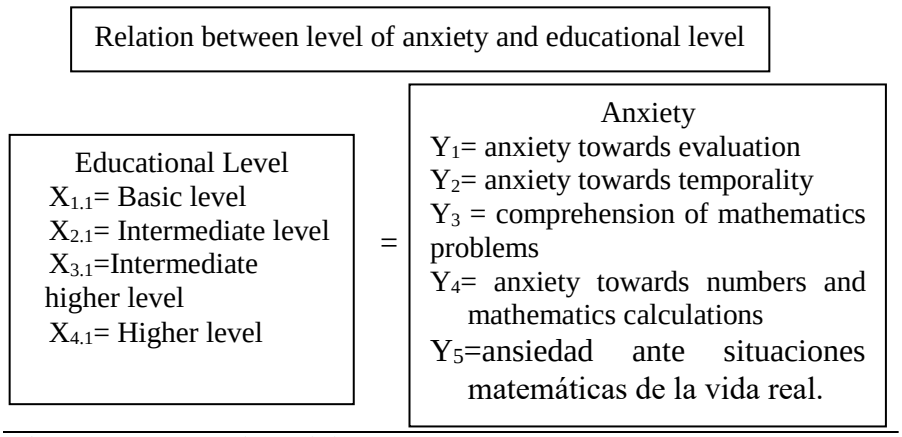

Fig. 1. Conceptual Model

Findings

In first place, the independent variables are described, their levels, including the values labels and number of cases at each group.

Table 3. Level of studies

Grade	Value label	N
1	Primary	23
2	Secondary	64
3	High school	63
4	Professional	76

Afterwards, at table 4, descriptive statistics of the variables anxiety towards mathematics and the level of studies of the students that were object of this research, are shown.

At table 4, it is observed that there is variability between the total medians of each variable that conforms the anxiety construct. It can be seen that there is a variation between the variables anxiety towards temporality (Y_2) and anxiety towards numbers and mathematics calculations (Y_4) referring to level of studies; whereas between the variable comprehension of mathematics problems (Y_3) and anxiety towards numbers and mathematics calculations (Y_4) there is not a big variation related to the level of studies. The difference between the medians is showing that depending on the student's level of studies is the level of anxiety towards mathematics.

Table 4. Anxiety towards mathematic and level of studies

Grade		Y_1		Y_2	
	N	Median	σ	Median	σ
Primary	23	4.8241	.59338	2.2075	.30841
Secondary	64	5.9986	.74604	2.6236	.31233
High school	63	5.7062	.73695	2.5329	.31576
Professional	76	5.6235	.66897	2.4553	.29211
Total	226	5.6714	.77075	2.4994	.32650
Grade		Y_3		Y_4	
	N	Median	σ	Median	σ
Primary	23	7.0435	2.61948	7.1304	2.76840
Secondary	64	10.2969	2.79273	10.5313	2.70196
High school	63	10.0000	2.60892	9.7937	2.81218
Professional	76	8.9474	2.65779	9.3289	2.52131
Total	226	9.4292	2.83734	9.5752	2.82782
Grade		Y_3			
	N	Median	σ		
Primary	23	6.5652	2.62551		
Secondary	64	9.2969	3.74454		
High school	63	8.8889	3.18824		
Professional	76	8.6184	3.22890		
Total	226	8.6770	3.38455		

Information for the diagnosis at the MANOVA

Hair (1999), points out the importance of the conditionals that MANOVA must accomplish in order that their procedures can be valid. The author mentions that three rules must be accomplished: 1) The observations must be independent, 2) variance and co- variance matrixes must be equal for all the groups and 3) the cluster of the p independent variables must follow a normal distribution. At table 5 it is shown the variance and co- variance matrix and the correlations (indicated between parentheses) of the variables that permit to verify that there is not dependence between them, this is, it proves the assumption of independence since all of them are positive and none has a very close value to one.

Table 5. Homogeneity Contrasts

	Group 1 Primary				
	X_1	X_2	X_3	X_4	X_5
X_1	**.352**	(.695)	(.709)	(.711)	(.492)
		.127	1.103	1.169	.766
X_2		**.095**	(.826)	(.712)	(.557)
			.667	.608	.451
X_3			**6.862**	(.639)	(.783)
				4.630	5.383
X_4				**7.664**	(.433)
					3.150
X_5					**6.893**

Table 5. Homogeneity Contrasts (cont.)

	Group 2 Secondary				
	X_1	X_2	X_3	X_4	X_5
X_1	**.557**	(.888)	(.787)	(.815)	(.601)
		.207	1.641	1.642	1.678
X_2		**.098**	(.791)	(.731)	(.631)
			.690	.616	.738
X_3			**7.799**	(.772)	(.755)
				5.824	7.895
X_4				**7.301**	(.747)
					7.554
X_5					**14.022**

In relation to the second assumption of equality of the matrixes of covariance between the groups, table 5 shows that the matrixes of covariance of the variables of this research are equal. This assumption is proved with the test statistic M of Box (table 4), its value (0.009) indicates that the matrixes of variance – covariance are equal for all the groups.

Table 5. Homogeneity Contrasts (cont.)

	Group 3 High school				
	X_1	X_2	X_3	X_4	X_5
X_1	**.543**	(.812)	(.684)	(.696)	(.651)
		.189	1.315	1.442	1.530
X_2		**.100**	(.710)	(.698)	(.717)
			.585	.620	.722
X_3			6.806	(.739)	(.758)
				5.419	6.306
X_4				**7.908**	(.652)
					5.848
X_5					**10.165**

Table 5. Homogeneity Contrasts (cont.)

	Group 4 Professional				
	X_1	X_2	X_3	X_4	X_5
X_1	**.448**	(.747) .146	(.635) 1.129	(.584) .985	(.602) 1.300
X_2		**.085**	(.590) .458	(.436) .321	(.529) .499
X_3			**7.064**	(.619) 4.151	(.520) 4.460
X_4				**6.357**	(.587) 4.781
X_5					**10.426**

Once the basic assumptions have been proved, we proceeded to value the global adjustment, table 6 shows the findings of the interaction, the four criteria indicate that the effect of the interaction is meaningful; this means that the differences according to the level of study are different regarding to anxiety. The univariate contrasts confirm the findings, besides, the statistic power is 1.0.

Table 6. Homogeneity tests

Variable	Test of Levene		M of Box	
	F	Mean.	F	Mean.
X1	0.400	0.753		
X2	0.059	0.981		
X3	0.420	0.739		
X4	0.654	0.581		
X5	3.314	0.021		
Global			74.166	0.009

It can be concluded that the median vectors of the groups, this is, the variables, the anxiety towards mathematics, varies according the studies level.

Table 7. MANOVA's Summa

Contrast name	value	F	Between Groups	Within - Groups	Sig.
Pillai's Trace	.226	3.589	15.000	660.000	0.0
Wilks Lambda	.781	3.754	15.000	602.203	0.0
Hotelling's Trace	.270	3.904	15.000	650.000	0.0
Roy's Bigger Root	.229	10.076	5.000	220.000	0.0

MANOVA's test of statistical power

	Size Effect	Power
Pillai's Trace	.075	1.000
Wilks Lambda	.079	0.999
Hotelling's Trace	.083	1.000

F Test Univariate

Variable	Squares Addition	*gl*	Average Quadratic	F	Sig.
X_1	23.615	3 y 222	7.872	15.880	0.000
X_2	3.165	3 y 222	1.055	11.251	0.000
X_3	217.262	3 y 222	72.421	10.086	0.000
X_4	203.581	3 y 222	67.860	9.441	0.000

Table 7 shows in a summarized way (Turkey's method) the findings from the multiple comparisons, those groups whose measures do not differ between them are gathered at the same sub cluster and those groups whose measures differ, conform a different cluster. It can be seen that in the Primary group, anxiety towards evaluation differs from the groups of secondary, high school and professional (Sig= 0.057). In relation with anxiety towards temporality, it can be seen that there is a difference between the primary or basic school and the other three groups (secondary or junior high school, high school and professional), but also there is a difference between the groups of secondary and high school with the professional group, related to anxiety towards numbers and mathematic calculations.

About anxiety towards mathematics for real life situations, there is also a difference between the primary group and the other three groups.

Table 8. Turkey HSD

	Y_1		Y_2		
Grade	1	2	1	2	3
X_1	4.8241		2.2075		
X_2		5.6235		2.4553	
X_3		5.7062		2.5329	2.5329
X_4		5.9986			2.6236
Sig.	1.000	0.057	1.000	.622	.494

	Y_3		Y_4	
Grade	1	2	1	2
X_1	7.0435		7.1304	
X_2		8.9474		9.3289
X_3		10.0000		9.7937
X_4		10.2969		10.5313
Sig	1.000	.080	1.000	.145

Table 8. Turkey HS (cont.)

Grade	Y_5	
X_1	1	2
X_2	6.5652	
X_3		8.6184
X_4		8.8889
Sig		1.000

4. Conclusions

A MANOVA analysis was made for determining how the level of studies (grade) that the student is attending and anxiety towards mathematics vary. The findings allow seeing that anxiety towards mathematics is different depending on the level of studies, this is, there is a meaningful difference between the groups, besides, the practical significance indicates that anxiety towards evaluation is the one that contributes the most, to anxiety at students of secondary (junior high school), high school and professional. On the other hand, at the primary students there is not any kind of anxiety towards this subject.

Therefore, it is concluded that at Tuxtepec, Oaxaca, students suffer anxiety towards mathematics and consequently it is an element to be considered within the learning-teaching process. It can be inferred then, that if students were able to reduce their anxiety level, they would take more advantage, in theory and practice.

The contributions of this study provide to the enrichment of the theoretical model proposed by Muñoz and Mato (2007), besides, the findings of this study are consistent with the findings of Cardoso, Venegas and Cerecedo (2012), who proved that the subject is useful but complicated and generates anxiety and also with the findings delivered by Álvarez and Ruíz (2010).

In summary, our work supports the evidences of Al Mutawah1 (2014), that mention that at the students from basic level, there is not anxiety towards mathematics, but there is when they get to another level. This research also shows evidence supporting Kok's work (2015), which affirms that students from high school (pre undergraduate) show anxiety towards mathematics as well as those from Nuñez, Suarez and Bono (2013) who mention that anxiety at undergraduate students (professional level) increases students' performance.

One of this study's limitations lies in the sample's size, since it is convenient to carry out studies with bigger samples in order to clarify which of the factors is more recurrent. For future researches, it is recommended to conduct the studies specifically to other areas of social sciences at other higher education schools and at other states of the Mexican Republic.

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Instrument (English translation)
Test for measuring anxiety towards mathematics
Muñoz and Mato (2007)

Instructions: For each one of the following statements, mark the classification category that indicates most how you currently feel about that statement. Please respond to all the questions.

Degree / grade: _____ Man_____ Woman_____

Means nothing 1	A few times 2	Neutral 3	Most o the time 4	Always. A lot. 5

Item	1	2	3	4	5
1. Do I get nervous (a) when I think of the mathematics exam the day before?					
2. Do I feel nervous when they give me the questions for the mathematics exam?					
3. Do I get nervous when I open the mathematics book and I find a page full of problems?					
4. Do I feel nervous when I think of the mathematics exam when there is an hour before doing it?					
5. Do I feel nervous when I listen how other co-students solve a mathematics problem?					
6. Do I get nervous when I realize that the next year I will still have a mathematics course?					
7. Do I feel nervous when I think of the mathematics exam that I will take the next week?					
8. Do I get nervous when somebody looks at me when I am doing the mathematics homework?					

9. Do I feel nervous when I review the purchase receipt after having paid?					
10. Do I feel nervous when I get to study for a mathematics exam?					
11. Do mathematics exams get me nervous?					
12. Do I feel nervous when they assign me difficult problems to do at home and that I have to deliver done for the next session?					
13. Does it get me nervous doing mathematics calculations?					
14. Do I feel nervous when I have to explain a mathematics problem to the teacher?					
15. Do I get nervous when I am doing the final mathematics exam?					
16. Do I feel nervous when they give me a list of mathematics exercises?					
17. Do I feel nervous when I try to understand another co-student who is explaining a mathematics problem?					
18. Do I feel nervous when doing an mathematics evaluation exam?					
19. Do I feel nervous when I see/ listen my teacher explaining a mathematics problem?					
20. Do I feel nervous when I get the final grades of the mathematics exam?					
21. Do I feel nervous when I want to find out the change at the grocery store?					
22. Do I feel nervous when they give us a math problem and a co-student finishes it before me?					
23. Do I feel nervous when I have to explain a problem at the mathematics class?					
24. Do I feel nervous when I begin doing my homework?					

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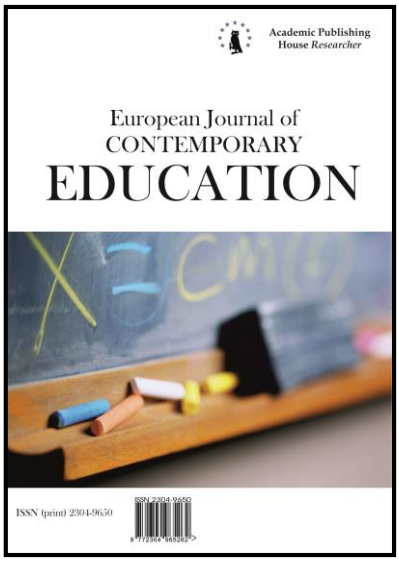

Curricula for Media Literacy Education According to International Experts

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Abstract

The article analyzes the results of the international experts' survey regarding the curriculum of media literacy education, which was administrated by the authors in September-October 2015. The expert panel includes specialists actively involved in the real process of media literacy education in schools, universities and other educational institutions, who also have significant publications record (monographs, study guides, articles in peer-reviewed journals). 65 experts from 20 countries took part in the survey: Armenia, Australia, Belgium, Canada, China, Croatia, Germany, Hungary, Greece, Israel, Mexico, Portugal, Russia, Serbia, Slovakia, Spain, Thailand, Turkey, Ukraine, the USA. Based on the experts' answers, the productive sources of media literacy education curriculum were distinguished; as well as the content and learning outcomes of media literacy education curriculum, and assessment strategies of students' media literacy competence, aimed at various target groups. Furthermore, main challenges for media literacy curriculum design and implementation are outlined: the resistance of the administrative bodies, overloaded curriculum in the classroom, poor development of the initial and continuing training for teachers, necessity for the development high-level research and curriculum proposals.

Keywords: curriculum, media literacy, media education, expert, international survey.

1. Introduction and state of the question

Concern over the implementation of media literacy education has led a lot of researchers to explore the problem of its curriculum – UNESCO guides (Frau-Meigs, 2006; Grizzle & Wilson, 2011; Grizzle & Torras Calvo, 2013; Pérez Tornero, 2008; Pérez Tornero, & Varis, 2010; UNESCO, 2013), EAVI - European Association for Viewers' Interests (Celot, 2010; 2014; 2015; EAVI, 2011),

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leading researchers in media education (Fenton, 2009; Ferguson, 2011; Frau-Meigs, 2007; Hartai, 2014; Hobbs, 2007; 2010; Potter, 2014; Silverblatt, 2014; Silverblatt, Miller, Smith, & Brown, 2014; Verniers, 2009; Worsnop, 2004). There is also a tendency to link media literacy education and information literacy (Lau, 2006; Grizzle & Wilson, 2011; Grizzle & Torras Calvo, 2013; Pérez Tornero, 2008). However, even if "Ofcom's annual series of 'media literacy audits' may not tell us much about what media literacy actually is, they certainly provide a useful source of information about changing trends in people's textual practices and preferences" (Bazalgette & Buckingham, 2013).

The framework of the curriculum of media literacy education by Canadian media educators is based on the following approaches (Andersen, Duncan, Pungente, 1999: 146-147): enhancing consumer awareness, critical thinking, considering the role of citizenship, ontology, value, semiotic, cultural studies, as well as synthetic creative, cross disciplinary approaches. Nonetheless, whichever approach is taken, the key to learning is considered to be its authenticity, i.e. the media texts under study are interesting and are relevant to students' lives (Andersen, Duncan, Pungente, 1999: 146-147).

Alike British educators, Canadian ones are keen to use tasks that develop creative and critical thinking of the students, for instance, assignments on spotting and analyzing media stereotypes (Duncan, 1989: 37). Chris Worsnop suggests over a hundred of various types of classroom activities, which in general, do not require special technology (drawing, collage, poster, crossword puzzle, journal, discussion, dramatization, essay, interview, report, review, script, game, etc.) (Worsnop, 1994; 2004). Similar activities are developed by the British Film Institute (BFI, 2003) and professor David Buckingham (Buckingham, 2003: 90-96).

Reflecting on the curriculum of media literacy education, the British media educator Len Masterman observes that the central and universal concept of media education is the representation; and the media education's effectiveness can be measured with the help of two criteria: students' ability to apply the new knowledge in new situations, and the spectrum of responsibilities, interests, and motives, gained by them. The main objective is to teach the audience to understand how media represent the reality, how to decode, critically analyze media texts, how to find one's way in the information/ideological flow of modern society (Masterman, 1997: 40-43). In particular, according to this approach, it is important to enhance the audience's understanding of 1) who is responsible for creating a media text, who owns the medium and controls it? 2) how the desired effect is achieved? 3) what are the values of the created world? 4) how is it perceived by the audience? (Masterman, 1985; Masterman, 1997: 51-54).

The issue of media representations, in our opinion, roots the curriculum of media literacy education as developed by American media educator A. Silverblatt. It is specifically focused on the development of the following audience's skills: distinguishing between fact and opinion; defining the credibility of a source of information; accurateness of a message; differentiation of supported and non-supported claims; locating prejudice in a media text; identifying obvious and indirect assumptions in media texts; identifying logical incongruities in media texts; evaluating the argumentation strength of a media text's author (Silverblatt, 2001: 2-3; Silverblatt, 2013: XV-XVIII).

Considering media literacy education, W.J.Potter stresses the multifaceted nature of this process, width of the approach to cognitive, emotional, aesthetic, and moral information in order to achieve a higher level of understanding, regulating, and appreciation of media world (Potter, 2001: 12; Potter, 2014: 14-15). For example, the audience is given an assignment to analyze the schemes of: stereotyped characters; narrative structure; thematic stereotypes; possible variants of the audience's conclusions about the aim (information, entertainment, moral teaching) of a media text's authors (Potter, 2001: 74; Potter, 2013: 211-217). Media literacy is understood as a right of all citizens (Area, 2012). Efforts should be made conducive to digital inclusion to ensure access to new technologies, implementing and promoting standards and accessibility guidelines through the implementation of training courses and media education (De la Fuente & Hernández-Galan, 2014). This assumption is based on a curriculum able to evaluate the use of technology and knowledge of the media, supported by psychoeducational theories that encourage young people and the general public to use them positively. It is also based on the personal contribution of those who can improve society through their moral values (Camarero, Smith & Square, 2015).

Our analysis has demonstrated that compared to the ideological model of the curriculum of media literacy education with the dominating development of the audience's critical thinking, put forward by the British theorist Len Masterman, considerably larger number of media educators around the world support the synthesis of social-cultural, educational-informational, and practical models (Frau-Meigs, 2006; Grizzle & Wilson, 2011; Grizzle & Torras Calvo, 2013; Haider, & Dall, 2004; Hartai, 2014; Hoffmann, & Gehring, 2006; Keeshan, Watson, et. Al, 2015; Pérez Tornero, 2008; Pérez Tornero, & Varis, 2010; Ferguson, 2011; Hobbs, 2007; 2010; Potter, 2001; 2014; Silverblatt, 2001; 2014; Verniers, 2009; Worsnop, 2004 and others).

2. Materials and methods

In September-October 2015 we conducted the international experts' survey regarding the curriculum of media literacy education and analyzed its results. To start with, 300 questionnaires were sent out to experts – specialists in media literacy education around the world. The selected experts included specialists actively involved in the real process of media literacy education in schools, universities and other educational institutions, who also have significant publications record (monographs, study guides, articles in peer-reviewed journals). 65 experts from 20 countries actually took part in the survey. The experts' list includes such world renowned media researchers and educators as (in alphabetical order) Ignacio Aguaded, Ben Bachmair, Frank Baker, Richard Cornell, Tessa Jolls, Laszlo Hartai, Jesus Lau, W. James Potter, Alexander Sharikov, Art Silverblatt, Kathleen Tyner, and other.

The questions, as well as the response options were designed by us, taking into consideration various approaches to the curriculum of media literacy, described in some of the guidelines of the most influential organizations and in the works of the distinguished specialists in the field (Frau-Meigs, 2006; Grizzle & Wilson, 2011; Grizzle & Torras Calvo, 2013; Pérez Tornero, 2008; Pérez Tornero, & Varis, 2010; UNESCO, 2013; Celot, 2010; 2014; 2015; EAVI, 2011; Ferguson, 2011; Hartai, 2014; Hobbs, 2007; 2010; Potter, 2014; Silverblatt, 2014; Verniers, 2009; Worsnop, 2004, etc.). To the best of our knowledge, we have been the first one ever to conduct the international experts' survey regarding the curriculum of media literacy education.

3. Instruments

The questionnaire was designed as follows:

- at first we asked the experts if media literacy education is part of the National Education Guidelines / Ministry of Education Standards;
- next, experts had to choose several categories that best describe the way of their media literacy education activities (Table 1) and the source of media literacy education curriculum support, relevant to their teaching (Table 2);
- then, one of the central questions of our survey followed, namely about the priorities of the content of media literacy education curriculum. Experts were to rank (on a scale from 1 to 10, with 1 being the most prioritized option, and 10 – the least) the suggested answers, separately for pre-school children, for secondary school children, for university students, and for general audience. Later we calculated, which of the options in each category got the maximum points, that is points between 1 and 3 (Table 3);
- similar ranking was done while answering the question about learning outcomes of media literacy education curriculum (Table 4);
- the next question dealt with the frequency of using particular strategies when assessing students' media literacy competence (Table 5);
- two more questions suggested free answers about curriculum approach(es) in media literacy education that the experts find effective and the biggest challenges for media literacy curriculum design and implementation.

4. Results

Table 1. Which of these categories best describe the way Your media literacy education activity is organized?	
Categories of media literacy education activities	Number of experts' votes (%)
Researching, designing curriculum, developing policy documents, teaching material and resources.	83.1
Teaching media studies course.	70.8
Teacher training course.	46.1
Teaching media literacy integrated in other subject area	40.0
Media criticism in mass media (e.g. write a newspaper column, Internet blog).	30.8
Other (please, specify).	12.3

Analysis of the data in Table 1 demonstrates that the majority of the respondents are involved into the process of researching, designing curriculum, developing policy documents, teaching material and resources (83.1 %) and teaching media studies course (70.8 %), almost half of them teacher occupies with training course and teaching media literacy integrated in other subject area. In agreement with the tendency of the synthesis of media literacy education and media criticism, as found in one of the previous expert surveys (Fedorov & Levitskaya, 2015), about one third of the respondents acknowledged that they were also involved in mass media criticism. Part of experts (12.3 %) added other relevant activities (consultation, expertise, speeches at academic conferences, writing monographs, and study guides on media literacy education).

Table 2. What source of media literacy education curriculum support have been useful for your teaching?	
Sources of media literacy education curriculum	Number of experts' votes (%)
Books, academic journals	89.2
Colleagues	80.0
Professional conference	76.9
Professional development course/seminar	58.5
Administration	30.8
Other (please specify):	10.8

The data of Table 2 displays that experts refer to books, academic journals (89.2 %), information provided by colleagues (80.0 %) and professional conference (76.9 %) as the dominant source of media literacy education curriculum support, applicable for their teaching. Slightly over a half experts mentioned professional development course/seminar and only one third – administration. as a central source for media literacy curriculum. Another source (10.8 %) was Internet.

Table 3. What are Your priorities of the content of media literacy education curriculum for each target group?				
Content of the media literacy education curriculum	Number of experts' votes (%)			
	for pre-school children?	for secondary school children?	for university students?	for general audience?
Types and genres of media	49.2	24.6	24.6	18.5
Functions of media	43.1	20.8	24.6	27.7
Media and lifelong learning	4.6	27.7	30.8	33.8
Media languages	33.8	40.0	33.8	18.5
Media aesthetics	24.6	18.5	27.7	18.5

Media production	30.8	30.8	27.7	21.5
Media representations	33.8	46.1	30.8	30.8
Media theories	1.5	6.1	43.1	12.3
Media literacy education theories	3.1	7.7	40.0	12.3
Commercial implications of media	27.7	24.6	21.5	21.5
Social implications of media	18.5	40.0	26.9	30.8
Political implications of media	3.1	33.8	49.2	40.0
Media and media culture history	4.6	21.5	40.0	15.4
Media ethics, peoples' rights and responsibilities	21.5	49.2	49.2	36.9
Role of media in a democratic society	6.1	52.3	46.1	36.9
Access to media sources, enquiry, determination of needs in the media sphere, media activities	18.5	40.0	52.3	21.5
Protection from harmful media effects	46.1	33.8	30.8	36.9
Media competences	24.6	46.1	46.1	21.5
History of media education	1.5	24.6	18.5	12.3
Other (please, specify)	1.5	1.5	1.5	0

Analysis of the experts' answers to the question about the priority content of media literacy education curriculum, aimed at different target groups (Table 3) indicates that:

- as far as pre-school children are concerned, the experts distinguished the following content of the media literacy education curriculum: types and genres of media (49.2 %); protection from harmful media effects (46.1 %); functions of media (43.1 %); media languages & media representations (33.8 %); media production (30.8 %); commercial implications of media (27.7 %). It is only logical, moreover, absolutely correlates with the suggestions for media literacy education curricula, developed by leading organizations and individual educators (Alper, 2011; Ashley, et al, 2013; Grizzle, & Torras Calvo, 2013; UNESCO, 2013).

In contrast, it is possible to teach children of that age the basics about types, genres and functions of media and how to protect themselves from harmful media effects.

As for the secondary school children, the experts have chosen: role of media in a democratic society (52.3 %); media ethics, peoples' rights and responsibilities (49.2 %); media representations (46.1 %); media competences (46.1 %); media languages (40.0 %); social implications of media (40.0 %); access to media sources, enquiry, determination of needs in the media sphere, media activities (40.0 %); political implications of media (33.8 %); protection from harmful media effects (33.8 %). As it can be seen, the experts fairly considered to accentuate some complicated topics requiring a conscious awareness of social, cultural and political contexts (see, for example, Kirwan, et al, 2003; Ofcom, 2011; Mihailidis, & Thevenin, 2013).

Similarly to previous age group, units on media theories (6.1 %) and media literacy education theories (7.7%) gained the least numbers.

Table 4. What learning outcomes of media literacy education curriculum do you consider as the most important for each target group?

Learning Outcomes (Students will...)	Number of experts' votes (%)				
	for pre-school children?	for school students?	for university students?	for teacher training?	for general audience?
identify some media forms	52.3	24.6	18.5	15.4	21.5
identify a variety of media forms	18.5	36.9	15.4	18.5	27.7
demonstrate the understanding of some types of media texts	43.1	40.0	33.8	21.5	27.7
demonstrate the understanding of a variety of different media texts	30.8	58.5	43.1	36.9	46.1

explain how the media language is used to create meaning	36.9	33.8	36.9	36.9	30.8
create a simple media text of some form	43.1	33.8	21.5	21.5	18.5
create a media text for self-expression	24.6	36.9	36.9	27.7	33.8
create a media text for participation in social/political life	9.2	30.8	30.8	27.7	24.6
create a variety of media texts aimed at different audiences, using appropriate media language	9.2	36.9	40.0	43.1	24.6
be able to reflect on and identify their strengths and areas for improvement in understanding and creating media texts	4.6	24.6	36.9	30.8	27.7
demonstrate the understanding of the role and functions of media in democratic societies	6.1	43.1	30.8	52.3	43.1
critically evaluate media content	12.3	30.8	58.5	43.1	58.5
analyse and critically evaluate media representations of people, issues, values, and behaviours	9.2	36.9	58.5	58.5	43.1
know roles and career options in a variety of media industries	3.1	15.4	24.6	18.5	18.5
know the main stages of the history of media and media culture	1.5	30.8	30.8	30.8	18.5
know the basic media theories	1.5	15.4	33.8	36.9	18.5
know the media literacy education theories	1.5	3.1	21.5	40.0	12.3
know the basic media effects and can protect themselves against harmful media effects	21.5	33.8	18.5	30.8	40.0
know about media ethics, peoples' rights and responsibilities	15.4	30.8	46.1	40.0	40.0
Other (please, specify)	4.6	4.6	4.6	4.6	6.1

Table 4 reflects the experts' responses to the question of learning outcomes of media literacy education curriculum, that they consider as the most important for different groups.

Experts distinguished the following learning outcomes, most applicable for pre-school target group: children should be able to identify some media forms (52.3 %), demonstrate the understanding of some types of media texts (43.1 %), create a simple media text of some form (43.1 %), explain how the media language is used to create meaning (36.9 %), demonstrate the understanding of a variety of different media texts (30.8 %), create a media text for self-expression (24.6 %), know the basic media effects and can protect themselves against harmful media effects (21.5 %).

As for the secondary school children experts have chosen a larger variety of learning outcomes: demonstrate the understanding of a variety of different media texts (58.5 %), demonstrate the understanding of the role and functions of media in democratic societies (43.1 %), demonstrate the understanding of some types of media texts (40.0 %), identify a variety of media forms (36.9 %), create a media text for self-expression (36.9 %), create a variety of media texts aimed at different audiences, using appropriate media language (36.9 %), analyse and critically evaluate media representations of people, issues, values, and behaviours (36.9 %), explain how the media language is used to create meaning (33.8 %), create a simple media text of some form (33.8 %), know the basic media effects and can protect themselves against harmful media effects (33.8 %), create a media text for participation in social/political life (30.8 %), critically evaluate

media content (30.8 %), know the main stages of the history of media and media culture (30.8 %), know about media ethics, peoples' rights and responsibilities (30.8 %).

The following learning outcomes were selected for the university students: critically evaluate media content (58.5 %), analyse and critically evaluate media representations of people, issues, values, and behaviours (58.5 %), know about media ethics, peoples' rights and responsibilities (46.1 %), demonstrate the understanding of a variety of different media texts (46.1 %), create a variety of media texts aimed at different audiences, using appropriate media language (40.0 %), explain how the media language is used to create meaning (36.9%), create a media text for self-expression (36.9 %), be able to reflect on and identify their strengths and areas for improvement in understanding and creating media texts (36.9 %), demonstrate the understanding of some types of media texts (33.8 %), know the basic media theories (33.8 %), create a media text for participation in social/political life (30.8 %), demonstrate the understanding of the role and functions of media in democratic societies (30.8 %), know the main stages of the history of media and media culture (30.8 %). It should be noted that each of the suggested answers gained over 15 % of experts' agreement. These data show that leading learning outcomes for the university students' audience are the ones linked to the critical analysis of media texts and their creation. While learning outcomes connected with the understanding of the role, functions, and variety of media, head the list for school pupils' audience.

As for the general (adult) audience, such learning outcomes have the lead as: critically evaluate media content (58.5 %), demonstrate the understanding of a variety of different media texts (46.1 %), demonstrate the understanding of the role and functions of media in democratic societies (43.1 %), analyse and critically evaluate media representations of people, issues, values, and behaviours (43.1 %), know the basic media effects and can protect themselves against harmful media effects (40.0 %), know about media ethics, peoples' rights and responsibilities (40.0 %), create a media text for self-expression (33.8 %), explain how the media language is used to create meaning (30.8 %). The learning outcome of knowing the media literacy education theories gained the least per cent (12.3 %). The rest of the suggested learning outcomes reached from 18 % to 27 %. Thus, the critical analysis of media dominates as the most important one among learning outcomes for the mass audience.

Learning outcomes specifically applicable for teacher training of course had a special emphasis on analysis and critical evaluation of media representations of people, issues, values, and behaviours (58.5 %), understanding of the role and functions of media in democratic societies (52.3 %), creation a variety of media texts aimed at different audiences, using appropriate media language (43.1 %), critical evaluation of media content (43.1 %), knowledge about media ethics, peoples' rights and responsibilities (40.0 %).

Table 5. How often you use each of the following strategies when assessing students' media literacy competence?

Strategies for assessing students' media literacy competence	Number of experts' votes (%)				
	Never	1 – 3 times per year	every month	1 – 3 times per week	4 – 5 times per week
student surveys	6.1	55.4	21.5	6.1	3.1
real-world projects and investigations	0.0	36.9	15.4	21.5	6.1
portfolios	15.4	36.9	9.2	6.1	6.1
reports and reviews	1.5	30.1	27.7	21.5	0.0
course work	0.0	27.7	21.5	24.6	6.1
scales and rubrics	7.7	27.7	18.5	6.1	3.1
student anthologies, logs, journals	21.5	27.7	12.3	15.4	6.1
analytical frameworks	6.1	18.5	18.5	15.4	12.3
critical or deconstruction exercises	1.5	15.4	30.1	18.5	18.5
Other (please, specify)	0.0	3.1	0.0	0.0	1.5

Analysis of the answers to the question on how often experts use each of the different strategies when assessing students' media literacy competence (Table 5) revealed that specialists often (1–3 times a week) use course work in the classes (24.6 %), reports and reviews (21.5 %) and real-world projects and investigations (21.5 %), critical or deconstruction exercises (18.5 %). Three out of these four types of activities retain their leadership within the frequency of every month activities: critical or deconstruction exercises (30.1 %), reports and reviews (27.7 %) and course work (21.5 %). However as far as the frequency 1–3 times an academic year is concerned, such assignments as students' surveys dominate (55.4 %).

5. Discussion and Conclusions

While answering the question about what curriculum approach(es) in media literacy education they find effective, experts accentuated the following: UNESCO, Media Literacy Clearinghouse, Australian Curriculum Assessment and Reporting Authority, CLEMI (France), Grupo Comunicar (Spain), Canadian Centre for Digital and Media Literacy Media Smarts, Media Education Lab by Renee Hobbs British Film Institute Teaching Modules for Film in the Classroom, The Digital International Media Literacy eBook (DIMLE), The Keys to Interpreting Media Messages by Art Silverblatt, the works of Frank Baker and J.W. Potter.

As for the biggest challenges for media literacy curriculum design and implementation, the experts pointed out:

- the resistance of the administrative bodies (such as ministry, National Education Institution, etc): experts from Armenia, China, Greece, Russia, Serbia;
- overloaded curriculum in the classroom: (Armenia, Greece, Hungary);
- the initial and continuing training for teachers (Belgium, Canada, Greece, Hungary, Mexico, Russia, Spain, USA);
- the development of the critical thinking towards the media (Israel, Russia, Slovakia);
- the development high-level research and curriculum proposals (those polled from Hungary, Serbia, Spain, Russia, Thailand, USA).

Kathleen Tyner is convinced that "with multiple aims, definitions, purposes and theories, media literacy education does not yet have the consensus to define itself as a field, although field building activities are in process". One of the leaders of an international project The Digital International Media Literacy eBook Project (DIMLE) Sara Gabai wrote that the major challenges for media literacy curriculum design and implementation are: "the lack of a clear and practical internationally recognized media literacy framework that can be used and shared cross-culturally by multiple stakeholders (civil society, indigenous communities, marginalized groups, academia, NGOs, media institutions, Intergovernmental organizations, governments); and the lack of culturally relevant media literacy educational resources suitable for an international audience. And one of possible solution is The Digital International Media Literacy eBook Project (DIMLE) is designed to provide a shared qualitative approach to the study of media literacy and to promote international media literacy scholarship". Media literacy experts from over 40 countries in the world are working together to create online eBook editions of *Media Literacy: Keys to Interpreting Media Messages* that are updated, relevant and culture and context sensitive. And as stressed by Sara Gabai, "each country will need a media literacy curriculum that reflects at best their cultural and media contexts and that is implemented in local languages and through situated experiences".

The analysis of the Table 4 data demonstrates that we succeeded in providing the majority of media literacy education learning outcomes, since only 4 % to 6 % of options (that were missing, in their opinion) were additionally suggested by the experts.

The analysis of the research findings let us draw the following conclusions:

- we have succeeded in bringing together global media literacy education leaders – highly qualified respondents experienced both in practical and theoretical aspects of media literacy education. Their answers provide insight into the current state and future of media education worldwide;

- experts' answers indicate that we were able to (on the basis of existing materials in different countries) accentuate core types of sources of media literacy education curriculum support, useful for teaching; key content and learning outcomes of media literacy education curriculum; and strategies of assessing students' media literacy competence, aimed at various target groups;

- most significant challenges facing media literacy curriculum design and implementation are the resistance of the administrative bodies, overloaded curriculum in the classroom, poor development of the initial and continuing training for teachers, need for the development of high-level research and curriculum proposals.

Many of the implications have yet to be researched. It is important to note that like for any other academic discipline, curricula for media literacy is the keystone of effective teaching and learning and should reflect a sophisticated understanding of the subject matter, instructional and assessment practices. As we have elaborated throughout this study, modern media educators use common processes for developing media literacy curriculum; and we think that still a greater curricular consistency should be reached on a global scale. In reference with the above, we highly appreciate the timely initiative of the international project *The Digital International Media Literacy eBook Project* (DIMLE), aimed at creating a multilingual, country-specific study guide and curriculum of media literacy education.

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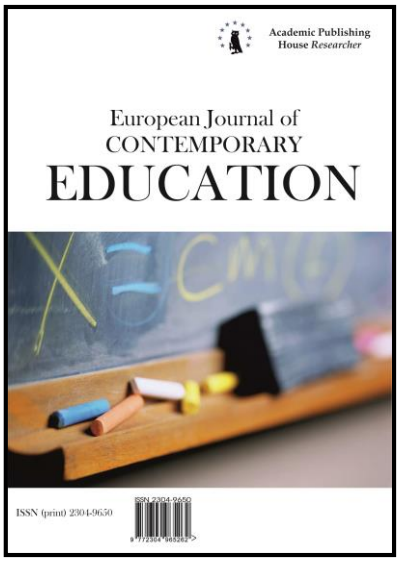

Pedagogical Experience on Formation of Tolerant and Multicultural Consciousness of Students

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Abstract

This article is based on the data cultivated from a teaching experiment carried out in one of the institutions in the city of Tyumen. The purpose of the experiment was to determine the necessity for education of religious and national tolerance through the study of special disciplines of the confessional and ethno-cultural content, for removing psychological barriers to religious and formation of a multicultural consciousness in the future. The authors emphasizes that the increase in tolerance level involves the use of teaching methods rooted into the structure of the educational process, the result of which would be the change of personal characteristics within an individual. Such personality changes included the system of relations, values and general outlook.

This article deals with the impact of forms and methodical possibilities on the correction of inter-ethnic and inter-religious interaction of students, their normal behavior in different social situations. To appreciate the realization of this purpose, the authors developed a course on «Religions of the region under study». He emphasized the requirements of the educational standard which determines the necessity to study history, culture and religion of the region under study for the specialty «Regional studies» in the sphere of religious and interfaith relations. Historical and cultural aspects of the course content are harmoniously integrated into the context of religious relations.

The experiment had been running for over four years and had shown positive benefits in the dynamics of formation confessional tolerance for students and elements of a multicultural consciousness.

Keywords: multiculturalism, tolerance, teaching experiment; multi-religious education, Christianity, Islam.

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1. Introduction

The problem of Islamic extremism in the modern world has determined the necessity to find ways to counteract this phenomenon. In our opinion, the most productive mechanism of counteraction to ethno-cultural and religious extremism can be considered as preventive measures, aimed to establish a multinational, but a single nation with common cultural and historical roots. Fostering of religious and national tolerance is the first step of this process, the basis to strengthen interfaith relations and create common world-view.

Modern confessional education in schools and universities is focused on the formation of the youth's system of moral values reflected in its «own» religion, but it does not involve deep knowledge of the aliens' culture and outlook. Such disciplines as «Fundamentals of Orthodox Culture» and «Fundamentals of Islamic culture» are optionally taught in secondary schools. Attending both disciplines is impractical. Thus, the course strengthens the students' sense of exclusivity, belonging to only one culture. This practice does not unite children or integrate and harmonize their ethno-cultural community, but only puts emphasis on the confessional differences and enhances the form of relations «your / someone's else». The formation of a sense of civic unity is necessary to overcome this barrier. This problem can be solved if the «alien's» religion and culture will be integrated into the cultural space of the today's youth personality and will be well known and understood by members of other faiths.

The object of the study is students; the subject of the study is confessional tolerance and elements of multiculturalism. Tolerance has been diagnosed in the contents of personal qualities, attitudes, values, behaviour and outlook.

2. Materials and Methods

The methodological research has been focused on the principle of molding of the personality in society as a part of personal and cultural approaches. The research included the use of such methods as: observation, survey, teaching modelling, analysis of documents and expert assessment.

The experimental sample included students, male and female, 17–20 years of age; the total number is 73 people. In addition to the experimental group, the tolerance parameters had been studied in the control group, where the work on the formation of tolerance was not carried out. The structure of the experimental and control groups included Muslims and Orthodox Christians. The study consisted of various manifestations of ethno-cultural and religious characteristics within an individual. The structure of the experimental group is presented in Table 1.

Table 1. Experimental group members

Academic year	The number of students in the group (persons)	The number of students who consider themselves as Muslims (persons, %)	The number of students who consider themselves as Orthodox Christians (persons, %)
2009–2010	26	7 (27 %)	19 (73 %)
2010–2011	21	6 (28,5 %)	15 (71,5 %)
2011–2012	15	5 (30 %)	10 (70 %)
2012–2013	11	4 (36 %)	7 (64 %)

In the control groups students of other specialty there was no course «Religions of the region under Study». The groups consisted of students with identical age, sex, educational characteristics. As the first year of the experiment was a period of technical, content, organizational revision of the course and was in the process of regulation, there was no control group. It appeared only in the second year.

Table 2. Control group members

Academic year	The number of students in the group (persons)	The number of students who consider themselves as Muslims (persons, %)	The number of students who consider themselves as Orthodox Christians (persons, %)
2010-2011	30	10 (33, 3 %)	20 (66, 6 %)
2011-2012	31	12 (37, 2 %)	19 (62, 8 %)
2012-2013	29	11 (31, 9 %)	18 (68, 1 %)

The level of tolerant and multicultural orientation of students in the experimental and control groups was defined at the beginning and the end of the pedagogical experiment. The means of such assessment was special, individual-oriented questionnaire with data interesting for a researcher. There were 50 both open and close questions, reflected personal students' attitudes towards the problems of confessional and social interaction, multicultural tolerance. Among them, there were, for example, such questions which dealt with students' complete readiness to cross marriages, visits of cultic institutions of «alien» religion, preferences in friend relations, knowledge of basic religious holidays in different confessional groups, etc.

It is necessary to outline the conditions of the experiment.

It is necessary to outline the conditions of the experiment. The South of Tyumen Region is a unique region where multicultural phenomena are historically formed. The level of national and religious tolerance and «friendly feelings» here is exceeds 90 % in some years, according to the information of the Committee on nationalities of the Tyumen region. Sociologists from other regions of Russia confirm the high level of tolerance in Tyumen (Yashin, 2011: 206). In the youth community the tolerance level is lower (Table 3, 4) because of psychologic-age features, of an individual, and the fact that in the groups there were students from other regions that are not characterized by interconfessional concord (for example, Ugra and Yamal). Basically the experimental and control groups consisted (80–90 %) of local students who were brought up in auspicious multicultural environment. Thus, the students expressed appropriate readiness, and *the experiment was to finish the process of formation of their tolerant and multicultural consciousness with help of purposeful influence*.

Expert assessment was carried out on the informative certain procedure that reflected peculiarities of social behaviour and mentality of a student. There were created two expert groups (independent of one another) for estimates of characteristics of tolerance. Professors who know students for a long period of time, give classes and have an opportunity to compare their personal attitude, values, outlook and behavior have become members of expert groups. They evaluated displays of personal qualities of students on the proposed scale (on a 10 point-based system).

3. Discussion

This topic as experimental experience is not discussed in the pedagogical science. The authors have considered the theoretical aspects of education religious tolerance (Zenovich, 2013; Lesite, 2011; Parshakov, et al., 2014), multiculturalism (Evleshina, 2010; Zhukova et al, 2016; Fedyunina, 2007) and new teaching technologies (Tyunnikov, 2016). Some authors describe the experience of raising religious tolerance, but without multi-religious learning (Gorbunov, 2013; Vilkhovskaya et al, 2014; Kiselyova et al., 2013). The previous author's articles consider the historical experience of formation of Muslim tolerance (Bortnikova et al, 2015), as well as mistakes in the formation of the modern confessional Germany (Naumenko, 2015). Analysis of the Russian experience of confessional tolerance education through a special training discipline has not yet become a scientific research subject. Experimental research on the formation of multiculturalism is currently no.

4. Results

As part of the experiment, at the premises of the Tyumen State Academy of International Economics, Management and Law, there was introduced a specialized course on «Religions of the region under study» for students enrolled in Regional studies. The duration of the discipline was 292 hours, 144 of which were class hours. The form of assessment was final test and exam. Thus, student was immersed in the content of the course for quite a long time.

The teacher offered the subject of compulsory implementation. The students had to examine primary religious sources, visit different religious places. Unsubscribing from this course was impossible due to the obligatory nature of the discipline. In addition, the necessity for studying the subject was determined with the bond «fail the test – fail the exam – expulsion». In case of disagreement with the content of the discipline the student were able to exchange into a different specialty. Thus, the students of «Regional Studies» were actually imposed to study this course.

Perhaps, from a legal point of view, this approach meant a restriction of religious students' rights and their academic and religious freedom. As a compensatory measure, teacher and the Academy administration did not interfere in the commission of some cult, ritual actions. Students were allowed, for example, to wear religious clothes elements (such as a headscarf), to pray, to use specialized library, an exhibition of confessional religious values. Moreover, such a religious demonstration was used to achieve the purpose of the experiment: the students were given the opportunity to freely talk about their prayers and rituals, their history, purpose, values, and most importantly, their emotions and religious feelings (for example, between life before and after the emergence of confessional self-consciousness).

This pedagogical approach contributed to a better understanding for the Orthodox part of the group values of Islam. It also emphasized respect for Islam and at the same time it urged Muslims to treat Orthodox Christians in the same way. Muslims had to search for analogues in Christianity (e.g. the role of women's headscarf in Orthodox culture).

The program involved the studying not only the history of religions, their features in the Tyumen region and current status, but also a deeper exploration: the direct study of the Quran, the Torah and the Bible in various interpretations of theologians. The most important methodological element can be considered a reference to the following mandatory accents:

- To the common historical roots of different religions, protagonist in the Torah, the Bible, the Quran, as well as the similarity of the spiritual and moral values system;
- To discrepancies in religious primary sources: the students had to understand the historical, political, cultural, linguistic and other reasons for the differences in the interpretation of texts.

Thus, there was an assignment, as part of experiment, to form students' creative approach to understanding the religious sources and distrust of pseudo-missionaries thinking.

Students had to visit places of religious purpose: the mosque, an Orthodox church, a Catholic church, a synagogue, as well as the study of museum collections with exhibits of religious cultures. The teacher encouraged students, who wanted to acquaint the group with family ceremonial objects: icons, Shamail (wall panels with prayers from the Quran), amulets, charms, and others. Besides that all students made multimedia presentations on ethno-confessional trend which were the foundation for further discussions.

In the educational process the teacher, as mandatory didactic components, had used the following points:

1. Putting emphasis on the evaluation categories and concepts, such as «totalitarian sect is bad and orthodoxy is good», «Islamic fundamentalism is bad and traditional Islam is good», etc. However, at the same time, each class started with a positive assessment for world religions, for example: «Islam is one of the greatest and most tolerant of religions, and the Quran is also one the world's oldest holy books». This assurance made Muslim student trust their teacher and the provided assignments, which at the same time helped the students of other faiths foster appreciation for Islam.

In Germany, the practice of the confessional education was not valued and usually waived evaluation categories for studied religions (Shcherbanev, 2009), believing that the religion is of any self-worth. This approach left the learning process unfinished and prone to confuse its students instead of providing basis for the formation of their minds.

2. Not putting stress on any version of Islam (Christianity). Postulations of the largest schools of thought were studied in a comparative context with their mandatory assessment and identifying

the causes of deformation of the original dogmas. There was proposed the idea that all religions have common roots and they originated from the same conceptual background.

The analysis of evaluates of two independent expert groups and testing data has shown that educational and methodical and upbringing process in the studying of subject has caused change in the terms of confessional tolerance. This change has affected the scope of scientific, practical, social and cultural knowledge of religious issues. In the next three years, the formation of confessional tolerance consistently confirmed.

Table 3. The level of tolerance and multicultural consciousness of students in the experimental control group

Academic year	Before the experiment	After the experiment
2009–2010	75, 6 %	89, 0 %
2010–2011	76, 3 %	98, 2 %
2011–2012	79, 0 %	99, 1 %
2012–2013	80, 1 %	99, 6 %
Average data	78,0%	96,5%

Table 4. The level of tolerance and multicultural consciousness of students in the control group

Academic year	Beginning of the academic year	End of the academic year
2010–2011	75, 6 %	72, 9 %
2011–2012	68, 9 %	70, 3 %
2012–2013	76, 0 %	78, 2 %
Average data	73,5	73,8

Expert evaluations testified the positive dynamics of the process also.

The estimate of students' tolerance degree was made from measurements of average tolerance ranking of a student before the experiment and after it. For this purpose the method of expert survey was used. Statistical data manipulation was made to verify the results. To verify the results the concordance coefficient of expert commentary was calculated (concordance coefficient W) and was tested its statistical significance on the base of X* Pearson (Table 5, Table 6).

Table 5. Summarized results of formation measures of tolerant and multicultural consciousness of students in the experimental groups

Academic year	The average grade of tolerance of student before the experiment		The average grade of tolerance of student after the experiment		The concordance coefficient W	
	The expert group № 1	The expert group № 2	The expert group № 1	The expert group № 2	The expert group № 1 before / after	The expert group № 2 before / after
2009–2010	7,1	7,3	8,7	7,9	0,54/0,61	0,71/0,68
2010–2011	6,8	7,4	9,2	9,1	0,66/0,65	0,61/0,74
2011–2012	7,4	8,9	9,0	9,4	0,88/0,72	0,68/0,63
2012–2013	7,5	7,1	9,7	9,3	0,70/0,78	0,69/0,85

Table 6. Summarized results of indicators of a tolerant and multicultural consciousness of students in the control groups

Academic year	The average grade of tolerance of student at the beginning of the academic year		The average grade of tolerance of student at the end of the academic year		The concordance coefficient W	
	The expert group № 1	The expert group № 2	The expert group № 1	The expert group № 2	The expert group № 1 before / after	The expert group № 2 before / after
2010–2011	7,2	7,4	7,0	7,6	0,50/0,58	0,73/0,61
2011–2012	7,7	7,1	7,0	7,8	0,65/0,55	0,68/0,61
2012–2013	7,9	7,3	7,8	7,1	0,73/0,74	0,59/080

Quantitative analysis of the data in the tables 5 and 6 clearly shows increase in the level of tolerant consciousness of students who took part in the experiment of the method of tolerant and multicultural consciousness formation. An average change in the development of tolerant component in consciousness in the academic year was defined by quantitative measures – 18, 5 %. The measures of changing tolerance and multicultural components in consciousness of the control group students changed within a statistical margin of error – 0, 3 %.

The results of surveys of students of different confessions and cultures indicate that they have begun to understand each other better. «… If I had known then what I know now, I would not say this to him [Muslim] …», «…now I know why he [Muslim] did that …», «I had despised the Russian, but now understand that they have such a religion» – the most characteristic statements of the students.

This approach can be used as a preventive measure to the majority of students. But, unfortunately, it is not very effective in teaching students with a high level of religious addiction. There is an interesting example to illustrate this statement. There were two people who accepted a radical version of Islam in the groups: a college boy of Russian nationality and college girl of Kazakh nationality. Religious consciousness of the college boy was managed to overcome only in two years, with the support of the mullahs and devout Muslim who offered help. At the same time he rejected any conversations with teachers, and the impact on him had to be carried out by the aide-Muslim under a false name, through contacts on the Internet. As a result, the student has agreed to meet with Mullah, who had previously been acquainted with the problem. The authority of the mullahs allowed for a positive ethno-confessional correctional work. The religious consciousness of the college girl managed to mitigate only partially in terms of attitude to her neighbors in the dormitory (for example, not to put a loud alarm clock at 5 am to perform the namaz, etc.), however, it failed to change her views and to overcome religious aggressiveness of behavior.

In 2013 the Institute was closed as financially inefficient, and the experiment was stopped.

The problem of tolerant and multicultural consciousness formation of students is much broader than its solving within the specialized course. With the purpose of diversification of major didactical methods of formation such characteristics of consciousness the attempts of using elements of confessional education and multicultural analysis of the contents of other disciplines were made. We studied the effectiveness of the methods in the group of students at other higher institution while studying human sciences in which there were no confessional and ethno-cultural aspects.

In 2014–2015, an example is the experience of tolerance education in the subject «Fundamentals of law» in the third year of «Economy» specialization. There was selected a mixed ethno-confessional group, where Muslims number reached up to 50%, while the group in general consisted of 30 people. The methodology was used during the study of the content of the subject.

The study of law took place in the comparative aspect of law doctrines in the various confessional systems (For example, Sharia and the Russian system of law). The methodology proved to be insufficiently effective. There was no quality improvement of knowledge of law, let alone confessional and ethno-cultural preparedness. The private space of Muslim students (aged from 20 years) was dominated by the grouping effect that increased their ethno-cultural domination greatly and information had been rejected. They were sure that «they know more about Islam and Sharia than the Russian professor», although experimental work in the group was carried out by the same specialist. Also there was a significant rejection of knowledge and negativism in the confessional and ethno-cultural sphere of interaction of students under incidental study of bases ethnic and confessional issues.

5. Conclusion

Results can be achieved under certain pedagogical conditions and particularly using the effect of immersion of students in the content of a special «Religions of the region under study» course. Besides, it is necessary:

1. The number of Muslim students in the group should be significantly less than 50 % of its composition (preferably up to 25–30 %). When there are more there works out the social and psychological setting of dominance in conditions of which there is a certain non-individuation of the consciousness of the majority of students. The material under discussion is reinforced by the collective archetypal value of the confessional image. This effect produces a strong group opposition to the logic of tolerant comparison of dogmatic, ritual and other confessional constructions. In addition to the effect of dominance, there are other social and psychological effects of the group in the practice of the educational process which realize cleanly in the numerical superiority of the Muslim students.

The effect of «infection» defines the dominant influence on the minds of group of most orthodox confessional and associated with them behavioral positions of individual students, whose views and actions are beginning to uncritically be supported by all members of the group. In addition, the group effect of social settings of being «oneness and chosenness» is very noticeable and it can be changed by the professor, harmonizing ethnic and confessional relations between students in their social, professional and everyday reality.

An extremely important effect of group dynamics should not go unnoticed. It is important in the effective confessional harmonization of students and is achieved by means of specialized training – confessional conformity. The greater the numerical superiority of the representatives of Islam in the same study group, the greater the effect of conformal reactions would be observed in it. Therefore, the vast number of students of the confessional orientation will support manifestation of extreme types of their confessions dogmas. Overcoming social and psychological effect by pedagogical influence is extremely difficult. It is especially difficult to correct Islamic confessional dogmatism.

Methodically correct, psychologically adjusted formation of academic study group is a fundamental principle of productive and, ultimately, an effective measure of the success of the confessional education and the harmonization of social relations of undergraduates.

2. Data of a questionnaire survey of students, which are held at the beginning and at the end of the course, indicate a significant shift of indicators confessional tolerance in the direction of increasing its capacity. Students begin to perceive the problems of ethnic and confessional disputes and situations, leading to conflicts, more tolerant, and subjectively less critical.

3. The most susceptible age of students for the formation of confessional tolerance in our experiment proved to be the age of 17–19 years. Therefore, subjects of ethno-confessional cycle are advisable to plan for 1–2 year of college or senior year of vocational or secondary school.

4. The number of members of the academic groups, studying the subject of ethno-confessional cycle is very important. A group of 8–15 people is seen the best possible (which in the social and psychological dimension corresponds to the characteristics of a small group)

5. The amount of curricular and extracurricular classes must conform to the configuration of ethnic and confessional harmonization, be sufficiently informative in terms of cognitive interest of students. Classes should cover quite a long period of time (annual cycle) be regular and obligatory. Teaching process should be carried out in an active form by using didactically activating and educational elements.

6. There are requirements for professors of confessional subjects which are obligatory: they must be of high qualification and a certain authority. The teacher should not be a deeply religious man - this fact would not allow him to not give preference to any religion. That is why it should not be allowed to invite a clergyman of any confessional orientation for teaching subjects of confessional cycle.

7. Inclusion in the curriculum of subjects of confessional cycle in the extent and form that was present in the experiment seems to be cost-consuming. However, the necessity for such practices in higher education is dictated by the necessity for building reliable confessional peace, prosperity and harmonization, so the cost of such work has a reasonable basis.

The experiment on the formation of religious tolerance among students through the teaching work in the study of a specialized course has been effective. As a result of its realization there were identified positive developments in the process of formation of confessional tolerance among students. Further observation of the students showed that they have weakened the barriers to entry into an interfaith marriage. They feel equally comfortable in a Mosque, Church and Synagogue, and sometimes visit its together friends of other nationalities and religions.

Positive developments appeared in substantive characteristics of personality of students. First of all, these changes have affected the sphere of social relations, expanding the limits of its legal relationships, by changing sequence of actions in situations of conflict related to the influence of ethno-confessional conflictogenics. These changes in the personality determined in the content of personal values, ideology and behavioral assessments. This experience of formation of confessional tolerance can be regarded as a positive. The results presented in this article are based on expert judgment of specialists. Further research in this sphere will enable to build statistically significant evaluation of their results and draw conclusions on the level of the quantitative data analysis.

This experience can be used in the process of developing of state programs of preventive resolution of ethnic and confessional contradictions. It can be used in the development of measures focused on preventing conflict and manifestations of extremism in combination with other measures of law, political and educational nature.

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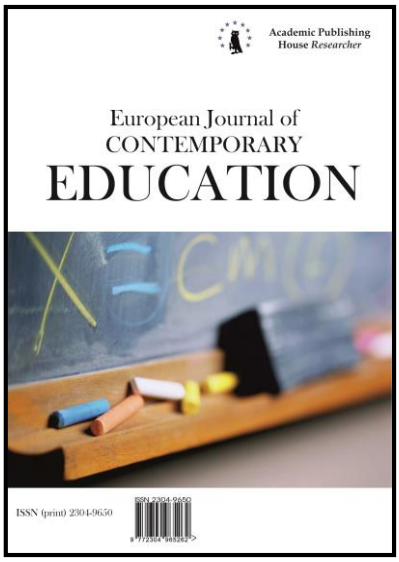

Systematic Approach to the Goalsetting of Higher Education in the Field of Tourism and Hospitality

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Abstract

The article deals with key problems and contradictions of training of university graduates for the tourism and hospitality industry in Russia, primarily associated with the setting of educational goals. The article formulates the discussion points related to the updating of the existing educational standards for the enlarged "Service and Tourism" group. A systematic approach to the formulation of goals of higher education in the sphere of service and tourism is introduced. It features the designing of a multi-level system of both invariant and variable targets. The proposed approach generalizes the best domestic and foreign practice of training for the industry; in setting the objectives of the industry development trends it allows to take into account issues in the global and regional scale, the labor market requirements of specific businesses of tourism and hospitality industry, the specifics and possibilities of an educational institution and individual characteristics of future specialist, to induce him to self-design his professional career; improve the quality of higher education. Article submissions may be used for the improvement of higher education for the tourism and hospitality industry, the establishment of productive cooperation of the educational organizations and enterprises in the sphere of tourism and hospitality.

Keywords: actualization of the state educational standards of higher-education, designing of goals of higher education in tourism and hospitality, a systematic approach to setting goals.

1. Introduction

Among important aspects of higher education in the field of tourism and hospitality in Russia is weak demand for graduates, oversaturated labor market with higher education diplomas, the disparity between preparation of graduates and employers' requirements. To address these issues

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the federal state educational standards of higher education are being currently updated, namely, the development of the State Standards 3 ++, the key objective of which is to harmonize educational and professional standards.

Guidelines for updating the State Standards enable developers to define a list of professional competencies of graduates, taking into account:

- orientation of the educational program;
- content of generalized labor functions (in whole or in part, depending on requirements set by the professional standard for education and training) of relevant professional standards (if any);
- results of foresight analysis of competence levels and requirements for graduates of this area of training in the labor market, labor market analysis, generalization of foreign experience, consultation with leading unions of employers that offer jobs to graduates of the chosen areas of training, other sources (Guidelines, 2015).

At the same time, the experience of development of the existing federal state educational standards, and the earlier generations of these standards shows that frequently employers requirements in the educational standards are carried out formally on paper, but in real practice the level of preparation of graduates remained practically at the same level. To avoid such a situation one must carefully approach identification of the requirements of employers in the tourism and hospitality, as well as trends of the labor market development of the industry.

We believe that currently the training system for the industry of tourism and hospitality has the following problems:

- service, tourism and hospitality industry employers' requirements to the university graduates and a range of existing and potential positions different substantially from one company to another. Thus, the requirements for managers of major international hotel chains and small hotels are quite different, along with differences in the field of children's, recreational and business travel specialists;
- when updating educational standards, it is rather difficult to take into account the today's labor market demands of the hospitality industry and foresight analysis results of its development in the near future. Currently, the most important quality for the specialists of the industry are communication skills, ability to effectively communicate with clients in Russian and foreign languages, client-oriented approach. On the other hand, the results of foresight sessions predict that people will be replaced by robots in the near future and experts will be required to manage robots and use their IT skills;
- each graduate of the enlarged group of disciplines for "Service and Tourism" has its own personality and characteristics. Therefore, for the successful self-fulfillment at work they may require a different set of personal qualities and competences. For example, one graduate is naturally sociable, but not service-minded - it is difficult to force himself to please a customer, to anticipate his wishes. Another specialist is diligent but doesn't take initiative. Therefore, during the period of training each of them has to create and implement a customized image-self-projection;
- given active presence of international hotel chains in Russia, as well as Russia's accession to the Bologna Process, it is necessary to bring the goals, content, and technology of training in Russia in line with the best European models. At the same time the European model of higher education in the field of hospitality is significantly different from the Russian one. Russian universities emphasize theoretical knowledge, formation of administrative, financial and economic competences along with service technologies. The European model is based on a good mixture of theoretical studies with practical work in "real-time" at a real hotel; the future manager must sequentially go through all departments of the hotel industry and acquire practical skills of working in each of them.

One of the main procedures in the development and actualization of educational standards is the design goals of education. Analysis of the practice of higher education in tourism and existing educational standards shows that the following unresolved contradictions are present in the system of design and implementation of the objectives of higher education in the field of tourism and hospitality in the Russian Federation:

- between objectives of the existing educational standards and implemented programs to train a specialist for the tourism and hospitality industry on the one hand and the real needs of employers and the labor market on the other;

- between the need to develop a set of training goals in the process of developing and updating of State Standards, taking into account the requirements of the labor market and insufficient development of scientific and methodological support of the process.

In addition to these contradictions, for the goalsetting system at the level of higher education for the tourism and hospitality, there are further non-resolved contradictions, characteristic of the system of goalsetting in education:

- between the idealistic and the unattainable as the essential characteristic of education goals (Belukhin, 2008) and the declaration in the documents the necessity of its absolute and complete achievement and accurate measurement (diagnostical goalsetting);
- between the abstract wording of the goals of education in the documents ("social order") and the need to turn them into something tangible by an educator;
- between invariance of the existing education goals (uniform qualities for all citizens of the country) and the individuality of each person, who may require a different set of qualities to be successful in their self-implementation in society (for some – to be initiative and creative, and for others - responsible, hardworking and diligent);
- between derivative educational goals and their values ("What is pedagogical value? - It is the Great Russian River that majestically flows between the beautiful wooded banks. - What are pedagogical goals? - Pedagogical goals – the beacons that mark the mid-channel and help ships avoid shoals. Buoys without the river have no meaning. Would you put them up on a hill? And the river without buoys is even more beautiful, more natural and organic" (Prikot, 2003) and ignoring this derivativeness in educational theory and educational practice;
- between the mobility and dynamism of educational goals (Belukhin, 2008) and its invariance (stable wording for a long period) in scientific works, program documents of education, educational standards);
- between simultaneous objectivity and subjectivity of educational goals (Belukhin, 2008) and absolution or objectivity (goal as a social order) or subjectivity (rejection of the same for all teachers wording of the goals of education, which is characteristic of the pedagogy of postmodernism ("anti-pedagogics" (Ogurtsov, 2001));
- between a difference in understanding and personal meanings of basic concepts of a well adopted wording of educational goals by scientists, policy makers (managers) in the field of education, and by teachers;
- between the declared goals of education (social order) and the goals the educators set and reach regarding the pupils;
- between the wording of goals of education and their understanding in different historical periods;
- between the goals of education, which are put by teachers in relation to a student and a class of students (collective) (for example, a teacher constantly praises the same student for the perfectly written essays in front of the whole class, aiming to strengthen the student's academic motivation, at the same time lowering self-esteem and self-respect of other students);
- between educational objectives of teachers and students (Tyunnikov, 2016).

To solve these problems and contradictions and to improve higher education in the field of tourism and hospitality, we have developed a systematic approach to goalsetting of higher education. The peculiarity of the approach is that the system of goals has multiple levels; basis for setting goals is clearly defined at each level of the system; the system includes both the invariant and optional goals; teachers and students have the opportunity to make adjustments of the goals; the system is dynamic and flexible, depending on the changes of the labor market; the system is focused not only on vocational education but also on professional self-design.

2. Materials and methods.

The aim of the article was to develop a systematic approach to the design of higher education objectives in the field of tourism and hospitality and to present authors' objectives for subsequent use in updating the State Standard for the stream of "Service and Tourism."

To achieve the goal the following methods were used:

- analysis of scientific and educational literature on the subject;
- analysis of the document:

- existing Russian and European professional tourism and hospitality standards;
- qualification characteristics, job descriptions of employees at hospitality industry units, positions which require higher education, and standard job descriptions;
- normative documents in the field of tourism and hospitality in Russia and the Europe;
- educational standards and programs;
- Internet sites of leading Russian and European hotels and universities that offer training for tourism and hospitality.

• comparative analysis of the objectives, content, training tools of higher education for tourism and hospitality in Russia and Europe, educational of standards and programs.
• correlation of the requirements of professional and educational standards.
• exploration of ways to solve problems in the practice of higher education;
• comparative analysis of domestic and foreign experience, best practices research;
• systematization, generalization of facts;
• analysis and synthesis;
• simulation of a multi-level system of goals;
• generalization of experience of State Standard mainstreaming;
• questionnaires and interviews of university professors and business leaders of tourism and hospitality industry;
• method of expert evaluations.

3. Discussion (including the analysis of the scientific literature on the subject of the article).

The analysis of scientific research of some authors ((Karakozov et al., 2015), (Samsonov, 2015), and others.), operating under the State Standards and programs for hospitality industry graduates, requirements of State Standards, adopted professional standards for basic positions in tourism, requirements of employers to staff at tourism enterprises allows to prove the feasibility of designing State Standards 3 ++, taking into account the requirements of employers and the labor market.

In the Russian educational system, the goals of higher education have been designed for a long time without taking into account development trends in the labor market and employers' requirements. In fact, the right to determine such goals was delegated to the Ministry of Education of the Russian Federation, standards creative groups - educational-methodical associations of universities within this stream. In the last decade the involvement of employers in the process of design of higher education goals of the third generation of standards is clearly manifested, as well as in harmonization of educational and professional standards (updated State Standards). However, in practice these ideas are often implemented formally, mainly due to a lack of formal methods and technology of implementation.

The analysis of sources shows (Baty, 2010; Cowles Dand Gilbreath, 1993; Crainer, 2011; Holmes, 2010; Middleton, Airey, 1997; Richards, 1995; Richard, Onderwater, 1998; Smith, 2010, and others), that developed European countries use a fundamentally different approach to the design of goals of higher education in the tourism and hospitality. They take into account the targeted parameters of European education and requirements of employers. The first group:

- European Standards and Guidelines – standards and guidelines to ensure the quality of higher education in the European space;
- Dublin descriptors of levels of education;
- European and national qualifications framework;
- ECTS USER'S GUIDE 2015 – Guidelines for the use of the European system of transfer and accumulation of credits (units), etc.

It is characteristic for Europe to create educational institutions on the basis of operating world's major hotel chains. Therefore, targeted parameters are set according to the demands of hotel/hotel chain. Thus, the concept of the School of Hospitality management of Lausanne (Switzerland) states: "In the sphere of tourist and hotel services there can operate a person who feels the need to provide services to another person and this essentially gives him satisfaction." The ACCOR hotel chain is the largest in Europe. The essential qualities for ACCOR personnel are: the ability to see and highlight the most important component of a complex problem; diplomacy,

perseverance, goal-striving, determination; the ability to make the right decision; possession of at least two foreign languages and the mother tongue at the level of everyday communication; independence and desire to devote himself to a difficult but exciting work. The main requirements for the Novotel network personnel (France) are the care, anticipation of peoples' needs, responsiveness.

This raises the question: should Russia, given its entry into Bologna process, the proliferation of international hotel chains as well as for the purpose of development of the external (despite sanctions) and internal (as a response to sanctions) tourism, diverge from the traditional model of training for the tourism and hospitality industry, in which the emphasis is on the formation of universal managerial competences, and migrate to a European model that focuses on the needs of specific major hotel chains and is based on the acquisition of practical skills of all employees of the hotel, starting with the lowest level?

The current method of updating the existing State Standards means that the design of goals of higher education (professional competence standards) is done on the basis of harmonaization with professional standards. In the absence of such standards, it is proposed to use the labor market foresight analysis and other documents that reflect the requirements of employers. In such cases there remain unclear (debatable), the following questions:

1. If, at the time of updating the Standards, there exist appropriate professional standards, then should the formulation of professional competences rely solely on them or on other documents (results of the labor market foresight analysis, qualification requirements, job descriptions, policy documents of the industry development, the results of questionnaires for employers, etc.), too?

2. What needs to be done in case of discrepancy (contradictions) between professional standards and other documents?

3. What if the professional standard is too general or, conversely, too detailed (meticulously) describes the functions of professionals?

4. Do we need to provide higher education institutions implementing educational programs, an opportunity to supplement (amend) the list of professional competencies with regards to the characteristics of the regional labor market and the specific requirements of employers (core enterprises for which staff training is mainly conducted)?

5. If yes, what kind of technology (method) of goalsetting should universities be guided by for the formulation of these competencies?

6. How should the targeted focus on lifelong learning be reflected in the targeted component of the standards and educational programs, along with self-improvement, self-design of one's professional career?

As a possible answer to the discussed questions and a way of solving the above mentioned problems and resolution of these contradictions, we offer a systematic approach to the formulation of higher education goals for the tourism and hospitality industry.

The key features of the proposed approach are:

1. Creations of a multi-level system of training goals, in which each layer performs its function in the professional training of a teacher, and the sequence of layers defines a stepwise algorithm of goalsetting.

2. Inclusion in the system both invariant, common for all graduates, and variable components, designed in a way that takes into account the characteristics of the regional labor market, particular tourism and hospitality businesses, educational institution, the needs of students.

3. Identification of clear grounds for the design of goals for each level of the system.

Let's describe the proposed approach, including a step by step algorithm of goalsetting, levels of goals, base for their formulation, methods and results of pre-design analysis for the tourism and hospitality industry.

Design of goals begins with identification of key values and ideals, which will serve as the basis for setting goals: "What is the pedagogical value? – It's the Great Russian River, which flows majestically between banks with beautiful forests. – What is the pedagogical goal? – Pedagogical goal is buoys that are on the fairway of the river and help avoid shoals. Buoys without the river have no sense. Would one put them on a hillock or something? And the river is even more beautiful

without the buoys. It is more natural and organic" (Prikot, 2003). Therefore, the first phase of goalsetting is defined as the "**Strategy development of ideals and values**." At this phase the goals of the first level of the system are set – "*Stratagems of goalsetting*", the basics *function* of which is to select and determine the hierarchy of values, which become the guidelines for setting the goals for all other levels. *The basis* for their design is the megatrends of the service and hospitality industry development. For a scientifically justified wording of the goals of this level there should be done a pre-design analysis with the use of the following *methods*:

- analysis of strategic objectives and megatrends of development of society (global and Russian);
- foresight analysis of the world, Russian and regional labor tourism and hospitality market; compilation and analysis of the results of foresight sessions, represented in the scientific literature;
- analysis of strategic documents of the tourism and hospitality industry in Russia and in other developed countries;
- analysis of the current labor market of tourism and hospitality industry, existing problems, contradictions, etc.;
- analysis of key corporate culture values of the largest enterprises in the tourism industry (for example, major international hotel chains, largest tour operators, etc.).

As an *illustration of pre-project analysis* for this level, we would like to give a synthesis and analysis of foresight sessions presented in the scientific literature and formulated on this basis of the first level goal for the training area of "Hospitality":

- "Problems and development of the hospitality industry in Russia towards 2035";
- "Required competences in tourism / hospitality."

The foresight session, conducted by the SEC in the hospitality industry in September 2014, revealed the following changes:

- growth of interest in domestic tourism;
- increased use of Internet tools for independent travel planning;
- increase in the number of tourist search services and applications that will allow one to select relevant information for customer inquiries;
- building a logistics for individual trips;
- desire of tourists to acquire additional emotions - for example, during the trip to participate in the reconstruction of the historic event and fill this event with his own personal associations and meanings that will spur the development of creativity in the hospitality industry, will give impetus to the development and implementation of new software (eg, hologram technology-and 3D-printing, allowing creation of gaming reality);
- competition between media \ entertainment and hospitality. In a competitive environment it is only possible to keep the attention of a potential client by offering him unique experiences;
- increased importance of branding of territories – giving them weight by including the game format, that allows tourists become part of a historical event and live through incomparable emotions;
- the growing demand for unusual architectural objects in extreme zones, pre-fabricated structures and "shimmering cities" – temporary phenomena where people share same interests, create a unique atmosphere and story (Goncharova, 2016).

According to the organizer of a foresight session "Popular competences for tourism / hospitality", the list of professions in industry of hospitality and tourism will change, namely:

• a number of professions will become obsolete – most duties will be assumed by the machines;

• growing demand for a number of new professions, integrating the competence of tourism, IT, artificial intelligence control, media, advertising and design, such as robotics concierge (a specialist in control of hotel robots), brand manager of the territories (a consultant and an organizer, responsible for the cultural content of the virtual space for a specific territory); architect of a territory (creating information landscapes, taking into account the realities of the region, types of consumers and popular current trends in the tourism industry), designer of augmented reality (developing various layers of augmented reality for a territory with respect to its landscape, historical and cultural context), an online consultant (offers alternatives to tourists for further navigation in the virtual world, helping to find the relevant information, reflect on the results, contact the experts in a given area), a developer of automated travel systems (expert who creates

automated purchasing systems for tickets, navigation, booking of hotel rooms); tour navigators developer (IT-specialist, creating programs and applications that allow the user to navigate properly along a particular route, taking into account their interests, tastes, plans and current affairs), travel counsellor, clientele manager etc. (Atlas of the new professions, 2016).

Methodical understanding of foresight analysis allowed us to define megatrends of service and hospitality industry and to formulate goals of the first level – "Stratagems of goalsetting" (see Table 1).

Table 1. Megatrends of service and hospitality industry as the basis for the formulation of the first level goals ("Stratagems of goalsetting") professional training for higher education graduates, stream "Hospitality"

Megatrends of service and hospitality industry (based on the foresight analysis of the world and Russian labor market for the tourism and hospitality industry)	The wording of the first level goals ("Stratagems of goalsetting")
Growth of interest to domestic tourism Growing interest of Russian citizens to the tourist facilities in Russia Tensions between Russia and a number of developed foreign countries, sanctions against Russia	Patriotism
Increase in the number of hospitality industry facilities operating in the framework of international hotel networks (Radisson, Marriott International, Hilton Hotels, Hyatt Hotels Corporation, and others.)	Tolerance, mastery of foreign languages and cultures
Active use of tourism services, the Internet tools for self-planning of journeys by the consumers Increase in the number of tourist search services and applications that will allow one to select relevant information for customer inquiries The alignment of individual traveling logistics	Computer literacy Tourism design Focus on clients Customization (targeted nature) of services
Growing number of "budget" accommodation facilities with low cost accommodation (hostels, guest houses, etc.).	Mass character
Growth of demand in additional services, related to entertainment and leisure programs Desire of consumers and the hospitality services to generate additional emotional experiences	Creativity Game Emotions Entertainment Animation Special experiences Event saturation
Increased importance of branding processes for territories Demand for unusual architectural venues in the extreme zones, prefabricated structures and "shimmering cities" – temporary venues, where people with the same interests create a unique atmosphere and storyline Competition between the hospitality industry and media / entertainment	Tourism design Branding of territories Innovation
Introduction of robotics in the field of hosting services	Programming Preservation of ethical values

It should be noted that Table 1 shows the invariant goals of first level. Variable goals are formulated in relation to a particular educational program on the basis of the analysis of the current status and foresight analysis of the regional labor market, corporate values of core enterprises, missions of educational institutions.

The second phase of goalsetting – "**Harmonization of job functions and professional competencies**" – is aimed at the correlation of labor functions, performed by the specialists, and

the forming professional competences as targeted parameters of professional training. At this stage, the goals of the second level of the system are designed – "*Professional competences*", whose main *function* – to determine the set of invariant and variable professional competencies to be formed by the graduates. The *basis* for the design of goals of this level is the functions exercised by the employed specialist. For evidence-based formulation of the goals of this level it is necessary to perform a pre-project analysis with the use the following *methods*:

- analysis and foresight analysis of the positions, represented in the labor market;
- analysis of existing Russian professional standards, job descriptions, qualifications and other documents which reflect the work functions;
- analysis of foreign qualificational (professional accreditation) and educational standards;
- harmonization of professional and educational standards.

As an *illustration of a pre-project analysis* for this level, let's give invariant formulation of general competence as the second-level goals for the stream "Hospitality", made on the basis of professional and educational standards (see Table 2).

Table 2. Specialist functions as the basis for the formulation of invariant goals of the second level ("Professional competences") professional training of staff with higher education, stream "Hospitality"

Generalized labor functions in MS*		General professional competences in State Standard 3 ++ "Hospitality" as the goals of the second level	
6 Qualif. level	*7-8 Qualif. level*	Bachelor	Master
Management of the current activities of the department (services, departments) of a hotel complex	Introduction of innovative technologies and changes into the management of a hotel chain	*Competences in the field of activity and resource management*	
		DIC-1 Able to apply complex tasks and systemic understanding of methods, techniques and technologies to manage processes in a specialized hospitality area	DIC-1. Able to apply comprehensive knowledge and systemic understanding of methods, techniques and technologies to manage processes in a specialized hospitality area
		Competences in the field of personnel management	
		CMO-3. Able to apply basic elements of planning, organization, coordination and control of implementation	CMO-3. Able to implement the planning, organization, coordination and control of execution functions to the full extent

* "The head of catering" and "Head (manager) of hotel complex / hotel chain"

		Information competences	
		DIC-2. Able to use modern information technologies and software tools for solving problems in one's professional activity.	DIC-2. Able to use modern information technologies and software tools for solving professional management tasks.
Management of the current activities of a department (services, departments) of a hotel complex	Introduction of innovative technologies and changes into the management of a hotel chain	*Competences in the field of quality of hotel services / catering services*	
		DIC-4. Able to apply legal and technical documentation, regulating the activities	DIC-4. Able to apply the regulatory and technical documentation to manage professional activities
		DIC-7. Able to provide the required quality of service processes, tourism and hospitality	DIC-7. Able to implement quality management of service processes and hospitality

		DIC-8. Able to ensure compliance with health and safety regulations	DIC-8. Able to organize and monitor compliance with the health and safety requirements
Interaction with customers and stakeholders	Business Interaction with owners and partners	*Competences in the field of oral and written communication*	
		DIC-6. Able to carry out internal and external professional communication, resolve conflicts and maintain effective communication with customers	DIC-6. Able to organize internal and external professional communication, develop and implement measures to prevent and resolve conflicts with clients and staff
Monitoring and evaluation of the effectiveness of the departments (services, departments) of a hotel complex	Creation and implementation of the development strategy of a hotel complex Project management and changes in the hotel complex	*Design competences*	
			DIC-9. Able to develop projects in the field of one's professional activity and their provide peer review
	Strategic management of a hotel complex development	*Settlement and economic competences*	
		DIC-5. Able to assess the costs and revenue while exercising his professional activity	DIC-5. Able to implement the assessment of costs and revenues while exercising his professional activity

Note that Table 2 shows invariant goals for training of professional competences, necessary to any expert.

Variable goals of the second level are formulated for specific positions in companies of a certain type, based on an analysis of staffing, job descriptions, monitoring of employment, employer surveys.

The third phase of goal-setting – "***Design of learning results***" – directed at specification of professional competences in a set of specific knowledge, skills, personal qualities. At this stage, the goals of the third level are designed – "*Goals-targets of learning*", whose main *function* – to describe the concrete results of professional training, which must be received and can be evaluated (diagnosed) with graduates. The *basis* for the design of goals of this level is:

invariant goals:

- professional tasks of a particular specialist (group of experts);
- position of the educational program;

variable goals:

- characteristics of a given educational institution;
- individual style of a teacher;
- specific requests of employers.

For evidence-based formulation of the goals of this level it is necessary to perform a pre-project analysis, using the following methods:

- analysis of foresight meetings, to identify new professional tasks, functions, operations of specialists, which will require appropriate knowledge and skills;
- observation of professional work of experts in order to identify their basic operations, and functions, and relevant knowledge, abilities and skills;
- a survey of employers and professionals of the tourism and hospitality industry;
- expert assessments (to highlight the most important knowledge, abilities and skills).

As an *illustration of the pre-project analysis* for this level, let's give the formulation of learning results as third-level goals for the stream "Hotel business", executed on the basis of analysis of results of foresight sessions (see Table 3).

Table 3. New professional tasks of professionals of tourism and hospitality industry as the basis for the formulation of the third-level goals for "Hotel business"

New professions	*New professional tasks of professionals of tourism and hospitality industry*	*Graduate training results in "Hotel business" as the goal of the third level*
Travel advisor Online consultant	Selection of relevant information for customer inquiries as to accommodation facilities and tourism products Building the logistics of individual trips Online counseling - providing tourist assistance to quickly find the desired information, offer alternatives on navigation in the virtual world	The ability to select with the help of search services and applications relevant information requested by the clients On-line consumer counseling skills Commercial flair Ability to listen and work in a team
Developer of automated tourist information systems Developer of tour navigators	Development of automated tourist maps Creation and use of automated ticket purchasing systems, navigation and booking of hotel rooms Creation of computer programs and applications, enabling customers to navigate on a particular route, taking into account his interests, preferences, plans and current cultural events	Literacy in specialized software products not only at the level of experienced user but the developer Ability to create automated ticket purchasing system, navigation and booking
Manager of "budget" accommodation facilities (hostels, etc.)	The development of business projects for the creation and development of the "budget" accommodation facilities Management of "budget" accommodation facilities	Ability to calculate the economic impact of the creation of affordable accommodation facilities Ability to find and evaluate new market opportunities of "budget" housing facilities, formulate business ideas, promoting their development
Brand Manager of a territory Territory architect	Creating unique experiences for consumers of tourist services Development and implementation of animator programs Branding of territories – giving them weight, including game format, allowing tourists to be part of an event and live through incomparable emotions	Ability to create game realities Fantasy, imagination, creativeness Ability to generate unique ideas Ability to brand territories Knowledge of geography, venues of natural and cultural-historical heritage of Russia and foreign countries
Augmented reality designer	Virtual reality design	Literacy in design technologies for building information landscapes, considering realities of the region, types of consumers, and popular ideas in the travel industry Literacy in hologram technology and 3D-Printing
Robotics concierge	Robotics management Communication with artificial intelligence	High level of organization of labor Multi-tasking skills Knowedge of mechanisms Skills of communication with artificial intelligence

Clientele fiduciary	Guarantees quality of tourist services rendered Promotion of tourism services from travel agents to customers	Information skills Inflexibility of character Energy Ability to easily come into contact with the customer Reactivity PR technology of tourist products

Note that the Table 3 shows only a small fragment of the objectives of the 3rd level. The rest of the invariant part is determined on the basis of the analysis of professional tasks and operations performed by specialists, and with the consideration of the educational programs. Variable goals are designed on the basis of the characteristics of educational institutions, individual style of the teacher and demands of concrete employers (i.e. some goals are modeled taking into account the peculiarities of a particular company where a graduate is going to be employed).

The fourth phase of goalsetting – "***Professional self-design***" – helps a learner to create a self-project-image of a future specialist, to help him plan his career and to design, on this basis, his own professional development goals. At this stage the goals of the fourth level are designed – "*Self-design goals*" whose primary function is self-design by a given student his own goals of training on the basis of his own self-analysis of identified advantages and disadvantages, taking into account a planned professional career, personal growth. The *basis* for the design of the goals of this level is the results of self-examination of the individual student and his plan of professional development and career growth.

For evidence-based formulation of the goals of this level it is necessary to perform a pre-project analysis, using the following *methods*:

- reflection of himself as a future specialist by a student;
- self-introspection of a student, identifying strengths and weaknesses, qualities that should be developed or adjusted for a successful professional self-fulfillment, career growth;
- modeling by a student his own self-project-image as a future specialist.

4. The results of the study. The results of the study helped us simulate:

- a multilevel system of goals for specialists with higher education, stream "Hospitality";
- the system of science-based reasons for setting goals at every level;
- step by step algorithm of goalsetting;
- methods of design of goals at every level.

Generalized results of the study are presented in Table 4.

Table 4. System approach to the formulation of goals of higher education in the field of tourism and hospitality

Step by step algorithm of goalsetting	Levels of goals	Type of goals	Functions of the level	Grounds for setting goals	Methods for design of goals
Strategy development of ideals and values	1	Stratagems of goalsetting	Define a set of values and their hierarchy that become markers for goalsetting of all other levels	Megatrends of service and hospitality	- analysis of the strategic objectives and mega-trends in a society, - foresight analysis of the world, Russian and regional labor markets; synthesis and analysis of results of foresight sessions; - analysis of strategic documents of the hospitality and hospitality industry; - analysis of the current state of the labor market;

					- analysis of the core values of the corporate culture of major businesses of the tourism industry
Harmonization of job functions and professional competences	2	Professional competence	Determine the set of invariant and variable professional competencies that need to be formed in the graduate	Work functions of a specialist	- analysis and foresight analysis of the positions represented at the labor market; - analysis of the existing Russian professional standards, job discriptions, qualification requirements, and other documents, which reflect the labor functions; - analysis of foreign qualification and educational standards; - harmonization of professional and educational standards
Design of learning results	3	Targets Results Training	Describe the results of professional training, which must be received and can be evaluated (diagnosed) with the graduates	- professional tasks of a particular specialist (groups of experts) - focus of the educational program; - features of the educational establishment; - an individual-style of a teacher - specific requests by the employers	- analysis of foresight meetings to identify new professional tasks, functions, operations by specialists, which will require appropriate knowledge, abilities, skills; - observation of the professional activity of experts in order to identify the set of their basic operations, functions, and relevant knowledge, abilities and skills; - survey of specialists and employers of the tourism and hospitality industry; - expert assessments (to highlight the most important knowledge, abilities and skills).
Professional self-design	4	Goals of self-designs	Self-design of the goals of their training by the students	The results of the student's self-analysis and his plan of professional development and career growth	- reflection of a student as a future specialist; - self introspection of a student, revealing of strengths and weaknesses, qualities that should be developed or adjusted for a successful professional self-realization, career growth; - modeling by a student his own image-self-design as a future specialist

5. Conclusions

This article describes a systematic approach to setting goals of higher education in the sphere of service and tourism, which consists of science-based designing of a multilevel system of invariant and variable goals.

Proposed approach:

- sums up the best domestic and foreign practice of training for this industry;

- in goalsetting it allows taking into account the development trends in the industry on the global and regional scale, labor market requirements of specific businesses of tourism and hospitality, the specifics and possibilities of the educational institution and the individual characteristics of future experts;
- to encourage the student for the self-design of his own professional career;
- improve the quality of higher education.

Article submissions may be used for the improvement of higher education for the tourism and hospitality industry, establishing a productive co-cooperation of educational institutions and enterprises of tourism and hospitality.

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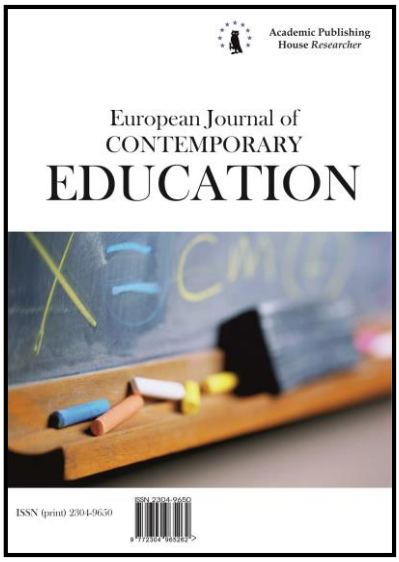

Contemporary Didactics in Higher Education in Russia

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Abstract

The article presents the theoretical framework for a competency-based approach in higher education. It shows that the general didactic principles of professional direction, interdisciplinary connections, fundamentalization and informatization form the didactic basis for the competency-based training in university. The article also actualizes the integrated use of effective approaches to training, namely, competency-based, contextual, interdisciplinary, fundamental and subject-information approaches to training, among which the competency-based approach is leading. The basic organizational and pedagogical conditions promoting the formation of competence are defined in the form of the organization of polycontextual modules in training. Besides, the article outlines the ways to enhance the effectiveness of e-learning in the future.

Keywords: formation of competence, didactic basis, contextual, interdisciplinary, fundamental, subject-information approaches, organizational and pedagogical conditions, polycontextual educational module, e-learning, computer animation.

1. Introduction

We consider contemporary didactics in higher education as a theory of training from the standpoint of the competency-based approach, i.e. training, the purpose of which is to develop the competence of students. This theory has to resolve the basic problem, namely, what the training

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that forms the competence of high school graduates should be. The development of contemporary didactics continues, because in spite of the extensive literature, today there is no reasonable certainty in solving a number of didactic issues such as, for example, what the basic principles of the competency-based training are and which system of the selection of the learning content should be chosen. In addition, of course, the potential of e-learning in the competency-based approach is not revealed to the full extent.

The problem of the formation of competence is conditioned by the fact that the competency-based approach does not specify the relevant content, forms, methods and means of training directly in setting a learning objective and learning outcomes (which comprise the leading role of the approach), they should be developed by teachers and researchers.

The purpose of this article is to develop contemporary didactics further, namely, to elaborate the theoretical foundations of the competency-based approach to training university disciplines, which would allow designing the proper methodical system, especially, the principles of training and the system of selecting the content.

The article addresses the following tasks. The first is to justify the relevance of the integrated use of effective approaches to training university disciplines in the process of the formation of all competence's components with the leading role of the competency-based approach. The second is to identify the organizational and pedagogical conditions contributing to the formation of the competence of students in the form of the organization of students' activity, its content and teaching methods. The third is to reveal the competence potential of e-learning and to identify additional opportunities provided by it for further enhancing the effectiveness of these approaches and the organizational and pedagogical conditions.

2. Materials and Methods

This study examines the methodology of the integrated implementation of several approaches to training that in fact belong to different educational paradigms (competency-based, knowledge-based, system-activity, learner-centered, and others). At the same time we rely on the materials of the researchers, suggesting a dominant role of the leading competency-based paradigm that is not opposed to others, but supplemented by them on the basis of synergy. In this case, we can talk about a polyparadigmatic approach to training (Shiyanov, Romaeva, 2005: 17-25), in which methodological pluralism as an essential characteristic of contemporary pedagogics manifests. In our opinion, this approach can play an important role in solving the problem of the formation of competence.

The description of the main provisions of contemporary didactics in higher education is carried out in the framework of the triad, which consists of effective approaches to learning, organizational and pedagogical conditions and the didactic potential of e-learning.

Methods of research: the theoretical analysis of the psychological and pedagogical as well as scientific and methodical literature, the methodological analysis of the State Educational Standards of Higher Education, generalization of innovative pedagogical experience along with the modeling method.

Effective Didactic Approaches

The didactic basis of the competency-based training. As we know, in any model or system of training a university discipline the leading role is played by general didactic principles. It should be noted that these principles are the same in the knowledge-based and competency-based approaches. However, in order to shift from the knowledge-based training to the competency-based one, you must increase the level of the implementation of some general didactic principles. The combination of these principles, which have a significant potential in the formation of competence and are not implemented to the full extent within the knowledge-based approach, could be seen as the didactic basis of the competency-based training (Noskov, 2010: 38-44).

In order to determine which of the general didactic principles should be attributed to the didactic basis, we should note that all of these principles can be divided into two groups: the first is focused on forming knowledge and skills, and the second is mainly focused on forming the ability and willingness to use them in professional activities. These feature lie at the heart of the competency-based approach in higher education. The first group includes general didactic

principles, such as the unity of the content-related and procedural aspects of training, scientific character, systematicity and consistency, systemacity, availability, etc.; they are connected with the formation of knowledge and skills that are the basis of the student's competency and already fully implemented in the content, forms and methods of training in high school. The second group includes general didactic principles of professional direction of training, interdisciplinary connections, fundamentalization and informatization, since they are closely linked to the ability and willingness of the student to apply knowledge and skills beyond the subject field of the discipline. These principles were not fully demanded and implemented in the knowledge-based approach focused only on the formation of strong residual knowledge and skills, but they can be fully implemented in the competency-based approach, which will allow shifting from the knowledge-based training to the competency-based one (Noskov, 2010: 38-44).

The principle of professional direction in the competency-based approach. An important role in the didactic basis is played by the principle of professional direction, in accordance with which the context of the student's future professional activity is purposefully simulated in the process of training the discipline, in particular, the application of acquired knowledge in it; this training is called professionally directed or contextual.

From a psychological point of view, the contextual training has a considerable potential for the formation of students' competence. In fact, speaking about the difference of knowledge and values, A.A. Verbitsky says: "Values are what can be monologically described as an oral or written text. Being internalized, for example, through memorizing the text, values as the foundation of knowledge may not become the property of the individual, i.e. the actual knowledge, that, what possesses a personal sense for a person, being a guide to action, or expresses one's attitude to the world, society, other people and to oneself ... The context of life and work, the context of the professional future specified by the corresponding didactic and psychological "technology", fills the educational-cognitive activity ... of university students with the personal sense, determines the level of their activity, the degree of the involvement in the processes of knowledge and transformation of reality" (Verbitsky, 2001: 276).

Over the past decades, A.A. Verbitsky and his followers have developed a psycho-pedagogical theory, which plays an important role in the competency-based approach in higher education (Verbitsky, 2006: 70-84).

The principle of interdisciplinary integration in contemporary didactics. Another basic principle is the principle of interdisciplinary integration or the principle of multidisciplinary (interdisciplinary) connections. In the competency-based approach the principle of interdisciplinary integration should be clarified proceeding from the fundamental role of the cognitive process of applying knowledge. Here we understand the interdisciplinary communication as the application of knowledge of one subject matter in the process of learning another one, and interdisciplinary integration as strengthening and establishing new interdisciplinary connections in order to improve the quality of education (Noskov, 2010: 38-44).

The structure of the cognitive process of applying knowledge. The application of the knowledge of the subject matter *A* in some area *X* (it may be another subject matter *B* or an occupational field *P*), which occurs in the process of solving a certain problem from this area, is a complex process, which is carried out in three stages. At the first stage the student designs a disciplinary model of the problem from the area *X*, recording its condition in the terms of the subject matter *A*, at the same time realizing the connection of the problem with this subject matter and using the knowledge of it to design such a model. At the second stage the obtained model is examined using other knowledge of the subject matter *A*, thereby producing new knowledge relating to the subject matter. Finally, at the third stage the student interprets this knowledge in the area *X*, getting new knowledge in this area as a solution to the problem. The three-stage process is universal. It means if *X* is another subject matter, we get a description of interdisciplinary connection, if *X* is an occupational field, we get a description of the process of applying knowledge in the future work. Thus, in the application of knowledge outside the subject field of the subject matter the student learns to apply this knowledge in their professional activities. Understanding the structure of this process, the teacher can generate and evaluate the student's ability to apply their knowledge more effectively.

It should be noted that the situations of applying knowledge in the subject field of another subject matter can be divided into two types. The situation of the first type occurs, for example, in

training Mathematics, when the student uses the knowledge of Physics, namely, a formula, a rule or a law of Physics, solving a mathematical problem. In this case, the interdisciplinary application of knowledge is carried out in one go, which consists in the direct application of the knowledge of Physics in the process of learning Mathematics and does not imply the creation of the local subject field of Physics.

In the situation of the second type, the subject field of the learnt subject matter creates a local subject field of another subject matter, where the knowledge of the parent subject matter is applied. An example is a solution to an applied mathematical problem with the physical context related to the subject field of Physics, provided that the problem is solved through the application of mathematical knowledge. In this case, the local subject field of Physics is created within the subject field of Mathematics, where the knowledge of Mathematics is applied. Thus, the situation of the second type is implemented at two times: during the first one the local subject field of the external subject matter is created, while during the second one the knowledge of the parent subject matter is applied in this field.

The local subject field of the external subject matter possesses integrity, which is characterized by the fact that students realize that it is generated by this subject matter, and have the knowledge of this subject matter, which is sufficient to solve the problem.

With regard to the understanding of the interdisciplinary connection from the perspective of the knowledge-based approach as a coherent study of the concepts, methods and theories from various disciplines, in fact, it means the interdisciplinary application of knowledge, and in this way, it corresponds to the competency-based understanding that expands and develops the understanding of this connection, which was in the framework of the knowledge-based approach.

This corresponds to the theory of the integration of education developed by A.Ia. Daniliuk and advanced by O.V. Shemet (Daniliuk, 2000: 440; Shemet, 2010). In accordance with this theory, "The structural unit of the competency-based education is not a separate academic subject, but educational environment, in which not only the specific subject matters are studied, but a particular scientific phenomenon or event recreated by a theoretical model" (Shemet, 2010). As we have seen, in order to create educational environment, it is necessary to connect a studied concept with the local subject fields of relevant subject matters.

Summarizing the above said, we emphasize that the competency-based approach makes it necessary to extend the principle of interdisciplinary connections up to a more capacious and dynamic principle of interdisciplinary integration, in accordance with which teaching every subject matter should be carried out using a wide variety of links of this subject matter with other subject matters that are both related to it and distant from it, systematically creating situations of an interdisciplinary application of knowledge preferably in each unit with the help of local subject fields.

The competency-based meaning of the principle of fundamentalization. Turning to the principle of fundamentalization, we should note that its value in the current conditions is also increasing, not only because of the rapid obsolescence of knowledge. It is important to form the fundamental core of knowledge of the subject matter in the form of a set of background, invariant and long-life knowledge, because they are the basis of the competence of the graduate, "prolonged" in the future for many years, ensuring their ability and willingness to apply this knowledge in the long term, in a changing professional activity (Noskov, 2010: 38-44).

The principle of informatization. Finally, it should be pointed out that in the present conditions of the emerging information society, of course, the role of the general didactic principle of the informatization of training is increasing. According to it, training should be closely linked to modern information and communication technologies (ICT), increasing the effectiveness of training.

Effective approaches to training. Each of these general didactic principles determines an approach to training aimed at its implementation. They are contextual, interdisciplinary, fundamental and subject-information approaches.

It should be noted that the didactic role of these approaches differs from the role of the competency-based approach, which sets learning objectives and learning outcomes, but does not indicate the ways to achieve them, and does not determine the appropriate content, as well as the forms, methods and means of training. On the contrary, contextual, interdisciplinary, fundamental and subject-information approaches define the content, as well as some forms, methods and means

of teaching students in accordance with the objectives and results of the competency-based approach.

Currently, contextual, interdisciplinary, fundamental and subject-information approaches, as well as the corresponding general didactic principles that form the didactic basis of the competency-based training, are implemented in the training of university students only partially. The principle of fundamentalization corresponding to the scientific traditions of Russian education is implemented to a greater extent. However, as previously stated, the transition from the knowledge-based training to competency-based training involves the full realization of these general didactic principles.

In order to form competence and improve the quality of training, other approaches can also be used, such as, for example, a problem approach, a project approach, a task approach, which are consistent with the objectives and results of the competency-based approach. Such approaches possess a less didactic entity, as they are closely linked not with the content, but with the forms, methods and means of training, for this reason their effectiveness is limited in comparison with the most productive approaches from a didactic point of view, which include contextual, interdisciplinary, fundamental and subject-information approaches together with the competency-based approach that defines learning objectives and outcomes.

The integrated use of effective approaches. The next step consists in the integrated use of these approaches in training university academic subjects, which allows using the potential of the formation of competence that each of these approaches has.

It is important to note that these approaches complement each other with missing didactic components. Thus, the competency-based approach is complemented by content, forms, methods and means of training, which allow achieving its objectives and results, while other approaches developed back in the knowledge-based paradigm, such as the contextual one, are complemented with adequate objectives and results of the competency-based approach, which improves the effectiveness of their use. For this reason, it is not just the arithmetic addition of the results of using effective approaches to training, but the simultaneous increasing of the effectiveness of each of them, that happens in their integrated use. As a result, there is a more significant, non-linear increase in the effectiveness of using these approaches. It is called a synergistic effect.

In the following, we will consider the organizational and pedagogical conditions that contribute to the improvement of the effectiveness of students' training.

Organizational and Pedagogical Conditions that Increase Training Effectiveness in the Russian Federation

In our view, an important task of the teacher is to create the organizational and pedagogical conditions that are conducive to the formation of students' competence.

We understand organizational and pedagogical conditions as the competency-oriented forms of the organization of students' activity, its content and methods (Frolova (Strunina), 2009: 55-56). These conditions involve the focus of training methods on the students' independent work, using modern educational technologies, organizing the effective interaction of the subjects of the learning process in the information-training system, the positioning of the teacher as an expert, adviser and organizer of students' learning activities. The implementation of these conditions requires adequate forms of training sessions, the content of educational activity of students and teaching methods.

According to the current Federal State Educational Standards of Higher Education (FSES of HE), students' competence is regarded as a set of stipulated competencies, the formation of which should be carried out in the course of learning the whole complex of academic subjects, modules and practices included in the principal educational program. However, the educational practice developed by now can not ensure the effectiveness of this process for several reasons.

The analysis of the requirements to the structure of the principal educational Bachelor and Master Degree Programs shows that the theoretical training of students (academic subjects and modules) constitutes much of the workload of the programs. On average, the workload of practices constitutes only 15 % of the workload of the theoretical training in some Bachelor's majors. Traditionally, the theoretical training is focused on the formation of only subject knowledge and

skills. The structure of the principal educational program simulates the subject-disciplinal theoretical training of students, like it was in the knowledge-based paradigm of education.

For this reason, teachers and researchers use the concept of subject competencies, as a rule, understanding them as projections of competencies provided by the standards on the subject area of their discipline. This implies that if all subject competencies are formed, it will provide a complete formation of the entire set of competencies provided by the standard, i.e. the competence of the student. However, this is not quite true. At least, the educational practice confirms that fairly good results are achieved within the subject-disciplinal training in the sense of acquiring subject knowledge, skills and abilities, but the ability and willingness of students to use them to solve problems that lie outside the subject field of the discipline, which is an essential characteristic of competencies, are loosely formed. In this regard, there is a need to continue identifying the didactic potential of the theoretical training of students from the standpoint of the competency-based approach in the sense of a certain integration of academic subjects.

The possibility of this integration lies in the structure of Bachelor and Master Degree Programs in the description of the theoretical training of students, since this structure requires not only academic subjects, but modules as well. The didactic purpose of the modules is not explicitly defined, as well as there is no indication to their content and place in the theoretical training. Therefore, there is a clear need and opportunity to clarify the concept of the theoretical training, structured as a set of subjects and modules, which are focused on the formation of competencies.

The didactic approaches to training, which are mentioned in the previous section of the article, constitute the basis of this concept. As for the organizational and pedagogical conditions for the formation of competencies, the activity essence of the very competence sets a methodological vector of the creation of these conditions, namely, the involvement of students in activities, which are adequate to the competencies formed, and providing a pedagogical support for those activities (Zimniaia, 2006: 21-26).

Since it is impossible to form any of the competencies, including subject ones, specified in the standard in the process of learning a single subject matter properly, it is important to implement interdisciplinary connections of the learnt academic subjects purposefully as it was noted in the previous section.

As noted above, in order to implement interdisciplinary connections, it is important to involve students in activities related to the use of subject knowledge outside the subject area of the discipline. We will consider the organizational and pedagogical conditions to be met by such activities (Shkerina, Lozovaia, 2014: 77-81).

For example, if students are trained in activities that focus on the use of subject knowledge in solving problems relevant to their present and future, it becomes possible to form an attitude to that knowledge, an awareness of their importance in the present and the future. Thus, the motives to study subjects will be formed in these activities, which will improve the quality of the actual subject knowledge.

Polycontextual educational modules as the basic organizational and pedagogical conditions of training. The analysis of the requirements of the current Federal State Educational Standards of Higher Education to learning outcomes shows that the learning activities related to the application of subject knowledge outside the subject area should contain the following contexts, namely, professional, interdisciplinary (application of knowledge in the subject area of another subject); applied (tasks of applied orientation), socio-economic and historical, and regional contexts (problems and tasks, reflecting the socio-economic and geopolitical aspects of the region). In this sense, learning activities should be polycontextual (Shkerina, 2015: 65-70).

Educational clusters, creating polycontextual modules. In order to ensure the effective polycontextual educational activity of students, it is necessary to combine the organizational and technological conditions for this activity with modern e-learning tools at interdisciplinary and metadisciplinary levels. This can be achieved with the cooperation of several departments and professors of various disciplines in order to create an adequate polycontextual subject of the educational activity of students. This requires an organizing initiative aimed at the implementation of this interaction, as well as the learning technologies to create polycontextual educational and cognitive activity.

Thus, in order to form the competencies of students, it is necessary to receive an educational cluster as a structural entity, which develops and implements a scientific and methodological

product in the form of polycontextual learning and cognitive activity of students, by combining the efforts of various departments. The main organizational and pedagogical condition of this activity within the framework of the theoretical training of students, such as the creation of an interdisciplinary context in training a discipline, is the use of special polycontextual educational modules focused on the formation of competencies.

The components of the content of a polycontextual module. The content of this module should include four components: cognitive, activity, reflective and motivational-value, which corresponds to the known structure of competencies and competence (Zimniaia, 2006).

The cognitive component of the content of the module is presented by the knowledge, which will be required in the student's activities in this module. It should contain a basic set of subject and professionally directed knowledge from various disciplines of subject oriented training. The cognitive component of the module is to be formed on the basis of didactic failure, i.e., there should be a lack of basic knowledge for the student to solve problems, what is more, the lack should be big enough not to let them come to such a conclusion independently.

The activity component of the content of the module specifies the main types of activity of students, mastered in the module. The modelling of the content of the student's activity at the stage of the development of a training course allows designing the appropriate technology of its development. The activity component of the content designs the subject of all the kinds of students' activities in the framework of this module, needed to achieve the purposes of learning it. The structure of this component includes interdisciplinary, metadisciplinary, professionally directed, and other practice-oriented tasks of the student's educational program specialization, to solve which the complex of the knowledge of the cognitive component is used. Interdisciplinary tasks in the module are those, whose solving requires the application of knowledge from various disciplines of theoretical training, while metadisciplinary tasks are the subject of the student's educational activities in which the basic techniques of knowledge, self-learning and self-organization skills are mastered. Professionally oriented tasks in the module model the context of professional activity. The student carries out quasiprofessional activity in order to solve them using subject knowledge and skills of the disciplines of the theoretical training.

The next, reflective component in the content of the module provides an object of the reflexive activity of students, in which the skills of self-assessment, as well as valuable relationships, are formed.

Finally, the motivational and valuable component, which makes it possible to build and develop the valuable aspects of professional competencies as a sphere of motivation and development of interest in the profession, should be provided in the content of the module.

Note that these components of the content of the module can be closely linked. For example, a professionally orientated mathematical problem bears the elements of the cognitive component in itself as an educational and cognitive task, the activity component, because it simulates the elements of the future professional activity, the reflexive component, since solving it, the student evaluates and adjusts their preparation, as well as the motivational and valuable component, which means, being professionally oriented, it motivates the student to learn Mathematics (Shershneva, 2014: 66-72).

The polycontextual educational module as an organizational-pedagogical condition of the formation of students' competencies in the process of theoretical training has a considerable potential, because the effective didactic approaches, mentioned in the previous section, can be used within this module. The module is also an integrating basis for a range of disciplines of theoretical training; it strengthens their interdisciplinary connections, which promotes learning and cognitive activity that is adequate to the competencies formed.

In addition, the polycontextual module has specific organizational functions. For example, it provides conditions for the independent educational activity of students and the teacher's pedagogical support for it. The teacher mainly advises and directs the work of students. Finally, the module involves the expansion of students' experience in self-control and self-evaluation of their performance.

In the next section we will consider the issues of the implementation of effective didactic approaches and organizational and pedagogical conditions in e-learning. The features of the

implementation of these approaches in e-learning obviously determine the specific nature of the relevant organizational and pedagogical conditions.

Didactic Potential of E-learning in the Russian Federation

New great opportunities to improve the effectiveness of the training are provided by modern ICT, such as electronic textbooks, training programs and simulators, as well as generally specialized information-educational environment that uses the possibilities of local and global computer networks.

The Federal Law "On Education in the Russian Federation", adopted in 2012, allows and encourages universities to use e-learning programs and distance learning technologies. The Federal State Educational Standards of Higher Education also require a widespread use of ICT in the process of learning, including e-learning; electronic educational resources in the form of hardware and software are certainly needed for this.

E-learning is a learning technology based on the use of computers and data transmission systems for the presentation and delivery of knowledge, support of interaction between the student and the teacher, as well as knowledge control. E-learning presents different methods and forms of learning through ICT.

Note that it is necessary to distinguish between e-learning and distance learning. Distance learning is a broader concept that includes a variety of forms and types. Its main difference is learning in the distance, which is not important in e-learning; you can learn remotely and in the classroom under the supervision of the teacher. Thus, distance learning is an independent form, in which ICT is a leading learning tool.

Currently, the interactive communication with students through information and communication networks is promising, so the concept of distance and e-learning approach each other on the basis of a wide application of ICT.

Researchers started to consider e-learning as early as the 1990s owing to the development of ICT, and that led to a rapid development of e-learning. The first phase of its development was characterized by the active use of presentations, the use of test programs and the development of electronic textbooks.

The second phase of the e-learning development was connected with corporate training. It involved designing e-learning, organization and support tools of the educational process, working out a variety of e-learning management models, developing approaches to evaluating the quality and effectiveness of e-learning.

The next, which is the third, stage of the e-learning development was based on the creation of software systems, providing a comprehensive solution of problems of e-learning, namely, content management systems, the delivery of training materials, the testing of interactive support of the training environment, knowledge management systems, training management systems.

Finally, the fourth stage of development, which falls at the beginning of the 21st century, is characterized by the fact that e-learning actively began to be implemented in the traditional training in a variety of organizational forms, such as the support of the traditional on-site and off-site training. E-learning in the form of e-learning courses started to be used widely in distance education in the programs of additional vocational training, advanced training of university teachers, as well as in pre-university training.

E-learning in contemporary didactics. One of the goals of the development of e-learning courses is to improve the effectiveness of the training process aimed at the formation of subject competencies of students. In the system of full-time education e-learning courses can be used for the organization of independent work of students, which makes it possible to use the technology of open education, for which e-learning courses are a major source of educational information.

One of the most effective platforms for the development of e-learning courses is a widely used system called *Moodle* (Modular Object-Oriented Dynamic Learning Environment). The Moodle system, written by the Australian Professor M. Dougiamas, is translated into dozens of languages and is used in more than one hundred countries around the world. Being easy to use and an open source code that allows modifying and extending the functionality of the system when needed made it very popular.

This system possesses big possibilities to deliver information, such as the admissibility of various formats of files used, the creation of a glossary, the placement of tasks for independent

fulfillment, the use of the bank of test materials. The Moodle system also offers great opportunities for communication, such as file sharing, the ability to inform the participants of the training process through mailings and others. At the same time the system is distributed in the open source code, which makes it possible, if necessary, to supplement and change its functionality. The implementation of the possibilities of the Moodle system to design an adaptive learning system is described, for example, in the work of T.V. Zykova (Zykova, 2013: 37-40).

The use of the possibilities of local and global computer networks for e-learning, the ability to work in the system through mobile devices make this system even more convenient. However, its benefits can be both its shortcomings. For example, a user-friendly web interface is vulnerable to attack like any site, or you may face problems reading information stored in the electronic courses from a mobile device.

At present, Russian universities are reviewing the strategy of their development, aimed at resolving the conflict between the rapidly growing needs of the information society and the inability to meet them in the traditional education system. Thus, the program of development of Siberian Federal University (SFU) for 2011-2021 determined constructing a new paradigm of education, overcoming the systemic contradictions of the labor market and the market of scientific and educational services as a priority. The development of e-learning and distance learning technologies is one of the strategic projects of SFU, and it is systemic. Thus, since 2010 SFU has been designing and implementing e-learning courses in the educational process.

It should be noted that in recent years e-learning in Russian universities has been facing a number of challenges, among which we should highlight an insufficient volume of electronic materials in many disciplines, inadequate training of teachers to use e-learning resources, the lack of regulatory framework in the field of e-learning, including, unresolved issues in the field of copyright, related to the presentation of developed materials in the Internet in the public domain. As a result, now the e-learning potential is not used enough.

Turning to the didactic aspects of the implementation of the most effective approaches in terms of e-learning different university disciplines, we should note that they are underexamined. Let us consider some aspects of this problematics.

The professional context and the local subject field of computer animation. First of all, again, we note that the effective tool of learning a range of disciplines is educational and cognitive tasks with a practical, applied focus. Within the contextual approach professionally directed tasks are used as such tasks. Beyond the framework of e-learning it is often text tasks, designed to simulate a professional and social context of the student's future professional activity in their mind and imagination. Interdisciplinary tasks, which also have a text nature, are certainly used in the interdisciplinary approach. The local subject field of another related discipline is to appear in the mind of the student solving those tasks.

E-learning contains considerably more opportunities to create the professional context or the local subject field not only in the imagination of the student. It is worth noting that a few decades ago educational films, which clearly showed the relationship of the discipline with the production, technology, and other disciplines, were created and successfully used.

However, the movie format that involves using a movie camera to show a movie shot on film has not evolved in the video format over years that is convenient for use on personal computers, because it meant doing a great job. As a result, the educational film as an efficient means of training became a thing of the past, while visual didactic possibilities of computer technology have not come to replace them yet.

Meanwhile, these possibilities are rather big. These include, in particular, video for business gaming, in which the situations of professional activity, leading to the formulation of a professionally directed learning and cognitive task, can be simulated by means of computer animation. For example, the means of animation can help to simulate a meeting of experts to discuss a problem situation in enterprise management and to elaborate a production decision. Such videos would allow formulating and solving professionally directed and interdisciplinary problems clearly and convincingly.

It is possible to include the elements of a modern interface with a didactic purpose in the training program, such as pop-ups, which contain the necessary knowledge from a related discipline, creating its local subject field. By the way, our students, who actively use laptops and tablets outside the classroom, mastered the possibilities of computer programs long ago.

Thus, the potential of didactic approaches discussed above may be more fully disclosed in e-learning.

The organizational and pedagogical conditions, which the previous section is dedicated to, may also be implemented in e-learning in the form of polycontextual modules in various academic disciplines.

We believe that one of the perspective directions of the development of contemporary didactics is the elaboration of e-learning courses for many university subject matters, based on successful approaches and organizational and pedagogical conditions.

It should be noted that the active work on the elaboration of such courses is carried out, for example, at the Institute of Space and Informatic Technologies of SFU; electronic educational resources are developed and placed in the informational-training system of SFU that functions on the basis of the Moodle platform.

3. Conclusion

The article develops the theoretical basis of the competency-based approach in higher education. The didactic basis of the competency-based training is singled out from the totality of general didactic principles of training in the form of the principles of professional orientation, interdisciplinary connections, fundamentalization and informatization with the greatest potential in the formation of didactic competence. Besides, the features of the implementation of these principles in the conditions of the competency-based approach are revealed. Based on this, the necessity and possibility for a complex use of competency-based, contextual, interdisciplinary, fundamental and subject-information approaches to training, which play a special role in the formation of all the components of competence, are justified. It is important to say that the competency-based approach among them is leading.

Furthermore, the article defines the basic organizational and pedagogical conditions as various forms of the organization of students' activity, its content, as well as the relevant training methods, contributing to the formation of competence. It also shows that the organization of polycontextual modules in training university courses plays an important role.

Apart from that, the article outlines the ways to further enhancing the effectiveness of the analyzed approaches, organizational and pedagogical conditions in e-learning.

The results and conclusions allow developing the basic principles of training university disciplines and designing an appropriate system for selecting content, which should occupy a central place in contemporary didactics.

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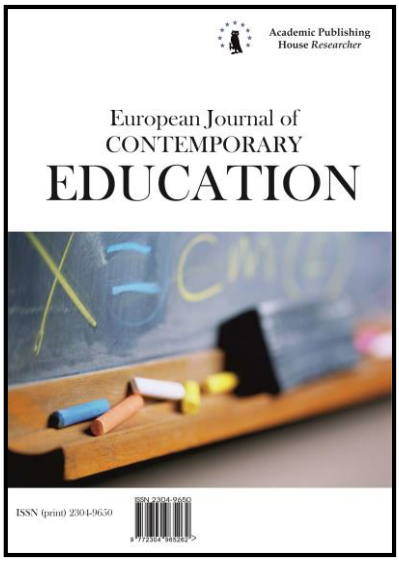

The Shadows of Reading: Reasons for the Bad Results of Bulgarians in PISA studies

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Abstract

The subject of this article are the factors and reasons for the bad results in reading of the Bulgarian 15-year-old students in PISA's international studies. The reference points of the analysis are the critical results from the last four studies – 2000, 2006, 2009 and 2012. The aim of this analysis is to bring up for discussion unformulated topics and reading angles which have not been covered, which may explain the reason for the critical results in reading, including in the European Union as a whole. The goals of the report are to look for arguments and evidence in communication theory, in the conclusions of sociological studies and to summarize the factors which may lessen the ongoing preoccupation with "mass non-reading" or the "drop in reader's literacy". Eight reasons for the critical state of reading literacy have been drawn: 1) basic illiteracies which stem from the incorrect attitude towards reading as a cultural technology; 2) the stereotype "book = literature"; 3) the stereotype "book = paper"; 4) helplessness of sociological tools; 5) the manipulative side of reading; 6) the harmful side of reading; 7) reading mutations; 8) the erroneous statement "Young people do not read". The scientists are presented with proposals to concentrate on two academic points: "Theory and practice of reading" classes on each educational level and focusing research efforts to improve readership culture of adults, including development of the so called "Acmeology of reading".

Keywords: PISA, reading literacy, functional illiteracy, sociology of reading, psychology of reading, reading professionals.

1. Introduction

PISA (Programme for International Student Assessment) is the most representative international comparative assessment of student reading skills. Bulgaria's performance from 2000 to 2012 is one of the worst among the OECD countries and this trend is maintained for too many

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years. Each time, the percentage of students who have results for reading skills below the critical level of PISA's scale is alarmingly high and a lot lower than the average achievements for OECD. In PISA 2000, when Bulgaria was included in the international comparative study for the first time, a total of 40.3 % of students turned out to be functionally illiterate, which means they lack elementary reading skills. The difference with the education in other countries was seen then for the first time – in Bulgaria, students do not work with integrated text and different media; they cannot read graphic images; they cannot relate two types of information; they cannot transform one type of information into another when provided with clear written instructions; they cannot manage the contents of a text in order to reach a correct conclusion. According to PISA 2006, a total of 51.1 % of Bulgarian students have insufficient reading skills, and according to PISA 2009, 41 % of Bulgarian students have reading skills below the critical threshold. In PISA 2012, a total of 39.4 % of Bulgarian students are determined as functionally illiterate. Despite the slightly improved results, the study of reading literacy at each stage showed the same thing – that Bulgarian education is focused on memorizing and reproducing information and that Bulgarian students face greater difficulties when they need to process and interpret information presented in tabular or graphical format. There is also the alarming conclusion that traditionally boys do worse in reading assignments than girls (Petrova Svetla).

Table. Percentage of Bulgarian students with reading skills below the critical threshold (PISA 2000–2012) (Bulgaria)

PISA Bulgaria	2000	2003	2006	2009	2012
%	40.3 %	—	51.1 %	41.0 %	39.4 %
score	430 p.	—	402 p.	429 p.	436 p.

2. Materials and Methods

The research method of the present study is the systematic review. The subject of critical analysis are the factors and invisible reasons for the bad results in reading of the Bulgarian 15-year-old students in PISA's international studies. The reference points of the analysis are the critical results from the last four studies – 2000, 2006, 2009 and 2012. The aim of this text is to uncover a different aspect of the problems of the reader and reading in Bulgaria, which we believe need to be studied and reviewed. The goals of the report are to look for arguments and evidence mostly from a communication point of view and originating from the conclusions of sociological studies, and to summarize the factors which may be causing the ongoing preoccupation in Bulgaria with regard to "mass non-reading" or the proclaimed "fall/drop in reading".

Our personal stand is reduced to a minimum, although the researchers of reading could hardly remain impartial. The study is driven by the belief that if we want to coexist and work with rationally and proactively thinking people, if we want to establish a ruling elite in the knowledge economy, we need to eliminate or at least debilitate the factors which hold back reader's intelligence.

1. Our illiteracies. In his/her first contact with the newly enrolled students, for an university professor it is important to understand what kind of readers they are, how and what kind of texts they read. And in order to understand what kind of a reader a person is, you have to make them write. Following this principle, several Bulgarian universities, first among them being the Veliko Tarnovo University, recognized a serious weakness in the students completing their secondary education – **the illiteracy in Bulgarian and Bulgarian spelling**. In 2014 Veliko Tarnovo University, and in 2016 also New Bulgarian University in Sofia and the South-West University in Blagoevgrad have urgently introduced obligatory "supplementary" classes in the curricula of all academic disciplines.

My systematic work on academic assignments with the students for 15 years has convinced me there are a lot of gaps in secondary education and their visibility is constantly increasing. I am referring to basic for the highly technological XXI century fundamental, social and civic literacies. Depending on the secondary school they graduated, most students are partially literate or completely illiterate in several spheres.

1.1. The first sphere is the indispensable **general culture** or the possession of the so called common knowledge. By definition, these are the facts which can be found in various sources and are feasibly acquired by most authors and readers. Legally, they are called "notoriously known facts" or the facts which are known by an unlimited number of people. It is known that for social communication and consensus it is fundamental to have a knowledge of common facts, phenomena and circumstances, precedent texts and sources (i.e. historical events, geographical sites, biological, chemical and physical laws). One of the assessment criteria in the entrance examination for the specialties in the Public Communications field in Sofia University is the general culture. However, personally, I have never found an university applicant who knew what is "general culture".

1.2. The second sphere is **computer literacy** for writing into word processors and creating grammatically correct printed text, for multimedia and creating an interactive product by citing graphical materials and video-citing, for e-mail correspondence and electronic exchange of documents.

1.3. The third one is **administrative literacy** for writing business correspondence, cover letters, applications, claims, and autobiographies which are different from the standard CV form.

1.4. The fourth one is **legal literacy** which refers to both knowing the basic laws of the state and Internet and knowledge of the rights of the student, citizen, consumer, author, and reader.

1.5. The fifth is **financial literacy** which includes minimum skills for drafting a budget or an expense chart.

1.6. The sixth one is **scientific and research literacy**. The scientific literacy of an adolescent with secondary education would be sufficient, if they are familiar with the classification of sciences, the specifics of each science and its methods, as well as, for example, the nature of the Nobel Prize and the contributions and names of Nobel Prize winners. Being research literate means to know how to write as an investigator, what is argument and evidence, which are the research methods and tools. And last but not least, it means to have library-bibliographic and information-research culture, and to have knowledge of citation techniques.

It seems that schools in Bulgaria inspire marginality of life, technical and social sciences, and favor artistic knowledge, i.e. aesthetic, emotional, entertainment and fictional content. With some more research and empirical evidence, we could confirm the hypothesis that mass schools cultivate our emotional intelligence, but neglect the rational intelligence. Bulgarians meet their coming of age with a **disbalance between their artistic and scientific literacy**. It was no coincidence that a nuclear physicist reacted strongly against this education policy: why it should be obligatory to know who painted the Mona Lisa or who wrote Romeo and Juliette, and not know, for example, why the sky is blue?!

2. The stereotype "book = literature". The asymmetry between the Bulgarian literature and general scientific literacy is the negative result of a type of socialist stereotype (typical for the "sick" societies and the societies under "pink" regimes). This is the stereotype "book = literature". I will clarify the issue. The scientific categories "book" and "literature" are in a "general – particular" ratio because there is subordination. In general theoretical aspect, the book is a tri-unity of code, channel and content, and literature is only one of the content types.

Where do I see the connection between our illiteracies and equating the "book" category only to literature?

2.1. There is a relation to and it is reflected in the discussion for the need to separate the Bulgarian Language classes from the Literature classes in primary education.

2.2. There is a relation to the basic knowledge of Bulgarians – they lose track of the difference between "fact" and "fiction", between "knowledge" and "imagination", between "information" and "opinion", between "term" and "metaphor", between "knowledge" and "point of view", between "truth" and "version". Science encompasses the first one and literature covers the second one of the abovementioned opposing terms. Literature is a platform for flight, unlimitedness, sensibility, dreaminess, and no one wants it to meet the scientific criteria for evidence and assist the economical growth of the country. Literature is the superstructure. However, it gets frightful if the base – science is missing.

2.3. There is a relation to the information and technical literacy in writing of Bulgarians, which is demonstrated by:

Inability to quote and general non-comprehension of citing mechanics – a sign that we do not read texts which include quotes (scientific, supporting, argumentative, research).

Inability to write a preface, plan-concept – a sign that we do not read instruction, methodical texts, manuals and handbooks.

Inability to write a conclusion – a sign we do not read synthesized, summarized, secondary information texts.

We are taught how to write freely, in a literary manner, aesthetically, but we have missed on key skills – how to produce a headline, to define, to quote, to order, to list, to visualize knowledge into graphs, schemes, tables, diagrams, etc.

We are taught how to analyze, but not how to make a synthesis. This is evidenced by the inability of students to make intermediate summaries, to produce chapter conclusions and recapitulative statements to an entire study.

We are taught how to narrate, but not how to write in accordance with the rules and with discipline – autobiography, business correspondence. We are not taught how to write projects, how to win money through written report and argumentation.

We are widely ignorant of the different writing styles – literary and scientific style, colloquial and specialized style are not identical.

We are also ignorant to a large extent of the differences between the genres in the various scientific fields. Literary genres are one thing, scientific-theoretical and academic genres are another, and information and secondary information genres (annotation, summary, essay, overview, review) are a third kind. In this regard, we also observe identical "functional illiteracy" among 15-year-old students (according to PISA), and in adults – inability to read technical, economic and other non-linear text; inability to read music, tables, diagrams, medical records; inability to understand and read even bibliographic source descriptions (they are narrated freely, instead of strictly following punctuation, abbreviations, the order and structure of the bibliographic format). In terms of PISA's tightened requirements and in view of the practice of the other international system for assessment of reading, PIRLS, the change in the education system for reading should start obligatorily in primary school, where the focus should be shifted from literary to non-literary texts and information genres.

When reading is identified only as contact with literature, there also appears the natural collision between the genders of the readers. Literature is read mainly for pleasure and international data shows that at all ages men read less frequently for pleasure than women. Reading problems in boys are more serious because their hyperactive attitude to information and predisposition to an instrumental, game-based reading do not find any magic in the predominantly "feminine" reads in the school´s curriculum. The same conclusion has been reached in the report of the EU High Level Group of experts on literacy (Sept. 2012) (Ekspertna komisiya, 2012). Primary education in Bulgaria has been neglecting the "male" non-literary reading for decades. Here lies the fatal mistake of our education system, because more important than the content itself is the spontaneous attitude to knowledge and the wish to receive information in a written format. Which by definition means reading.

3. The stereotype "book = paper". Equating book only to paper is one of the most insuperable habits of Bulgarians. Such bias shows unfamiliarity with the pre-paper and post-paper stage of book development. In the Bulgarian linguistic environment, especially frequent are the following preposterous word combinations that achieve this paradoxical effect: "book book" or "book-based book" (Bulg. translit. "knizhna kniga"), "book banknotes" (Bulg. translit. "knizhni banknoti"), "book string" (Bulg. translit. "knizhna vruv"), "literature on book medium" (Bulg. translit. "literatura na knizhen nositel"), "book magazine" (Bulg. translit. "knizhno spisanie"), "book newspaper" (Bulg. translit. "knizhen vestnik" – in the report "Online media behavior of young audience", Bulgarian agency Mediana, March 2012).

The problem of the stereotype "book = paper" stood out strongly when in 2010 in Bulgaria were reported the unfavorable results of PISA 2009. According to them, 41 % of Bulgaria's 15–16-year-old students are still below the critical minimum for quality reading skills. The most controversially interpreted result was that 26 % of the students have between 26 and 100 books at home, 20 % – up to 10 books, and just 7 % – more than 500 books (Uchilishche, 2009). The worries of most analysts were a symptom of deep unfamiliarity with the spectrum of information media of teenagers. Is this percentage really negative? What if these same students own book collections which are much wider than the ones of each adult bibliophile, but in digital form? The reproach, outrage and indignation at teenagers' neglect of the personal paper library are

rather a reflex of the general unfamiliarity with the attitudes and characteristics of next generations, and they also demonstrate the lack of adequate communication with them.

The paper book is just one book format. In its turn, paper is the base of three more media formats – paper book as a scroll (East-Asian), paper book as a concertina or harmonica (the Maya codices), and paper book as a sheet codex (the printed book from the Gutenberg era). Today, the printed paper book – the master of the past five centuries of reading and writing, is only one of the formats distributed, coexisting with talking books, audio books, video books, e-books, cross-media books, hybrid books, augmented reality books, etc.

If one book format starts to take the place of another one of its formats, it means war. Although at first sight the coexistence of old and new formats seems to be stable, on a global scale the book begins to dematerialize. Which is completely natural. Even 2000 years ago there were format wars. If we want to know which one will be tomorrow's ruling book format, we need to take into account the following correlation – the winner is always not the most harmless, but the most convenient format. This is how it was in the dispute between papyrus and parchment. For a long time it was believed that the parchment is more contrasting and this is why the papyrus should be used for reading – it is less harmful. However, the papyrus, as we know, is rolled up into a scroll, while the parchment could be custom made and ordered sheet by sheet into a codex, i.e. it looked like the modern book. The dispute between papyrus and parchment was in fact a dispute between the scroll and the codex. The codex won. And the discussion about the harm to the eyesight or the shortness of animal skin ended by itself. On the other hand, the format of the mass book should also be convenient for the ambitions of the new authorities or the new religion, which means it should be suitable for expansion with regard to the users. This is how, in ancient times, the scroll was taken down from the ring and the book in codex form ended victorious – spreading Christianity was easier and smoother by means of a codex. In line with that logic, tomorrow the victor will not be the less harmful or more aesthetic book format, but the more convenient.

4. Helplessness of sociological tools to reveal the actual reader situation. Why do we say that sociological methods do not have the power to reveal the actual reader situation? Why do we say that statistical and sociological empirical methods (surveys, consultations, questionnaires, interviews) present an incomplete or twisted picture of the actual "reading" process? The reason lies within our conviction that science still lacks knowledge about the nature and technology of the "reading" process. These are some of the most popular formulations:

4.1. The social aspects of consumption still do not include reading. Statisticians and marketers do not study and do not have the toolkit to study actual "reading". Instead, they can only look at the buying and owning of books or other reading objects.

4.2. Reading is an exclusively mental process. "Stopping" one's behavior, slowing down, and delaying reactions is typical for each intellectual activity, and most of all for concentrated reading. If s/he could see herself/himself from the side, the reader would register alienation between their mind and body. In the here and now, however, each observer actually notes their external inactivity and "absence".

4.3. Reading is an asocial activity, which includes alienation – a detachment from reality. It is done in solitude; it is realized invisibly (in the cranium) and therefore it is uncontrollable.

4.4. The reader is almost invisible to the sociological eye also because of the circumstance that fully concentrated reading is a process of self-communication. And "social isolation" is an important condition for self-communication. It limits the quantitative participation of the subject in social life and slows down the rate of assimilation of social facts.

4.5. Solitary reading is a loss of social time and intellectual energy for the society. Therefore, it is socially ineffective.

4.6. Statistical charts for the time spent reading and the competition between "reading" and "non-reading" world nations stopped making sense a long time ago. People from underdeveloped countries with high rate of illiteracy are politically motivated to announce loudly they read a lot. The opposite is true for the economically developed countries, where no one is impressed by literacy. The man in the developed world would hardly boast with the time spent in routine reading of technical and scientific texts, guides, textbooks and manuals. It will be difficult to calculate as especially dedicated the time one spends on print media, taking it daily and silently. The busy individual does not even count reading on a monitor and surfing the Web, for which it is still said that are not reading. Subconsciously, the modern man throws out all of the above as "text noise"

and in order to answer the question "how much do you read", he counts only the time purposefully dedicated to reading "prestigious genres", for the reads imposed by tradition or the bestseller charts. In other words, the way down along the statistical research ladder – on the amount of reading, is actually a way to "rise" to the level of the club of the goal-oriented, where reading is no courtesy, but makes cultural and economic sense.

5. Reading is anti-manipulation and auto-manipulation. It is said that reading is an anti-manipulative filter against manipulations, insinuations and indoctrinations from any source – written, oral, audiovisual. In general, the main anti-manipulative factors in the reading process are two – the rich reading experience and intellect as a constant "generator of understanding" (Tsvetkova Milena, 2000). However, even under these circumstances, not everyone can read anti-manipulatively.

Literate, well-mannered reading is a slow and self-controlled process. The experienced reader can decide to enter into a state of conscious unreceptiveness which is typical when reading "weak" or "questionable" works. The occurrence of this useful inactivity is a defense mechanism of sorts, a refusal to become the author's target, stemming from the previously acquired experience and internal information excess. The "active" passivity is good tactic for defense against manipulative influences.

Anti-manipulation in reading is also possible when we spend enough time dissecting, reviewing, and checking the messages entering through our eyes. This filtering happens in phases, in accordance with the reading algorithm as communication. Hereby, I would like to mention that reading should indeed be done according to an algorithm. In order not to allow the text's manipulations, one should go through five consecutive phases – perception, understanding, rationalization, interpretation, reality check. The step-by-step movement along the reading ladder guarantees stage-by-stage filtering of manipulations.

Reading, however, is also a auto-manipulation. The Russian bibliopsychologist Nikolaï A. Roubakine has a postulate that says: text content is not a physical, but a psychic category and there are as many contents to a book, as many are its readers (Rubakin, 1924; Rubakin, 1929). Content acts as a reagent or irritant to the reader's receptive system. Every one of us sees in a sentence whatever we want or anything we manage to extract. Thanks to the ability for "selectivity", human perception filters out the signals of subjective importance from the general information, passes them through the "filter of aperception" and turns them into information of the "just for me" type. There are several self-manipulation filters in reading and all of them have an individual admission barrier – the eye, the nervous system, the brain gender, hormonal and emotional state, linguistic competence, semiotic competence, the social matrix - habits, prejudice and stereotypes, professional affiliation – level of education, level of professionalism and relevant knowledge (with a disposition for continuous learning or refusal to continue studying). Books are shops for unique pieces of work – they mold completely different readers and unmatching reads. Something more. Each reader goes through the same work in one way, in a given period, and in a completely different way 2 or 20 years later. The reader places the work (and its author) on that level in her/his scale of values, which has been determined by her/him alone, and in parallel, his/her reader personality changes on the scale of time. The result from reading – the reader's memory of the book contents – is filtered by their personal psycho-social matrix, simplified by their own memory, ideologized by their personal idols and edited by their own forgetfulness.

Today, on social media we can recognize the unique reader types which have formed in the **manipulative reading** practice: uncritical reading (over-trusting the written word), shortsighted reading (uncomprehending or unseeing the word definitions and the meaning of the sentences), over-interpretive reading (putting nonexistent meaning in messages), symptomatic reading (aiming to highlight the text's flaws) or speculative reading (looking only for imperfections, just factual errors, spelling and punctuation mistakes), hate reading, etc.

6. Reading books can be harmful and dangerous. When we say that the book is a mighty force, we should know this also includes a dangerous force. The book is a classical means for manipulation of literate multitudes. Among literary characters alone, there are quite a lot of examples of reader-manipulators. Starting with the classic example of Don Quixote, passing through the mental states of Pushkin´s Tatyana ("Eugene Onegin"), Madame Bovary or Tom Sawyer, and stopping at the literalism in the behavior of the modern "soap" housewives, "chick lit" ladies, "action" policemen and superheroes.

It is important to know that the harm in reading comes from the very way of reading. This harm can be both mental and physical. First, there are the cognitive deviations among the readers, which have been studied actively for ideological reasons in the socialist countries in the 20th century. These deviations stem from the split between book and life, between theory and practice. Reading dependency and separation from reality gives birth to types like "book thinking" and "empty speaking". Bad reading, cynical reading, mannerless reading form two other deviant types: phraseman and a man whose "mind is a mess". Second, there is the physical and mental harm that comes from reading. Medical professionals note that the habit of "devouring" books can cause a headache. It can provoke development of neurosis or neurasthenia, and it can also become one of the reasons for physical illnesses, which are caused by impairment of the activity of the nervous system. The bad way of reading might impede the normal development of cognitive skills and even impair them. Examples include hyperactive imagination, reduced attention span, impaired memory, weakened willpower and ability to reason. In 2013, a study conducted with the help of the Google Ngram tool by a team at Bristol University added more "fuel to the fire" (Acerbi et al., 2013). It was established that for the past 100 years, emotional words in books have decreased by 14 %, which means that reading influences our moods less and less. Instead, paranoia has settled in today's books – there is an increase in the content which has a destructive effect on the mind, as a nutrient media for mental diseases in unstable readers.

The book is the most preferred means for manipulation by intelligent manipulators, because, by default, man has trust in the written word. However, these manipulators know that the effect will be bigger, if they duplicate the manipulation using alternative channels – radio, TV, cinema and computer games. This is the premise of the movie "In the Mouth of Madness" (1994). The main character – an author of books which posses and brain-wash the mind, has a strategy for value added global manipulation. He is not content with having only a reading audience, but also counts on the film adaptation of his books:

"I want to flood the whole world with my books".

"What about the people who don't read?" – his publisher demanded.

"There is a movie." (In the mouth of madness)

The book can also be dangerous in its role of a "subversive" media, according to Alvin Toffler. Subversive media are the illegal channels for exchange of confidential information and they are used by people and organizations which carry out unauthorized or criminal activities, or want to "bypass the system". Subversive media are hardest to control by the official authorities. These conditions are met by non-mass channels which are at the two ends of the media spectrum – the oldest and the newest media, the out-of-date channels and the still not popular ultramodern channels. Subversive media are especially attractive to terrorist groups. The book fulfills the function of a subversive media mostly in a 30–40 page format, i.e. as a brochure, because this way it is faster to produce and distribute. Today, sects are the organizations which rely mostly on brochures.

7. Reading mutates. So far, science has no answer to the question about the long-term effect from reading on a screen or a display. But it is a fact that reading as a technology is mutating.

Reading from a monitor or a display creates problems for the eye and the diagnose "computer vision syndrome" was proven a long time ago. Reading on a computer can impede the reader also if s/he is online – connected to the Internet. This has a negative effect on memory and leads to distractions. Currently, systematic researches agree on two conclusions: first, information media do not influence the time for reading a text, especially if it is a short one, and second, memorizing and reproducing the text is easier, if reading was done from a print media, instead from a tablet.

However, reading on a computer, tablet or e-book reader with e-ink in offline mode and with a good book-reading hygiene does not interfere with assimilation, thinking or understanding. Even if there are differences with conventional reading, they are in favor of e-reading. I am thinking of the world's first study which looked for the truth about reading on three devices: paper, e-ink reader and LCD display. It was conducted at the Johannes Gutenberg University in Mainz, in 2011, and outlined three conclusions (Unterschiedliche Lesegeräte). First, the belief in the mass statement that only the paper book brings "pleasure from reading" and that reading from a tablet or a reader is second-rate has been shaken. Second, even though almost all study participants said they like most of all reading a paper book, this did not match the data obtained. It shows that tablets have an advantage, because it is easiest to assimilate the information from the screen.

Otherwise, regarding performance, there is no difference between reading on paper and from an e-book. And the third conclusion – it was proven for the first time empirically that subjective preferences for the printed book are not an indicator of the effectiveness of the reading itself – how fast and well the information is processed. It turns out that the tension between the supporters and adversaries of e-reading is a knee-jerk reaction – a matter of habit.

The computer, however, has extended the comfort and capacity of scientific reading, of reading for academic and research purposes. For the first time in history, the scientist can work on the main law of nature – to have maximum information at minimum energy and time spent. Professional readers and researchers were the first to sense the new modality of reading on a computer – multi-channel sources, multi-modality of text production and distribution, limitless cognitive operations with documents and discussions with live people, and everything else we call epistemological jump in the scientific discourse.

We can compare the multi-channel behavior of the contemporary reader to practicing many sports at once. Practicing one type of sport could hardly harm our achievements in another sport.

8. "Young people do not read" is not a very intelligent statement. Despite the abovementioned flaws in secondary education, I believe that "not reading" does not exist. The negative results from sociological studies on reading stem from our different understanding of the action "reading" and the term "book", which is limited only to fiction. Because they automatically see "book" and "literature" as synonyms, the respondents' answers are biased. I mean the following statements: today, young people do not read; less and less people read in libraries; there is a decrease in reading; I have not read anything for a long time; I have last read a book at the beach; the book has been replaced by computers, Internet, technologies, etc. And because of their negative connotations, these are the statements which are published most often by the media.

In my opinion, generalized sociological conclusions about "not reading" are derived from four irrelevant conditions in the methodologies. Sociological surveys are only interested in:

1. reading in one's free time (but not during working hours or while studying);
2. reading books (but not other reading materials);
3. reading fiction (but not scientific or any non-fiction texts);
4. reading for pleasure (but not for other basic functions).

I will focus on the last item. If reading should only be for pleasure, it would mean we shall only read for entertainment. However, reading is communication. And communication, both in theory and in practice, has not just one, but four functions: information, educational, persuasive and at the very end – entertainment. A worthy motivation for the readers is if they read in order to keep up with current events, if they read for the purpose of making a research on a certain topic, if they read for business or career purposes. The leading reasons for reading, at least I believe so, should be the need for information, professional and student needs, and the pleasure part should be set aside for vacation and free time.

My opposition to the statement that young people do not read also takes into account the ignorance of the changed media reception of the new generation of readers. The old "analog" reader has been studied in detail even before the industrial era. All of his habits, preferences and manners are known. However, he is different from the "digital" reader.

The intensive reader of the 21st century is a nomad who takes the load off distances and volumes. It is unacceptable to say that the digital generation is illiterate or ignorant, bad or not reading. Indicative in this respect is the following case: During a science seminar, a video of a 2-year-old girl playing on a computer was shown. The kid was browsing freely among menus, creating and deleting files, drawing pictures, filling in programs. The computer specialists had clarified that, while the child was not able to read at all, it demonstrated 80 % computer literacy. They did not believe this to be surprising, because the girl was born in a world full of computer links and communications (Tsvetkova, 2001: 73-74). In it, the written forms of communication cannot exist on their own. This is a multi-modality generation which communicated through an orchestra of cognitive channels. These young people see the printed morpheme in an electronic format. They live in the rapidly developing virtual reality, the holistic media environment, in which they experience events as a package, instead of linearly seeing, hearing and reading about them.

3. Conclusion

In accordance with the plastic brain theory of Norman Doidge (Doidge Norman, 2015), we should acknowledge that the human receptive organ today self-trains itself and mutates intensively; books and texts are perceived in a completely new way. Today, in the context of Internet and virtual options, "a new composite figure is being formed actively: "reader-viewer-listener" of books (texts), whose activity should not be evaluated in accordance with the norms of the past" – writes the Russian professor in theory of reading Yulia Melentieva. "We should also renounce the strict characteristics for reading assessment, which have been imposed under the conditions of an ideologically monolithic society and whose aim was to unify the reader." (Melentieva, 2010: 26-33). If a contemporary child does not like paper books at all, but is knowledgeable and speaks and writes grammatically correct and nicely, the worst thing to do would be to force it to take in information via unnatural means.

The main conclusion from this critical analysis is that there is no clash between the reading subcultures. And if we observe a clash between the generations of readers, we assume the reason lies within their mutual illiteracies and ignorance with regard to the development of reading. There are rather unformulated topics and reading angles which have not been covered that cause the drop in PISA's results for reading literacy not only in Bulgaria, but also in the entire European Union. In this case, the leading role belongs not to the teachers and mentors, but to the people of science. For example, it is necessary to study the topics on the reading/reader gender (male and female reading), the writing/author gender (male and female writing; male and female text), the gender of the mediator/teacher (male and female perceptions and behavioral models). The below suggestions we make to the scientists include concentrating on two academic points:

1. To have "Theory and practice of reading" classes on each educational level. However, it should not be a routine education in "Media literacy", but an acquisition of systematic competence qualification – school reading, student reading, doctoral reading, teacher reading, reading for scientific purposes, leadership reading, etc.
2. To direct our research efforts to the strategies and techniques for improvement of readership culture of adults, especially towards the so called "Acmeology of reading" – the art of the highest reading skills.

It is imperative that reading becomes the subject of intensive scientific research, in order for it to remain the most widespread cultural technology in the technocratic age.

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