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Innovations In Science And Industry-Specific Education

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Abstract

The article focuses on the research of innovations in education and science, which are regarded in the light of searching for a useful correlation between traditional and new approaches to the development of education. To achieve the objective of this research, i.e. to identify the role of innovations in education and science, the authors used the following research methods: systematization, analysis and synthesis, concretization and generalization, comparative analysis and observation. The analysis of the current state of the Russian higher education has revealed a stable tendency to reduce the number of noncompetitive educational establishments incapable of being involved in modernization processes, as well as a new demographic threat - a decrease in the number of employable citizens and an increase in the number of pensioners. Based on the results of the study, the authors offer their reasoning for three key innovations in the spheres of science and education: the global competition for talents, the growing democratization of education and the demand for educational programs by older people. All the above is a way to revise the strategy of education development, taking into account the new prospective trend involving universities in a large-scale preparation of programs for third age people (pensioners), whose number is increasing steadily.

Keywords: progress, innovations, education, educational programs, new economy.

Introduction

Progress and antiquity are two self-sufficient and equant poles, which exist simultaneously in people's lives. Even today, at the end of the third technological revolution, one may find simultaneously existing elements of all types in the society: from a primitive society to a post-industrial one, although a movement towards modernization becomes increasingly evident. Nevertheless, we understand that the world is diverse, and the human society is far from being homogeneous. At the same time, the world has been changing more and more rapidly over the past decades, and the changes are affecting science, education and the professional sphere in a more profound way.

We have already witnessed a large-scale alteration of employment forms - a factory conveyor line has been replaced by many flexible types of employment which do not require personal presence, but provide a stable income. Self-employment and various types of freelance work put about 40% of employees outside...
the zone of traditional employment, which undoubtedly requires a serious rethinking of approaches to employment and social care (Grozovsky, 2016). At the same time, serious contradictions arise between the key trends. On the one hand, the era of pervasive IT development faces the problem of "superfluous people"; on the other hand, the individual still holds the main value! Today one needs to foresee the vector of change and learn to manage changes or at least influence them. A Swiss economist K.M. Schwab (2016) sees three reasons why today's changes should not be considered as a continuation of the third technological revolution, but rather as the beginning of the fourth one: the rate of changes, their scope and the systemic nature of their consequences. This period is characterized by the convergence and synergy of several large-scale technologies: nanotechnology, biotechnology, IT and 3D printing, artificial intelligence, new materials and robotics. Undoubtedly, new professions and qualifications will be required, and it is "irreplaceable competences" that will become the most valuable for people (Schwab, 2016).

One of the most important qualifications, according to experts, will be the so-called “purpose driven leadership”. In 2025, millennials (generation Y) will be the basis of the workforce; the sense of purpose in their activities and an authentic leadership will become the most important factors in their choice of the way of their self-realization (Sokolova, 2017).

The matter of forming new qualifications pertains, first of all, to innovative education development, which in different periods of the civilization solves different tasks: from providing general literacy to educating intellectuals, but generally its target is the individual and it exists exclusively for the individual, and not vice versa! Undoubtedly, at different stages of the society development different requirements are imposed on education as an important social institution, as they are imposed today when competitiveness must be maintained in a new rapidly changing environment (Zaitseva, 2016; Kvon et al., 2017).

The following factors influence the development of educational services, both in Russia and in the world (Romanova & Chernova, 2014): a significant increase in the number of educational organizations; an increasing demand for quality education services; the rapid emergence of new types of services in the educational process; the implementation of education services via online resources; various training programs in the world; the change of consumer segments of education services from the point of view of their age, etc.

Materials and Methods

To achieve the purpose of this research, i.e. to identify the role of innovation in education and science, the following methods and approaches were applied: systematization, analysis and synthesis, concretization and generalization, comparative analysis; methods of collecting information, monitoring. The informational base of the research was scientific publications in recognized scientific media; research and design materials of scientific division of Plekhanov Russian University of Economics.

The theoretical and methodological basis of the research is scientific works on innovations and the innovative development of economic entities. An innovative activity is multifaceted and covers a wide range of activities, while innovations themselves can be manifested in various forms. Innovations are inherent to all areas of activity, including education (Dzhandzhugazovaet al., 2016). Currently, there is a fairly large number of definitions to an innovation and an innovative activity and quite an extensive
classification has been developed. Figure 1 shows the author's idea of the innovation space a totality of all implemented innovation processes at all levels of the economy.

![Innovation space diagram]

To bring order to the concept of innovation, foreign and Russian scientists developed various classifications (Schumpeter, 2007; Ilyenkova & Kuznetsov, 2009). Hardly all classification features are suitable for the education sector, but the main ones the type of innovations, the depth of introduced changes, continuity are fundamental (Romanova & Chernova, 2015).

The table below was compiled by the authors and outlines some specific features of introducing different types of innovations to the sphere of education:

### Table 1. Innovation in Education

<table>
<thead>
<tr>
<th>No</th>
<th>Innovation type</th>
<th>Description</th>
<th>Specific features of introducing to education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Material and technical innovations</td>
<td>Creating new materials, products, services and technologies, new ways of providing services and improving old ones</td>
<td>Using information technology while organizing an educational process</td>
</tr>
</tbody>
</table>
| 2 | Economic innovations | The emergence of new markets as a result of newly introduced products or technologies, the emergence of new ways to buy and sell goods and economic processes resulting from the process of innovation | Attracting new categories of listeners. Implementing educational programs for people of "silver age"

| 3 | Organizational and managerial innovations | New solutions and approaches in the process of managing or organizing the workflow of an organization | Using space and time to support learning processes, applying new forms of teaching

| 4 | Social Innovations | New ideas and solutions intended to solve social and cultural problems of the society | Adapting educational programs to suit people with disabilities

Four basic innovations can be identified in the development of education as a system of knowledge:

1. The creation of the first universities in the Western Europe in the 10th-12th centuries which became special educational organizations whose activities were based on autonomy, leadership electivity and discussion as the basis for learning and a scientific activity. The creation of the first universities marked the beginning of the modern university system with its rights and privileges, including free choice of sciences, educational programs, the right to receive income and the recognition of a university degree by other universities. The university system is widespread even today, but the role of classical universities in our modern world is transforming significantly under the influence of rapid IT development among other factors, due to which the range of knowledge sources has expanded drastically, but it has not yet fully replaced the most important principle of university science and education, which is discussion.

2. The class-subject-lesson system created by Jan Amos Comenius in the 17th century, which determined the course of the development of school education for centuries ahead. The basis of this system is a clear organization of educational activities, where the main role is played by the teacher. The educational process is clearly structured within the system and constructed according to a single program in the framework of certain didactic elements. Despite a certain archaic nature, the Comenius system demonstrates a rare vitality, as it has reached our days almost unchanged, although it is already largely obsolete.

3. The appearance of research universities according to the model of Wilhelm von Humboldt in the 19th century. The 19th century is the time when Europe entered a major modernization process and experienced a global industrialization, which required training a new type of personnel and, as a result, new forms and methods of education. Research universities acquired three new key advantages which made them advanced for their time: new forms of education, academic freedom and public funding.

4. The idea of pragmatism in education introduced by John Dewey in the 20th century and serving as a further basis for the development of project education.
As part of his idea, Dewey justified the idea of education via active inquiry about the surrounding world, since it was supposed to be the only way to evoke a desire for further self-education. From the pragmatic point of view, only the practical result and the real experience of independent problem solving have real value.

It is worth noting that all four innovations, despite a serious semantic difference, have safely survived to this day, although they have adjusted to the modern educational landscape in different ways. Here we have to admit that the modern world remains diverse and multifaceted, simultaneously embracing different educational ideas and even allowing the emergence of new ones, among which some have already matured:

- global competition for talent;
- growing democratization of education;
- growing demand for educational programs by older people (Konanchuk, 2017).

It is possible to trace the implementation of an innovative component in the educational process in the context of the main activities of educational organizations and the main management functions (Table 2).

**Table 2. Implementing an innovative element through key management functions (complied by the authors on the basis of research materials)**

<table>
<thead>
<tr>
<th>Management functions</th>
<th>Line of work of educational establishments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Education and disciplinary activity (core activity)</td>
</tr>
<tr>
<td>Planning</td>
<td>Developing educational programs according to educational standards and requests of employers</td>
</tr>
<tr>
<td>Organizing</td>
<td>Implementing educational courses aimed at achieving the necessary qualifications in a graduate</td>
</tr>
<tr>
<td>Motivating</td>
<td>Giving teachers and masters incentives to improve the quality of teaching</td>
</tr>
</tbody>
</table>
A successful activity of educational organizations which meets current demands largely depends on the management process aimed at achieving the set goals (Rudenko et al., 2015).

It is a must of our modern life to consider innovative processes in education. To this end, the Global Innovation Index (GII) is calculated, which characterizes the level of the creation as well as the use of innovations in various courses of the social and economic development of the society. The Global Innovation Index is calculated by Cornell SC Johnson College of Business in partnership with the Business School for the World INSEAD and the World Intellectual Property Organization. One of the components of this index is Human capital & research, which assesses the level of education development and applied innovative approaches. The Russian Federation ranked 45 out of 123 in this rating in 2017, while ranking 23rd by the Human Capital & Research (the level and standard of education and research in the country).

The Global Innovation Index 2015 report shows that linking entrepreneurship to scientific activities and the work of scientific institutions, attracting foreign subsidiaries and recruiting scientific personnel is often the most difficult assignment faced by countries. Positive secondary effects of innovation trigger a significant increase in the national economy and solve both economic development matters and social problems. According to Francis Gurry, the General Director of the World Intellectual Property Organization, innovations create extensive conditions for accelerating the economic growth of countries at all stages of development. However, these conditions are not created automatically. Each country should combine policy measures in such a way that will mobilize the existing innovative, creative and entrepreneurial potential of their economy.

Results and Discussion

Let us take a closer look at each of the innovations against the backdrop of our time with a projection into the future.

Universities of all countries participating in global processes compete for talented students using international ratings which were first published in the 00s and include the following best-known ones:

- Academic Ranking of World Universities (ARWU),
- World University, QS rating,
- The World University Ranking (THE WUR: Times Higher Education World University Rankings), etc.

According to the ratings, the criteria for assessing universities can be divided into three large groups: indicators of scientific activity; reputation and image of the university; the quality of education. The assessment of the scientific potential of a university depends on such indicators as the number of scientific articles written and published by university teachers in recognized foreign and Russian...
scientific journals, the number of citations of university professors, the volume of scientific research, etc. These and other ratings provide an opportunity to compare universities and make a choice based on a significant indicator.

The free choice of a university based on a rating initiated the process of reallocation of funds, which followed the informational positive. Not only students started choosing universities, but also teachers. University professors with the most significant professional portfolio choose more prestigious universities, because they can offer better conditions due to their resource base (Dzhandzhugazova et al., 2017). Such growing competition strengthens strong universities and weakens weak ones, letting more competitive educational institutions remain within the educational space. Many experts regard this fact as a deep crisis in the academic environment and even predict the complete disappearance of classical universities.

In fact, we are dealing with an ongoing structuring of the academic space, which is being transformed towards improving quality at the expense of excessive quantity. For example, the number of universities in Russia has decreased over the recent years; inefficient higher education establishments lose the state accreditation. The number of public and private organizations of higher education according to the State Statistics Committee of the Russian Federation is shown in Fig. 2.

At the beginning of 2015/16, the number of state higher education institutions decreased by 18.8 % compared to 2010/11, while private educational organizations decreased by 20.8%.

Undoubtedly, this process is painful and complex, many people, both in the educational community and outside it, perceive the growing competition as a catastrophe which destroys the educational environment developed in Russia and the foundations of social partnership (Valkovich, Asaliev & Vukovich, 2013).

We can say that we are experiencing a so-called ‘modernization stress’, which, unfortunately, accompanies all extensive reforms. It should be noted that both critics and proponents of education modernization give quite reasonable arguments to prove their point. The critics emphasize the growing inequality in the teaching and student environment, a strong tendency towards scientometric indicators used to evaluate the results of educational and scientific activity, the growing excess of organization in

<table>
<thead>
<tr>
<th>Innovation space</th>
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</thead>
<tbody>
<tr>
<td>Product innovations</td>
</tr>
<tr>
<td>New product</td>
</tr>
<tr>
<td>New sources of supply</td>
</tr>
<tr>
<td>New methods of production</td>
</tr>
<tr>
<td>Process innovations</td>
</tr>
<tr>
<td>Exploitation of new markets</td>
</tr>
<tr>
<td>New ways to organize business (management)</td>
</tr>
</tbody>
</table>
processes, etc. In their turn, the proponents emphasize the role of productivity, the need for the individualization of educational technologies and the provision of free choice of an educational trajectory for all students. In the end, all are right but in their own way, however, it should be taken into account that education changes along with the reality. It is absolutely clear that we cannot live in the 21st with the world view formed in the 19th century, because it simply does not work, which is why we need to move forward (Dzhandzhugazova, 2016).

In the last two decades, higher education has become fully accessible to the general population. For example, in developed countries, the share of people with higher education is about 40 %, and in countries such as Russia, Canada, South Korea and Japan it exceeds 55 %. Although we may observe the phenomenon of a steady growth of the educational level with every new generation, the intellectual level of generations, in fact, remains the same. This suggests the decline in the quality of higher education, both in the world and in Russia (Romanova, 2016). For example, the analysis of the research carried out by the Russian Public Opinion Research Center shows that 56 % of the population and 55 % of employers estimate the quality of Russian education as average. 21 % of employers consider it low (Table 3).

**Table 3. Assessment of education quality in Russian higher education establishments**

<table>
<thead>
<tr>
<th>Levels</th>
<th>All Russian population (18+)</th>
<th>Recent graduates</th>
<th>Employers</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>4</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Rather high</td>
<td>18</td>
<td>48</td>
<td>12</td>
</tr>
<tr>
<td>Average</td>
<td>56</td>
<td>36</td>
<td>55</td>
</tr>
<tr>
<td>Rather low</td>
<td>13</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>Low</td>
<td>3</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Not sure</td>
<td>6</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

More than a half of the Russians respondents (56 %) assess the quality of training in Russian universities as average, as do over a half of employers (55 %), and only a third recent graduates agree (36 %). 22 % of citizens believe that the level of training of graduates in Russian universities and institutes is high. This
opinion is shared by most recent graduates (58 \%) and only one out of ten employers agree (13 \%). 16 \% of Russians, a quarter of employers (28 \%) and only 5 \% of "yesterday's graduates" are confident that the training level of professional personnel is low.

The strive for higher education was brought to us by the time when it was a ‘social elevator’ and expressed something more than just the amount of knowledge gained. After all, receiving an education or, as they said then, "make your way in life" had the same meaning at the beginning of the 20th century, whereas in the 21st century, higher education became a like-everybody-else attribute, which immediately made it lose its importance both in the eyes of both students and employers. Modern education has become an ordinary phenomenon, and a university degree has ceased to be a sign of belonging with the professional and intellectual elite. In fact, education ceased to provide a profession, and, consequently, lost its value. The academic community was the first to notice this strange metamorphosis and tried to mitigate the situation by reflecting on the social significance of the learning process which structured the time of students. However, professional education is not a hobby club, and, therefore, it must be recognized that higher education is designed for a limited number of people who are capable of solving complex professional tasks.

Continuing the analysis of educational innovations, we cannot leave unnoticed the fact that in the future the educational process will encompass both young people and people of third age, i.e. pensioners. Such a change in the age vector is quite understandable, since the main category of students has been children and youth, whose share in the education system has been the overwhelming majority (up to 90 \%). However, in the future the number of young people will decrease significantly. The world has already faced a large-scale problem of population aging. This tendency is particularly evident in countries with large populations (India, China), although many other predominantly European countries note this problem as well. In addition, the productive life of the population has been extended. This is especially observable in the number of working pensioners; some estimates evidence that their number in the world reaches 1 billion people. Traditionally, this category of people has rarely participated in educational programs, but life goals of people are changing, and the time when this part of the population will be actively interested in a variety of educational programs and, first of all, in further education is close at hand.

In Russia, 15 \% of the working population and 1 \% of pensioners participate in educational programs, which is 3 to 5 times less than the world average, the trend has already taken shape, and if we assume that the number of studying pensioners increases at least by a factor of two, new field of action will be opened for the Russian education system. Following the official statistics, Russia in 2017 has almost 42.7 million pensioners, 35.5 million of them are retired due to old age, of which 15 million are working.

Assuming that 2 \% of working pensioners will study, this will make up 300 thousand people across the country. According to the public data, the largest university in Russia, Lomonosov Moscow State University, has about 60 thousand participants in all courses, which is almost 7 times less than the expected figure of pensioners who may be interested in training programs in the nearest future. At the same time, it should be noted that there will be no need to build new educational establishments in order to satisfy the needs of the older generation in education as the education system in the Russian Federation has been successfully developing for a long time.
Let us have a look at the rate of the growing need for educational programs based on the real number of retired people, taking as the example a few regions of the Russian Federation. According to the official statistics, almost a quarter of retired people live in 6 regions of the Russian Federation, the distribution of the number of pensioners in million people by regions is shown in Figure 3.

![Number of pensioners in Russian regions (mln people)](image)

Figure 3. Distribution of pensioners in Russian regions (mln people).

Considering that around 30% of retired people continue working, we may estimate an approximate potential number of people of third age who may be interested in various educational programs, including further education, provided that 5% of working pensioners will become participants in educational programs (Table 4).

Table 4. Correlation of various retirement categories

<table>
<thead>
<tr>
<th>Regions</th>
<th>Pensioners (mln people)</th>
<th>Working pensioners (mln people)</th>
<th>Studying pensioners (forecast, ‘000 people)</th>
<th>Number of students in the largest university of the region(‘000 people)</th>
<th>Ratio of the number of studying pensioners to the number of students in the local university (in %)</th>
</tr>
</thead>
</table>
The figures in the table show that the number of pensioners in the aforementioned regions who can be involved in education is quite comparable or even several times greater than the number of young people studying at the largest university in the region. This fact emphasizes the extensive opportunities that the Russian education may have in the nearest future. However, we need to be prepared for this stage, because "andragogy", or adult education, differs significantly from the classical pedagogy and, undoubtedly, requires special approaches, forms and methods. In this regard, it is quite obvious that the increase in the number of older people will actually trigger the formation of a new type of economy where most of goods and services will be produced to ensure the socialization of pensioners.

Even today there are certain locations (districts and even cities) where the majority of residents are old. An interesting example of such location is Sun City, Palm Springs (California, USA), there are similar cities for pensioners in Japan and Western Europe. "Aging without the youth" is becoming a new trend of the modern society, which is a natural consequence of the current and future demographic situation. In Russia, the favorite place for older people to live in is small towns where life is cheaper and calmer than in large cities. In the center of Russia, the good prerequisites for the development of settlements and communities of pensioners are small historical cities that have valuable cultural and historical resources and draw the attention of wealthy pensioners from metropolitan cities.

A striking example demonstrating the trend is a small historical town of Tarusa (Kaluga region) with the permanent population of about 10 thousand residents, but even now its population increases by 10 to 15 times in some month, mainly because elderly people come from Moscow to live in Tarusa for at least 6 months a year. Over the past 10 years, the economy of this classical city of Russia has changed dramatically due to a significant increase in services, trade, tourism and recreation enterprises, although industrial and agricultural production decreased respectively, which was caused, among other reasons, by the diminished employable population. Beyond all doubt, this situation may be regarded differently: most mayors of small towns consider it as a negative situation and perceive an increase in the number of elderly residents of the city as a serious problem instead of opening new opportunities, creating a new social infrastructure for people of "silver age".

Conclusion
In conclusion, it is noteworthy to say that innovations are a necessary condition for the development of the human society, and they are caused by profound civilizational processes. Accepting changes, people develop and improve themselves, but at the same time this complex development process contains the elements of the past, present and future (Dzhandzhugazova, 2017), and the ratio of these elements largely depends on the individual characteristics of people. In other words, progress and antiquity coexist in a human life; one must only find their useful balance. The market of educational services is innovative by nature because the volume of information augments every year and the need to receive new information actively prompt the use of the latest achievements in science and technology. Innovations in the education system are targeted changes designed to transform the educational system from one state into another.

References


Interdisciplinary Principle Of Students’ Self-Development Competencies Forming In The Educational University Environment

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Abstract
In the course of continuous monitoring of the educational process with the help of monitoring tools, the effectiveness of the structure and content of cognitive, motivational and semantic and value-regulating components of forming the competencies of the student's self-development is substantiated, the importance of interdisciplinary principle in their design and implementation is established. The paper discloses the pedagogical conditions for designing and implementing the competences for self-development of the student's personality in the educational process of the university; the priorities of the interdisciplinary principle of self-development competences are established; based on the results of the study, cognitive, motivational-semantic and value-regulating components of the competences’ structure and content of the student's self-development are grounded. The importance of the identified components was demonstrated with the help of the criteria of the student's readiness to participate in the realization of self-development competences; to transfer the competences of self-development to spheres and types of activity in the system of life goals, plans and programs; to focus on improving abilities; to form focus on professional growth; to have willingness for innovation. The materials of the paper can be useful for university teachers, methodologists, students.

Keywords: student's personality; educational process of the university; labor market needs; the competence of self-development; interdisciplinary principles; monitoring.

Introduction
The solution of the problem of students’ self-development - future competent specialists by definition is one of the priority social and pedagogical strategies of the educational process of a modern university. Interest in this issue is not accidental. It is conditioned by the fact that the need for specialists who are able independently and creatively to determine and solve various professional tasks taking into account their integration interaction, to generate and master innovative changes in science and industry in accordance with the sociocultural norms, the requirements of scientific and technological progress,
established axiological benchmarks becomes a cultural imperative in the labor market. In his time, the Russian physiologist I.P. Pavlov (1973) noted that in the final analysis a person, becoming a subject of his own life and activity, independently determines his goals and directions of development, taking into account external circumstances and existing conditions. He believed that if people create all the necessary conditions for self-development, then “every person can become what he can and should become” (Pavlov, 1973). The relevance of this inference is not lost in our information age. In the course of the research, a wide variety of the problem field of the student’s personality self-development has been established, which in the theory and practice of pedagogical science is analyzed from the positions of various approaches: subjective, professionally - activities-based, personality-oriented, project-targeted, competence, synergetic, sociocultural, acme-logical, technological (Garanina, 2014; Zimnyaya, 2003; Ivanchenko, 2007; Kulikova, 2003; Lee, 2002; Maralov, 2017; Niemiec, Ryan & Deci, 2010; Post, 2009; Khutorskoy, 2003). Most experts prove the special importance of the competence approach in the modern student’s self-development, proceeding from the deep essence of the concept’ semantic content as a holistic self-developing system based on the activity-based transformation of the personality, generated by its needs for self-change with the help of self-development competencies aimed at the success of activity in the chosen profession (Abulkhanova - Slavskaya, 1991; Brandstädter, 1998; Wellbery, 2009; Carver & Scheier, 2011; Kasavin, 2010; Knyzева, 2007; Osmolovskaya & Krasnova, 2017; Popova, 2011; Slobodchikov, 2010; Stepin, 2007; Ulyanova, 2012; Shchukina, 2015). In this connection, in the course of the study, the structure and content of the competences priority components of the student’s personality self-development in the educational process of the university are grounded: cognitive, motivational, semantic and value-regulative.

In the course of the study, it was proved that, in combination, the established components of self-development competencies’ formation fulfill multifunctional tasks of professional activity determination and regulation, the construction of the individual’s self-development and self-control, are the basis for the development of the student’s professional self-determination. It has been established that, despite the understanding of the significance of these priorities’ formation reflected in the studies of recent years, their practical contribution to the process of forming the competencies for the student’s self-development remains insufficiently studied in the educational process of the university (Azhimov, 2016; Brandstätder, 1998; Garanina, 2014; Ivanchenko, 2007; Kasavin, 2010; Lee, 2002; Maralov, 2017).

The question of what are the pedagogical mechanisms that guide the university educational process to successful implementation of students’ self-development competencies is also not clear enough, and what is the role of the interdisciplinary approach in this process (Brandstätder, 1998; Lee, 2002; Maralov, 2017; Ulyanova, 2012; Khutorskoy, 2003; Shchukina, 2015).

The theoretical and methodical substantiation of the cognitive, motivational, semantic, value - regulating components of self-development competencies’ formation, which are conditioned by the interdisciplinary principle, deserves special attention on the part of researchers (Popova, 2011; Post, 2009). To solve this problem, the paper discloses the pedagogical conditions for designing and implementing the competences for self-development of the student’s personality in the educational process of the university; the priorities of the interdisciplinary principle of self-development competences are established; on the basis of the research results, the cognitive, needed - motivational and value-regulating components of the student self-development competences’ forming are substantiated. The
importance of the identified components was demonstrated with the help of the criteria of the student's readiness to participate in the realization of self-development competences; transfer of self-development competence to spheres and activities in the system of life goals, plans and programs of the student; the focus on improving abilities and on professional and career growth, the need for innovation.

Review of the Literature

Of particular importance for the study are the works of specialists which can be structured around the spheres of application: the philosophical approach (Knyazeva, 2007; Slobodchikov, 2010; Stepin, 2007); theoretical foundations of students' self-development in the educational process of the university (Brandstädter, 1998, Wellber, 2009; Carver & Scheier, 2011; Korostyleva, 2005; Kulikova, 2003; Nizovskikh, 2008; Orlova, 1991; Pavlov, 1973; Shchukina, 2015); an interdisciplinary approach to the formation of self-development competences (Azhimov, 2016; Zimnyaya, 2003; Kasavin, 2010; Lee, 2002; Niemec, Ryan & Deci, 2010; Osmolovskaya & Krasnova, 2017; Popova, 2011; Post, 2009; Ulyanova, 2012; Khutorskoy, 2003); the concept of self-development in Humanities (Abulkhanova-Slavskaya, 1991; Ivanchenko, 2007; Maralov, 2017; Nikitin & Kharlamenkova, 2000).

It is established that in most of the works the results of the investigation of self-development determinants and procedural characteristics are presented: self-development as a form of self-regulation and self-development as a process of personal growth.

In the first direction, the emphasis is made on the activity of a person acting as a subject of activity, capable of determining strategies for changing one's own state and behavior. It is established that the personality is capable of its behavioral self-determination, which is carried out in accordance with the aspirations of the deep "I" (Garanina, 2014; Maralov, 2017). Three levels of self-regulation are substantiated in the processes of the individual's self-development: the first level is associated with self-changes at a particular time - "here and now", the second - with changes in individual personal qualities or patterns of behavior, the third - with changes in the personality as a whole, finding a new identity (Kulikova, 2003; Lee, 2002; Carver & Scheier, 2011).

In the second direction, self-development is seen as a person's ability to subjective growth, in the course of which he builds his own personality, forms his individuality. It is proved that personal growth is achieved through the creation of the individual's own development models, rather than through the orientation to the models proposed by the society (Brandstädter, 1998; Wellber, 2009; Maralov, 2017; Nizovskikh, 2008; Oreshko, 2014).

The established tendencies were realized in the course of the research as methodological grounds for designing the component composition of the self-development competencies' structure and content of the student's personality.

Results

3.1. Pedagogical Conditions for Designing and Implementing the Competences of the Student's Self-Development in the Educational Process of the University

The research establishes the priority pedagogical conditions for the formation of competences for student self-development:

- The first condition
Innovation of the educational environment. The indexes of the university innovative educational environment, oriented on the use of the theoretical and methodical foundations of self-development competences’ formation in educational practice are established: the scientific justification of the goals and tasks of the student’s preparation; interdisciplinary principles of educational material’s content selection and structuring; the availability of theoretical knowledge system, deepening the student’s self-development, and practical skills that form the basis of self-development competences; development of interdisciplinary relations in the conjugate fields of professional activity; formation of interdisciplinary links of professional knowledge with other disciplines (technical, natural, scientific, social, humanitarian) and the system of professional knowledge as a single set; the allocation of the basic components in the content of training; the invariant part as a unit of new and promising technical facilities, production technologies for modern production (industry); the vocational part uniting professionally directed knowledge, selected in accordance with groups of professions; specialized, including concepts and theories, selected in accordance with the specialization of students; ideological part integrating on the interdisciplinary principles the social-humanitarian, vocational, specialized and practical cycles of disciplines that provide a sociocultural orientation of knowledge;

- The second condition. Interdisciplinary structure of knowledge is the basic core of self-development competences, purposeful self-change and self-improvement of the student’s personality:

- at the level of goals - focus on the triune goals: strategic, personal and socio-professional self-development of the student's personality, the future specialist; operational - the development of knowledge, abilities, skills, qualities, experience, significant for the formation of competencies for self-development; prognostic - self-development of the creative potential of the future specialist's personality, formation of an attitude towards social and professional growth, career, readiness for innovation;

- at the content level - the focus on the organized form of interaction of competencies’ all components; agreeing on the objectives of the activity; self-organization of actions of the student and teacher in the educational process; heuristic hypothesis-analogy, transferring the construction of one component of competence in another to construct a new meaning and new goals of self-development;

- At the procedural level - orientation on the modification of the relationship of the teacher and student; expansion of partnership, cooperation and mutual assistance;

- At the level of means - the focus on the use of innovative information technologies (modular, project, computer, network, digital);

- At the level of educational results - the student’s readiness for self-development in creative activity;

- At the level of conditions - a collective creative environment in the educational process that generates and reinforces the creative behavior of the individual, aimed at its self-development

- at the level of criteria for the formation of competences - the availability of knowledge and skills in handling competencies; content and development of value orientations and social norms, which are the standard in various spheres of activity; the formation of professional ideals; degree of involvement in educational, cognitive and socio-professional activities;

- The third condition. Pedagogical mechanisms (Garanina, 2014; Maralov, 2017; Nizovskikh, 2008), which determine students' preferences in the choice of competences for self-development:
- Mechanisms of possession. They mean that a person wants to master what it did not have before, such qualities, abilities or behaviors that, from the standpoint of the individual, and most importantly, from the positions of others, are the reference ones;

- The mechanisms of transformation. They are applied when the personality qualitatively changes or transforms its needs, qualities.

Different variants are supposed here: perfection of their own, already existing properties, or their transformation into another quality. For example, uncertainty is transformed into confidence, quick temper - into restraint, indecision in responsibility, etc.;

- Correction mechanisms. The meaning of using these mechanisms is that the student wants to get rid of unwanted behavioral reactions or some other negative personal qualities. For example, get rid of bad habits and propensities, slowness, uncertainty, indecisiveness, shyness, etc.;

- Restriction mechanisms. They do not presume to get rid of negative properties or qualities, but to limit their actions. In cases where a student cannot immediately quit smoking, he can limit the number of cigarettes smoked; if he believes that he is indecisive, he can limit his indecisiveness by making a responsible decision.

It is determined that the special preferences of the first year students are expressed in relation to the mechanisms of possession and restriction. On the 3rd course, the situation changes toward transformation and correction.

3.2. Priorities of Interdisciplinary Principle

During the research, five phenomenological types of interdisciplinary side were established (Knyazeva, 2007; Stepin, 2007), which determine the content of the same name principle:

- Interdisciplinary side as the coordination of adjacent disciplines’ concepts. It is intended to construct a common content base for the adjacent discipline, where each discipline uses its thesaurus.

An example is interdisciplinary courses in physical chemistry, biochemistry, sociology and psychology;

- interdisciplinary side as trans- cognition of not closely related disciplines’ concepts on the basis of interconnection of general scientific, invariant, universal methods of system analysis and synergy. This type of interdisciplinary side is used by a wide variety of disciplines;

- Interdisciplinary side as a heuristic hypothesis - an analogy that transfers the constructions of one discipline to another at first without sufficient justification. The incompleteness and creativity of such hypothetical transfers necessitates either their justification within the framework of this discipline or a revision of the grounds;

- Interdisciplinary side as a constructive interdisciplinary project, an organized form of interaction of many disciplines for understanding, substantiating and managing the phenomena of super complex systems;

- Interdisciplinary side as a network communication or self-organization of communication.
On the basis of network communication, interdisciplinary methodology, trans-disciplinary norms and values, invariants and universals of the scientific picture of the world are implemented, the system analysis is developed. The essence of the interdisciplinary principle as a pedagogical system is determined, the main purpose of which is the communication or self-organization of communication between a student and a teacher, a student and the educational process, a student and a student in the process of forming the competences of student self-organization. Due to communication, interdisciplinary methodology is being implemented in the process of forming competencies for self-organization (Knyazeva, 2007; Stepin, 2007; Ulyanova, 2012; Khutorskoy, 2003) as:

- Coordination of related disciplines’ concepts;
- trans-harmony of concepts not closely related disciplines on the basis of interconnection of general scientific, invariant, universal methods of system analysis and synergy;
- A heuristic hypothesis - an analogy that transfers the construction of one discipline to another;
- Constructive interdisciplinary project, organized form of many disciplines’ interaction;
- As a network communication or self-organization of communication.

The study found that the identified components of interdisciplinary side in terms of their semantic content correspond to the current trends in the transformation of the educational process of higher education and confirm their importance for the design and implementation of the interdisciplinary principle in the process of forming the competencies for the self-development of a university student. In this connection, the structure and content of the algorithm for designing the interdisciplinary principle as an integrated pedagogical system, the organized form of educational disciplines’ interaction for understanding, justifying and managing the process of forming the competences of student self-development are substantiated. The algorithm provides an approximate sequence of actions:

- Definition of a problem that is significant for the formation of competences for the self-development of students, which requires integrated knowledge, research search for its solution;
- Formulation of the activity objectives (strategic, operational, prognostic), focused on the design and implementation of the competences for self-development of the student's personality;
- Promotion of hypotheses for the solution of goals;
- Stage-by-stage structuring of the substantive part of the interdisciplinary principle (cognitive, motivational - semantic, value-regulating components), representing a completed unit of educational material, supplemented by methodical developments, an innovative system of knowledge control and correction of the process of forming competences;
- Projects of independent (individual, pair, and group) activities of students;
- Ways to formalize the interdisciplinary principle (coordination, trans-harmonization, heuristic hypothesis - analogy, constructive project or network communication).

3.3. Interdisciplinary Nature of Student Self-Development Competences
In the course of the study, the main goal of the established methodology for the implementation of the interdisciplinary principle as a pedagogical system oriented towards the formation of competences for self-development is substantiated:

1) Knowledge, skills:
   - in the solution of complex integrated tasks based on interdisciplinary integration;
   - in the creative transfer of concepts, ideas and methods of activity from one practice or field of knowledge to another;
   - in understanding the place and role of the profession as part of larger systems and society as a whole;
   - In the formation of a flexible structure of value orientations, the development of over professional ethical principles, reflection on professional activity from the position of harmonizing it with universal values;

2) Abilities:
   - To the creation of integrated knowledge based on the harmonization of related disciplines or trans-harmonization of non-closely related disciplines;
   - to the solution of interdisciplinary tasks by methods of various disciplines;
   - to module training, focused on the interdisciplinary nature of self-development models of the individual;
   - to design and implementation of interactive modular technologies;

3) Personal qualities:
   - awareness of oneself, one's "self";
   - awareness of their professional and personal qualities;
   - self-cognition;
   - Social and personal self-estimation;
   - self-regulation (professional self-improvement) on the basis of self-cognition and self-estimation;

4) experience of behavior and activity:
   - in development and self-education by mastering technologies and methods of assimilating modern volumes of information, improving universal methods of cognition and mental activity;
   - in the coordination of curricula content of various disciplines on the basis of the conceptual apparatus’ commonality;
   - in the design and implementation of research projects, master classes on interdisciplinary topics.

In the course of the study, the component composition of the integral structure of self-development competencies of the student's personality is grounded:
- Cognitive component: the availability of knowledge about their professional activities, one's own perceptions about self in the context of this activity; the image "I am a professional" is integrated with the "self-concept";

- Motivational and semantic component: stable cognitive needs and interests; sense-forming motivation; semantic empathy; semantic identification; motives of self-actualization;

- Value-regulating component: self-actualization; cognitive activity; positive self-concept that serves as a source of sustainable adequate self-estimation; adequate self-evaluation; aspiration for personal and professional self-development; self-correction.

In the course of the study it was proved that, in combination, the components of the developed structure of self-development competencies serve to determine and regulate professional activity, design, self-development and self-control of the individual, acting as the basis for the development of professional self-determination of the individual. In this connection, the criteria confirming the importance of the component composition of self-development competences acquire special relevance. Competences' composition was tested in the student groups of the 1-3-year courses. The obtained results confirm the preference of students' choice of cognitive components for self-development competencies (the importance of components in the groups of students of the 1st course increased by 11%, the 3rd course by 13.5%). A lower level of attitude towards the motivational and semantic component was noted (stable cognitive needs and interests - the importance of components grew by 8.5% on the 1st year, by 9.9% on the third year; meaningful motivation - on the 1st year the increase was 5.5%, in the third year - 6.0%; and semantic empathy - the importance of competencies increased by 3.0% in the first year, by 5.0% in the third year; semantic identification - on the 1st course - 1.5%, on the third year - 2.0%, motives for self-development - on the first course the significance increased by 1.5%, on the third year - by 2.0%). The value-regulating component, in comparison with the motivational-semantic and cognitive, is characterized by a higher level of relation to the component composition of self-development competencies (self-actualization - the importance of components in the first year increased by 6.5%, in the third year by 7.5%, cognitive activity - on the first course, the significance increased by 7.5%, on the third year - by 11.0%, the positive I-concept, which serves as a source of stable adequate self-esteem - on the 1st course, the significance increased by 12.0%, in the third year - by 15%, the desire for personal and professional self-development - the importance of components increased by 15.0% on the 1-st, by 23.0%, on the 3-d course, the importance of components increased by 20.0% in the 1-st, in the third year - by 35.0%). The established stability of a high level of preferences in the cognitive and value-regulating components of self-development competencies is explained by the stereotypes of the traditional system of education that gives preference to knowledge and value bases in the process of students' training, that cannot be said about the state of motivational and semantic components most often influenced by the students' differing maturity of approaches. It is determined that the higher the interdisciplinary level of the component composition of the student's self-development competences, the more meaningful, productive and higher his responsibility for all possible achievements in self-development and in the realization of goals, values and meanings that have, in addition to personal preferences public recognition. Students with a high level of interdisciplinary component composition of self-development competences are more eager to learn and develop themselves, their abilities and skills. In accordance with this, they realize their needs in the education they receive as a way of self-realization and identity.
It is proved that this group of students has a clearer expression of the desire to use various components (cognitive, motivational - semantic, value - regulative) of self-development competencies.

Conclusion

The conducted research confirms the theoretical and practical importance of the problem of forming self-development competencies that provide the process of training a student - the future specialist of a new generation in the innovative educational process of the university. The theoretical and methodical approach to the design of the component composition of self-development competences presented in the study is of interest not only for determining the conceptual directions for updating the educational process of the university, but also for solving practically important issues, such as determining the content of self-development competences, delimiting this concept with other concepts of "self". Therefore, attempts to develop the component composition of self-development competences (cognitive, motivational, semantic, and value-regulative) on the basis of the interdisciplinary principle, undertaken in this study, make sense for the theory and practice of the educational process of the university. The realization of the component composition of self-development competences also allows solving an equally important task of the educational process of the university - the definition of the pedagogical mechanisms for designing the competencies of self-development in educational activities in accordance with the preferences of students based on their personal characteristics. In this regard, this paper presents a justification for the model pedagogical mechanisms established in the course of the study, which determine students' preferences in the choice of competences for self-development (possession, transformation, correction, restriction). The paper discloses the pedagogical conditions for designing and implementing the competences for self-development of the student's personality in the educational process of the university; the priorities of the interdisciplinary principle of self-development competences are established; based on the results of the study, cognitive, motivational - semantic and value - regulating components of competences' structure and content for student self-development are substantiated. The importance of the identified components was demonstrated with the help of the student's readiness criteria to participate in the realization of self-development competences; to transfer the competences of self-development to the spheres and types of students' activities in the system of life goals, plans and programs; focus on improving abilities; formation of the attitude for professional growth; readiness for innovation.

By solving the tasks of the conducted research, the study of the problems caused by the aspects of competences' formation for the self-development of students is not being completed.

The scientific and methodical provision of forming competences' process, the creation of interdisciplinary textbooks, electronic manuals, trainings, frames and other options are of particular interest for future researchers.

References


Source Of Consolidation Of Individuals In A Civil Soci-Ty: From Production To Communication

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Abstract
The authors study difference specific of the ideas of classics of Marxism and Y. Khabermas, related to understanding the sources of social integration in civil society, explain the reasons of permanent interest to production of such ideas, and show that in the process of specific historical change of the structure of civil society the corresponding methods of its self-organization form, which become an object of socio-philosophical reflection.

Keywords: civil society, “free humanity”, communicative rationality, communicative action, “language game”.

Introduction
The term “civil society” was introduced in the 16th century in the commentary to the Aristotle’s “Politic” for denoting the society which is not governed by the laws created by professional politicians. In the modern age, an idea that “civil society” was formed only in the modern world dominates (Hegel, 1990) - which was supported by classics of Marxism. They viewed “civil society” as a non-state organization of bourgeois society which destroyed its political character and was freed from the medieval form of property (Lubsky et al., 2016).

At present, there’s no agreement in treatment of the essence of “civil society”, though the main sign of “civil society”, announced by Karl Marx, which consists in its independence from political state, is generally acknowledged. Thus, E. Hellner (2004) defines civil society as “totality of non-government institutes which are sufficiently strong to be an opposition to the state and hinder its suppressing other society” E. Hellner (2004) and Y. Khabermas (2001, 2003), speaking of “autonomous social groups”, writes that they “emerge naturally in micro-spheres of everyday practice, not created by the political system”.

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The works of classics of Marxism contain a wider understanding of civil society, as “natural basis” of the state and other idealistic construction (Sagatovsky, 2005).

In this article, the notion “civil society” is used regardless of political state.

New European civil society was started by the bourgeois revolution, which included struggle of Jews for “free humanity”. According to K. Marx and F. Engels, in a class-divided society “free humanity means recognition of egoistic civil individual as an independent human, connected to another human only by the ties of personal interest and unconscious natural need”, a slave of own and another’s “self-seeking need” (Marx & Engels, 1955). Freeing human from the ties of class-divided society and personal dependence and providing him with freedom of entrepreneurship, the bourgeoisie puts human into a new dependence – material dependence. That’s why “free humanity” is only “seemingly the greatest freedom”, but it is freedom related to “unconstrained human, moved by alien elements”; it is only slavery, which is an opposition to humanity. Thus, “freedom of property” in the society of “free humanity” provides an egoistic individual with freedom of entrepreneurship, based on the search for profit (Marx & Engels, 1955). Freedom is seen in the civil society because “privilege is replaced by law” (Marx & Engels, 1955). But neither of the rights “goes beyond egoistic human”, who is citizen who represents “a individual who is in himself and his personal interest and is separated from the public whole” (Marx & Engels, 1955). Agreeing with G.V. Hegel (1990) that civil society is the sphere of “egoism with bellum omnium contra omnes” (“war against everyone”), K. Marx and F. Engels emphasized that this society is peculiar for “division”, “filth”, and “slavery”.

Civil society was negatively characterized by a lot of Russian religious philosophers. N. Fedorov (2003) wrote that “The public is spiritless. It has internal disease – enmity and open war. A citizen desires for public life which includes party, class, and other struggle and fighting. The public does not have anything common. Only brotherhood has something common”.

Materials and Methods

While civil society is peculiar for “bellum omnium contra omnes”, why does this society exist and why is it characterized by social integration? Using the theoretical and methodological principles of the dialectic and materialistic understanding of history, developed by the classics of Marxism, the authors have reconstructed their explanation of the possibility for integration of individuals of civil society who are at war.

Thus, the main goal of social critic, which constitutes the essence of the works of Karl Marx, was “State and money” (Rubel, 2006), and he did not accept the idea of T. Hobbes, according to which the state of society as “war against everyone” could be pacified by the external influence of state-Leviathan. Acknowledging the correctness of comparison of state and Leviathan (Marx & Engels, 1955), Karl Marx stated that restraining power could be ascribed to state only if members of civil society are atoms without any internal connection. But, from the point of view of Karl Marx, individuals in civil society are not

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1 The essence of state-Leviathan was pointed out by Karl Marx by the example of the French state of mid-19th century “The executive power with its huge bureaucratic and military organization, multi-level and artificial state machine, a host of officials and half a million people with half a million soldiers, this large parasite which has its web around the French society and plucks all its ways out ...”
atoms due to the fact that each action and each desire becomes “need”. A paradox appear: individuals of the civil society, being at war, have to establish connections between each other, for they have to satisfy their material needs – as a result, egoism turns into the need for each other. The need of one egoistic individual does not bear for another individual who possesses the means for satisfying this need no sense, as it has no direct connection to satisfaction of the need. This makes each individual become “a tie between another’s need and objects of this need”. That’s why “natural need and personal interest, preservation of own property and egoistic personality” are the only connection that unifies the members of civil society (Marx & Engels, 1955). In other words, civil, not political, life is the real connection between them” (Marx & Engels, 1955).

That is the state of things in a bourgeois civil society. Proletarian civil society seeks the goal to eliminate the domination of egoistic individuals; for that, according to V.I. Lenin, (1975) there’s necessity for proletarian democracy as a special form of state. The historical mission of proletarian democracy consists in creation of classless civil society in which egoistic interests of individuals will be subject to one common goal – creation of communism. Such society should be based on people’s self-administration, which has no political measure, so any struggle for political liberties, human rights, the right for meetings and strikes will not be topical. As a result, the society based on self-management will have no need for militia, bureaucracy, etc. A society, in which people will be unified by the common goal of life and labor, not by necessity for satisfying their egoistic materials needs, will be formed. According to V.I. Lenin (1975), such society is a true civil society, formation of which will lead to disappearance of proletarian democracy, i.e., disappearance of the state.

Results

In early 20th century an idea appeared that the sources of social integration, offered by classics of Marxism, disappear. The principle of priority of material or ideal activities, as guarantors of social integration, stops working. In the search for other ties of social integration, theoretical and methodological principles of symbolic interactionism were in demand – in which the basis of analysis of socio-cultural reality was social interactions in their symbolic, primarily language, expression. An active search for connection between social science and hermeneutics began.

The authors of the article consider language as a semantic horizon, built in the structure of everyday communications, which ensures mutual understanding, and use, according to Y. Khabermas (2001, 2003, 2007), the notion “living world”, but not in the hermeneutic sense but from the point of view of communication theory in which it is seen as a certain communication resource that creates inter-subject context of communicative action and mutual understanding.

The program of new approaches to analysis of social integration was formulated by Y. Khabermas (2003, 2007) in the following way, “Social and integration power in the scale of social integration should overcome such systemic and integration managing environments as finances and power”. From his point of view, resources of social integration and formation of social groups should be sought in mutual understanding and agreement between the subjects (Khabermas, 2001,). M. Heidegger supported the same position, “Coming to an agreement means thinking in the same way; when opinions differ, stating the position based in which agreement and disagreement are equal… As misunderstanding and lack of understanding are only queers of agreement, it should substantiate people’s coming to each other in their independence” (Rubel, 2006).
Orientation at mutual understanding, as the basis of social solidarity, led to hermeneutic methodology of social and humanitarian sciences, used, according to Y. Khabermas (2007), in pragmatism of C. Pearce and J. Mead, linguistic philosophy of L. Wittgenstein (1994) and J. Austin, and philosophical hermeneutics of Hans-Georg Gadamer (Khabermas, 2007). Solution of the problem of agreement between the people was viewed as a resource to their unification. The ties of the modern civil society were considered to be communication\(^2\) (Khabermas, 2001), not the process of production or serving the common idea. The notion of communicative action, introduced by Y. Khabermas (2007), meant the actions oriented at mutual understanding of acting individuals, their consensus and sought the aim of explaining how and why sociality is strengthened not by instrumental action, oriented at success, not by the goals of the leading class, not by the will of the majority, not by the common idea, but by social senses, created by communicative mind in communicative actions (Khabermas, 2007).

**Discussion**

It should be noted that preconditions of formation of the ideas of communicative actions were set by representatives of analytical philosophy (Wittgenstein, 1994), linguists (Ferdinand de Saussure, etc.), and semioticians. Thus, L. Wittgenstein (1994) developed the theory of “language games” as an inseparable component of socio-cultural interaction and wrote that “The term “language game” should emphasize that speaking a language is a component of activities or a form of life” (Wittgenstein, 1994).

It is known that the desire of L. Wittgenstein (1994) to formalize in the “language games” the basic unities “thoughts – words – actions” was not successful. Despite this, he started consideration of communication as “embodied sociality”, though this notion was not invented by him. The idea of language as “embodied sociality” was supported by post-modernists. Thus, Jean-François Lyotard stated that “social connections consist of language “turns” and “language games are minimum relations for existence of society”. Any human, regardless of his wealth, sex, or age, always finds himself in the communication point through which a lot of various messages come. These “points” are the place of formation of non-class and politics-free social senses which predetermine the possibility of social commonness.

It is known that the concept of “language games” was built on the idea that language creates inter-subject senses as certain artifacts and that the literal meaning of the phrase determines all conditions of the effective power of a speech act, so communicative participation in the living world, presented by the language picture of the world, requires only analysis of language. Language was proclaimed “firm soil” on which “I could meet Another, agreeing to something”.

Such position was criticized by a lot of philosophers, in particular by John Rogers Searle, whom Y. Khabermas (2007) quoted, “Even thoroughly analyzed offers are effective as to the common for participants of communication of background knowledge, which is constituent for the world in which this language society exists” (Khabermas, 2007). In other words, mutual understanding of participants of communication may take place only if the participants possess certain pre-reflexive background ideas with holistic nature. This means that language games were not the initial basic material of statements and functioned only so much as they envisaged certain preconditions as a necessary condition of possible

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\(^2\) Y. Khabermas (2007) saw communication as speaking when we “say something to someone else, so that another person understands what is said”. Speaking of the state of things does not mean participating in certain communication”
understanding and mutual understanding (Khabermas, 2007). Overcoming the monological foundations of philosophy of consciousness or philosophy of subject, Y. Khabermas (2007) combined the ideas of language games as “embodied sociality” and the idea of “living world”, which possesses the function of formation of context of communicative action, being a resource for the mutual understanding processes. Such combination of the ideas made an end to hypostatization of the educating power of language and the ideas that language sheds light on everything that exists in this world. The idea that language cannot become an enlightening power that sheds light on everything that exists in this world came to L. Wittgenstein (1994) who wrote, “When it is impossible to speak of something, it is necessary to stay silent” (Philosophy of science, 2005). Y. Khabermas (2007) called this statement of L. Wittgenstein (1994) a retreat to “silent observation of a mystic”.

Remaining a follower of the rationalistic idea of the value of the mind in culture, Y. Khabermas (2007) introduced the notion of communicative mind, which, unlike the scientific mind, focuses his efforts not on cognition but on search for compromises and mutual understanding, which are a condition of establishment of non-violent methods of social being. Therefore, restoration of the social component in the social sphere. Hence the attention of Y. Khabermas (2007) to free dialog between everyone as a sole means of establishment of agreement and peace in society. The dialog participants are based not on certain common values and norms but on individual and personal perspective, related to care for each “Self” and own living activities, which leads to restoration of the life component in the social sphere. A question arises: how do these individual and personal perspectives coordinate? According to Y. Khabermas (2007) achievement of peace and agreement requires from participants of the communication action to coordinate their intentions and accept mutual liabilities which perform the role of moral debt. In this case, persons and groups of people who enter communication have a possibility to express their interests and needs and introduce amendments into the acts of self-expression, which take into account desires and wishes of other people.

Conclusions

Liberal philosophers think that communicative dialog, as a sphere of openness, determines the vector of social development, aimed for agreement and peace. However, the practice of dialog discussion of the sphere of Public Relations (Khabermas, 2001) of actual economic, political, social, and cultural problems shows that its participants never come to an agreement. Thus, public and communicative & behavioral discussions on Russian TV are beyond the context of mutual agreements and responsibility, increasing the level of mutual enmity and disagreement. Of course, there appears a desire to proclaim the project of achievement of agreement and peace in civil society a form of liberal utopia. By the way, Y. Khabermas (2003, 2007) thought that the idea of communicative action, which ensures agreement in society, requires communicative wisdom from all its citizens, which is very difficult to achieve in the near future.

References


3 Moral debt in his understanding loses a metaphysical measure of a certain categorical imperative and acquires purely practical sense


Analog Sound Signals Digitalization And Processing

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Abstract

The article is devoted to the basics of analog signals digitalization and further processing of obtained digital discrete signals. Analog-to-digital conversion was analyzed, considering the constraints imposed by computers, as they are unable to work with infinite data. In the course of the article, the problems, arising through the signal discretization, were learnt as well as their solutions. The need of discrete signals transform from time domain to frequency domain was identified. The flaws of existing methods and the ways of their minimization were investigated, in order to get the capability of acquiring the signal that can be analyzed, processed and restored to analog form. The relevance of the article is confirmed by the amount of researches on adjacent themes, in great amount of human activity spheres, as: medicine, geo-, echo-, radiolocation, music and etc.

**Keywords:** digitalization and signal processing; Fourier transform; filtration; application of window functions; linear systems.

Introduction

Digitization of analog signals includes the following basic operations: sampling, quantization, coding. Discretization is the crushing of a continuous signal in time. The time interval is called the sampling interval. The reciprocal of the interval between fractions is called the sampling frequency. Accuracy of digitization by sampling depends on the frequency of crushing. The higher the sampling frequency, the fewer differences between the analog signal and its discrete copy. Quantization is a substitution of the value of the signal reading by the nearest values from a set of fixed quantities, quantization levels. Quantization is the rounding of the count. The quantization levels divide the range of possible changes in signal values by a finite number by an interval - quantization steps. Digital coding can only be used if the quantum signal has a finite number of values. Digital encoding operations are performed by analog-to-
digital converters (integrated circuits). In world practice, there are many ways of coding signals, including multi-component video signals, composite signals using PAL and NTSC systems, which are sampled at 4fsc, etc. The research proposes a modern method of digitizing an analog signal and the subsequent processing of a discrete copy of the audio signal. During the work on the digitization of sound, shortcomings and computer limitations were revealed. A variant of the transformation from the time domain into the frequency domain is considered. When processing and digitizing the signal, mathematical and information methods for minimizing distortions are proposed. The method of digitization proposed by the authors has practical significance. The results of approbation give a higher quality of digitizing the signal. Further, a more detailed description.

Materials and Methods

The physical properties of sound from a physical point of view, sound is a wave caused by vibration of a body, e.g., strings. Important for analyzing the sound parameters are: pitch, volume and timbre. Example of sound waves and overtones is presented in figure 1.

![Sound waves and overtones](image)

Figure 1. Sound waves and overtones

The height of audible sound is the frequency of the sound wave, the higher it is, the higher the perceived sound. For the loudness of sound and amplitude of the wave, the greater the amplitude, the louder the sound. Timbre is the property that allows us to distinguish the same height and volume of the sounds. The timbre is defined by overtones, which appear due to the acoustic properties of the environment and of the body that makes a sound (Pozdnyakova & Soldatov, 2017; Sergeyev, 2011; Shmakova, 2013; Soldatov, 2017).

Results and Discussions
Digital Audio Recording

When recording, sound waves vibrate the microphone's membrane, which converts them into analogous oscillations of the electric current. This signal is fed to an analog-to-digital converter (ADC), which digitizes the original analog signal with a specified sampling rate. The analog signal is mathematically composed of a continuous infinite number of points - the amplitude values, during the measurement it is possible to isolate only a finite number of values at discrete instants of time, i.e. time quantization is performed, the number of quantization levels is also called the sampling depth, which is expressed in bits. The sampling frequency is the sampling frequency, measured in hertz. The greater the sampling depth and the higher the sampling rate, the more accurate the digital signal corresponds to the analogue. According to the Kotel'nikov-Nyquist-Shannon theorem, an analog periodic signal having a finite spectrum can be uniquely reconstructed without distortion and loss from its readings taken at a frequency greater than or equal to twice the upper frequency of the spectrum, called the sampling frequency. For example, a guitar has a frequency range from 82 Hz to 1175 Hz and an overtone of up to 12 kHz, in order to get the original sound of the instrument on record, it is necessary to record at a sampling frequency of 24 kHz. However, the application of this theorem does not guarantee the absence of distortion. For example, when recording a guitar processor created interference at a frequency of 19 kHz. In this case, at the right sampling frequency, the aliasing effect will occur, i.e. The interference will be reflected in the lower part of the spectrum - approximately at a frequency of 5 kHz. Figure 2 shows the aliasing effect. The blue line is a discrete signal, the red line is an interference that is above half the sampling frequency, reflected on the lower part of the spectrum.

![Figure 2. The aliasing effect](image-url)
In order to avoid the aliasing effect, it is possible to increase the sampling frequency so that the entire spectrum of the signal fits below half the sampling frequency. However, this approach will greatly increase the amount of recorded data, and besides it is impossible to predict at what frequency there will be interference. Therefore, the second method is preferable: the use of low-frequency and high-frequency filters. However, to work with them, we need to get the frequency spectrum of the signal.

**Processing of the Audio Signal**

To obtain the frequency spectrum, the Fourier transform is used. The Fourier Transform is an operation that associates the original function with a real variable of another such function. The new function describes the amplitudes of the elementary components of the original function - harmonic oscillations with different frequencies. Those. in the case of signal processing, the Fourier transform takes the representation of the signal function in the form of time series and maps it to the frequency spectrum, this method is called discrete Fourier transform (DFT). In the classical form, the DFT can be written as on the formula 1:

\[
F(k) = \sum_{n=0}^{N-1} f(n) \cdot e^{-j \frac{2\pi}{N} n k}, \quad k = 0, \ldots, N - 1, \quad (1)
\]

Where:

\( N \) – the number of signal values measured over a period, as well as the frequency spectrum multiplicity.

A direct DFT can be represented in terms of the real and imaginary components, formulas 2 and 3:

\[
Re(F(k)) = \sum_{n=0}^{N-1} f(n) \cdot \cos \left( \frac{2\pi n k}{N} \right), \quad k = 0, \ldots, N - 1
\]

\[
Im(F(k)) = -\sum_{n=0}^{N-1} f(n) \cdot \sin \left( \frac{2\pi n k}{N} \right), \quad k = 0, \ldots, N - 1
\]

As you can see from these formulas, the transformation decomposes the signal into sinusoidal components - harmonics. A feature of the DFT is that a discrete sequence can be obtained by a sum of functions with different composition of harmonics, i.e. the decomposition is ambiguous. Because of this, high-frequency components appear in the second half of the spectrum, which are a mirror image of the first part. Figure 3 illustrates the mirror effect:
In order to get rid of this effect, usually the right side of the spectrum is removed, and the signal amplitudes of the first part of the spectrum are doubled. The amplitude of the constant component is the average value of the function for the selected time interval and is calculated by the formula 4:

\[
Am(F(k)) = \frac{1}{n} \times \sqrt{Re(F(k))^2 + Im(F(k))^2}
\]  

(4)

Amplitudes and phases of the frequency components of the signal are determined by the following formulas (5), (6):

\[
Am(F(k)) = \frac{2}{n} \times \sqrt{Re(F(k))^2 + Im(F(k))^2}
\]  

(5)

\[
Phase(F(k)) = \arctan\left(\frac{Im(F(k))}{Re(F(k))}\right)
\]  

(6)

The DFT algorithm by the formula looks like this:

Figure 3. Mirror effect, under Fourier transform
Figure 4. The abstract DFT code

As you can see, this algorithm uses two loops, one embedded, in the worst case, the complexity of this algorithm will be $O(N^2)$, respectively, this algorithm will work very slowly on large amounts of data. It is possible to significantly increase the speed of DFT execution by applying the DFT algorithm, whose worst-case complexity is $O(N\log(N))$. This is achieved by splitting the original array of numbers into two, followed by a recursive calculation of each array of DFT numbers and combining the results of the calculations. There are two basic algorithms of the FFT: with time-thinning and frequency.

**Thinning by Time**

The initial array of numbers (N) is divided into two sets of numbers with N/2 samples: even $f_1(n) = f(2*n)$ and odd $f_2(n) = f(2*n+1)$. The DFT formula is transformed into the formula (7):

$$F(k) = \sum_{n=0}^{N-1} f(n) * e^{-j\frac{2\pi}{N} n \cdot k} = \sum_{n=0}^{N-1} f_1(n) * e^{-j\frac{2\pi}{N} 2n \cdot k} + \sum_{n=0}^{N-1} f_2(n) * e^{-j\frac{2\pi}{N} (2n+1) \cdot k}$$

(7)

The last expression can be transformed into the formula (8):

$$F(k) = \sum_{n=0}^{N-1} f_1(n) * e^{-j\frac{2\pi}{N} n \cdot k} + e^{-j\frac{2\pi}{N} k} * \sum_{n=0}^{N-1} f_2(n) * e^{-j\frac{2\pi}{N} n \cdot k}$$

(8)

As a result, we obtain expressions for determining the function at two frequency intervals, formulas (9) and (10):

```java
For(int k= 0;k<N;k++){
    ReF[k] = 0;
    ImF[k] = 0;
    For(int i=0; i<N; i++){  
        ReF[k]=ReF[k]+X[i]*cos((2*pi*i/N)*k);
        ImF[k]=ImF[k]-X[i]*sin((2*pi*i/N)*k);
    }
}
```
\[ F(k) = \sum_{n=0}^{N-1} f(n) e^{-j \frac{2\pi}{N} nk} + e^{-j \frac{2\pi}{N} pk} \sum_{n=0}^{N-1} f_2(n) e^{-j \frac{2\pi}{N} nk} = F_1(k) + e^{-j \frac{2\pi}{N} pk} F_2(k), k = 0, \ldots, \frac{N}{2} - 1 \]  

When you combine the results of calculating these functions, you get the signal spectrum. However, the spectrum is filled with useful information by exactly half, up to \( N/2 \), as follows from the Nyquist-Kotel'nikov theorem.

**Thinning by Time**

Thinning in time works on the same principle, with small differences, according to the formula (11):

\[ F(k) = \sum_{n=0}^{N-1} f(n) e^{-j \frac{2\pi}{N} nk} + \sum_{n=0}^{N-1} f_2(n) e^{-j \frac{2\pi}{N} nk} + \sum_{n=0}^{\frac{N}{2}-1} f_2(n) e^{-j \frac{2\pi}{N} (n+\frac{N}{2}) k} \]  

What is transformed into the formula (12):

\[ F(k) = \sum_{n=0}^{N-1} (f_1(n) + e^{-j \pi nk} f_2(n)) e^{-j \frac{2\pi}{N} nk}, \quad k=0,\ldots,N-1 \]  

As a result, we obtain the following expressions for even and odd samples, formulas (13) and (14):

\[ F(2k) = \sum_{n=0}^{N-1} (f_1(n) + f_2(n)) e^{-j \frac{2\pi}{N} nk} \]  

\[ F(2k+1) = \sum_{n=0}^{N-1} (f_1(n) + f_2(n)) e^{-j \frac{2\pi}{N} nk} \]  

The application of this algorithm is analogous to the application of the algorithm, which is thinnnable in time, the complexity of the algorithms and the result are identical.

The main disadvantage of the FFT is that the amount of input data must be a power of two. However, the FFT is much faster and somewhat more accurate than calculating the DFT directly by the formula due to the lesser complexity of the algorithm and reducing rounding errors, reducing the number of operations.
Window Functions

Performing the discrete Fourier transform by one of the above methods, we obtained the amplitude-frequency spectrum of the signal. However, spectral analysis in theory is intended for continuous functions, and we work with a limited set of data, otherwise the execution of this transformation would take an infinite amount of time. And there is a regularity: the larger the frame size (the amount of data per time passing through the DFT), the better the frequency resolution (the most accurate definition of the frequencies composing the signal) we get, but the worse the resolution in time (worse performance). In practice, high-frequency components appear in the cut-off areas of the function, the window functions that smooth the signal in each analyzed segment are applied to combat them. The application of the window function is to pre-multiply the samples of the input signal to it and only then the spectrum is calculated. When applying the DFT, a rectangular window is automatically used, its function is as follows:

```c++
public static double Rectangle(double n, double frameSize)
{
    return 1;
}
```

Figure 5. The C++ code of rectangular window

As you can see from the code above, it does not in any way smooth out the incoming function, but only limits the frame size. Figure 6 shows a rectangular window, and side lobes (artifacts appeared at the cut):
Figure 6. Rectangular window

It is clearly seen from the figure that the larger the frame size, the smaller the side lobes, and the closer the spectrum to the delta function (single pulse). In the example above, the side lobes did not cause any inconvenience, but there may be a situation where a signal with a smaller amplitude is lost in the side lobes, as in Figure 7:
Figure 7. The smaller amplitude signal is lost in the side lobes

In order to avoid this, it is necessary to use window functions with anti-aliasing. There are a lot of such functions, and in order to choose the right one, one must adhere to certain rules. We introduce the formulas (15), (16), and (17), which will help in the calculations:

\[ \Delta f = \frac{F_s}{N} \text{ - distance between spectral readings, where} \]

\[ F_s \text{ - sampling frequency;} \]

\[ N \text{ - number of signal samples (FFT size).} \]

\[ D = 20 \log_{10} 2 = B \times 6.02 \text{ dB, where} \]

\[ D \text{ - dynamic range of the signal in decibels;} \]

\[ B \text{ - number of bits of ADC.} \]

\[ \Delta F = \Delta F_0 \times \Delta f \text{ - width of the main lobe in hertz, where} \]

\[ \Delta F \text{ - the normalized width of the main lobe of the spectrum, the tabulated value.} \]

When choosing a window function, it is necessary to consider the following:
the level of the side lobes of the spectrum of the window function must be less than the specified dynamic range, the level of the side lobes is tabulated, the dynamic range is calculated by formula (16); If a specific resolution is specified for the frequency \( \delta f \) at which you want to analyze the spectrum, you must fulfill the condition: \( \delta f > \Delta F \) or \( \delta f > \Delta F_0 \ast \Delta f \). With the given window selected in step 1, \( \Delta F_0 = \text{const} \), the fixed sampling frequency, in order to increase the frequency resolution it is necessary to increase the size of the FFT sample, using the following formula (18):

\[
N > \Delta F_0 \ast \frac{F_s}{\delta f}
\]  

(18)

Next, in figures 8 and 9 respectively present examples of wrong and right the calculated window parameters:

![Figure 8. The Blackman-Nattal window, sample N = 1024](image-url)
Figure 9 shows that all the frequencies were determined correctly, but we had to sacrifice the resolution in time for the sake of not losing the frequency at 222 Hz.

**Filtration**

After receiving the signal spectrum smoothed by the window function, it is possible to start filtering the aliasing, which was mentioned above. The principle of the filter is as follows: the cutoff frequency is set, all frequencies that are less than or equal to this frequency pass through the filter. And for all frequencies above the cutoff frequency, the filter reduces the amplitude to zero.

In order to move on you need to understand the principle of operation and application of the filter. To do this, we introduce the notion of a discrete linear system. A discrete linear system is any system for which the response of a system to the sum of impacts is equal to the sum of the responses to each action that operates with discrete signals. For it, the linearity property must hold: if \( x_1(t) \rightarrow y_1(t) \) \( x_2(t) \rightarrow y_2(t) \), then \( a \cdot x_1(t) + b \cdot x_2(t) \rightarrow a \cdot y_1(t) + b \cdot y_2(t) \).

Since the recorded sound, as mentioned above, is a digital discrete signal, you can display it as in Figure 10:
Figure 10. Digital discrete signal

For understanding how the system transforms input in output, consider the response of the system is the digital Delta function. The Delta function is a signal of the form \[ n = \begin{cases} 1, & n = 0 \\ 0, & n \neq 0 \end{cases} \], i.e., the unit impulse, figure 11.

Figure 11. Delta function
Obviously, any discrete signal can be decomposed into a sum of such functions, shifted in time. For example, an infinite signal \( x[n] \) one can imagine how \( x[n] = \sum_{-\infty}^{+\infty} x[i] \cdot \delta[n - i] \). In this equation, the delta function is the basis function, and \( x[i] \) are their coefficients. Next, consider the response of the system to the supplied delta function. Let the output signal be \( h[n] \), i.e. \( \delta[n] \to h[n] \). The process is shown in Figures 12 and 13.

Thus, it becomes clear that, knowing the response of the system to the delta function, it is possible to calculate the response of the system to any input signal and, correspondingly, the output signal. Since any input signal is a combination of time-shifted delta functions \( h[n] \), the output signal will be a combination of time-shifted response functions, this follows from the linearity property described above. We know the response of the system \( h[n] \) (in the figure above), the input is given \( x[n] \) in Figure 14, calculate the output signal.
The output signal \( y[n] \) will be as follows, figure 15:

In addition to the method described above, the response of a linear system can calculate the value of each point in the resulting signal as a weighted sum of a number of neighboring points of the original signal. The coefficients of this sum coincide with the impulse response of the linear system inverted with respect to the point 0. We can derive the formula (19):

\[
y[n] = \sum_{k=-\infty}^{+\infty} x[n-k] \ast h[k]
\]  
(19)
This operation is called a convolution, and the function $h[k]$ is called the convolution kernel or the impulse response of a linear system.

Direct calculation of convolution requires $N \times M$ multiplications, where $N$ is the length of the original signal, and $M$ is the length of the convolution core $O(N^2)$, the complexity of the algorithm in the worst case is very slow. However, there is a method of rapid convolution.

**Results**

Convolution theorem: convolution in the time domain is equivalent to multiplication in the frequency domain; multiplication in the time domain is equivalent to convolution in the frequency domain.

Proceeding from the above-described theorem, to perform convolution, it is enough to translate the signals into the frequency domain by means of FFT, multiply their spectra and transfer them back to the time domain. To convert to the time domain, the inverse FFT is used. To perform an inverse FFT, replace (20) with:

$$
F(k) = \sum_{n=0}^{N-1} f(n) \ast e^{-j \frac{2 \pi n k}{N}}
$$

(20)

On the formula (21):

$$
F(k) = \sum_{n=0}^{N-1} f(n) \ast e^{-j \frac{-2 \pi n k}{N}}
$$

(21)

Returning to the topic of filters, performing multiplication of spectra under convolution is just called filtering. When the spectra are multiplied as complex numbers, the amplitudes of the harmonics of the original signal and the convolution core are multiplied. Thus, it becomes possible to change the signal spectrum. In the general case, the filter changes the amplitude of the harmonics and from the phase in the signal spectrum, however the filters can be designed so that they do not change the phase of the signal. Such filters are called filters with a linear phase. The main property of the filter is its frequency and phase characteristics, they show how the filter affects the original signal.

If the coefficients are selected correctly, when carrying out the convolution (filtering), it will be possible to obtain a simple low- or high-pass filter with a finite impulse response (FIR). There are also filters with infinite impulse response (IIR), such filters use their outputs as a stroke, and with their application it is possible to filter the signal in real time, but this is too much material for this article, and therefore will not be considered.

**Conclusion**

The described technology of improving the quality of sound digitization was appreciated. The assessment made technicians organization "Scientific-production complex, scientific-research Institute of distant radio", Moscow. Used mathematical tools in practice improving the quality of digitized sound. These studies were based on the analysis of works by Russian and foreign authors such as D.G. Artemov & V.E. Ponimatkin (2017), R.R. Babayan & V.P. Morozov (2017), S.V. Kashirin (2015, 2016), E.A. Khitskov.
et al. (2017), V.A. Zhirov (2017), S.V. Veretekhina et al. (2017), S.V. Veretekhina (2013), S.V. Veretekhina, A.V. Medvedeva & E.A. Khitskov (2017), E.G. Klimova, S.B. Medvedev & A.N. Savostyanov (2016), N.Yu. Kudryashov, V.A. Kuklin & K.Yu. Trifonov (2017), V.E. Lichtenstein, G.V. Ross & M.G. Beach (2014), A.N. Maloletko & N.E. Maloletko (2016), N.R. Popov & I.N. Popov (2009), A. Solonina (2009), G.M. Kvon et al. (2017). The efforts of these scientists formed a fundamental basis for the study. The technology describes the processing of discrete digital signals. The technology involves the conversion of analog signals to discrete digital signals. Additionally, computer limitations are considered. Identified problems that arise when sampling the signals. The ways of their solution are given. Identified the need to transform discrete signals from the time domain into a frequency region. The perfection of the described technology lies in the necessity of digitizing the signal with high quality of its recovery into an analog signal. In the era of the digital economy, all types of digitization are of great importance, because in the future there will be a need to visualize images and build a virtual augmented reality using an audio signal.

References


Student Research Activity Organization In Universities Of Art And Culture

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Abstract

The relevance of the paper is due to the appeal to the multidimensional problems of student professional development of culture and art universities, taking into account the public request for competent specialists who have fundamental theoretical and practical training. The purpose of the paper is to reveal a complex of didactic and psychological-pedagogical measures aimed at the productive organization of student research activities of future specialists in the field of culture and art. The authors determined the directions for the student research activities organization: the disclosure of scientific work potential within the framework of the profession chosen by students; introduction of technologies for the development of creative abilities into the educational process and the individual creative potential liberation; activation of student independent scientific research activities in the context of interaction with various cultural and art institutions; interrelation of traditional and innovative methods for humanitarian training of future specialists in the field of culture and art; implementation of student research activities pedagogical model developed in the research. In the structure of student research activities, several interrelated components have been identified: motivational; creative; communicative one. The principles for achieving consistency and structuring of training courses in student research process are defined. The professiogram of the student-researcher is developed. The results of
experimental work on the introduction of the pedagogical model for the organization of student research activities in the conditions of universities in the sphere of culture and art are described.

**Keywords**: student research activities, pedagogical accompany, professiogram, creative potential, motivational components, communicative component, professional self-determination

**Introduction**

Prospects for higher education development in the field of culture and art are associated with the implementation of several key components, namely:

- Creation of the educational environment of the university, which implies the lessons' content deepening by strengthening the humanitarian component, involving students acquaintance with the culture values, developing their readiness for creative self-realization in a multicultural environment;

- Support of student independent research activities aimed at the formation of a sustainable motivation for personal and professional development;

- The development of future specialists in the field of culture and art as competent professionals who are able to adapt organically enough in modern sociocultural conditions and that have fundamental theoretical and practical training.

The experience of pedagogical work with students—future specialists in the field of culture and art proves that in many respects the problems solution facing the higher education is possible if the organization of student scientific research activities is planned and meets the modern requirements, and creates the conditions to form the integral world picture; socio-cultural reflection, the qualities of professional stability and goal-setting. In addition, students who are actively engaged in independent scientific research, possess the growing motivation for self-development, self-realization in the chosen profession, as in this way in the development of knowledge and professional competencies they experience transfer of their content to the level of personal senses (Flier, 2000).

Of particular importance are research projects related to the educational field "Art", as this area can provide students- the researchers with the opportunity to study, immerse, comprehend the essence of culture, a modern multicultural society development and understand their professional goals in the process of cultural values' broadcasting to society, which is a mission of a specialist in the field of culture and art (Stukalova, 2016).

Thus, the student research activities can be called one of the factors determining the development of higher education in the field of culture and art. This activity is a process of cultural values interiorization, the development of a sustainable motivation for personal and professional development, the development of oneself as a "man of culture" with readiness for creative self-realization in the chosen profession of a specialist in the field of culture and art and for implementation of educational activities in a modern multicultural space.

In general, the student research activities reflect such manifestations in the formation of a professional, as:

- The creative activity;
- Readiness to transform in the minds the subjective images of reflected objects, their significance and meaning for resolving real contradictions in the circumstances of people's livelihood, for the formation of new goals, the discovery of new means and plans for their achievement;
- The ability to resolve problem situations that require an active change of the conditions in which this or that situation is specified.

In the process of independent scientific research, the student gets the opportunity to solve the most non-trivial creative task by means of unusual ways out of reasoning with the help of methods not known to him before (Lipskaya, 2006).

In the works of D.B. Bogoyavlenskaya (2002), V.N. Druzhinin (2004), A.V. Khutorskoy (2003) the criteria are described that characterize the high level of the individual's readiness for this type of activity. Among the indicators revealed by scientists, the following are of particular interest:

- Presence of positive motivation, based on the manifestations of independence of students' knowledge acquisition, desire to receive satisfaction from the research process and its results;
- Manifestation of independence, reflected in the ability to plan, organize their activities, think and act independently;
- The ability to master new knowledge, technology;
- Self-expression of the individual in various forms of the results presentation obtained in the study;
- Qualitative level of professional knowledge;
- The manifestation of creative thinking, characterized by the ability to generalize and abstract;
- Quickness, flexibility, mobility of cognitive processes, mental operations, forms of thinking, diverse experience of activity;
- The ability to modify, combine, vary their own research activities in a non-standard way;
- Goal-setting, personality adherence to the professional / creative task set for oneself, purposefulness;
- Presence of communicative culture and developed skills of communicative competence;
- Personal qualities: initiative, high self-organization, diligence (Mizell 2010).

Despite the obvious influence of the student research activities on the productive solution of professional development problems at all its stages - from professional choice, self-determination to professional adaptation and improvement, in higher education institutions in the sphere of culture and art, this component of the educational process is not actively developing (Kagan, 1998). In many ways, this is due to the insufficiently thoughtful organization and student research activities’ modeling, the prioritization of the festival-competitive movement, without taking into account the significance of theoretical training level rising. Meanwhile, for future specialists in the field of culture and art, as well as for future physicists, chemists, mathematicians, it is very important to harmonize the notion of "self as professional" with the notions of the profession, the awareness of one’s own role in achieving success, the acquisition of professional skills and building one’s own future, associated with self-realization and self-actualization in the profession (Kulyutkin & Suhovskaya, 1996). It is these tasks that are solved by an active, personally significant scientific and research activity, organized in the educational environment of the university and having qualified pedagogical accompany. This paper summarizes the experience that can be useful to professionals working in this field.

Materials and Methods

Methods of research

The modeling of student research activities organization is based on the study of the socio-psychological characteristics of students at universities of culture and art. It is established that, in addition to the features which are common to this age, students who have chosen the culture and art as their profession have certain features that determine the choice of directions for independent scientific research. Student age, according to the research of the psychological school by B.G. Ananyev, is a "sensitive period for the development of man basic socio-genetic potential" (Ananiev, 2001).

The study of students’ personal changes actively engaged in scientific research was conducted on the basis of the following methods: a questionnaire for assessing the syndrome of mental burnout, a scale of depression (according to T.I. Balashova, O.P. Eliseev) (Bespalko, 1995), Beck’s questionnaire for diagnosing depressive states, the Tsung depression scale (Bespalko, 1995), a technique for assessing psychological activation, interest, emotional tone, tension and comfort (according to N.A. Kurgansky and T.A. Nemchin) (Istratova, 2006), anxiety test Ch.D. Spielberger (Khanin, 1976) a technique for measuring anxiety level by Taylor, an anxiety test by V.M. Astapov (Istratova, 2006), a technique for detecting the degree of low mood severity - sub-depression (according to V.Zung – T.N. Balashova) (Bespalko, 1995), the technique "Differential scales of emotions" (according to K. Izard (1999).

The conducted research has proved that students, motivated to improve their theoretical level on the basis of inclusion in scientific activity, possessed indicators for the criteria of depressiveness, anxiety,
feelings of loneliness which were reduced. Mastering the theory allows looking at the problems of one’s own professional development from a philosophical point of view, thereby evaluating them more adequately.

Experimental base of the research

The students of the Moscow State Institute of Culture (480 people): the faculty of socio-cultural activity, the choreography faculty, the faculty of pre-university training became the experimental base of the research. Also, a leading group was defined- students, who constantly showed high rates according to the selected criteria of research and professional development. This group included 18 students of the choreographic faculty and 25 students of socio-cultural activities faculty.

Stages of the research

At the organizational and preparatory stage of the experimental work, a sociological survey was conducted among the applicants and graduates of such high schools in the sphere of culture and art in Moscow, as Moscow State University of Culture and Arts, All Russia State Institute of Cinematography named after S. A Gerasimov, Academy of Watercolors and Fine Arts named after Sergey Andriyaka - 325 people for 3 years were surveyed (2014-2017). The purpose of the interviews was to compare the expectations of the entrants from higher professional education in the sphere of culture and art and the degree of satisfaction with the education received among the graduates.

A generalization of the obtained results allows us to conclude that:

1. The majority of applicants entering the university of culture and art believe that the most interesting area of personal and professional development is performing (vocals, dance, film and television actor), creating of the advertising, directing. At the same time, many of them overestimate their creative abilities, unclearly represent aspects of professional development, most of all dreaming of popularity. The level of general scientific training of applicants is low (48%), medium (36%), high (16%) - these data are taken from the analysis of student's introductory work and interview. The concepts of «profession's mission", "professional duty", "culture creating", "spiritual leisure" are unfamiliar for most entrants, the formulation of these concepts causes a noticeable difficulty. Only 6% of students were able to respond to these questions in a precise and profound manner, singling out the value component in the professional activity of a specialist in the field of culture and art ("it is important for people to disclose the meaning of morality", "society should be attached to art", "we have little social advertising, I want to do just that and make the world more kind and patient ", etc.). The knowledge component of the educational process took only the third place after the component of professional skills and student public life. In general, the expectations from the educational process in the University of Culture and Art among the majority of applicants were overstated, inadequate to the real state of affairs, which did not correspond to their own abilities and needs.

2. Graduates critically evaluate the effectiveness of academic work's and research activities' organization in universities of culture and art. To the question of the questionnaire: "Would the students have chosen
their specialty again?" 56% answered affirmatively. The reasons for the dissatisfaction of graduates can be summarized as follows:

- dissatisfaction with the training organization (there is no good educational and methodical literature - this claim was contained in 52% of questionnaires, there is no free access to modern information technology - 43%, lessons on general scientific disciplines are boring and monotonous - 86%, many training courses are sketchy and unclear, why they are needed in the future professional activity - 78%, little time is devoted to independent creative tasks, projects, etc. - 89%);

- A critical assessment of the relationship with teachers (68% consider that authoritarianism and indifference dominate, teachers are not eager for creative interaction, their task is "to lecture their lectures and no more" - 54%, teachers are incompetent and do not improve their competence level (especially in the field of contemporary art) - 68%);

- Poor organization of research work (there are no creative meetings, joint discussions, scientific projects; there is no support for teachers - 86%).

On the question of whether graduates consider that their level of education and theoretical training to be appropriate to modern requirements, in average 43% answered affirmatively. This echoes the affirmative answer of the graduates to the question of the questionnaire: "Does the process of learning contributes to the adaption to life and professional activity in modern conditions?" - 47% of respondents. At the same time, 40% of the graduates surveyed are optimistic about the possibility of their self-realization in their chosen profession, 23% - on average are uncertain; 37% of graduates are ready to work, regardless of their specialty, with the main goal to get a good salary.

The dominance of material values was revealed, aspiration to achieve the goal by any means (41% of respondents noted that "the main thing in work is how much they pay for it", and 44% of respondents believe that the modern world is cruel in order to survive and succeed, it is necessary to fight for one's own place in it, and even miss some norms of morality). In general, the degree of satisfaction with the education received can be considered lower than the average one (38-40%). Most graduates gave formal answers to questions about the essence of the "professional mission", "professional duty", the value component of the chosen specialty turned out to be significant only for 15% of the respondents.

Thus, the hypothesis of student independent scientific research activity activation, qualitative changes in the content of education and principles of lessons organization was confirmed, which requires the building of a special educational environment and reliance on the pedagogical model of student research activities organization in a university environment in the sphere of culture and art. The structure of the experiment and the change in its stages were influenced by the fact that students of all courses were involved in its conducting, from the moment they entered the university to the graduation.

At the forming stage of the experiment, a set of didactic and psychological-pedagogical measures was introduced aimed at the productive organization of research activities of students-future specialists in the field of culture and art. In the educational environment of the university, such areas of student scientific research activities organization were carried out, such as: the disclosure of scientific work potential...
within the chosen profession; the introduction of technologies for the development of creative abilities and the emancipation of the individual’s creative potential; activation of student independent scientific research activities in the context of interaction with various cultural and art institutions; interrelation of traditional and innovative methods of humanitarian training of future specialists in the field of culture and art. Also, a pedagogical model of student research activities was implemented.

At the control stage of the experiment, the dynamics of student professional development was studied; the correlation of this dynamics with the activity and quality of their research work was assessed. The assumption was confirmed about the need to re-emphasize students' motives for creative self-realization in independent researches, which reveals for them the personal significance of achieving high educational goals of their profession, self-actualization in cultural creation.

Results

In the experiment it was revealed that the students’ value attitude toward the profession changes in the course of their active involvement in independent research activities. Among the students of the experimental group, on average, it increases by 15-20%. The students of the leading group show a high level of value attitude towards the profession - 95%. This is manifested in their activities. Pedagogy of art as an area of application of knowledge and professional development has become popular with the majority of students of the leading group. They organized choreographic and art studios, distance learning courses for novice screenwriters, children's film festivals and exhibitions of photo works, etc.

The study identified:

a) the principles of pedagogical accompany of student research activities in the educational environment of culture and art university, which include the following components:

- structuring and selection of student scientific projects’ content;
- transferring of independent scientific research content from the level of values to the level of personal meanings, the integrity of the education content sources;
- The use of innovative educational technologies (creation of a dialogic lesson space, design technologies, etc.);
- the correlation between the dynamics of culture and personality;
- activation of self-development of the person;
- Determination of scientific projects’ content by leading cultural traditions, national and universal values, moral and aesthetic ideals;
- dialogue of cultures;
- Development of motivation for professional development.
b) criteria for high-level scientific research activities of students, namely: 1) the organic and productive mix of general cultural, social, teaching and upbringing components in each student's study or project; 2) achievement of effective conditions for the qualitative research activities of each student, based on the principles of the person-oriented approach and the deepening of the lessons' content in the process of working on projects by strengthening the humanitarian component, involving students in the values of culture and developing their readiness for cultural creation, creative self-realization in a multicultural space.

In the course of longitudinal monitoring of graduates of culture and art higher educational institutions, components were determined on the composition of the professiogram of the student-researcher (table 1). Profession program is a systemic description of the pedagogical, social, psychological and other requirements which are necessary for the formation of a modern highly professional student-researcher in the field of culture and art.

Table 1. Professiogram of the student-researcher

<table>
<thead>
<tr>
<th>Professionally significant qualities of student-researcher</th>
<th>Personal qualities of a student-researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>psycho-pedagogical, cultural, art and methodological knowledge</td>
<td>social maturity, activity, awareness</td>
</tr>
<tr>
<td>the desire for professional development</td>
<td>cognitive interest</td>
</tr>
<tr>
<td>professional skills in dealing with information</td>
<td>purposefulness and initiative, information competence</td>
</tr>
<tr>
<td>communicative abilities and skills</td>
<td>endurance, self-control, self-regulation, communicative culture</td>
</tr>
</tbody>
</table>
readiness to master new areas of knowledge in team work on scientific projects | justice, sincerity

Reflexive research position | tact, high level of sociocultural reflexion, self-regulation, emotional empathy, self-criticism, adequate self-esteem

organizational and oratorical skills | culture of speech, ability to plan, developed goal-setting

skills in working with theoretical literature | general erudition, intellect

ability to present the results of research adequately, reasonably and convincingly | emotionality, skills of working with media technologies, artistry

ability to analyze, compare facts and generalize | developed logical thinking, concentration, accuracy, responsibility

It was also found that among the manifestations of the high level of student research activities for the future professional activity of a specialist in the field of culture and art the most significant are the following: readiness for joint productive creativity and scientific projects, the ability to engage in dialogical communication in the process of research activity, quick inclusion in research process, high level of professional adaptation, motivation for creative self-realization in the chosen profession, the desire for active research and development. All the above points determine the effectiveness of research activities organization in the educational environment of the university in the field of culture and art, which is based on recognition of the active creative nature of each student, as the source of the personality development is not outside it, but within it.

The considered aspects allowed more clearly structuring the pedagogical model of the student research activity in the sphere of culture and art (see Figure 1).
Purpose: high level of research activity of future specialists in the field of culture and art, motivated to become oneself as a "man of culture", i.e. a man of free, humane, creative thinking, spiritually rich, ready to carry out creative and educational activities.

Objectives: 1) development of creative and logical thinking of future specialists; 2) expansion and deepening of motivation for independent research, understanding of their professional activity as a broadcaster of cultural experience; 3) the formation of ideas about research activity as an integral part of professional development, 5) the formation of socio-cultural and professional readiness for activities in the field of culture and art.

METHODS

| traditional | innovative |

Directions for implementing the model:
- Disclosure of the cultural potential of the chosen profession by the students;
- Introduction into the educational process of the newest technologies for development of creative abilities and emancipation of the individual's creative potential;
- Activation of student independent research activity in conditions of interaction with various cultural and art institutions;

II Ped. condition:
A qualitative change of pedagogical work with students.

I Ped. condition:
Humanitarization of the education content.

Components of CCD:
- motivational;
- creative;

Criteria for assessing the quality of student research activities:

Principles of pedagogical accompany of students' research activities:

Integration by the students of scientific knowledge mastering about culture (including cultural heritage, perception of moral and aesthetic ideals and value system) and art, cultural and theoretical experience, orientation to independent search for new ideas and directions that are significant for improving the level of professional activity, to practical implementation of acquired knowledge, personal and professional development in a multicultural space; a high level of...
Figure 1. Pedagogical model of student research activities organization

In the course of the experiment, the pedagogical conditions for the implementation of this model were structured.

I pedagogical condition: Humanitarization of the education content of future specialists in the field of culture and art.

Humanitarization provides not only a high quality of knowledge, but also develops moral orientations, a culture of personality, which, consequently, the ability for thoughtful responsible and productive research activity implies, on the one hand, the development of communication skills with theoretical sources, and, on the other hand, the ability to make up a dialogue through these texts with their authors, as a humanitarian educated person is in constant, verbal (mental or direct) dialogue with people who lived and worked before him, is able to understand them, to join the world of their thoughts and feelings (Stukalova, 2016).

The first pedagogical condition for the implementation of the model also includes:

• Integration of traditional and innovative pedagogical methods and technologies;
• balanced ratio of lessons on development of psychophysical, intellectual, aesthetic and ethical spheres of students;
• the possibility of student independent individual and group work on creative and research projects and their presentation to the judgment of spectators and colleagues.

The innovative pedagogical methods (Zeer & Meshkova, 2008) of the humanitarization of the education content include methods aimed at the profound development of the personality, the awakening and formation of abilities for self-development, self-realization and self-improvement, the development of empathy, the ability to reflexing.

Also, the use of modern pedagogical technologies aimed at developing leadership qualities, the qualities for organizing independent research projects, and communicative skills is productive (Fisher et all, 2010). In this case, in the process of organizing research activities, the necessary mix of the creatively contagious atmosphere and the university educational environment takes place: inspiration, intuition, insight, creative search, manifestations of the student individuality; the creation of a dialogue that engenders understanding, discovery, controversy, emotional involvement in spiritual communication to discuss personally and professionally significant problems and research projects.

II pedagogical condition: Qualitative change of pedagogical work with students.

This pedagogical condition includes:

• Horizontal organization of the educational process, which involves changing the pedagogical consciousness, expanding the unit of additional education; involvement in the organization of scientific research activities of active scientists in the field of culture and art, etc.,
implementation of constant monitoring expertise of student research activities dynamics;

Dialogization of the lessons’ educational space;

creation of scientific and methodological support for the pedagogical accompany of students-researchers;

individualization of work with students, understanding of the age features of the student age and the specificity of the professional tasks of scientific research in the field of education in the university of culture and art;

-Strengthening the component of independence in the research of students.

Let us emphasize that the abstract assignments circulated in higher education institutions of the sphere of culture and art lead, in our opinion, to the emasculation of “alive knowledge” (Zinchenko, 1997), which connects the theory with the practice of activity in the sphere of culture and art.

When organizing an independent research activity, the teacher can use a variety of techniques to develop the motivation to increase the intellectual level and master the skills of working with theoretical literature: teaching students the methods of independent research work; problem-based presentation of the material; the establishment of an unambiguous and inextricable link between theory and practice; application of active teaching methods (analysis of pedagogical situations, discussions, trainings, business games, etc.); the rating method of control and the results of independent research work.

Discussions

The most difficult task in the organization of student research activities was the development of their skills of theoretical analysis, work with scientific literature. The study showed that the students' motivation for enriching intellectual experience is significantly reduced to the fifth year (that is, to the completion of studies at the university), and after graduation it almost goes to zero. This is explained by the realities of modern education: students are forced to earn money for their education, they start working already in the III-IV courses, and in most cases not on the specialty, the work schedule requires a great deal of personal time. All this negatively affects the process of improving knowledge and enriching theoretical experience. The way out of the situation is the organization of group activities, master-classes, training seminars and trainings, communication within which allows creating conditions for intellectual development, enriching theoretical knowledge, raising the level of analysis of art works, understanding the trend of modern culture, etc. An example of such an individualized work is an integrative seminar organized for students of the Faculty of Socio-Cultural Activity and the choreographic faculty of MSUCA in 2017.

The study of student research activities organization peculiarities conducted in the study also revealed that it is most effective to implement it step-by-step, including:
the conceptual stage - the meaning and content disclosure of an independent research / project, the distribution of functional responsibilities between teachers and students, the formation of a common goal, objectives, motives, the meaning of cooperation;

project-diagnostic stage - examination of the research / project state on the basis of existing criteria; monitoring of the process effectiveness, identifying areas of research activity, creating an environment in the team of student researchers, participants' psychological and pedagogical training in such a creative research group;

activity stage - creating conditions for interaction between participants in the student creative research group, summarizing the monitoring materials of the research / project effectiveness, and with the difficulties identified, current diagnostics are carried out to determine the reasons and directions for resolving the difficulties, and the necessary consultations are given;

reflexive diagnostic stage - final diagnostics based on the results of the study, joint analysis and discussion of the results obtained, making suggestions for correcting the deficiencies, summarizing the experimental material, preparing presentations and speeches at conferences and other events on the presentation of research materials;

Presentation stage - at this stage a special event is held, which aims to reveal to the public and other students and teachers the results of student research; it is possible that the competitive basis for such events is a good incentive.

Conclusion

It is established that the student research activities in the conditions of higher professional education in higher education institutions of culture and art should be understood from the standpoint of pedagogy of cooperation, co-creation, joint development of values, norms, tasks, social activities, development of a life position. With this approach, the organization of vocational training's this area begins with the joint development of research objectives, a comprehension of the methods of its implementation and significance for life and professional practice.

In the structure of the student research activity, several interrelated components have been identified: motivational: pedagogical situations and tasks that stimulate students to develop and self-develop their research and creative potential, to personal improvement and to increase the level of theoretical training; creative: active use of innovative technologies and methods of research in the field of culture and art; communicative: tasks aimed at developing the ability to organize activities in the field of scientific research in the university educational environment.

In general, the study determined that the ability to work with theoretical sources, the development of philosophical and art history knowledge are the foundation of personal and professional perfection of future specialists in the field of culture and art. The experiment showed that an in-depth reading of theoretical sources, immersion in independent research, helps to enrich creative strategies for future filmmakers, future actors, future choreographers, musicians and artists.
Thus, the pragmatization of education, which assumes a focus on solving exclusively professional problems, narrows its spectrally, does not create conditions for disclosing the existential meanings of comprehending knowledge. Pragmatization is not equal to the practical orientation of educational courses, which is determined by a qualitative change in the content of education, its appeal to the value foundations of life, art, science, on the one hand, and the identification of professional development possibility based on the development of humanitarian knowledge and theoretical analysis skills, on the other (Ingersoll, 2003).

In general, the increase in the organization of independent scientific research of university students in the sphere of culture and art is a multicomponent process. The motivating factor for this activity is so significant, because the motives play the role of a driving force that directs the person to commit acts, from which the life path develops. Student age is built around the process of identity, consisting of a series of social and individual-personal choices, identification, professional development. When these choices are conducted, the individual is guided by certain motives. The development of education is aimed at the formation of their positive essence. The dominant of material motives cannot serve as the basis for personal and professional development. This is a secondary goal, resulting from the level of professional development. First a person becomes a true professional, constantly expanding the range of his or her capabilities, including - in the field of theoretical training and research - and only then the person claims a high payment for his or her labor. It is this sequence of motives that ensures the formation of adequate self-esteem and supports the professional resilience of young professionals.

References


Zeer, E.F., Meshkova, I.V. (2008). Educational environment of the College as a factor in the formation of the educational professional-educational space of students. The world of psychology, 2, 205-211.


Modern Models Of Career Readiness

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Abstract

The comparative analysis of career readiness models of domestic and foreign researches has been given in the article. The examples of implementation of the subjective –activity and competence approaches to the study of career readiness are considered in the article. D. Conley’s four component career readiness model is discussed. Main views on the problem of the cognitive component of career readiness have been presented: value mechanisms and mechanisms of decision taking; active goal setting; components of the world view and self-consciousness of the activity subject. It has been proved that the implementation of the subjective and activity approach in domestic studies of career readiness makes it possible to substantiate the determinants of a graduate’s career achievements. A new tendency of the overseas experience integration in the sphere of applied methods of research and graduates’ career readiness development has been identified.

Keywords: Professional goals, career readiness, career orientations.

Introduction

There are two main areas of modern research in graduates’ career readiness: theoretical and empirical studies of the career readiness level where the structure of career readiness is substantiated and its intrastructural interrelashionships are revealed (Mironova-Tikhomirova, 2006; Prokopenko, 2011; Lisovskaya, 2012, et. al.) as well as the revision of foreign studies of components, factors and conditions of the career readiness formation (for instance, Lisovskaya with coauthors, 2012). We would like to note that traditions of modeling the career readiness structure in domestic and foreign experience are different. The subjective and activity approach is used in Russian psychology. The psychological structure of career readiness is substantiated through the motivational, value and target (cognitive, evaluative) determinants. Let us compare theoretical and empirical models, that are referred to in thematic publications (Masalimova et.al. 2017; Mitin et.al. 2017).

Methodological Framework
In A.S. Mironova-Tikhomirova’s (2006) three component model the psychological structure of career readiness is understood as an attitude to the solution of vitally important objectives in the framework of career growth and advancement and it is presented by emotional, motivational and cognitive constituents. A number of specific features of a graduate’s career readiness has been revealed: temporary instability, interdetermination, the priority of career orientations to stability and others. The priority here is given to a cognitive constituent — it is defined as a baseline. A specialist’s career orientations, his goals and willingness to understand the career environment set the coordinates system for an active position in issues of career self-management, involvement in the process of career changes: «Representing some final (ideal) goals, career orientations regulate social behavior of a person, give a possibility to take a decision in the choice situation, guide and correct the process of goal-setting».

Three components are identified in the author’s model of I.G. Prokopenko (2011): motivation and values, assessment orientation (including both the specific features of self-consciousness – self-estimate of a person — and the level of professional competence), an emotional-volitional one. The authors shift the locus of attention from the cognitive and goal sphere to the sphere «I-conception» of a career subject. The following items are considered as significant conditions of the career readiness formation: a stable orientation of a student’s personality to successful professional activity; the formation of a need for career growth; the formation of a subject’s «I-image» readiness for career growth and others.

M.A. Plotnikov’s (2009) model is based on the methodology of the acmeological approach. Viewing a career first of all in the light of a specialist’s self-realization the author highlights four components of career readiness: motivational, cognitive, activity-based and emotional. The cognitive component is treated broadly since it comprises both meaning orientations of a subject and cognitive strategies themselves in the field of professional activity and career growth. The diagnostics of these specific features is built by means of exploring.

We need to emphasize that the majority of domestic researches the cognitive component of career readiness is studied with the help of the technique «Career Orientation Inventory» by E.G. Sheine (1990) presented in a Russian version by the questionnaires «Career Anchors» by V.A. Chiker (2002) and «Career orientations» by A.A. Zhdanovich (2008). The questionnaire makes it possible to reveal the elements of I-conception of a subject that incorporates his perceptions of his own capacities and goals; key needs and motives; relations and values. Such a tradition, on the one hand, invariably reduces a prognostic potential of the study because it does not take into account cognitive strategies and individual peculiarities of decision taking of a career subject. On the other hand, in the authors’ opinion, among them A.A. Zhdanovich (2008), it is career orientations that demonstrate more informatively personal meanings of career self-realization in the chosen professional activity.

Let us summarize the applied results of the studies considered: local empirical surveys show a relatively low career readiness of students at the initial stages of learning (Prokopenko, 2011). At the same time graduates are distinguished by more individualistic characteristics. In particular, N.B. Lisovskaya (2014) with coauthors in their studies provided a graduate’s portrait with high career readiness and the factors of its decline were revealed: a normative way of behavior and unawareness of career orientations;
materialistic attitudes in the sphere of motivation and needs, personal specific features that impede career successes; insufficient mastery of career technologies. In the latest study of the same research team the leading career orientations were revealed («work stability», «service» and «integration of lifestyles»), personal and regulatory peculiarities (externality in the field of production relations) and specificity of graduates’ self-consciousness (weakly expressed professional prospects, the prevalence of educational roles over professional ones) and also the characteristics of a career motivation (an average degree of career intuition development and career stability, a low level of career engagement) of psychologists-teachers, graduates of A.I. Gertsen Russian State Pedagogical University and Novosibirsk State Pedagogical University (Bolotova, 2015; Efimova et. al, 2015; Gnedova et.al, 2015; Kalinina, 2016; Leontev, 2017).

Results
These empirical results are confirmed with the findings obtained in the course of our study. The conducted comparative analysis based on the monitoring of USU students’ career orientations and professional perceptions have shown that in the majority of graduates, many of them have already started their professional activity, the career motive occupies a secondary position in relation to emotionally significant events associated with the personal self-determination. The certainty of career orientations is observed with domination of a characteristic «work place stability». Orientations to the professional competence formation prevail in a subgroup of students with a more formed professional identity – achieved positive identity according to L.B. Shneider (2003). The correlation analysis results of the career orientations interrelation with individual and typological properties and indexes of subjective well-being obtained in the study showed the leading role of the orientation to building a vertical career (according to A.A. Zhdanovich, 2008). Significant correlations bind a vertical career for students – humanities majors to several indexes of subjective well-being at once – self-acceptance, personal growth, a possibility to manage people around control the environment. At the same time this orientation correlates with spontaneity as a free self-assertion, an aspiration for the leadership (the combination of extraversion and a competitive type of behavior), the prevalence of personal terminal values and choice of a prestigious profession.

We can assume that the implementation of the subjective and activity approach in domestic studies of career readiness makes it possible to substantiate the determinants of a graduate’s career achievements. In prospect it is possible to speak about the activity subject’s model of moving in the poly-variant space of a career based on understanding individual and professionally important goals and values, specific features of personal and professional strategies of the subject’s activism in view of the revealed structural components, factors and conditions of forming career readiness.

In overseas tradition career readiness is understood from the point of view of the approach which is nearer to the competence one. The point is about knowledge, skills and capacities of career advancement. For example, in the framework of the so-called «Meaningful Learning» - D. Conley’s model popular in the US institutions of higher education can be presented.
D. Conley designed four component model of career readiness which is the result of more than 18 years of research conducted under the aegis of Oregon University, the National Center for Education Improvement (EPIC) and other educational institutions. Conley thinks it is insufficient to use the test approach only to the assessment of knowledge and individual qualities of students and turns attention to the possibility of a more flexible marking system of a graduate’s realization of his career potential with a prognostic result. Career readiness is understood by the author as mastery of key knowledge of content and key skills and learning techniques in such a way that will enable one to start the investigation/development of one’s own career path. Thus this is a certain level of training required for applying for admission and successful – without subsequent rehabilitation – going through the learning that enables students to realize their career path and development potential).

Literally D. Conley’s (2012) model can be translated as «The Four Keys to College and Career Readiness». These «keys» of the future career success are designated quite laconically by the author: «Think», «Know», «Go», «Act». Let us consider each component in every detail (figure 1).
We would like to point out that «Key knowledge of content» comprises not only professional knowledge but also knowledge of what career opportunities exist in this area and also a perceived value of this knowledge.

«Key skills and teaching techniques» incorporate two categories of knowledge: a student’s knowledge of the way how to organize his own learning and specific methods, for example, time management.

«Key knowledge and skills advancement» are privileged very frequently and not equally accessible to students: for example, the representatives of the family dynasties – for instance, from renowned families of doctors, militaries, teachers – are more informed about career opportunities in the chosen field.

The author also lists skills (soft skills) that enable one to build the strategy of one’s own career; he defines self-management as an important category that incorporates specific features of behavior and attitudes which allow a graduate to take responsibility for his actions and to become more active. The so-called «meta-strategies» contribute to the movement in the direction of self-management and they provide involvement in a wider context of activity and environment as well as effective goal-setting (Bolotova et. al, 2015; Ivleva et. al, 2014; Kalinina et. al, 2016; Ivleva et. al, 2016; Masalimova et. al, 2016; Mitin, 2016; Ovsyanik et. al, 2016; Salakhova et. al, 2017; Vasyakin et. al, 2017).

It is important to note that D. Conley (2012) believes fair to consider the measure of responsibility of a higher education institution itself for shaping up its graduates’ career readiness. What is meant here is the supplementation of formal education with courses that develop skills of career goal setting and strategic planning. From here the concept of «success» is treated as the completion of main courses with a corresponding certificate and further career movement to new results.

A positive moment, in our view, is the attempt of adapting a number of foreign theories on the Russian sample. In particular, the objective of adapting A. Hirschi and D. Lage’s (2007) model was set in research undertaken by N.B. Lisovskaya (2014) with co-authors nominated in the «Psychological Gazette». This six-phase model of career decision making, to the authors’ mind, enables one to carry out an instant diagnostics of career decision stages and their psychological content (Salakhova et. al, 2016; Vasyakin et. al, 2015; Mitin, 2014; Masalimova et. al, 2014; Lipatova et. al, 2015; Kalinina et. al, 2017; Bolotova et. al, 2013).

Conclusion.
Thus the variation of approaches helps to identify the major views on the problem of a cognitive component of the career readiness: assessment mechanisms and mechanisms of decision making; active goal setting; world view components and self-consciousness of the subject of activity. The integration of overseas experience in the field of applied methods of studying and developing the graduates’ career readiness is a new tendency.

References


University As Center Of Regional Social-Economic And Scientific-Innovative Development

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Abstract

The paper is devoted to the study of Russian universities’ potential as centers of socio-economic and scientific-innovative development of regions. On the basis of the complex methodology (structural-functional approach, neo-institutionalism, system approach, etc.) the paper substantiates the University concept as a socio-economic system of innovative type. The author concludes that in modern conditions the role of the University as a center of socio-economic and scientific-innovative development in the regional environment is characterized by continuity of institutional mechanisms to support fundamental achievements and cooperation in the innovative development of the region in order to improve economic efficiency. Important directions of University activities in the system of regional development are the implementation of programs to reduce tensions in the labor market and support innovative segments of the economy.

Keywords: university, social and economic development, scientific and innovative activity, region, personnel potential.

Introduction

In modern conditions, the research of Russian universities’ potential as centers of socio-economic and scientific-innovative development of the regions becomes undoubtedly relevant one. The fact that Russian science is losing its influential position in the global scientific community, that Russian universities are not competitive in the provision of educational services, is seen only as an external statement of the fact (Kvon et al., 2017). In reality, the processes of changing the value space of participants in the educational process, differentiation in relation to the value of science, scientific activity, and scientific career are observed. The danger of socio-values disorientation of participants in the global innovation process lies in the fact that, when they find it difficult to identify the peculiarities of true and false innovation, they are reduced to the ability to promote the first and block the second one.

The strategy of innovative development of the Russian Federation until 2020 contains the provision that the ability to respond to the challenges and threats facing Russia in the field of innovative development and the defining of goals, priorities and instruments of state innovation policy depend on long-term...
benchmarks for the development of innovative actors, on the financing of the sector in basic and applied science, support for the commercialization of developments.

In current conditions, the use of the intellectual potential of Russian society is becoming increasingly important, which is associated with overcoming the gap between Russian science and higher education and the requirements of the post-industrial society and the post-industrial economy as a knowledge economy. Stressing that significant efforts are aimed at stimulating research activities and innovative development in higher education (innovative programs of Russian universities), one should note that the emphasis is done on the fact that the implementation of national research universities’ new model, including the creation of an innovative infrastructure and development of research activities is promising, but not final stage in the transition of universities to the innovation activity.

Barriers to the implementation of innovation policy are the ineffectiveness of public spending, the gap in cooperation between universities, the aging of the teaching staff, and the isolation of the University system from the real economy. One can state that an equally important problem is the lack of demand in the University system for innovation activity, and the lack of interest in expanding the range of influence on innovative development, especially in the regional space. All these problems are related to the fact that the world University system is experiencing problems related to education and training, management of academic institutions, the use of technology and quality assurance of higher education (Formation of a knowledge-based society, 2003).

As for the Russian conditions, taking into account the urgency of the problem to reduce the backlog of Russia in technological development as a condition to increase the competitiveness of the Russian economy and overcome the technological dependence on imports and increase the prestige and attractiveness of Russian higher education, the study of the University formation and development as a socio-economic system of an innovative type is of big scientific and practical interest.

Research Methodology

In the framework of the objectives of the study the development of adequate theoretical and methodological tools is relevant. In the framework of this study, it is necessary to use the structural and functional approach presented in The fundamental works of T. Parsons and N. Smelser (1956), within the framework of which the feedback construct between different subsystems of Russian society, in particular, institutions of national culture, politics, Economics and management was analyzed. Thus, the University system is traditionally considered from the point of view of structural and functional approach, description of the University system as a mechanism of social mobility, professional socialization, and differentiation by professional profile. In this direction, significant results have been achieved, indicating that integration/disintegration processes are observed in Russian higher education. Integration of higher education is characterized by transition to the model of commercialization, of introduction of new educational standards, connection to the world market of educational services. Disintegration makes destructions by the educational environment’s inequality strengthening, divides universities into elite and mass ones, and lengthens the distance between the training of specialists and their demand in the labor market (Vodenko et al., 2016).

Neo-institutional approach describes the University as a social institution that includes formal and informal norms of functioning, which is associated with the implementation of both explicit and implicit
(latent) functions. The neo-institutional approach emphasizes the difference between open and closed access to higher education, which is manifested in the fact that with open access universities have a sufficient degree of autonomy in academic and economic activities. With private access, the dominant state regulation of University activities is determined by the status and hierarchy of universities, a system of client practices that combine elements of informal and contractual organizations (North, Wallis & Weingast, 2011).

The principal methodological role in the study is assigned to the institutional "X, Y – theory" by S.G. Kirdina (2014), which is a kind of neo-institutionalism. This theory allows us to make a system analysis of the cultural and ideological foundations and determinants of socio-economic and scientific innovation in Russia through the prism of mutually complementary leading institutional (X, Y) matrices interacting in the configuration of "dominance-complementarity". These matrices have the qualities of "superformation" and "camouflage" abilities that allow them to maintain their (civilization) properties at different historical stages of development (including the present) and explicate to the Russian reality (Kirdina, 2014).

The analysis of the presented problems is associated with the identification of the University parameters as a system of innovative type and, in this sense, the structural-functional and neo-institutional approaches, describing the stable state of the University system, are "vague" in the analysis of new forms’ formation of universities’ organization, transformation of the structure, social and economic changes in the field of scientific and teaching activities. The proposed understanding of the University as a socio-economic system, in general, is based on a system approach, using the inherent in the Russian and foreign sociological thought understanding of the system as a set of educational technologies, relations within the University and the system of formal and informal norms that ensure the reproduction and stability of University activities.

The system approach positions are embodied in the concept of organization of A.I. Prigozhin (1995) and found concrete embodiment in the studies of F.E. Sheregi, N.M. Dmitriev, A.L. Arefiev (2002). Significant results in the context of the socio-economic approach, like the projection of consistency principle in socio-economic development of Russian higher education are contained in the work of the team led by D.L. Konstantinovskiy (New meanings in the educational strategies of youth, 2015). In particular, it is revealed that the construction of the higher education system is given by the organization of economy and society, orientation to the perspective needs dictated by technological innovations and the need for creative and initiative people as a resource of economic and social development.

Despite the fact that the scientification of culture leads to the dominance of instrumental rationality at all levels of social subsystems, scientific and innovative activity is regulated by the contents of ethical, symbolic and aesthetic order. Therefore, a full analysis of the cultural and ideological determinants of scientific and innovative development in the Russian society led to the need for the implementation of the research discourse of a cultural sociological approach, received the foundation in the concept of A. John (2013).

However, the author does not go beyond the understanding of the University as a formal institution, while the social dynamics in the field of higher education focuses on the understanding of the University as an innovative type of system, which makes it necessary to study the interrelated process of autonomy of educational institutions and changes in the economic structure of Russian society. It is this process that...
determines how the tendency to form an innovation-type system is manifested, what innovations are produced in the University, how the idea of economic efficiency of scientific research in the University environment can be realized. All this determines the vector of the institutional stage at which the goals of the University activities, interests, social relations, role distribution, conversion of the educational resource into innovative development focused on the development and implementation of technological and social changes that create a new quality of higher education and the formation of the connecting function between the socio-economic sphere of society and the system of higher education.

Results

In the socio-economic system, the activity of the doer is subjected to the educational process; its connections are built on the logic of economic organization. However, this does not eliminate the social nature of intra-University relations, as the emerging complex includes scientific and technical (material) environment, professional knowledge and skills, research process. Therefore, the understanding of the University as a socio-economic system is not reduced to the economic function. First, in the higher education system requirements for intellectual and professional moral quality of the teaching staff of the faculty has been developed. Secondly, there is an academic tradition, which is based on the understanding of the University as an integrator of culture, the integrity of the educational process associated with ideals, values, means and opportunities (Dolzhenko, 1995). Without exaggerating this fact, one can state that the transition to an innovative system is possible on the basis of new educational values, the construction of a tradition of pragmatism.

Thirdly, it is necessary to understand that the consumer of higher education is not only the state, but also the business community, which is interested in training competitive specialists and in offering universities justified innovation by the economic and financial criterion. The problem is that the mechanisms of interaction between the University and the state in the context of criteria of socio-organizational effectiveness of universities are not well established. It should be noted that, despite the fundamental nature of the stated goal of University innovation activity, it is necessary to understand whether the stated position of the qualitative education and the development of science, technique and technology and the introduction of innovation meets internal changes in the University structure.

In this regard, one can refer to the effect of "intellectual colonialism" and usage of the model "the reproduction of backwardness" under the guise of University life technologization, which is dominated by a strengthening of bureaucratic paperwork, but weak is the impact of the professional expert community on policy changes in the University system (Intellectual colonialism in the global educational market, 2017). There is a problem of using the acquired social and reputation capital, as within the framework of the implemented standards and criteria universities that have an academic tradition, lose advantage with universities that are not focused on the production of knowledge and training of students, but on the database of information technologies, acting under the "flag" of proactive and individualized learning.

In the framework of cooperation with the business environment, it is necessary to take into account that the desire to obtain short-term profits can lead to the threat of the University to become an agent of
commercialization; the mechanism for coordinating the interests of the University and business is extremely slow and prohibitively complex. So far, there are no schemes of integration and communication between universities and the business community, besides, Russian huge corporations work on their own image and corporate culture, creating their own corporate universities (Gazprom) or investing resources in fashion projects (SKOLKOVO).

Taking into account that the majority of graduates focus on the real opportunity to work in the environment of small and medium-sized businesses, it can be stated that there is an obstacle in the form of demand for specialists of pragmatic level and, on the other hand, weak attention to research and development of the University, which is of fundamental importance. The desire for profitability determines the promotion of technological and organizational innovations, which are created purposefully to expand the possibilities of preserving the achieved positions or active participation in mutually beneficial economic projects.

However, the Russian higher education system, despite the decentralization of control, suffer from weakening of the ties between fundamental science and education, from limited funding, which leads to the selection of the most promising programs, but it is not justified to the full (Dynamics of the social structure and the transformation of public consciousness, 1998). This judgment has not lost relevance and decades later, as in the 90s of the twentieth century there was a tendency to reduce the financing of higher education, and in the current situation there is an increase in social problems of universities, the process of aging and outflow of human resources. We are talking about the fact that to create a working model of the University as a socio-economic system, it is necessary to take into account the high level of international competition, it is necessary to form an optimal University environment for scientists working at a productive scientific age.

Noting that the policies adopted in the field of higher education seek to transfer scientific research from the science sector to higher education, the positive and negative effects of such decisions should be taken into account. Positive ones are related to the constructive idea of integrating science and education by the foreign University model. Negative ones are with the inability to create in a short-term the unique complexes and complex installations that are in the academic sector. At the same time, the reduction of personnel in the academic sector is not compensated by the growth of qualified research segment in higher education. Universities are replenished from the academic environment for reasons of compatibility of work or career aspirations, which does not change the current configuration for the implementation of educational functions by universities. In connection with this factor, it is premature to state that the Russian universities have formed an innovative human potential. The analysis of innovation sphere’s state contained in the strategy of innovative development of the Russian Federation until 2020 indicates that, despite the adoption of measures to modernize the economy on the basis of technological innovations, stimulating research activities and innovative development in higher education is selective, which is based on a variety of forms of research areas, but the reliance on regional resources is poorly visible.
In other words, it is not taken into account the fact that the University as a socio-economic system of innovative development carries out practical activities in the unity of external optimal factors and restructuring of the intra-University environment. Support of a number of Russian universities in their activities to stimulate research and cooperation with enterprises is a positive trend, it strengthens the competitive basis in the desire of universities to earn financial and reputation capital.

The study of the national model of management of scientific and innovative activity in the Russian society required the analysis of the historical experience of Russia, which contributed to the creation of modern science Institute in the country, which has become a fundamental resource for the subsequent modernization. In accordance with the theoretical scheme of cultural sociology proposed by A. John cultural factors were identified that promote or, on the contrary, slow the growth of scientific and innovative activity, which can be reduced to the state of civil society and, consequently, the level of initiative of its members (John, 2013). The analysis of historical experience has shown that the weakening of the expansion in civil society and its institutions leads to a slowdown in the pace of scientific and innovative development provided the existence of the entire system within the framework of capitalist production. Cultural and ideological determinants characteristic of Russian society and associated with its historical memory are able to form the attitudes of public consciousness and influence the processes of scientific and innovative development. Prospects for scientific and innovative development of Russia may be associated with the expansion of civil control and the formation of an innovative image of the country.

Archaization and preservation of national culture for the sake of the policy of ideocratic domination, which opposes the development of civil society institutions, especially against the background of exclusive exploitation of raw materials, can produce the effects of stagnation in the field of production and the introduction of high technologies. Therefore, especially at the micro level, it is necessary to stimulate scientific and innovative development in every possible way by creating regional clusters that allow improving the management of small innovative enterprises and ensuring effective interaction between business, universities and local authorities (Cherkesova et al., 2017).

Discussion

However, it is obvious that the hierarchy of innovation priorities is not structured, and regional universities may be aloof from the mainstream, as they are not part of the promotion cycle, which includes the selection of developments on the SKOLKOVO model. Taking into account the fact that the practice of inviting specialists with a "global reputation" is not permanent for regional universities, it seems realistic to rely on regional intellectual capital, which can be seen from the positive experience of various universities. In this direction, one can talk about certain successes in strengthening the human resources potential, but outside the organizational and regulatory changes, giving the University the status of an organization (socio-economic system) of an innovative type, it is difficult to anticipate the prospects for the University to enter the level of interregional and global cooperation.

As it was pointed out by Russian researcher I.I. Ivanova (2004), if one agree with the statement that higher education is a strategically important sphere of human activity and is characterized by principled
innovation (extension of the autonomy of universities, the introduction of multilevel training of specialists, development of the private education sector) the return is observed to the model of the University as a common good, of the area of state-social partnerships as a consequence of the rejection from the idea of the University transfer into the system of social services (Ivanov, 2004). In this sense, the University, as a socio-economic system, cannot be limited to self-financing, in the organizational aspect the formation of management structures with sufficient professionalism and competence to implement the policy of transition to the socio-economic system of innovative type can be considered relevant one. The closure of the University management system in the implementation of socially-stimulating and socially-developing functions associated with the formation of a multi-level system of University activities, including educational, research, marketing, projective sectors, becomes obvious (Vodenko, Rodionova & Shvachkina, 2017).

In the strategy of innovative development of the Russian Federation until 2020, special attention is paid to the standards of economically developed countries in the framework of establishing cooperation between science and business, increasing the level of commercialization of scientific developments of state academies and universities. In this context, it is important to define the boundaries of commercialization and social activity, social creativity, which is difficult outside the definition of socio-cultural meanings of scientific and innovative activities (Vodenko et al., 2017). The social ethos of the scientist claims to form the organizational culture of the University as a socio-economic system.

It is also about the fact that to achieve the optimal level of University management within the framework of innovation requires that, when there are alternatives to narrow the range of control or simplify devices of University organization, there is a temptation to create the dominance of the economic structure, controlling the profitability of the University in the implementation of commercial development and establishment of contacts with the best partners. The division of programs of fundamental and innovative developments can be considered an optimum based on experience of foreign research centers, as cutting-edge research are the most important element of the innovation system (Formation of a knowledge-based society, 2003). The University as a socio-economic system cannot be subjected to the administrative procedure of “steadily increasing profitability”. This means that the guarantees of organizational, financial and research autonomy are based on the University’s ability to determine its own innovation policy within the framework of innovative development’s strategy of the Russian Federation until 2020.

It is one thing to link the University to the state order, another – the work of the University with economic partners. It is effective to cooperate with small and medium-sized businesses in the provision of innovative services to improve technological processes and employment of graduates, with corporations and banks in the implementation of strategic innovations that provide technological breakthrough. Naturally, at the regional level, there are difficulties associated with the monopoly of the capital's and foreign universities and investing in the development of science, technology and education in the University needs an open and transparent competition within independent expertise.

The regional feature of the University, as a socio-economic system, is associated with the typology of regional universities according to the innovative criterion and the subjective importance of science and education in regional elites and regional society. Of course, this factor is influenced by the level of confidence in the University as a development factor of domestic science and the national economy. Of course, the differences of expectations between Russian and foreign studies should be taken into account.
If environmental problems, new medical and scientific discoveries are priorities abroad, for the Russian regional environment the attitude to higher education as to the socio-economic system is characterized by "working" criteria: introduction of technological and economic innovations that ensure economic growth, employment, improvement of life quality.

Analyzing the formation and prospects of the University, as a socio-economic system of innovation type, it becomes apparent that the formation of new forms and management strategies in higher education is connected with the mechanism of succession of organizational forms in the organization of the University and the formation of an adequate institutionalization of new styles and innovations with the need to develop formal, structural aspects of University management, and to create an institutional formation, which contain a multiplicity of possibilities for the realization of educational, economic, and cognitive functions at a regional University. The University's involvement in the regional economy is a bipolar process: on the one hand, it is the process of the impact of the regional market and economic structures on the activities of the University, on the other - the process of innovative development of regional society and the inclusion of the University in the form of autonomy and integration.

Russian research idea determines the analyzed problematic study in interdisciplinary perspective. Indeed, there is a powerful "economical-centric" direction focused on the transition of the University to the model of "commercialization" and the strategy of innovative development of the Russian Federation until 2020 focuses on "return" of the University system in the context of technological innovations' introduction in the economic development of the country. This is understandable within the framework of the program of social and economic modernization. Defining the tasks of the conceptual justification of the University as a socio-economic system of innovative type, one can talk about the establishment of the University in this direction as a complex system, whose activities are associated with the approval of generally important rules of the game and the consolidation of mechanisms of social trust. Taking into account that innovative development is connected with creative personality as a subject of social and innovative activity (New ideas in sociology, 2013), it can be stated that the proposed approaches to solving the problem are connected with a variety of forms of University management as a socio-economic system of innovative type (reflexive, diagnostic, projective types of management). There are differences in understanding the stages of formation of the University, the conditions for the implementation of innovation, which can be welcomed in the context of the introduction of a new model of University activities.

It is important for the University at the regional educational level to establish constructive cooperation with the regional labor market, with different business structures of the region, since if the image of the University has a positive effect on regional and national funding, the question of the degree of the University independence to use financial resources, to make additional efforts at the regional level to develop the infrastructure of the University, as well as to reorient the teaching staff to regional social and business practices remains open.

The fact is that in the context of the current socio-economic crisis, the consequences for universities are the increased tensions in the labor market, increased risks of unemployment for graduates, which leads to a reduction in the possibility of adopting their own initiatives, as well as creating barriers to their own innovative development. Since modern technical universities should strive to diversify financial resources to increase the consolidated budget, there is a problem of rational use of financial resources,
participation in regional projects that would have a legal and financial guarantee from regional authorities and business structures (Vodenko, Rodionova & Shvachkina, 2017).

Indeed, as the experience of the implementation of universities’ innovation activities shows, there is a problem of duplication of problem, closed competition, inconsistencies between the program of University's development and operation of specific activities. In particular, the efforts made to expand the range of services (basic and additional educational services, scientific and technical and development, consulting, rental of equipment, facilities and laboratories) are characterized by the predominance of rental schemes and educational services, while Research and Developments work takes a modest place—form 6-8% of the consolidated budget of the University.

It is important to note here that, although universities can independently determine the sources of financing, there are fairly strict schemes for monitoring financial situations, and universities face difficulties in developing accumulated financial resources. In other words, regional technical universities are determined by the status of obtaining financial resources, and the actual level of satisfaction by the University with the existing performance criteria depends on the rating of the University, which does not include an assessment of the possibility of cooperation with other universities and has no regional coefficient.

In other words, the regional University system operates in a range of limited opportunities associated with the increase of human capital in the regional society, and a significant difference in the assessment of the level of satisfaction with the effectiveness of universities requires changes related to career guidance services, improvement of professional skills, investment attractiveness of the University.

It is characteristic that employers, as customers, noted the lack of required specialists, a limited selection of job seekers and low-skilled level. The dominant place is occupied by low-skilled professionals (44.8% of surveyed employers) (Regional sociology: the problems of consolidating the social space of Russia, 2015).

At the same time, it should be noted that the monitoring system of regional universities contains certain limitations determined by the logic of efforts’ concentration. It is understood that regional technical universities still do not retain the reproduction matrix and are interested in maintaining the stability of the teaching staff. This has the effect of narrowing the opportunities for recruitment of new staff, as well as a certain "fear" in the implementation of bold innovative ideas containing uncertain financial results. It should also be emphasized that the higher education system mostly moves on an inertial trajectory, focused on training and retraining of highly qualified human resources according to the "range of specialties", and not on the real needs of the regional labor market.

Taking into account these difficulties, it can be noted that while at the level of cooperation of universities it is possible to talk about achievements in the form of the introduction of criteria unified system for evaluating the activities of the University, as well as inter-university programs, research and retraining of specialists, in the regional context, the positive dynamics of scientific and technical development is poorly provided.

**Conclusion**

Within the framework of the University concept as a socio-economic system of innovative development, interest in this process cannot be assessed unambiguously. The materials of the study of this problem
indicate that it is necessary to find a balance between commercialization and social autonomy of the University. On this way we are talking about strengthening the strategic role of the University in the development of the regional economy and regional society, where the emphasis is shifted from the provision of educational services to the development of research programs aimed at strengthening research and development potential, improvement of information technology, which meets modern needs and improve the quality of higher education.

Important activities of the University in the system of regional development are the implementation of programs that provide for reducing tensions in the labor market, and support for innovative segments of the economy. This contains some contradiction, since the innovative segments of the economy do not form a large number of jobs, but the cumulative effect is achieved due to the fact that new technological chains are formed, that the University system is reoriented to vocational retraining and business-commissioned training. There are also expectations about the level of accessibility and quality of higher technical education. It is also important to note that for technical universities it is very promising participation in the transition from regional and territorial to innovative clusters. Since the main obstacle is the lack of qualified personnel, it is possible to foresee a sufficiently high degree of realization probability of a technical University status as the main factor of cluster policy. If we assume that the second obstacle in the development of the cluster is the low receptivity of economic structures to innovation and insufficient consumer quality, in this direction the technical universities will have a great job.

It is necessary, without copying foreign experience, to take into account the social and humanistic mission of higher education in the regional space and to increase the level of confidence in higher education. It is important that in the process of the University system transformation, teams of scientists and teachers could actively participate in organizational, regulatory and socio-structural changes.

Gratitudes

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References


On the Relationship between Iranian High School EFL Learners’ Reading Comprehension Strategies and Their Majors

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Abstract
The present study focuses on determining the relationship between Iranian high school EFL learner’s reading comprehension strategies and their majors. Seven hundred and Eighty nine Iranian EFL learners from Math, Humanities, Vocational, Technical, and Natural science majors from grade two from males and females from different cities were selected through non-probability sampling (accidental sampling) to participate in the study. A reading strategy inventory and Classroom Observation Coding Protocol as instruments were used to collect the required data. The data were analyzed through descriptive statistics to determine the frequency of strategies employed by the learners. Kruskal-Wallis and Mann-Whitney U test was also employed to find out how the use of strategies varied according to students’ majors. The findings of the study revealed that there is no significant difference in the use of overall reading comprehension strategies between different majors. Besides, it showed the preferences of using problem solving strategies in Math and Technical and support strategies in Vocational and Natural science students.

Key words: Reading strategy use; Reading comprehension; Iranian EF; learners

I. Introduction

A. Background and purpose of the study
The vast application of learning strategies- as the special thoughts or behaviors that learners use in order to comprehend, learn and retain new information- has been the domain of many researches in English language teaching and learning contexts (Oxford, 1990). Teachers in various contexts of teaching should base their approach on students’ respective psychological characteristics, their own language knowledge, teaching requirements, design, content, and teaching and learning strategies. They seek the best process for each student in the most appropriate environment for learning English. Researcher, from his experiences, realized that high school students need to be investigated about how to approach language learning at different majors; also, has observed the students who cannot achieve good results. Frustration was a constant reality as the researcher witnessed students’ infelicity in English learning. He was at a loss himself, not knowing which learning strategies could best help his students. The American psychologist Bloom (1971) noted many of the students in the learning can achieve excellent results by helping them in mastery Learning. Rubin (1981) stated a classification of strategies that directly affect learning. The researcher in this study is interested in finding different reading comprehension strategies that students
in different majors apply and may be helpful for the students who cannot obtain the acceptable and desirable Language achievement.

B. Statement of the problem

By considering the differences in learning between an ESL and an EFL context in an ELL situation, investigating learning strategy and showing learners how to take control of and be more responsible for their own learning is crucial.

Some empirical studies have been carried out on reading strategies and their relationships to successful and unsuccessful L2 reading (Hosenfeld, 1977; Knight, Pardon, & Waxman, 1985; Jimenez, Garcia, & Pearson, 1995). Prior studies (Hsu & Huang, 2004; Kung, 2003; Lin, 2001; Su, 2003) focused on Taiwanese elementary school EFL students' language learning strategies.

Through such studies, it is hoped that language learning strategies will play a key role in creating more efficient and successful learning experiences (Zimmermann & Hutchins, 2003).

Kaur and Che Lah (1999) observed in Malaysia in a study that it is essential for students to learn and train themselves to become independent learners.

Khosravi (2000) made an attempt to investigate the effect of scanning and skimming, as two reading strategies, on Iranian EFL students' reading rate and reading comprehension.

Shokrpour and Fotovatian (2009) conducted an experimental study to determine the effects of consciousness-raising of metacognitive strategies on a group of Iranian EFL students' reading comprehension that showed a significant improvement in reading comprehension at the end of the treatment period.

Taking a look at studies reported above, one can come to the conclusion that the area of reading comprehension strategy still requires further researches, especially in an EFL context such as Iran and the present study intends to explore the issue more deeply by addressing a number of variables such as applied reading comprehension strategies and the extension of the range of strategies used by learners in different majors.

C. Significance of the study

A school wide commitment to reading strategies in all content areas has had a positive impact on student achievement at Iranian High School.

By all accounts, Vocational High School students in Iran, Gaen, are students in trouble. Achievement scores were the lowest in the city and among the lowest in the province. Most of the managements suggested that we should not expect more from our students. The teachers did expect more; however, every teacher at our schools had been working hard to meet students' needs but our students were not achieving. Then, equally important to the commitment from teachers towards students was the researcher commitment, the researcher worked on a study that centers on reading comprehension learning strategies in different majors and the results would seem to support teachers' efforts in their profession.

In the described study, the researcher tried to identify at least some of the strategies that might be causally implicated in reading comprehension ability and which, therefore, may be fruitfully trained. Some individuals benefit more from in some strategies rather than others. Shang (2010) investigation on
the link between reading strategy use and perceived self-efficacy on their English reading comprehension revealed a significant positive relationship between the use of reading strategies and perceptions of self-efficacy. The present study enjoys significance in that it can provide an insight to the use of reading comprehension strategies and preferences in different majors. In fact, reading comprehension strategies, due to its complexity, has rarely been conducted in an EFL context such as Iran.

D. Research question

Accordingly, this study aimed at finding answers to the following research question:

Q1. Is there any significant relationship between reading comprehension strategies used by Iranian EFL learners and their majors in high school?

E. Research hypothesis

To come up with reasonable results on the basis of the aforementioned research question, the following null hypothesis was proposed:

H01. Iranian High school EFL learners in different majors do not use similar reading comprehension strategies.

F. (De) Limitations of the study

Like any other researches, some inevitable limitations, which might raise new questions for further researches in the same field in the future, would be imposed on. The first was related to selection technique of the sample and its time limitation. The second, variables such as gender, age and personal variables were not taken into account. Moreover, by taking great care in sampling, but naturally one can never be totally certain that the sample matches the target population on every variable of interest.

II. REVIEW OF LITERATURE

A. Introduction

In the review literature, the researcher would investigate literature related to general areas that were directly relevant to the major research question such as learning strategies, reading process, reading comprehension strategies, and different high school majors.

The researcher has got valuable information during the reviewing current literature and researches related to the teaching of reading comprehension strategies. This helped the researcher to use this information to design his research project and to understand the data emerged from it.

B. Learning Strategies

Learning has been defined as “acquiring or getting of knowledge of a subject or a skill by study, experience, or instruction (Brown, 1941, p.7). The three learning theories of behaviorism, cognitivism, and constructivism have been influencing education and guiding instructional practice since the 1800’s
(Baruque & Melo, 2004). Strategy has been defined based on Merriam-Webster dictionary as an adaptation or complex of adaptations (as of behavior, metabolism, or structure) that serves or appears to serve an important function in achieving evolutionary success. Strategies are conscious and generally effortful; also, purposeful. A learning strategy is a person’s approach to learning and using information. Learning strategy instruction focuses on making the students more active learners by teaching them how to learn and how to use what they have learned to solve problems and be successful. For example, readers may use strategies to become efficient at monitoring their level of comprehension, or to process the meaning of a particular sentence. According to O’Malley et al. (1985), “language learning strategies have been broadly defined as any set of operations or steps used by a learner that will facilitate the acquisition, storage, retrieval, or use of information” (p.23). In Oxford’s (1990) study, she synthesized prior study results and came up with a language learning strategy system with categories including memory strategies, cognitive strategies, compensation strategies, metacognitive strategies, affective strategies, and social strategies. Language learning strategies (LLS) are particularly important for language learning as they are tools for active and self-directed involvement, which is essential for developing autonomous learning, (Venden, 2002).

C. The Reading Process

There are many theories about how students learn to read and the teaching of reading. Reading in the most simplistic manner is the interaction between the text and the reader (Rumelhart, 1977). This interaction is affected by different factors such as: the readers’ own experience with their community, school and cultural experience and the extend these relate to the text, as well as their individual personality, the combination of these reader factors with textual features (structures, syntax, grammar and vocabulary), and the correspondence between the reader and the text. Burns, Roe, and Ross (1992) in their studies referred to the reading as a life skill that by combining nine aspects of the reading process – sensory, perceptual, sequential, experiential, thinking, learning, associational, affective, and constructive – the reading process becomes facilitated. Bouwer (2000) stated that the sensory, perceptual, and sequential aspects depict the decoding process of reading and the six remaining aspects characterize the comprehension process of reading. Goodman (1996) described reading processing strategies by focus on the use of three Cueing Systems (Phonological and visual/orthographic information, Language structure, Meaning) and use of Self-Correction during figuring out a text’s message.

D. Reading comprehension strategies

Ontario Ministry of Education (2005a), Farstrup (2006), and Cunningham & Allington (2007) indicated the importance of learning comprehension strategies by stating that many students who were good readers in the primary grades will nonetheless struggle to read in the junior grades if they don’t learn the comprehension strategies to deal with the more complex text formats, text features and genres they experience. One factor that distinguishes successful from less successful readers is the use of reading strategies, particularly when comprehension problems are encountered (Brown, 1982; Long, Oppy, & Seely, 1994; Oakhill, 1984; Oakhill & Yuill, 1996). Low-achieving adolescent readers improve their comprehension performance when they learn to apply strategies.
The National Reading Panel (2000) identified six key reading comprehension strategies in order to fortify children’s reading abilities namely: monitoring comprehension, using graphic organizers, generating questions, answering questions, recognizing story structure, and summarizing.

Moreover, other strategies such as predicting, inferring, making connections and using text-structure clues to identify organizational patterns in text to increase comprehension have been cited (Harvey & Goudvis, 2007; Keene & Zimmerman, 1997; Pearson & Duke, 2002).

Myriad factors affecting the interaction between the reader and the text have been identified. Fountas & Pinnell (2006) stated reading as a thinking process, occurring something to the reader as a person and comprehending a text that is closely related to his life. Rosenblatt’s (1993) theory of interactive process and The Ministry of Education for Ontario (2004) and other studies emphasize the application of a variety of strategies for proficiency.

Schumm (2006) describes strategies as processes that “are controlled by the reader, are metacognitive, are intentional, are flexible, and emphasize reasoning” (p. 229). Aflerbach, Pearson, and Paris (2008) argued that the strategies are deliberate, goal-directed attempts to control and modify the reader’s attempts to decode text, understand words and construct meanings. Schumm(2006) enumerated Phonemic Awareness, Phonics, Fluency, Vocabulary, and Comprehension as the components of Reading. Lipson (2007) listed comprehension Strategies as monitoring understanding, making connections( readers make connections to what they already know, their personal experiences, their knowledge of the world, and the other texts they have read or experienced), asking questions, summarizing, drawing Inferences, synthesizing, determining importance.

Rosenblatt’s (1993) declaration of reading as the transaction collides head on with that of Lipson’s making connections and David Nunan,(1989) who sustains the schemata, which means background knowledge, enabling learners to recreate and reconstruct the text’s meaning. Pourhosein Gilakjani and Ahmadi (2011) emphasize d the importance of schemata in reading as the process that readers combine their own background knowledge with the information in a text to comprehend that text. All readers carry different schemata (background information). So activating the learners’ schemata is an important concept in EFL reading to help the learners adjust the pattern of their own experiences and background.

There are strategies that are used before, during, and after the reading process (e.g., Saricoban, 2002; Schmitt, 1990).

Although it is clear that preparing to read takes place before reading, it could be argued that organizing, restructuring, and synthesizing could take place while reading as well as after reading. Among various types of learning strategies, reading comprehension strategies have long been recognized by researchers of second/foreign language reading (Brantmeier, 2002; Janzen, 1996; and Slataci & Akyel, 2002). Reading strategies defined by some theorists refer to as mental operations used by readers when they read a text and try to understand it effectively (Barnett, 1988). Actually, reading strategies show how readers understand a task, what textual cues they care for, how they apprehend what they read, and what they do when they do not understand. Reading strategies vary from simple fix-up strategies such as simply
rereading difficult segments and guessing the meaning of an unknown word from context, to more comprehensive strategies such as summarizing and relating what is being read to the reader's background knowledge. Generally, researchers claim that strategy use is different in more and less proficient readers, in that they use the strategies in different ways (Carrell, 1989). In fact, by reading comprehension strategies we can separate the passive, unskilled reader from the active reader in which skilled readers don't just read, they interact with the text. Yau (2005) in his study found that proficient readers employ more sophisticated approaches to reading than less-proficient readers. For instance, in his study the skilled reader employed strategies of summarizing, inference, and synthesizing during and after reading, while the less skilled reader applied bridging inferences, paraphrasing and repetition. In a program of adolescent literacy instruction Moore and his colleagues (1999, P. 5) identified and outlined the following strategies that can be used across a broad range of texts including: activating their prior knowledge of the topic and text, predicting and questioning themselves about what they read, making connections to their lives and other texts and to their expanding worlds, summarizing key ideas, synthesizing information from various sources, identifying, understanding, and remembering key vocabulary, and many other factors. Sheorey and Mokhtari (2001) refer to metacognitive reading strategies as three sub categories: Global, Problem solving and Support strategies. Global strategies are intentional and carefully planned by learners to monitor their reading, such as having a purpose in mind, previewing the text, checking how text content fits its purpose, noting text characteristics like length and organization, and predicting or guessing the text’s meaning. Problem-solving strategies are the actions that readers employ while they are working directly with the text, especially when the text becomes difficult; these strategies include guessing the meaning from unknown words, adjusting one’s reading rate, visualizing the information read, resolving conflicting information, and rereading the text to improve comprehension. Support strategies are what readers use to aid comprehension, such as using a dictionary, taking notes, highlighting textual information, or translating from one’s mother tongue to the target language. Several studies have been investigated the relation between reading comprehension strategies and students achievement. The link between reading comprehension strategies and student achievement and their majors is under questioning.

E. High school majors

Education in Iran is highly centralized and is divided into Kindergarten through 12th Grade education and higher education. K-12 education is supervised by the Ministry of Education and higher education is under supervision of Ministry of Science and Technology. There are four stages in Iran's educational system namely; Primary school (Dabestân), guidance school (Râhnamâyi), High school (Dabirestân), and pre-university (Peeshdaneshgahe). High school (Dabirestân), for which the last three years is not obligatory and it is divided between theoretical, vocational/technical and manual, each program with its own specialties. The requirement to enter into higher education is to have a High school diploma, and finally pass the national university entrance examination, Iranian University Entrance Exam (Konkur).

The process of choosing a major starts in 9th grades as students use different interest inventories to identify what they enjoy doing and may want to do in future. During the first grade of High school, students will do more interest inventories by their advisors’ help and with parental ideas. High school
education is divided into two main branches namely, academic/general and technical/vocational. The choice of either branch is up to pupils themselves. Choosing a major is required by the Ministry of Education and Training legislation; moreover, completing a major is required to graduate from high school. Additionally, students may change majors at various points throughout the school year.

There are at least six main majors including: Math - Physics, Natural Sciences, Humanities, vocational, technical, and theology available for students in Iran. Majors such as Mechanic, Computer, Design, Agriculture, Accounting, Family management, Wood Industrial, Topography, Found, and so on are in the vocational-technical services cluster.

Although many studies have been done on the reading comprehension instruction, few studies have been done on students’ application of different reading comprehension strategies, and their majors. The present study will investigate whether there is a relationship between learners’ reading comprehension strategies, and their majors.

III. METHODOLOGY

A. Participants

To collect the required data in order to answer the research questions five groups of EFL High school students from different parts of the country at least from seven provinces from public school were selected. The sample was accidental sampling and intact groups. The participants were from Gorgan, Ahvaz, Nishabour, Mashhad, Gonabad, Zabol, Gaen, Birjand, and Tehran. The total numbers of participants were more than 789 EFL students. Selected groups were from different majors (Math - Physics, Natural Sciences, Humanities, vocational, and technical) in grade two. They were both male and female. They ranged in age from 16 to 17 and had already studied English for 4 years at school. All of these subjects had the same training programs in English.

The responsive participants were 133 students from Technical, Vocational with 172 students, Math with 132, Humanities with 206 students, and Natural Science with 146 students.

B. Instrumentation

In this research, both qualitative, student’s observation, and quantitative data (student questionnaire on reading comprehension strategies were used in order to provide the necessary data (See Appendix A&B).

Reading comprehension strategy Use Survey adapted from Cohen, Oxford and Chi (2005) was used.

The questionnaire contained thirty statements about the various techniques students' use when reading materials in English. The items were divided into sections, each related to three different types of strategies: Global strategies: (Items 1, 3, 4, 6, 8, 12, 15, 17, 20, 21, 23, 24, 27), Problem solving strategies: (Items 7, 9, 11, 14, 16, 19, 25, 28), and Support strategies: (Items 2, 5, 10, 13, 18, 22, 26, 29, 30). They were asked to mark the choices in twenty minutes.

C. Study Design
In order to address research questions the study was designed in a correlation and factorial way that would be appropriate for providing the desired information. Participants were not chosen by simple random sampling, but rather as intact groups and accidental sampling. The study was based on the Language Strategy Use Inventory suggested by Cohen, Oxford and Chi (2005).

D. Procedure

In this study the researcher compared five groups of high school EFL students including 789 learners in grade two to determine the related reading comprehension strategies in different majors. Some instructions were sent in print for those teachers that could help the researcher in distributing and gathering questionnaires in other cities.

By the way the questionnaire for the students was translated in Persian to be more understandable and respondents could give more genuinely responses. The translated questionnaire was piloted in order of its content validation. The researcher got revisory views of his MA colleagues and Persian experts.

It should be mentioned that the students were given enough time to complete all the questions. After that the delivered filled questionnaires were analyzed for the purpose of data analysis, to identify the relationship between different reading comprehension strategies applied by high school students in different majors.

IV. ANALYSIS OF THE RESULTS

To test the proposed research question, the quantitative data were analyzed through applying descriptive statistics, and inferential statistics. All of the data described in the previous subsections were first organized into raw data files. The researcher first calculated the participants’ views on each statement in the survey and participants responses were classified based on their majors. The calculation of the data was done by the use of SPSS software.

A. Descriptive Statistics

The purpose of this phase of the analysis was to obtain descriptive statistics for the participants’ scores on Reading comprehension strategies, and majors. The data were first organized into profiles of raw scores for conducting statistical analyses. The results are shown in Tables 1-5 which lists the mean, standard error of mean, standard deviation (SD) of the participants’ majors.

Table 1. Descriptive statistics of participants from different majors

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Technical</td>
<td>133</td>
<td>16.9</td>
<td>16.9</td>
<td>16.9</td>
</tr>
</tbody>
</table>
Vocational | 172 | 21.8 | 21.8 | 38.7 
Math | 132 | 16.7 | 16.7 | 55.4 
Humanities | 206 | 26.1 | 26.1 | 81.5 
Natural Science | 146 | 18.5 | 18.5 | 100.0 
Total | 789 | 100.0 | 100.0 | 

Based on table 1 (16.9%) participants were from Technical students (21.8%) from Vocational, (16.7%) Math students, (26.1%) from Humanities, and Natural students with (18.5%).

B. Descriptive Data of Students' Reading Comprehension Strategies Use in Different Majors

The Reading comprehension strategy Use Survey has been quantified by assigning points to each of the responses. The obtained results have been shown in table 2.

Table 2 Descriptive Data of Students' Reading Comprehension Strategies Use in Different Majors

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Mean</th>
<th>Std. Error of Mean</th>
<th>Std. Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>60.4015</td>
<td>2.27983</td>
<td>26.19331</td>
<td>30.00</td>
<td>119.00</td>
</tr>
<tr>
<td>Natural Science</td>
<td>59.2890</td>
<td>1.99545</td>
<td>26.24610</td>
<td>30.00</td>
<td>115.00</td>
</tr>
<tr>
<td>Vocational</td>
<td>64.2093</td>
<td>2.14894</td>
<td>28.18303</td>
<td>29.00</td>
<td>119.00</td>
</tr>
<tr>
<td>Technical</td>
<td>64.9774</td>
<td>2.41585</td>
<td>27.86098</td>
<td>11.00</td>
<td>120.00</td>
</tr>
<tr>
<td>Humanities</td>
<td>61.8689</td>
<td>1.82198</td>
<td>26.15036</td>
<td>11.00</td>
<td>117.00</td>
</tr>
</tbody>
</table>

The results exhibit in table 2 provides the mean values of five groups (60.40, 59.28, 64.20, 64.97, and 61.86) respectively. The results revealed that the students of five majors did not differ significantly in their use of reading comprehension strategies. For more information see appendix C.

A series of observations was also made by the researcher on the students' employing strategies in different majors. In order to describe the data from Classroom observation Coding protocol for different majors, the researcher labeled 1 for Humanities, 2 for Math, 3 for Natural science, 4 for technical, and 5 for vocational. Then obtained data that were from ten class observation were categorized in table 3.
As shown in Table 3, all students from different majors use the same strategies, and there was not any differences regarding the observed strategies in protocol except for summarizing and comprehension monitoring that were used more by math, natural science, and humanities. In compatibility with Reading comprehension strategies use Survey by Cohen, Oxford and Chi (2005) "summarizing" is somehow the equivalent of "note taking" related to support strategies which gained the significance of (p=.020 < .05) in data analysis of questionnaire. (The detailed analysis regard each of statements of the questionnaire is included in appendix C).

Also, "comprehension monitoring" is the equivalent of "determining what to focus or not" as global strategies which gained the significance of (p=.007 < .05) in data analysis of the questionnaires items. So that the detailed analysis of parameters of the questionnaire was beyond the scope of this part of the study, researcher put it in appendix C to give more information to reader. Results from Classroom observation coding protocol comparatively to other results from teacher's interviews and questionnaire was in agreement.

C. Results of Research Hypotheses (Inferential Statistics)
The purpose of this phase of the analysis was to make inferences from samples to populations, hypothesis testing, determine relationships among variables. The results are shown in Tables 4-12 which lists the Chi-square, P Value, and Correlations.

To find out, Is there any relationship between reading comprehension strategies used by Iranian EFL learners and their majors in high school? One-Sample Kolmogorov-Smirnov Test was run. Results of One-Sample Kolmogorov-Smirnov tests are presented in Table 4.

Table 4 One-Sample Kolmogorov-Smirnov test

<table>
<thead>
<tr>
<th>Strategies</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>789</td>
</tr>
<tr>
<td>Normal Parameters</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>62.2129</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>26.9320</td>
</tr>
<tr>
<td>Absolute</td>
<td>.111</td>
</tr>
<tr>
<td>Positive</td>
<td>.103</td>
</tr>
<tr>
<td>Negative</td>
<td>-.111</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
<td>3.111</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Test distribution is normal
b. Calculated from data

As it can be seen in table 4 the mean for reading comprehension strategies is 62.21, Standard deviation is 26.93, Kolmogorov-Smirnov Z is 3.11. According to table 4 the Significance of (2-tailed) is (P=0.00<0.05); then, the distribution is not normal

To compare the reading comprehension strategies used and students' majors, so that scores come from different groups, we used The Kruskal-Wallis test. The results of Kruskal's test are presented in table 5.

Table 5 Kruskal's test on Iranian EFL learners Reading comprehension strategies and their majors

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Chi-Square</th>
<th>df</th>
<th>Asymp.</th>
</tr>
</thead>
</table>

Vol. 8, Issue 3, March 2018
The statistical results of *Kruskal's test* in table 5 showed ($x^2=4.192$, df= 4, p=0.381>0.05) in using global strategies by five majors (For detailed results of each statement see appendix D).

To compare the mean score of reading comprehension strategies used and students' majors, Mann-Whitney U test from non-parametric tests was conducted. This test is the alternative to the independent-samples t-tests in parametric tests. The results of Mann-Whitney U's tests with meaningful significance are presented in table 6.

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Rank</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical</td>
<td>133</td>
<td>416.81</td>
</tr>
<tr>
<td>Vocational</td>
<td>172</td>
<td>410.08</td>
</tr>
<tr>
<td>Math</td>
<td>132</td>
<td>380.32</td>
</tr>
<tr>
<td>Humanities</td>
<td>206</td>
<td>394.99</td>
</tr>
<tr>
<td>Natural Science</td>
<td>146</td>
<td>370.66</td>
</tr>
</tbody>
</table>

Table 6 Mann-Whitney U Test Results Comparing Means of Iranian EFL learners Reading Comprehension Strategies in Technical and Math Students

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean Rank</th>
<th>Mann-Whitney U</th>
<th>Asymp. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical</td>
<td>133</td>
<td>138.53</td>
<td>8043.000</td>
<td>.238</td>
</tr>
<tr>
<td>Math</td>
<td>132</td>
<td>127.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support Strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical</td>
<td>132</td>
<td>137.54</td>
<td>8046.500</td>
<td>.282</td>
</tr>
<tr>
<td>Math</td>
<td>132</td>
<td>127.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem Solving</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical</td>
<td>133</td>
<td>142.47</td>
<td>7518.500</td>
<td>.043</td>
</tr>
<tr>
<td>Math</td>
<td>132</td>
<td>123.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical</td>
<td>133</td>
<td>139.18</td>
<td>7956.500</td>
<td>.187</td>
</tr>
<tr>
<td>Math</td>
<td>132</td>
<td>126.78</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Mann-Whitney U test results in table4.2.4 (U=8043.000, p=. 238>.05), (U=8046.500, p=. 282>.05), (U=7518.500, p=.043<.05), (U=7956.500, p=. 187>.05) for using global, support, problem solving and overall strategies in Math and Technical students respectively. It showed that the p-value was only lower
than the significance level of .05 (p< .05) in problem solving strategies in Math and Technical ((p=0 .043, p< .05).

For comparing the means of Iranian EFL learners Reading comprehension strategies Vocational and Natural science students, again Mann-Whitney U test from non-parametric tests was conducted because its distribution was non-normal too.

Table 7 Mann-Whitney U Test Results Comparing Means of Iranian EFL learners Reading Comprehension Strategies in Vocational and Natural Science Students

<table>
<thead>
<tr>
<th></th>
<th>Vocational</th>
<th>Natural Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Strategies</td>
<td>172</td>
<td>146</td>
</tr>
<tr>
<td>Mean Rank</td>
<td>167.63</td>
<td>149.92</td>
</tr>
<tr>
<td>Mann-Whitney U</td>
<td>11158.000</td>
<td>10580.500</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.086</td>
<td>.015</td>
</tr>
<tr>
<td>Support Strategies</td>
<td>172</td>
<td>146</td>
</tr>
<tr>
<td>Mean Rank</td>
<td>170.99</td>
<td>145.97</td>
</tr>
<tr>
<td>Mann-Whitney U</td>
<td>10580.500</td>
<td>12506.000</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.015</td>
<td>.951</td>
</tr>
<tr>
<td>Problem Solving Strategies</td>
<td>172</td>
<td>146</td>
</tr>
<tr>
<td>Mean Rank</td>
<td>159.21</td>
<td>159.84</td>
</tr>
<tr>
<td>Mann-Whitney U</td>
<td>12506.000</td>
<td>11297.000</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.951</td>
<td>.123</td>
</tr>
<tr>
<td>Strategies</td>
<td>172</td>
<td>146</td>
</tr>
<tr>
<td>Mean Rank</td>
<td>166.82</td>
<td>150.88</td>
</tr>
<tr>
<td>Mann-Whitney U</td>
<td>11297.000</td>
<td>11158.000</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.123</td>
<td>.086</td>
</tr>
</tbody>
</table>

The results of Whitny-Mann U test in table7 (U=11158.000, p=. 086>.05), (U=10580.500, p=. 015<.05), (U=12506.000, p=.951>.05), (U=11297.000, p=. 123>.05) in using global, support, problem solving and overall strategies by Vocational and Natural science students respectively. It showed that the p-value was only lower than the significance level of .05 (p< .05) for support strategies in Vocational and Natural science ((p=.015, p<.05). Except in two case noted before, the p-value was higher than the significance level of .05. Therefore, it can be concluded that there was no significant difference among Global, Support, and Problem Solving strategies in other majors (p>.05). (For more information see appendix E).

V. Discussion & CONCLUSION

The interpretations of the significant results reported in data analysis and a discussion of the practical applications of these findings to EFL instructors, reference to the literature and researcher's claims are presented. Next, the limitations of the study and giving suggestions for future research are presented.
The research question will be restated and the answers, based on the findings of the study, will be provided below.

**Question.** Is there any relationship between reading comprehension strategies used by Iranian EFL learners and their majors in high school?

**A. Discussion**

To answer the research question 1, is there any relationship between reading comprehension strategies used by Iranian EFL learners and their majors in high school, One-Sample Kolmogorov-Smirnov Test was conducted. As the results of the analysis (Table 4) indicate, Iranian high school EFL learners in different majors use the same reading comprehension strategies. Furthermore, the results obtained from the analysis of the Classroom observation coding protocol for different majors have confirmed and were in agreement to other data. Moreover, Kruskal–Wallis H, and Mann-Whitney U tests were conducted. The results of the analysis (Table 5), in Kruskal's test, did not show any significant relationship in the use of overall reading comprehension strategies among the five majors.

One most interesting finding was that the results of the Mann-Whitney U test on the relationship between Iranian EFL learners Reading comprehension strategies (sub-strategies) and students' majors (Tables 6 &7) showed a meaningful relationship in using Problem solving strategies by Technical and math students. The other meaningful relationship was using Support strategies by Vocational and Natural science students. So, the findings of this study show that there was not any relationship between overall reading comprehension strategies used by Iranian EFL learners and their majors in high school, except for some sub-strategies and majors. Consequently research question 1 was answered.

Although very little was found in the literature on the question one specially, studies on students' majors, but the researcher found valuable findings. There are similarities between the findings in this study and those described by Tabatabaei & Assari(2011). Taking into account Iranian high school EFL teaching and learning context in which resources including time, materials, and qualified EFL teachers are nearly equal, Iranian high school EFL learners are more likely to have the same chances for the instructions to develop their reading strategies through their English classes. Bear in mind that point, this result may be defended.

Contrary to the use of overall reading comprehension strategies used by technical, Vocational, Math, Humanities, and Natural science students, Technical and math students showed preferences in using problem solving strategies that was in consistent with the study of Tabatabaei & Assari (2011), and Vocational and Natural Science students' preferences in using Support strategies. The finding may be justifiable based on the courses that students in Math and Technical majors study. However, the findings of the current study do not support the previous research, Wu (2005) reported that Taiwanese college students majoring in applied foreign language and education used more metacognitive reading strategies than those majoring in food beverage management and applied math. As Sheorey and Mokhtari (2001), Mokhtari and Reichard (2004), Martinez (2008), Malcolm (2009) and Karbalaei (2010) believed in the area...
of metacognitive awareness of reading strategies, the results of the researcher's study was incompatible to the previous studies regarding the use of overall reading comprehension strategies.

**H0.** There is not any relationship between reading comprehension strategies used by Iranian EFL learners and their majors in high school.

The results obtained in the previous chapter showed that Iranian High school EFL learners in different majors use similar reading comprehension strategies.

Based on the analysis of the result, null hypothesis that stating there is not any relationship between reading comprehension strategies used by Iranian EFL learners and their majors in high school was confirmed. It showed that although there were differences in the means of sub strategies (problem solving and support) use across the five majors, the differences in overall reading strategy use were not statistically significant. This finding refute somehow the previous studies indicating in using overall reading comprehension strategies for all students the same (Tabatabaei & Assari, 2011; Sheorey & Mokhtari, 2001; Mokhtari & Reichard, 2004; Martineze, 2008; Malcolm, 2009, and Karbalaei, 2010). The reason might be due to the fact that students had almost the same reading task requirements across the five fields of study, as Flavell (1979) has suggested the knowledge about the demands of a task interacts with the learners’ level of strategy knowledge and vice versa.

**B. Conclusion**

The purpose of this study was to examine the relationship between Iranian high School EFL learners’ reading comprehension strategies and their majors. Specifically, this study sought to investigate the relationships between applied reading comprehension strategies and students majors for junior (second grade of high school) students. Reading comprehension strategies data were collected via Reading comprehension strategy Use Survey adapted from Cohen, Oxford and Chi (2005), Classroom Observation Coding Protocol adapted in (Coyne, 1981; urkin, 1978-1979), and Teachers’ interview for the use of reading comprehension strategies by their students. In general, the results of the current study supported the researcher’s expectations that reading comprehension studies would not be related to student's majors.

The Kruskal-Wallis test result between variables of the overall reading comprehension strategies and different majors of students; namely, Humanities, Natural science, Math, Vocational, and Technical did not show any meaningful difference. Also, Mann-Whitney Test result between variables of the overall reading comprehension strategies and different majors of students did not show any meaningful difference. But based on Mann-Whitney Test results between variables of the reading comprehension strategies (support, global, and problem-solving) and different majors of students, problem-solving strategies were significantly related to math and technical students and support strategies significantly related to vocational and natural science students.

The researcher’s study showed a slightly differences in using some sub-strategies for some students in specific majors; namely, problem-solving strategies for Technical and math, and Support strategies for
Vocational and Natural Science students. Those differences could be due to the intellectual and background difference of students.

Because reading comprehension strategies are a significant construct in learners' education, it is important to nurture this factor in students. It is equally important for a school’s learning environment to foster this as well.

VI. Pedagogical implications

Despite the lack of support for the hypothesis found during the study, the goal of the study was accomplished. The results of this study provide researchers and instructors with a better understanding of the variables of reading comprehension strategies and students majors.

Research in the field of reading comprehension has revealed that using reading comprehension strategies for all majors in high school is the same. This information can be used by ESL and EFL writing instructors to make more informed choices in their classroom practices and pedagogy. Educators should avoid using only certain reading comprehension strategies for students in certain majors, and refrain from the use of controlling reading comprehension strategies. By noticing that Vocational high School students in Iran are students in trouble in English classes in comparison to the students of other majors, and the suggestion of managements of schools is that we should not expect more from our students by this justification that our students in referred major are not taught and learn some strategies, instruction and monitoring of reading comprehension strategies for all students in different majors in an equal manner is necessary for our teachers. These results highlight the students' individual differences and the necessity of ESL and EFL instructors’ understandings of the individual differences of their students

In summation, more research needs to be done to determine the relationships of EFL learner's reading comprehension strategies and their majors.

VII. Suggestions for Future Research

The results of this study provide potential insights for future research. First and foremost, more studies need to be done on student's majors in high school.

Because the existence of a national concern for our country’s educational system regard to teaching English, research on the impact of reading comprehension strategies on students’ education, further experimental research on reading comprehension strategies instruction for different majors and its effect on language achievement, the amount of its influence, and their congruent in different high school majors needs to be done. Any follow up research should take into consideration the limitations of this study and make appropriate improvements to the measures and sampling procedure employed by this study.

Acknowledgements

We wish to express our gratitude to the professors and teachers who kindly let us in their classes to administer the questionnaire and all students who participated in this study and patiently accomplished the task.
APPENDIX A

Classroom Observation Coding Protocol

(Coyne, 1981; Durkin, 1978-1979)

Name:                            School:                    Male/ Female

CODE: The category in which the observed behavior occurs.

PA: Participatory Approach

This code is reserved for instances in which students present information to the class or act as conveyors of information. As defined by Jetton and Alexander (2004), the participatory approach provides students with learning opportunities that promote peer collaboration and increase the likelihood that students will construct knowledge for themselves.

AS: Assignment

The teacher checks, gives, or assists students with an assignment. The assignment may be in-class or outside of school, and includes both assignments focusing on reading and assignments focusing on content material. Assignments may also include the teacher leading students in a writing assignment. This code also includes the teacher giving tests, reviewing homework or class work assignment, and conferencing with students on individual work. In these assignments, students work independently without teacher-centered instruction.

CI-QA: Comprehension Instruction – Question Answering

The teacher asks students to answer questions from the text as a comprehension strategy. Students independently search for answers in the text. Here the teacher provides feedback of the correctness of student responses.

CI-QA: Comprehension Instruction – Question Generation

The teacher asks students to generate questions from the text as a comprehension strategy. Questions can be of who, what, why, when, where, and how nature. In addition to posing questions, students are responsible for answering them.

CI-S: Comprehension Instruction – Summarization

The teacher asks students to summarize informational text either orally or in writing. Here the teacher asks students to identify the main ideas and central points in a text.

CI-GO: Comprehension Instruction – Graphic Organizers
The teacher employs graphic organizers as a means for students to process and comprehend text. Graphic organizers can include any type of visual or semantic organizers intended to assist students with comprehension and to understand the meanings and relationships in text. This can include guided practice or independent practice.

CI-CO: Comprehension Instruction – Cooperative Learning

The teacher gives students independent practice in cooperative learning, where readers apply comprehension strategies together. This may include small groups or partners reading and comprehending texts together.

CI-CM: Comprehension Instruction – Comprehension Monitoring

Here the teacher asks and encourages students to be metacognitive and aware of their understanding during reading. The teacher provides students with fix-it strategies to deal with such problems. Comprehension monitoring can include teacher-led think-aloud. Additional comprehension monitor includes teacher-generated discussions of comprehension difficulties and application of strategies.

CI-TS: Comprehension Instruction – Text Structure

The teacher provides students with information on how to use narrative and informational text structure to understand text. This can include plot, sequencing, characters, and events in narrative text and text features such as titles, headings, pictures, captions, typology, charts, graphs, glossaries, and appendices in informational text.

CI-MS: Comprehension Instruction – Multiple Strategies

Here the teacher guides students in applying several procedures with flexibility and appropriate application to increase comprehension. For this code, comprehension instruction must include at least two or more combinations of the following four strategies: question generation, summarization, clarification, and prediction (NRP, 2000).

APPENDIX B

Language Strategy Use Survey

Andres D. Cohen, Rebecca L. Oxford and Julie C. Chi (2005)

Name:    School:    Sex: Male/ Female

1. The following statements are about the various techniques you use when reading materials in English. After reading each statement, circle the number (1, 2, 3, 4) which applies to you. Note that there is no right or wrong responses to any of the items on this survey.

1. I use this strategy and like it

2. I have tried this strategy and would use it again
3. I’ve never used this strategy but am interested in it

4. This strategy doesn’t fit for me

Statement

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have a purpose in mind when I read.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. I take notes while reading to help me understand what I read.</td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. I think about what I know to help me understand what I read.</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>4. I take an overall view of the text to see what it is about before reading it.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. When text becomes difficult, I read aloud to help me understand what I read.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I think about whether the content of the text fits my reading purpose.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I read slowly and carefully to make sure I understand what I am reading.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I review the text first by noting its characteristics like length and organization.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. I try to get back on track when I lose concentration.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I underline or circle information in the text to help me remember it.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I adjust my reading speed according to what I am reading.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. When reading, I decide what to read closely and what to ignore.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. I use reference materials (e.g. dictionary) to help me understand what I read.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
14. When text becomes difficult, I pay closer attention to what I am reading.

15. I use tables, figures, and pictures in text to increase my understanding.

16. I stop from time to time and think about what I am reading.

17. I use context clues to help me better understand what I am reading.

18. I paraphrase (restate ideas in my own words) to better understand what I read.

19. I try to picture or visualize information to help remember what I read.

20. I use typographical features like bold face and italics to identify key information.

21. I critically analyze and evaluate the information presented in the text.

22. I go back and forth in the text to find relationships among ideas in it.

23. I check my understanding when I come across new information.

24. I try to guess what the content of the text is about when I read.

25. When text becomes difficult, I re-read it to increase my understanding.

26. I ask myself questions I like to have answered in the text.
27. I check to see if my guesses about the text are right or wrong.

28. When I read, I guess the meaning of unknown words or phrases.

29. When reading, I translate from English into my native language.

30. When reading, I think about information in both English and my mother tongue.

What other reading strategies do I use?

End of Questionnaire

Thank You

Note:

Global strategies: Items 1, 3, 4, 6, 8, 12, 15, 17, 20, 21, 23, 24, 27

Problem solving strategies: Items 7, 9, 11, 14, 16, 19, 25, 28

Support strategies: Items 2, 5, 10, 13, 18, 22, 26, 29, 30

APPENDIX C

Descriptive Data of Reading Comprehension Strategies

Table 8 Descriptive Data of Reading Comprehension Strategies in Humanities Major Students

<table>
<thead>
<tr>
<th>Item</th>
<th>used</th>
<th>have tried</th>
<th>have used</th>
<th>Doesn't fit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>f</td>
<td>F</td>
<td>f</td>
</tr>
<tr>
<td></td>
<td>Valid Percent</td>
<td>Valid Percent</td>
<td>Percent</td>
<td>Percent</td>
</tr>
<tr>
<td></td>
<td>f</td>
<td>F</td>
<td>f</td>
<td>Valid Percent</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Setting purpose</td>
<td>98</td>
<td>47.8</td>
<td>46</td>
<td>22.4</td>
</tr>
<tr>
<td>Using prior</td>
<td>89</td>
<td>43.6</td>
<td>55</td>
<td>27.0</td>
</tr>
</tbody>
</table>
knowledge

<p>| Previewing the text | 74 | 35.9 | 60 | 29.1 | 42 | 20.4 | 28 | 13.6 | 2.1176 | 1.05321 |
| Checking fitness of content and purpose | 62 | 30.2 | 52 | 25.4 | 65 | 31.7 | 26 | 12.7 | 2.2683 | 1.02957 |
| Skimming the text to note its characteristics | 61 | 29.6 | 59 | 28.6 | 63 | 30.6 | 21 | 10.2 | 2.2157 | .98888 |
| Determining what to focus or ignore | 70 | 34.3 | 55 | 27.0 | 41 | 20.1 | 38 | 18.6 | 2.2304 | 1.11455 |
| Using tables, figures and pictures | 76 | 37.1 | 60 | 29.3 | 43 | 21.0 | 26 | 12.7 | 2.0927 | 1.04140 |
| Using context clues | 66 | 32.2 | 62 | 30.2 | 55 | 26.8 | 22 | 10.7 | 2.1610 | .99923 |
| Using typographical aids | 81 | 39.7 | 55 | 27.0 | 38 | 18.6 | 30 | 14.7 | 2.0833 | 1.08183 |
| Evaluating text critically | 66 | 32.0 | 80 | 38.8 | 37 | 18.0 | 23 | 11.2 | 2.0825 | .97179 |
| Resolving conflicting information | 71 | 35.0 | 67 | 33.0 | 35 | 17.2 | 30 | 14.8 | 2.1182 | 1.05108 |
| Using context clues | 80 | 39.0 | 62 | 30.2 | 37 | 18.0 | 26 | 12.7 | 2.0439 | 1.03990 |
| checking the accuracy of predictions | 73 | 35.6 | 69 | 33.7 | 38 | 18.5 | 25 | 12.2 | 2.0732 | 1.01436 |
| note-taking | 60 | 29.3 | 75 | 36.6 | 47 | 22.9 | 23 | 11.2 | 2.1610 | .97440 |
| reading aloud | 62 | 30.2 | 62 | 30.2 | 44 | 21.5 | 37 | 18.0 | 2.2732 | 1.08172 |
| underlining and circling | 84 | 41.0 | 60 | 29.3 | 31 | 15.1 | 30 | 14.6 | 2.0341 | 1.07275 |
| Using reference materials | 65 | 31.7 | 61 | 29.8 | 53 | 25.9 | 26 | 12.7 | 2.1951 | 1.02468 |
| Paraphrasing | 93 | 45.1 | 59 | 28.6 | 36 | 17.5 | 18 | 8.7 | 1.8981 | .98491 |
| Going back and forth in the text | 73 | 37.1 | 48 | 24.4 | 53 | 26.9 | 23 | 11.7 | 2.1320 | 1.04630 |</p>
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Note: f refers to the frequency

As Table 8 shows, for Humanities students, the means of individual strategy use ranged from high (mean of 2.166 or higher), moderate (mean of 2.00 to 2.156) and low usage (mean of 1.99 or lower). The means of individual strategy use ranged from a high 2.32 (Pausing and thinking what is read) to a low of 1.83 (reading slowly) and the mean of overall strategy usage was 2.07 that showed a moderate overall strategy usage among Humanities participants.

A closer examination of Table 8 demonstrates that for Humanities students, 6 out of 30 reported strategies (20%) fell in the high usage category (mean of 2.166 or higher) and 17 strategies (56.66%) indicated moderate usage of these strategies (means between 2.00 to 2.156) and 7 strategies (23.33%) had means below 1.99 and fell in low usage strategy group. Also, it has been illustrated that:

The five highest mean of reported individual reading strategies include Global strategies, support types, and problem-solving as follows:
1- Global strategies: Checking fitness of content and purpose. (M= 2.26)
2- Global strategies: Skimming the text to note its characteristics.(M=2.21)
3- Global strategies: Determining what to focus or ignore. (M= 2.23)
4- Support: reading aloud (M= 4.20).
5 -Problem- solving: Pausing and thinking what is read. (M= 2.32)

And the five lowest reported reading strategies included all of the three categories of problem solving, support and global:
1- Global- Using prior knowledge (M= 1.92).
2- Support- paraphrasing (M = 1.89).
3- Problem- solving - reading slowly (M= 1.83).
4- Problem- solving - Adjusting reading rate (M= 1.87).
5- Problem- solving- Paying close attention to the text (M= 1.87).

Table 9 Descriptive Data of Reading Comprehension Strategies in Technical Major Students

<table>
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<th>item</th>
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<th>have used</th>
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Results show for Technical students, the means of individual strategy use ranged from high (mean of 2.35 or higher), moderate (mean of 2.19 to 2.34) and low usage (mean of 2.18 or lower). The means of individual strategy use ranged from a high of 2.51 (Resolving conflicting information) to a low of 2.03 (Using context clues) and the mean of overall strategy usage was 2.27 that showed a moderate overall strategy usage among Technical participants.
A closer examination of Table 9, demonstrates that for Technical students, 5 out of 30 reported strategies (16.66%) fell in the high usage category (mean of 2.35 or higher) and 18 strategies (60%) indicated moderate usage of these strategies (mean of 2.19 to 2.34) and 7 strategies (23.33%) had means below 2.18 and fell in low usage strategy group. Also, it has been illustrated that:

The five highest mean of reported individual reading strategies just include Global and support strategies:

1- Global strategies: Resolving conflicting information. (M= 2.51)
2- Global strategies: Skimming the text to note its characteristics. (M=2.37)
3- Global strategies: Using tables, figures and pictures. (M= 2.36)
4- Support: Note taking (M= 2.37).
5- Support: Going back and forth in the text.( M= 2.36)

And the five lowest reported reading strategies included all of the three categories of problem solving, support and global:

1- Global- Using context clues (M= 2.03).
2- Global – setting purpose (M= 2.12).
3- Support – using reference materials (M= 2.03).
4- Problem- solving – reading slowly (M= 2.07).
5- Problem- solving- Pausing and thinking what is read (M= 2.05).

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<tr>
<th>Item</th>
<th>Used</th>
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<th>have used</th>
<th>Doesn’t fit</th>
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Table 10 Descriptive Data of Reading Comprehension Strategies in Vocational Major Students
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 4 | 72 | 42.1 | 47 | 27.5 | 27 | 15.8 | 25 | 14.6 | 2.0292 | 1.08154 |
| 6 | 43 | 25.0 | 44 | 25.6 | 47 | 27.3 | 38 | 22.1 | 2.4651 | 1.09435 |
| 8 | 55 | 32.4 | 48 | 28.2 | 33 | 19.4 | 34 | 20.0 | 2.2706 | 1.11884 |
| 12 | 50 | 29.6 | 55 | 32.5 | 36 | 21.3 | 28 | 16.6 | 2.2485 | 1.05662 |
| 15 | 59 | 35.1 | 41 | 24.4 | 45 | 26.8 | 23 | 13.7 | 2.1905 | 1.06637 |
| 17 | 52 | 30.6 | 40 | 23.5 | 42 | 24.7 | 36 | 21.2 | 2.3647 | 1.12893 |
| 20 | 74 | 43.3 | 38 | 22.2 | 30 | 17.5 | 29 | 17.0 | 2.0819 | 1.13463 |
| 21 | 30 | 17.5 | 69 | 40.4 | 44 | 25.0 | 47 | 25.6 | 2.4651 | 1.09435 |
| 23 | 60 | 35.1 | 57 | 33.3 | 34 | 19.9 | 20 | 11.7 | 2.0819 | 1.00836 |
| 24 | 70 | 41.2 | 42 | 24.7 | 38 | 22.4 | 20 | 11.8 | 2.0471 | 1.05366 |
| 27 | 55 | 32.4 | 43 | 25.3 | 43 | 25.3 | 29 | 17.1 | 2.2706 | 1.09207 |
| 2 | 47 | 27.5 | 57 | 33.3 | 45 | 26.3 | 22 | 12.9 | 2.2456 | .99907 |
| 5 | 50 | 29.2 | 50 | 29.2 | 33 | 19.3 | 38 | 22.2 | 2.3450 | 1.12366 |
| 10 | 68 | 39.5 | 46 | 26.7 | 36 | 20.9 | 22 | 12.8 | 2.0698 | 1.05731 |
| 13 | 46 | 27.1 | 41 | 24.1 | 38 | 22.4 | 45 | 26.5 | 2.4824 | 1.15243 |
| 18 | 67 | 39.2 | 45 | 26.3 | 44 | 25.7 | 15 | 8.8 | 2.0409 | 1.00210 |
| 22 | 35 | 20.5 | 46 | 26.9 | 54 | 31.6 | 36 | 21.1 | 2.5322 | 1.04198 |
| 26 | 55 | 32.2 | 51 | 29.8 | 38 | 22.2 | 27 | 15.8 | 2.2164 | 1.06549 |
| 29 | 53 | 31.0 | 53 | 31.0 | 43 | 25.1 | 22 | 12.9 | 2.1988 | 1.02107 |
| 30 | 55 | 32.7 | 37 | 22.0 | 31 | 18.5 | 45 | 26.8 | 2.3929 | 1.19898 |
| 7 | 95 | 55.2 | 44 | 25.6 | 21 | 12.2 | 12 | 7.0 | 1.7093 | .93491 |
| 9 | 77 | 45.8 | 49 | 29.2 | 24 | 14.3 | 18 | 10.7 | 1.8988 | 1.01273 |
| 11 | 59 | 34.3 | 59 | 34.3 | 27 | 15.7 | 27 | 15.7 | 2.1279 | 1.05738 |
| 14 | 71 | 41.5 | 52 | 30.4 | 36 | 21.1 | 12 | 7.0 | 1.9357 | .95268 |
| 16 | 46 | 26.9 | 64 | 37.4 | 42 | 24.6 | 19 | 11.1 | 2.1988 | .96174 |
According to table 10 the means of individual strategy use ranged from high (mean of 2.26 or higher), moderate (mean of 1.98 to 2.25) and low usage (mean of 1.97 or lower) for Vocational students. The means of individual strategy use ranged from a high of 2.53 (going back and forth in the text) to a low of 1.70 (reading slowly) and the mean of overall strategy usage was 2.11 that showed a moderate overall strategy usage among Technical participants. A look at the table 4.6, demonstrates that for Vocational students, 9 out of 30 reported strategies (30%) fell in the high usage category (mean of 2.26 or higher) and 15 strategies (50%) indicated moderate usage of these strategies (mean of 1.98 to 2.25) and 6 strategies (20%) had means below 1.97 and fell in low usage strategy group. Also, it has been illustrated that the five highest mean of reported individual reading strategies just include Global and support strategies:

1- Support: Going back and forth in the text (M= 2.53).
2- Support – using reference materials (M= 2.48).
3- Global strategies: Evaluating text critically (M= 2.45).
4- Global strategies: Checking fitness of content and purpose (M=2.46).
5 – Support: Thinking about information in both L2 and L1 (M=2.39).

And the five lowest reported reading strategies included all of the three categories of problem solving, support and global:

1- Problem- solving – reading slowly (M= 1.70).
2- Global – setting purpose (M= 1.78).
3- Problem- solving: Trying to stay focused on reading (M=1.89)
4- Problem- solving: Paying close attention to the text (M=1.93).
5- Problem- solving: Re-reading (M= 1.82).

Table 11 Descriptive Data of Reading Comprehension Strategies in Math Major Students

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Page 125
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</table>
Calculated data as shown in table11 revealed that for Math students the means of individual strategy use ranged from high (mean of 2.19 or higher), moderate (mean of 1.95 to 2.18) and low usage (mean of 1.94 or lower). The means of individual strategy use ranged from a high of 2.43 (checking fitness of content and purpose) to a low of 1.70 (visualizing) and the mean of overall strategy usage was 2.06 that showed a moderate overall strategy usage among Math participants.

A look at the table4.1.5, demonstrates that for Vocational students, 9 out of 30 reported strategies (30%) fell in the high usage category (mean of 2.19 or higher) and 9 strategies (30%) indicated moderate usage of these strategies (mean of 1.95 to 2.18) and 12 strategies (40%) had means below 1.94 and fell in low usage strategy group. Also, it has been illustrated that: The five highest mean of reported individual reading strategies include all Global, support, and problem-solving strategies:

1- Global strategies: Checking fitness of content and purpose (M = 2.43).
2- Problem-solving strategies – pausing and thinking what is read (M = 2.40).
3- Global strategies: using context clues (M = 2.33).
4- Global strategies: using tables and figures (M = 2.29).
5- Support: Thinking about information in both L2 and L1 (M = 2.25).

And the five lowest reported reading strategies included all of the three categories of problem solving, support and global:

1- Problem-solving – visualizing (M = 1.70).
2- Global strategies – using prior knowledge (M = 1.71).
3- Problem-solving: reading slowly (M = 1.77).
4- Support: translating to native language (M = 1.82).
5- Global strategies: setting purpose (M = 1.82).

Table 12 Descriptive Data of Reading Comprehension Strategies in Natural Science Major Students

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Table 12 Descriptive Data of Reading Comprehension Strategies in Natural Science Major Students
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Finally, as Table 12 shows, for Natural science students, the means of individual strategy use ranged from high (mean of 2.05 or higher), moderate (mean of 1.83 to 2.04) and low usage (mean of 1.82 or lower). The means of individual strategy use ranged from a high of 2.27 (paraphrasing) to a low of 1.61 (Thinking about information in both L2 and L1) and the mean of overall strategy usage was 1.94 that showed a moderate overall strategy usage among Natural science participants.

A closer examination of Table 14.1.6, demonstrates that for Natural science students, 4 out of 30 reported strategies (13.33%) fell in the high usage category (mean of 2.05 or higher) and 16 strategies (53.33%) indicated moderate usage of these strategies (mean of 1.83 to 2.04) and 10 strategies (33.33%) had means below 1.82 and fell in low usage strategy group. Also, it has been illustrated that:

The five highest mean of reported individual reading strategies include all global, support, and problem solving strategies:

1- Support strategies: paraphrasing. (M = 2.27)
2- Support strategies: read aloud. (M = 2.16)
3- Support strategies: translating in native language. (M = 2.11)
4- Global strategies: Reviewing the text (M = 2.14).
5- problem-solving: Trying to stay focused on reading. (M = 2.15)

And the five lowest reported reading strategies included all of the three categories of problem solving, support and global:

1- Global- Using context clues (M = 1.83).
2- Global – Using typographic aids (M = 1.80).
3- Support – Thinking about information in both L2 and L1 (M= 1.61).

4- Problem- solving – Guessing the meaning of the underlined words (M= 1.81).

5- Support - going back and forth in the text (M= 1.78).

Appendix D

Table 13 Kruskal-Wallis Test Results on Reading Comprehension Strategies and Students’ Majors

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The mean difference is significant at *p<0.05

Appendix E

Mann-Whitney U's Test Results

Table 14 Mann-Whitney U Test Results to Compare Means of Iranian EFL Learners Reading Comprehension Strategies and Technical and Vocational Students

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Vol. 8, Issue 3, March 2018
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Table 15: Mann-Whitney U Test Results to Compare Means of Iranian EFL Learners Reading Comprehension Strategies Technical and Natural Science Students

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References


Saricoban, A. (2002). Reading strategies of successful readers through the three phase approach. Reading Matrix, 2, 1-16.


The effect of Mindfulness-Based Stress Reduction (MBSR) on increasing the scales of mindfulness in Iranian people with social anxiety disorder

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Department of Clinical Psychology, Faculty of Humanities, Shahed University, Tehran, Iran

Ali Bozorgmehr
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*Corresponding Author

Abstract
Mindfulness-based stress reduction (MBSR) is shown as an effective intervention for reducing the signs and the symptoms of stress, depression and anxiety. Social anxiety as a common problem in the realm of childhood, juvenile and adulthood can be trained under MBSR to reduce cognitive distortions from self-socialization to create greater compliance. In this study, 21 Iranian subjects with social anxiety disorder (SAD) were selected according to the Social Phobia Inventory (SPIN), and the Structured Clinical Interview based on Diagnostic and Statistical Manual of Mental Disorders (SCID-I). The mindfulness group (10 subjects), received eight sessions of MBSR-based therapy, while the control group was expected to remain. The subjects completed the five-facet mindfulness questionnaire before and after treatment. Data analysis was performed by comparing mean scores of pre-test - post-test, based on Mann-Whitney U test. The results showed that MBSR program has increased mindfulness skills in all related sub-scales. According to our findings, MBSR, despite belonging to a distinct cultural context, is effective in increasing the skills of mindfulness in Iranian patients with SAD and that may be due to the existence of the same basic neural processes among different populations.

Keywords: Mindfulness-based stress reduction, MBSR, Mindfulness skills, Social anxiety disorder, SAD, Iranian people

Introduction
Social anxiety disorder (SAD), a psychological situation characterized by symptoms such as debilitating anxiety and too obvious vigilance in routine public situations, is appeared as fear and avoidance of communal interactions along with physiological symptoms (Jefferys, 1997; Kessler et al., 1994). People with SAD have a chronic continuous fear of being humiliated, judged and evaluated negatively by others. Intensity of the fear may rise as much as affect their critical performance (M. B. Stein & Stein, 2008). The high prevalence of this disorder (13%) (Kessler et al., 1994), along with high levels of stress and its associated problems, becomes a public health concern nowadays (Kashdan, Ferssizidis, Collins, & Muraven, 2010). In this way, fortunately, a variety of psychological approaches, including psychoanalysis, behavioral therapy, cognitive therapy and cognitive-behavioral therapy (CBT) have been
developed (Barlow, 2002). Nevertheless, the contradictory results as well as the unsustainable treatments, introduced a new dimension in the area of CBTs. So, we see that in the last decade, the third wave therapies such as mindfulness- and acceptance- based methods have been proposed to improve cognitive - behavioral interventions and boost the effectiveness of treatment (Hayes, 2004). According to several studies, mindfulness-based treatment has been an effective approach in the range of mood and anxiety disorders, and preliminary investigations have proven the claim (P. R. Goldin & Gross, 2010). The concept of mindfulness has attracted much attention in the field of emotional basic researches, clinical sciences, and Cognitive Neuroscience. Mindfulness-based stress reduction (MBSR), as a structured group program developed by Kabat-Zinn in 1990, can be pointed as one of the most important mindfulness-based treatments (Pickert, 2014). This method, as an efficient way of clinical interventions related to anxiety disorders, depression and other areas, has been attended and supported by many researchers (Bowen et al., 2006; Carmody, Baer, L. B. Lykins, & Olendzki, 2009). According to several studies on mood and anxiety disorders, MBSR has been a productive treatment, and preliminary investigations indicate that this method can also be effective in the treatment of SAD (P. R. Goldin, Ziv, Jazaieri, Hahn, & Gross, 2013; P. R. Goldin & Gross, 2010). In a study by Goldin and Gross on patients with SAD, it has been found that during treatment, individuals who had practiced focused attention on breathing, had fewer negative emotional experiences and decreased amygdala activity, while, showed increased performance of the brain regions associated with attention (P. R. Goldin & Gross, 2010). Their explanation was that MBSR training may reduce avoidance behaviors and clinical symptoms and automatic reactivity (P. R. Goldin & Gross, 2010). In addition, preliminary evidence suggests that the use of MBSR technique reduces biased perception and improves people's interpretation, performance and quality of life (Carlson, Speca, Patel, & Goodey, 2003). Today, numerous studies are being conducted on the effectiveness of the mentioned treatment and its impact on distinct cultures (Brady, O'Connor, Burgermeister, & Hanson, 2012; P. R. Goldin & Gross, 2010). Moreover, Carmody believes that in order to clarify the effect of mindfulness training, it must be used in different cultures (Carmody et al., 2009). So, this research has been performed in order to determine the effect of the mindfulness-based stress reduction program to increase the skills of mindfulness in typical social anxiety disorder in Iranian population. In Iran, MBSR has been used to improve the skills of mindfulness in various complications such as exam anxiety (chamarkohi & Mohammadamini, 2012), depression in patients with chronic low back pain (Masumian, Golzari, Shairi, & Momenzadeh, 2013), obsessive - compulsive disorder (Sajadian, Neshat Doost, Moolavi, & Maroofi, 2008), rumination and depression (Azargooin, Kajbaf, Moulavi, & Abedi, 2009), negative thoughts, anxiety and depression (Kaviani, Hatami, & Abdollah, 2009), and panic disorder (Sohrabi, Jafarifard, Zarei, & Eskandari, 2013). However, the efficacy of MBSR to increase mindfulness skills in social anxiety disorder has not been investigated so far. Thus, according to the above statements, SAD is accompanied with a wide range of functional disorders in emotional, professional and interpersonal life. Because in recent years, mindfulness program has been used to treat multiple disorders, but an appropriate research on its effectiveness in Iran has not been performed so far, the main issue of this study is to examine whether mindfulness-based stress reduction can increase the mindfulness of people with social anxiety in Iranian population.

Methods
Participants

Statistical population included 21 students of Shahed University (Tehran, Iran) who show symptoms of social anxiety disorder. The 21 patients were randomly divided into two groups, 10 in the mindfulness group and 11 in the control group. The sample size considered close to the same studies performed outside Iran (Atrifard et al., 2013; chamarkohi & Mohammadamini, 2012; Philippe Goldin, Ramel, & Gross, 2009; P. R. Goldin & Gross, 2010; Sajadian et al., 2008).

Procedure

This study was a Quasi-experimental, pretest - posttest study with mindfulness and control groups. So, the independent variable is the mindfulness-based stress reduction program (MBSR), and Mindfulness scales are considered as dependent variables. Entry criteria were as follows: the age range 18 to be 30 years old, with symptoms of social anxiety disorder based on the Social Phobia Inventory (SPIN) (Connor et al., 2000) and the Structured Clinical Interview according to DSM-IV (SCID-I) (First, Spitzer, Miriam, & Williams, 2002) and being satisfied to participate. Exclusion criteria included pharmacological or non-pharmacological psychological treatments, participants' withdrawal prior to the completion of the treatment sessions and also existence a concurrent diagnosis of avoidant personality, obsessive-compulsive disorder and depression. Flow of participants through the study is demonstrated in figure 1.

Intervention: Selected subjects were divided into mindfulness and control groups, and pre-test was conducted in accordance with specified tools. Then, eight sessions of stress reduction group therapy based on mindfulness-based stress reduction (MBSR) were conducted for the experimental group and finally two groups were evaluated at the end of the eighth session. MBSR sessions are held weekly as eight 120-minute group sessions. In this study, a treatment plan was based on the content of the MBSR program of Kabat-Zinn (Ludwig & Kabat-Zinn, 2008) and MBSR Workbook (Stahl & Goldstein, 2010). The sessions aimed to teach the concept of mindfulness, awareness of the connection between mind and body, mindfulness during breathing, stay in the present moment, eight attitudes of mindfulness training (nonjudging, beginner's mind, acceptance, drop, patience, without effort and kindness and relying on self-feelings) using the techniques and skills of mindfulness meditation and yoga in both formal and informal approaches.

Measures

Social Phobia Inventory (SPIN): This questionnaire was prepared by Connor and colleagues to assess social anxiety (Connor et al., 2000). This questionnaire is a self-assessment tool that consists of three sub-scales including fear (six items), avoidance (seven items), and physical discomfort (four items). SPIN is scaled based on the Likert scale of 5 degrees. Appropriate psychometric properties of this questionnaire have been reported in the American population. The test-retest coefficient during the 2-weeks has been reported between 0.78 and 0.89, and its internal consistency by Cronbach's alpha has been reported between 0.89 and 0.94 (Connor et al., 2000). In Iran, this tool was carried out on two groups with social anxiety and anxiety disorders along with healthy controls, and the results have been indicated significant mean differences between three groups (Atrifard et al., 2013). In a study by Hasanvand Amoozadeh et al.,
the Cronbach's alpha of the test was obtained between 0.74 and 0.89 and the test-retest coefficient was calculated 0.68 and its sub-scales validity with the validity of SCL-90-R social phobia sub-scales and the self-Esteem (SERS) grading scale was obtained between 0.64 obtained 0.78 (Hasanvand Amoozadeh, 2013). The questionnaire was used in the first stage of research and pre and post-test stages to measure social anxiety in participants.

The diagnostic interview based on DSM-IV (SCID-I): This interview is based on the symptomatic criteria of "Diagnostic and Statistical Manual of Mental Disorders, Forth Edition" (Diagnostic and Statistical Manual of Mental Disorders (DSM), 2000). Social anxiety diagnosis was confirmed through this interview. In this regard, according to DSM-IV, the differential diagnosis includes: panic disorder with or without agoraphobia, agoraphobia without history of panic, generalized anxiety disorder, schizoid personality disorder, avoidant personality disorder, physical deformity disorder, major depressive disorder, depression and schizophrenia. Amini et al examined the validity of this interview and evaluated the validation based on the kappa index above 4.0. Furthermore, this study reported a better specificity compared to sensitivity for this interview, if the diagnosis provided by psychiatrists considered the Gold Standard (Amini et al., 2004). This interview is translated into Persian, and the questions associated with social anxiety disorder and related differential diagnosis is separated from the main collection and was used to confirm the diagnosis of people with social anxiety in this study.

Five-facet mindfulness questionnaire (FFMQ): This questionnaire is developed by the combination of Freiburg Mindfulness Inventory (FMI) (Walsh, Balint, Smolira Sj, Fredericksen, & Madsen, 2009), Mindful Attention Awareness Scale (MAAS) (Brown & Ryan, 2003), Kentucky Inventory of Mindfulness Skills (Baer, Smith, & Allen, 2004), and Five-Facet Mindfulness Questionnaire by Bauer et al using factor analysis approach (Baker, Smith, & Hopkins, 2006). In 2006, Baer conducted exploratory factor analysis on a sample of university students (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). The questionnaire had 112 items and based on the results; four from the five factors were comparable with KIMS known factors, and the fifth factor include items from FMI and MQ, which was defined as a non-reactivity state to inner experience. Five factors of mindfulness (observing, describing, acting with awareness, nonjudging of inner experience and nonreactivity to inner experience) with 39 items were inspected. Baer et al. reported an appropriate internal consistency between factors and calculated alpha coefficient for nonreactivity to inner experience equal to 0.75, 0.91 for describing, 0.83 for observing, 0.87 for acting with awareness, and 0.87 for nonjudging of inner experience (Baker et al., 2006). correlation between the factors was significant and was reported in the range of 0.15 to 0.34 (Neuser, 2010). In a study by Ahmadvand and colleagues in Iran (Ahmadvand, Heydarinasab, & Shairi, 2012), aimed to evaluate the psychometric properties of the questionnaire, the alpha coefficients were reported in a range from 0.55 to 0.83. The results also demonstrated that the correlation coefficient of the whole questionnaire is equal to 8.0, and most of the correlation between five factors related to nonjudging of inner experience (0.57). To check the validity of this tool, NEO-FFI questionnaire, Schering Emotional Intelligence Questionnaire, psychological well-being questionnaire and SCL-25 questionnaires were used (Ahmadvand et al., 2012). The results showed good reliability and convergent-divergent validity for five-facet mindfulness questionnaire in non-clinical Iranian samples (Ahmadvand, Heydarinasab, & Shairi, 2013).
Data analysis

In addition to using descriptive statistics, due to the lack of assumptions of parametric statistics, the means difference related to the pre-test - post-test and also pre-test between the two groups, was compared using non-parametric Mann-Whitney test.

Results

The aim of this study was to determine the effectiveness of the "mindfulness-based stress reduction program" on increasing the mindfulness in Iranian people with social anxiety. In this regard, after the process of intervention and evaluation, data were analyzed. Descriptive indicator related to the age of the participants of the mindfulness and the control groups and comparison of the two groups before intervention based on the Mann-Whitney test is presented in Table 1. As it can be seen, two groups were not significantly different from each other.

The social anxiety and mindfulness of the mindfulness and the control groups before intervention are also shown and compared with each other in Error! Reference source not found..

The results in Table 2 show that the Z score related to the comparison between two groups in the social anxiety and in any of its sub-scales (fear, avoidance and physiological symptoms) and also in the mindfulness level and in any of its sub-scales (observing, describing, acting with awareness, nonjudging of inner experience and nonreactivity to inner experience) was not significant in the pre-intervention stage.

Descriptive indicator related to the five-facet mindfulness questionnaire (FFMQ) of participants in both the Mindfulness and control groups before, and after the experimental is shown in Table 3. As it can be seen, in the experimental group, indicators are meaningfully different before and after the intervention, while the control group did not differ considerably.

Results in Table 4 shows that mindfulness-based stress reduction program could increase mindfulness in general and in terms of observing, describing, acting with Awareness, nonjudging of inner experience and nonreactivity to inner experience in the mindfulness group compared to the control group.

In order to facilitate the comparison between mindfulness and control groups with each other about the mindfulness and its sub-scales, the group results related to percent of score changes are presented in Table 5. The mean of percentage changes in each sub-scale score of the mindfulness group is more than the control group. This means that the mindfulness in the mindfulness group after the mindfulness-based stress reduction is dramatically increased compared with the control group.

Discussion
The aim of this study was to examine the effectiveness of the mindfulness-based stress reduction (MBSR) program to increase mindfulness skills in people with social anxiety. The results of this study suggest that the use of MBSR leads to an increase in mindfulness in people with SAD or in generally in five dimensions: observing, describing, acting with Awareness, nonjudging of inner experience and nonreactivity to inner experience. In explaining the mechanism of these method (MBSR) neuropsychologically, several authors had presented their views. Based on emotion regulation process model of Gross (P. Goldin et al., 2013), emotion regulation strategies such as the position selection, making up attention, cognitive alteration and adjustment of reaction can be changed during treatment. There is evidence that MBSR and meditation practice have effects on the making up the attention, and perceptive control abilities have effects on negative rumination (Ramel, Goldin, Carmona, & McQuaid, 2004), focused attention (Philippe Goldin et al., 2009) and emotional orientation and regulation (Jha, Krompinger, & Baima) following by mental flexibility and making the individual able to get rid of annoying stimuli (Lutz, Slagter, Dunne, & Davidson, 2008). On the other hand, several studies considered the impact of MBSR based on the pattern of brain activity. In this regard, to identify the neural patterns associated with symptoms, methods such as brain anatomical and functional imaging (fMRI and fcMRI) have been used. These findings show hyperactivity in brain regions related to the immediate emotional reactions in people with social anxiety disorder. The studies have reported numerous inadequacies and dysfunctions in the dorsolateral and medial frontal cortex, posterior cingulate, inferior parietal lobe and supramarginal gyrus (D. J. Stein, Ives-Deliperi, & Thomas, 2014). A number of other studies emphasize the impact of mindfulness exercises on the left frontal lobe area that seems to be associated with emotion regulation (Davidson et al., 2003). The people their brain activity pattern is higher in these areas are less affected by stressful events. Moreover, based on evidence, pre-frontal areas responsible for decision-making, reasoning and emotional feeling is thicker in those who have conducted mindfulness exercises regularly. Davidson argues that the practice of mindfulness can affect the frontal area of the brain, which performs full processing and influences different areas of the brain and body (Kring, 2012). In 2011, Kilpatrick et al. showed that MBSR subjects have altered intrinsic functional connectivity in ways that may demonstrate a more consistent attentional focus, enhanced sensorial processing, and intellectual awareness of experiences (Kilpatrick et al., 2011). So, a lot of evidence about the neuropsychological patterns, reminds us that MBSR can affect the brain, functionally and anatomically. However, fluctuations and shortcomings in results should not be ignored. In explaining the psychological mechanisms underlying the MBSR program, several authors have studied the effects of mindfulness practices on cognitive-based processes and have tried to explain the potency of this method with the help of evidence from meta-cognitive theories. For example, Clark and Wells (Clark & Wells, 1995) expressed the assumption that people with social anxiety, create their assumptions about their social status based on their initial experiences. Thus, they assess communal interactions as scary and negative events. So, if people with SAD can face the assumptions about themselves and their situation without judgment through therapy, they will be more comfortable with the position of fear, eventually leading to reduce of their symptoms. Some other studies argue that in social anxiety disorder, avoidance behaviors appear as narrowly avoidance in all aspects of life (e.g., relationships, career, health, etc.). Kabat-Zinn believes that mindfulness makes it very flexible and more accepting in affected people (Kabat-Zinn et al., 1992). In addition, the acceptance can be considered as a mediating factor in the relationship between social
anxiety and behavioral disturbances. High levels of acceptance among people with social anxiety lead to admitting any anxious thoughts and feelings and not trying to control or avoid them, and it reduces confusion and dysfunctions (Herbert & Cardaciottto, 2005). As the current research findings suggest the effect of MBSR to reduce symptoms of social anxiety and increase the mindfulness variables, it can be emphasized on the targets this program aimed to explain. Based on the contents of the MBSR sessions, therapist prefers to decouple from the thoughts while seeing them objectively. It is therefore expected that mindfulness-based stress reduction program would cause results, which are: Create a Meta-cognitive insight, where, thoughts are not considered as the representation of reality and are intended to be seen only as mental events that can be evaluated or corrected; Freedom from worrying strategies that are derived from maladaptive ideas; Flexible responses to threats; Develop techniques to control cognition (Wells, 2002).

On the other hand, it seems that mindfulness with its two fundamental components, attention to current experience and openness to the experience, provide the ability to recognize nonjudging thoughts, feelings and emotions without the person being involved or to avoid it, and this leads to the emotional stability. So the effect causes reducing the symptoms of anxiety and fear and deal with stress in a constructive way. If people are mindful about their reactions to stressful situations (such as public speaking, etc.), they will learn how to respond to it in a more productive and coordinated way (Stahl, Goldstein, & Kabat-Zinn, 2010). This is especially true in studied cases and cannot be simply ignored. MBSR, for individuals with SAD include to not only focus on how and what is happening now, but all experience covers the present moment. Instead of judging a person's experience, mindfulness practice encourages to accept physical sensations, emotions and thoughts (Koszycki, Benger, Shlik, & Bradwejn, 2007). Furthermore, in MBSR, people learn a different way to connect with their experiences (seeing the emotions, thoughts and physical sensations, with a receptive and nonjudging view). This progressively makes people aware of their automatic thought patterns (habitual manners are often used in different experiences), and during sessions, they can see how the reaction will lead to continued anxiety and fear. They learn to distinguish between reactions and practiced responses to issues, and gradually replace immediate reactions by proficient responses (Chaskalson, 2011). So mindfulness is dealing with the issues that lead the person to avoid inner painful experiences (Baer, 2003). Mindfulness can also reduce unsuccessful attempts to avoid or control or suppression of unwanted thoughts and emotions (Roemer et al., 2009). This study has some restrictions such as limited demographic and geographic characteristics, the lack of follow-up and placebo-treated group. The researchers suggested that given the current limitations of this study, future research would check the effects of this treatment program on social anxiety disorder or other clinically relevant cases in a different range.

Conflicts of interest
The authors have no conflict of interest.

Ethical approval
All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.
Informed consent
Informed consent was obtained from all individual participants included in the study.

References:


Herbert, J. D., & Cardaciotto, L. A. (2005). An Acceptance and Mindfulness-Based Perspective on Social Anxiety Disorder. In S. M. Orsillo & L. Roemer (Eds.), *Acceptance and Mindfulness-Based Approaches to Anxiety: Conceptualization and Treatment* (pp. 189-212). Boston, MA: Springer US.


### Table 1 Comparison of the age of the subjects in two groups before intervention

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<th>Indicator</th>
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<th>Number</th>
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<th>Mean rank</th>
<th>Z</th>
<th>Significance level</th>
</tr>
</thead>
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<td>10.68</td>
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### Table 2 Comparison of social anxiety and mindfulness of the experimental and control groups before intervention.

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<th>Pre-test S. D.</th>
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<th>Mean rank</th>
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</table>

Table 3 Descriptive indicators related to the five-facet mindfulness questionnaire (FFMQ) of participants in both the Experimental and control groups before and after the test.
<table>
<thead>
<tr>
<th>Experimental</th>
<th>Mean</th>
<th>Deviation</th>
<th>Maximum of the differences between pre and post-test scores</th>
<th>Standard deviation of the differences between pre and post-test scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>24</td>
<td>3.76</td>
<td>20</td>
<td>31</td>
</tr>
<tr>
<td>Post-test</td>
<td>29.80</td>
<td>2.65</td>
<td>25</td>
<td>34</td>
</tr>
<tr>
<td>Describe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>22.3</td>
<td>7.05</td>
<td>12</td>
<td>32</td>
</tr>
<tr>
<td>Post-test</td>
<td>26.80</td>
<td>4.58</td>
<td>20</td>
<td>33</td>
</tr>
<tr>
<td>Act with Awareness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>22.9</td>
<td>5.66</td>
<td>13</td>
<td>31</td>
</tr>
<tr>
<td>Post-test</td>
<td>27.80</td>
<td>2.93</td>
<td>23</td>
<td>31</td>
</tr>
<tr>
<td>Nonjudge</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>20.2</td>
<td>5.09</td>
<td>13</td>
<td>27</td>
</tr>
<tr>
<td>Post-test</td>
<td>27.20</td>
<td>4.21</td>
<td>21</td>
<td>33</td>
</tr>
<tr>
<td>Nonreact</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>19.2</td>
<td>4.13</td>
<td>12</td>
<td>25</td>
</tr>
<tr>
<td>Post-test</td>
<td>23.30</td>
<td>2.79</td>
<td>18</td>
<td>28</td>
</tr>
<tr>
<td>FFMQ Total score</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>109.4</td>
<td>18.68</td>
<td>75</td>
<td>142</td>
</tr>
<tr>
<td>Post-test</td>
<td>134.90</td>
<td>9.89</td>
<td>122</td>
<td>152</td>
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</tbody>
</table>

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### Table 4 Comparisons of mindfulness variable in the experimental and control groups based on Mann–Whitney U test scores before and after the test.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Group</th>
<th>Indicator</th>
<th>Number</th>
<th>Total rank</th>
<th>Mean rank</th>
<th>Z</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observe</td>
<td>Pre-test</td>
<td>24.63</td>
<td>5.74</td>
<td>17</td>
<td>34</td>
<td>0.72</td>
<td>3.60</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>23.90</td>
<td>5.64</td>
<td>16</td>
<td>35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describe</td>
<td>Pre-test</td>
<td>25.90</td>
<td>5.68</td>
<td>14</td>
<td>34</td>
<td>0.45</td>
<td>2.80</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>25.45</td>
<td>5.76</td>
<td>11</td>
<td>34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Act with Awareness</td>
<td>Pre-test</td>
<td>26.27</td>
<td>5.17</td>
<td>18</td>
<td>36</td>
<td>0</td>
<td>2.10</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>26.27</td>
<td>4.98</td>
<td>17</td>
<td>34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonjudge</td>
<td>Pre-test</td>
<td>21.81</td>
<td>7.26</td>
<td>10</td>
<td>35</td>
<td>1.54</td>
<td>3.11</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>20.27</td>
<td>6.05</td>
<td>10</td>
<td>28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonreact</td>
<td>Pre-test</td>
<td>17.63</td>
<td>3.52</td>
<td>8</td>
<td>21</td>
<td>1.18</td>
<td>3.42</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>16.45</td>
<td>3.53</td>
<td>10</td>
<td>22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFMQ Total score</td>
<td>Pre-test</td>
<td>116.27</td>
<td>14.65</td>
<td>92</td>
<td>140</td>
<td>3.90</td>
<td>7.62</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>112.36</td>
<td>13.48</td>
<td>83</td>
<td>132</td>
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<td></td>
</tr>
</tbody>
</table>

Note: Table 4 shows the comparisons of mindfulness variables in the experimental and control groups based on Mann–Whitney U test scores before and after the test.
Observe & Experimental & 10 & 69 & 6.90 & -2.907 & 0.003 \\
 & Control & 11 & 162 & 14.73 & \\
Describe & Experimental & 10 & 74 & 7.40 & -2.548 & 0.010 \\
 & Control & 11 & 157 & 14.27 & \\
Act with Awareness & Experimental & 10 & 73 & 7.35 & -2.582 & 0.008 \\
 & Control & 11 & 157 & 14.32 & \\
Nonjudge & Experimental & 10 & 66 & 6.60 & -3.110 & 0.001 \\
 & Control & 11 & 165 & 15 & \\
Nonreact & Experimental & 10 & 76 & 7.65 & -2.367 & 0.016 \\
 & Control & 11 & 154 & 14.05 & \\
FFMQ total score & Experimental & 10 & 67 & 6.70 & -3.032 & 0.002 \\
 & Control & 11 & 164 & 14.91 & 

Table 5 The results of pre-test and post-test percent variation in the experimental and control groups with respect to five-facet mindfulness questionnaire (FFMQ)

<table>
<thead>
<tr>
<th>Scale</th>
<th>Indicator</th>
<th>Group</th>
<th>Number</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>The mean of change percent in group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observe</td>
<td>Experimental</td>
<td>10</td>
<td>24.8</td>
<td>29.8</td>
<td>-22.01</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>11</td>
<td>24.63</td>
<td>23.09</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>Describe</td>
<td>Experimental</td>
<td>10</td>
<td>22.3</td>
<td>26.8</td>
<td>-27.67</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>11</td>
<td>25.9</td>
<td>25.45</td>
<td>1.80</td>
<td></td>
</tr>
<tr>
<td>Act with Awareness</td>
<td>Experimental</td>
<td>10</td>
<td>22.9</td>
<td>27.8</td>
<td>28.07</td>
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<tr>
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<td>Control</td>
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<td>26.27</td>
<td>26.27</td>
<td>-0.46</td>
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</tr>
<tr>
<td></td>
<td>Nonjudge</td>
<td></td>
<td>Nonreact</td>
<td></td>
<td>FFMQ total score</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
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</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>Control</td>
<td>Experimental</td>
<td>Control</td>
<td>Experimental</td>
<td>Control</td>
</tr>
<tr>
<td></td>
<td>10</td>
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<td>10</td>
<td>11</td>
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<td>11</td>
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<tr>
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<td>17.63</td>
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<td>3.52</td>
<td>18.68</td>
<td>14.65</td>
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<td>23.3</td>
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<td>134.9</td>
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<td>5.43</td>
<td>-29.51</td>
<td>4.44</td>
<td>-26.68</td>
<td>3.14</td>
</tr>
</tbody>
</table>
Examining the rational and theological implications of the Holy Quran

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Mahdee nourian
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Abstract
The main question of the research is whether the topics of the implications in logic conform to the verses of the Holy Qur'an? Considering the amazing eloquence of the word of revelation and the profound and profound meanings of these words and the fact that the Qur'an is one of the main sources of deducing judgments, the question is whether one can use logical implications in understanding the meanings and purposes of Quranic verses.

In this paper, we tried to apply logical rules in the discussion of intellectual and moral implications in a deep understanding and a better understanding of some of the verses of the Holy Qur'an, in the hope that other rational topics such as the arguments of the stewards and nonhuman arguments, such as types The contrast between the images and the images of contradiction, analogy, induction and allegory, as well as the speculations of argumentation, argumentation, and fallacy and ... are also carefully investigated by the researchers and researchers of Ahriman in the Quranic verses of the Holy Quran.

Key words: logic, signification, rational, natural, holy Quran.

Introduction:
The Holy Qur'an, as the last book of the heavens, has provoked the efforts of various scholars with different approaches to reach its high concepts and its proximity to its field. This Bible is one of the two main sources of pure Islamic teachings and divine revelations, which is the revelation of the 23 years of the Prophet's relationship with the Almighty Allah and, based on the research of Islamic scholars, is the only book that has been most written and researched about it.

Logic is one of the pivotal and influential scholars of Islamic sciences, which is responsible for introducing the correct way of thinking, and since the operation of thought in all the knowledge is the key to the desirable course of action, one can use logic as Fundamental to the development of various sciences. In addition to this universal and universal effect, the logic of science, by exposing the innumerable capacities of the mind, and strengthening humanity, in the use of the power of reason, provides the highest service to rational knowledge.

1- Signs of the sign

There are three basic pillars in every aspect:
A-Dahl
B- Relevant
C-Subjective transmission (i.e., knowledge of the existence of the relationship between the two)

Like when we hear the sound of impacts in the room, it quickly becomes clear that someone is behind the door and understands that he wants to enter the room.

Transmission is a semantic word, and the relation between two things, and the meaning of words, requires both sides, and these two sides must have a nominal and independent meaning.

It is not that from science to the existence of anything, the science of the existence of something else can be obtained, but it is not that we refer to any subjective transmission of the existence of something to something else.

For example, it sometimes takes years for someone to conclude, by reason of science, that there is something else.

We do not deny this. It also means that the transfer of mind from slab to signifier occurs quickly, but without distances.

2- Kinds of implications

2-1. Rational signification

In the event that there is an inherent relationship between the sign and the signifier, in such a way that one is another reason, then the implication is rational. From the sample Bob, the sound of a sound from the back of the wall implies the presence of speakers behind the wall; his voice is the reason to understand the presence of the sound behind the wall (Healey, 1371: 19).

2-2. Implicit

Sometimes the intense relationship between the two parties is not such that intrinsic perception naturally leads to another perception, but with regard to the nature of man, we pass from perception to something to perception of something else.(Muzaffar, 1422: 45)

2-3. Conditional implication

The transfer of sign from sign to signifier is not a thing of the past, but a contract that humans have made to meet their needs. Of the sample, humans use words or phrases, in other words, sounds and signs to express their intentions. Therefore, whenever the word or sign is such that the knowledge of the issuance of it by the speaker or the writer, science is meant to mean, it is called a conditional sign, which is twofold. (Ibn Sina, 1367: 195)

3- Review the rational implications in Quranic verses

A. In verse 2 of Mobarakeh Rada:) It is Allah who raised the heavens without pillars that you see. Then He willed to the Throne and subjected the sun and the moon, each pursuing an appointed course. He directs the affair. He makes plain His verses so that you will firmly believe in meeting your Lord (
Allah Almighty uses some kind of signs and signs in nature such as the heavens, the sun and the moon, and uses them as a sign of the signification of the existence of the resurrection and the guidance of the Lord. In particular, by referring to the regular flow of the circle of the sun and the moon, as well as the existence of invisible columns between the earth and the sky, which today's science translates into Newton's law of gravity, or the gravity of the earth, addresses the human intellect one day. The moderator will meet these signs and signs.

B. In verse 164 of Sura of Mobarat Bagheri: (In the creation of the heavens and the earth; in the alternation of night and day; in the ships that sail upon the sea with what is beneficial to the people; in the water which Allah sends down from the sky and with which He revives the earth after its death, and He spread in it from each moving (creation); in the movement of the winds, and in the clouds that are compelled between heaven and earth surely, these are signs for people who understand)

In this verse, referring to the creation of the heavens and the earth, the regular difference of night and day, and the movement of ships on the sea and the descent of rain to revive the earth and the movement of wind between heaven and earth from the order of all these natural affairs as verse and It serves as a sign of the use of the wise man, and at the end of the verse this rational signifies for those who are understandable and accepted in their minds in the creation of the creatures of God. (Tabatabai, 1417 AH, 1: 274)

C. In verse 65 of Mobarakheh Al-Imran's Sura: People of the Book, why do you dispute about Abraham when both the Torah and the Gospel were not sent down till after him? Have you no sense?

In this verse, to those of the Jews and Christians who each name Abraham as their followers of religion, he argued that the sinking of the Book of the Torah and the Gospel is located after Abraham, so he is not Jewish and Christian. At the end of the verse, he blames the use of thought and thought, and says, "Why do not you think and reason.

D. 103th verse of Mobarakheh Nahl:) We know very well that they say: 'A mortal teaches him.' The tongue of him at whom they hint is a nonArab; and this is a clear Arabic tongue.

In this verse, the Almighty God, in answer to the idolaters who say that the Qur'an is taught to the Prophet, human beings argue that the language of man is dysfunctional while the Qur'an is not in Arabic in Shiva and the word is human.

4. Review the implications of the Qur'anic verses

A. In verse 58 of Mobarakheh Nahl's Sura) When good news of the birth of a female is given to any of them, his face grows dark and inwardly he chokes.

The sign of the blackening of the facial expression is the fact that he is aware of the birth of his daughter's baby as a kind of implication that affects the intensity of the anger and sadness of the alphabet, which is mentioned at the end of the verse. The beautiful expression of the Qur'an in bringing the concept of the intensity of anger in the form of a change in the color of the face establishes the relation between the sign.
and sign in the minds of the audience based on the requirements of human beings, which is the same signification of the body.

B. In 19th chapter of Baghera: )Or, like (those who, under) a cloudburst from the sky with darkness, thunder and lightning, they thrust their fingers in their ears at the sound of every thunderclap for fear of death, and Allah encompasses the unbelievers(

Fingering of the fingers in the ears by humans when they hear the thunderous sound of the implications of the nature that in this verse Allah Almighty portrays the scene of the fear of the infidels of death while watching the divine retribution as human beings see this scene in front of their eyes. They understand the day and night well.

C. In verse 7 of Mobarakheh Surah Noah:) Each time I called them so that You might forgive them, they thrust their fingers in their ears and wrapped themselves in their garments, and persisted becoming very proud(

The people whom Noah invited them to believe in their failure to admit him to the implications of his fingers in their ears and to put on their clothes, indicating their unwillingness to hear the voice of Noah and to provoke them to invite the truth made.

D-119th verse of Mobarakheh Al-Imran: (There you are loving them, and they do not love you. You believe in the entire Book. When they meet you they say: 'We, believe. ' But when alone, they bite their fingertips at you out of rage. Say: 'Die in your rage! Allah has knowledge of what is in your chests)

In this verse, the human implications are used to show the intensity of anger and anger of the infidels, it is to tear the fingertips of the slab to the rage of infallibility and the indignation of the infidels, which is well depicted in this scene from the implications of the verse for the audience.

Conclusion:

The Holy Quran has used intellectual and social implications for understanding and achieving its high goals. Therefore, Islamic scholars can prove the rational and logical aspects of this Bible with the instrument of science of logic as the servant of science, and with the expressive and It is obvious to the world that Islam is not the religion of violence that is not illegal, but it is a religion of wisdom and logic.

References:
Holy Quran
Heli, Jamal al-Din Hassan ibn Yusuf al-Matahar, (1371 AD), Al-Jawahr al-Nahid Fi Description of the logic of al-Tajrid, Qom: Nichrome.
Ragheb Isfahani, Mohammad, (1412), Movaet Momordat, Quranic verses, Correction of Abraham Shamsuddin, First edition, Beirut: Dar al-Kabu
Sobhani, Ja’far (1423 AH), Mohammad Fayalulayat, Qom: Imam Sadiq Institute (Q).
Tabatabai, Seyyed Mohammad Hussein (1417 AH), Al-Mizan Fei Taksir Al-Quran, C 1, fifth edition, Qom: Islamic News Office
Tabatabai, Seyyed Mohammad Hussein (1417 AH), Al-Mizan Fei Taksir Al-Quran, C 1, fifth edition, Qom: Islamic News Office
Tabatabai, Seyyed Mohammad Hussein (1417 AH), Al-Mizan Fei Taksir Al-Quran, C 1, fifth edition, Qom: Islamic News Office
Mozaffar, Mohammad Reza, Al-Mantiq, (1422 AH), First Printing, Qom: Daral Alam Publishing House
Montazeri Moghadam, Mahmoud, (1999), Logic 2, Third edition, Qom: Center for Compiling Text Texts at Qom Seminary Management Center.
Theological foundations of the rules governing consumption from the perspective of the Quran and narrations

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Abstract
The primary orientation of divine schools, and in particular the Islamic law, is the cultivation of human beings and the strengthening of its foundations. Believed and educated man in the divine school system manages his consumer behavior in a way. Which does not raise any concern about the violation of the rights of all, the degradation of the environment and the developmental instability. Nevertheless, there are mechanisms in the religion that are embedded in the religion and applied principles that, while strengthening the educational aspect of the Muslims, outweigh the human extremes. Less educated or untrained. These principles form the foundations of Muslim beliefs and play an essential role in shaping their pattern of consumption. Believing in God and in the afterlife of the human caliphate in the land, human trust, the commonality of natural wealth is one of the most fundamental of these principles.

Keywords: Consumption, Faith in God, the Hereafter, Human Caliphate, Trust

Introduction
The primary orientation of divine schools, and in particular the Sharia of Islam, is the cultivation of man and the piety of his religious foundations, as the Prophet (pbuh) pays a significant portion of his mission, especially in Mecca. A believer and educated man, in the divine school, manages his consumer behavior in a way. Which will have no worries about the violation of the rights of allies, the degradation of the environment and the developmental instability. Nevertheless, mechanisms have been put in place in the religion and applied principles that, while strengthening the educational aspect of Muslims, prevent the extremism of less educated or uneducated people. Believing in God and believing in the human caliphate on earth, human trust, the universality of natural wealth is one of the most important components that human beings can change their lifestyles and regulate their use of Islam in the present article. With regard to these components, we will discuss the theoretical foundations of the rules governing consumption. These principles form the foundations of Muslim beliefs and play an essential role in shaping their patterns of consumption. It is also based on legal and ethical principles.

1. Faith in the Lord and the Hereafter
In the discussion of sustainable development, we pointed out that the most important factor in the failure of many efforts of international scientists and international organizations is the lack of an executive guarantee to comply with the obligations of these constituencies. This problem has been largely solved in divine schools. The first action the prophets did after their mission, The effort was to invite humans to obey God and believe in the world of the Hereafter and strengthen their faith. They knew well that whenever faith in God permeates one's heart, he does his activities as God wants. And as his love and faith increase to the Lord, his disobedience diminishes and his deeds become the color of God. This belief connects personal interests with social interests. In the shadow of the conviction that the sacrifice and
preeminence of the interests of the community leads to the eternal heavenly blessings, humans end up in material transient pleasures and even sacrifices the interests of society. In this view, many of the words of economy, such as coldness and desirability, are transformed and have a broader meaning. (Momeni, 1388, p 88) The God-fearing and resurrectionist man, not only in his own personal use, is the way to argue that he is vindicated in the small and large investments of resources, and from this the relation between piety and the increase of the blessings of God which is prophesied in Divine Word Is given meaning. On the other hand, given the value of work and religious endeavor, most of the capital of the community will spend more on investment, work and effort, and will lead to favorable development.

2. Human Caliphate on Earth

God Almighty, man has designated his Creator in the earth and placed the world in His conquests: Allah is the one who has put the sea to you, in order to navigate and use His bounty; perhaps thank you. (Jasieh, 12) Conquest does not mean absolute dominance over nature; it is a kind of use with guidance. If nature is to be considered human, that is to say, human beings are dominant in nature, and can do whatever it can, implicitly, the small part that some have taken to the teachings of the religions that the destruction of the environment is due to the look The domination of divine religions for man to nature is accepted (Hot, 1382) But the concept of conquering is that nature is capable of being guided and used in the best possible way, and human beings have the ability to use natural motifs with their intellectual powers to the extent necessary, and so-called nature in the sense of wax Man is human and does not show resistance in this direction. It can be likened to such a domination of fatherhood over his child that God has in fact placed this guidance and ability in man, and this never means that the father or teacher can do whatever he wants with his child To make Rain, which is one of the natural blessings of the Lord, when it is left to itself, destroys its path; but if it is guided and correctly laid down, it will be prevented from destroying it. (Bo ala, 1416, pp 262 – 267)

Man uses God’s grace in such a way that his Lord is pleased with him. He never attempts to exploit the monopoly nature of the rights of others, but is willing to give part of his work to other people or to engage in activities that are viewed as bad by generations: And spend what you used to replace [others] with. (Hadid: 7)

3. Human Borrowing

In liberal thinking, by establishing humanity in the face of God, and on the basis of the philosophical basis of the individual's origin, he considers himself the true owner of his property and gives him the right to confiscate his property. At this glance, the consumer can destroy rubbing, burning, or giving it to another. While the Muslim consumer takes God’s blessings into account and considers himself to be the lawyer of God in possession, this is a well-used Quranic verses and traditions:

And give him the money that God has given you. (Hadid: 7)

Imam Sadiq (Pbuh) says: All property is in the real possession of God, which is trusted by man. (Tabatabayi, 1363, cover8, p 93)

4. The universality of natural wealth
What is used in many Quranic verses is that the basic principle of natural wealth is that they belong to all people. The Qur'an has repeatedly emphasized the fact that God, the earth, the mines, and the seas and mountains, the sun, and the stars, have invaded mankind. Rain falls, dreams of plants, gardens and fruits ... and finally, everything that is on earth has created for man and his well-being; therefore, the appropriation of a part of the earth, mountain or raw materials requires a particular reason:

May Allah create for you what is on earth. (Baghareh: 29)

It is clear that the term "you" does not only refer to a group of people, but also covers all people. Elsewhere he says: God created the earth for people. (Rahman: 10)

Allameh Tabatabai (RA) says:

This is the Qur'anic truth which is the basis of many rules in Islam. The basic principle that everything in its framework is that all property is for everyone, and the interest of the people is to a degree that the public is not opposed to. (Tabatabayi, 1363, cover4, p 183)

Also, the verse that defines the state of affairs for Anfal, states the same thing. (Hashr: 7) The traditions of the Imam Imam (PBUH) also indicate that what is on earth is put to the use of all people. (Hur Ameli, 1409, cover 15, h2)

5. The inseparability of the world and the Hereafter

Observing the limits of consumption from the point of view of Islam, he does not throw him into the monastic world and leave the world because in the ideology of Islam, there is no conflict between the world and the hereafter and the use of the blessings of this world does not prevent man from the blessings of the future, as Imam Sadegh (PBUH) says: God will soon gather for us and our Shiites, the world and the hereafter. (Koleini, 1376, cover1, p 474, h5)

The Holy Qur'an also considers the notion that believers should not use the blessings of the world, and says:

Say (Prophet) that he has created the Lord for his servants and who has forbidden the clean days? Say these blessings in the life of the world to those who believe, and on the Day of Judgment they are special. (Araf: 32)

In the words of the infallibles (PBUH), the reward of someone who tries to secure his own life and his family through solvent is like the reward of the Mujahedin of the way of God. (Hur Ameli, 1409, cover 12, p 11, h 4) And those who have forbidden the blessings of God on their own, have been severely condemned. (Razi, 1395, kh209)

Conclusion

The pattern of consumption of each community has a decisive role in allocating production resources, the type of manufactured goods and their distribution, since the optimal allocation of resources for the production of goods and the provision of services to meet the essential and vital needs of society and the elimination of poverty and deprivation largely Understanding the correct pattern of consumption and its governance depends on a reasonable orientation towards the thoughts, beliefs, customs and accepted values of society, or, in short, the general public culture. As the consumption pattern wants to be based on Islamic values, the principles and assumptions derived from values must first be recognized. Islam has a lot of orders about respecting ethical values, self-denial, lack of confinement to purely economic,
simple, respectful, and ethical rationality, attention to the needy and avoiding both eyes and eyes. Therefore, the outlook of the pattern of consumption of such a human-centered ritual, with a minimum of faith in values, is different from a pattern that emphasizes purely economic and emotional rationalism. Also, different perceptions of values introduce different patterns to the society, which brings more research closer to each other.
References
Nahj al-Balagh
Ahmadian, Majid, 1381, Renewable Resource Economy, Tehran, Publication.
Boala, Ali, 1416, The nature and structure of Islamic economics, displacement, vision.
Hot, Jan Ef, 1382, Science and Religion, Translation of Batul Najafi, Qom, Book of Taha
Hur Ameli, Mohammad Hasan, 1409, Wesh al-Shi'a, Beirut, Dar al-'Ara'at al-Arabi.
Koleini, Mohammad Yagub, 1376, Sufficient Principles, Tehran, Dari Elektb al-Islamiyyah.
Momeni, Farshad, 1388, Challenges and perspectives for reforming consumption patterns, lectures at the
Institute of Religion and Economics.
Ostadi, Reza, 1379, Principles of Thought, Qom, Release.
Tabatabayi, Mohammad Hosein, 1363, Interpretation of Al-Mizan, translated by Seyyed Mohammad
Bagher Mousavi Hamedani, Qom, Qom Seminary Teachers Society.
Language Processes And Bilingualism In Polyethnic Environment: The Envisionation In The Republic Of Tatarstan

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Abstract
The contemporary globalizing society incorporates human beings into complicated relations of the multicultural environment influencing them in different ways which results in various combinations of ethnic and poly-ethnic identity in their consciousness. If it takes the form of eclectic fragmentation of cultural influences, the product is a painful identity crisis. However, this cannot be completely avoided either because of the rapidly gaining speed of globalist tendencies or because of the poly-ethnicity of the Russian society itself. The material of this article is the results of studies of the situation and trends in this field. These investigations were conducted by us at regular intervals since 1989 in the multinational city of Naberezhnye Chelny (the Republic of Tatarstan). The late 80-s and early 90-s brought about a situation when the silence on negative processes in the sphere of inter-ethnic relations was replaced by rapid dynamism and sharp contradictions associated with the end of the Soviet era. It was the interethnic sphere that was most of all affected by those contradictions. Naberezhnye Chelny is a mono-industrial city in the Republic of Tatarstan with the multinational population which emerged in the period of the construction of the KAMAZ plant. At present it is inhabited by more than 530 thousand people, including 47.4% of Tatars and 44.9% of Russian citizens. The rest are representatives of other diverse nationalities. The Republic of Tatarstan itself as a part of the Russian Federation is a visible example of a multi-ethnic and multicultural space. It is home to representatives of 115 nationalities. Official languages: Tatar, Russian. Tatars make up 53.2 % of the whole population, Russians — 39.7 %.
Methods of a longitudinal research allow making a comparative analysis of the empirical data that have been accumulating for several decades since 1989. The last empirical survey was conducted by us in 2017. This survey of Naberezhnye Chelny residents aged over 18 was carried out according to a stratified (regionalized) sample ($N = 650$). The article reflects the contradictions between ethnic groups on lingual issues, the different attitude of Russians and Tatars to bilingualism. It reveals their peculiarities in understanding these problems and underlines the necessity of either compulsory or optional learning of the Tatar language at school. The article also reflects the evolutionary dynamics of the assessments themselves. The article reflects the contradictory estimates of the processes of national development and the state of interethnic relations by the respondents, their attitude to the Tatar and Russian languages, as well as the evolutionary dynamics of the assessments themselves.

**Keywords:** ethnos, nation, language, bilingualism, identity, poly-ethnic environment, international relations, ethnic self-conscience, All-Russian identity.

**Introduction**

Diverse challenges of the modern time are related to fundamental shifts taking place at all levels (from personal to planetary ones) and in all spheres (ideological, scientific, ethno-cultural, technical, economic, etc.). These processes can have a positive trend, if they lead to a juxtaposition of national cultures and their positive interaction, reflect respect for national traditions, and thus contribute to the development of countries and peoples as well as of every individual. However, there are concerns that global changes may not lead to universal harmony, but to the total neglect of national characteristics, the disappearance of cultural diversity, the suppression of personal freedoms.

In the modern world, language processes are among the most vulnerable and are deeply woven into the context of ethno-cultural, socio-economic, geopolitical, and demographic shifts. Global trends in this sphere can hardly be considered positive.

"Over the past century alone, around 400 languages – about one every three months – have gone extinct, and most linguists estimate that 50% of the world’s remaining 6,500 languages will be gone by the end of this century (some put that figure as high as 90%, however). Today, the top ten languages in the world claim around half of the world’s population. Can language diversity be preserved, or are we on a path to becoming a monolingual species?" – wonders Rachel Nuwer [1].

In 2009 UNESCO's *Atlas of the world's languages in Danger* provided alarming data of the world's Languages in Danger. From the 6 thousand languages in the world as disappearing were recognized 2.5 thousand. Other 199 languages were used by no more than ten people each, and 200 languages have completely disappeared in the last few decades, UNESCO calculates the viability of languages according to some criteria, including the number of speakers, the transfer of language from generation to generation, the availability of educational materials, and the attitude to the language within society. Then all the languages are classified according to 6 categories: as ‘safe’, ‘vulnerable’, ‘definitely endangered’, ‘severely endangered’, ‘critically endangered’, ‘extinct’ [2].

The problems of linguistic diversity for Russia as a multiethnic country have never lost their acuteness and relevance. As it was truly admitted by the head of the Federal Agency for Nationalities Igor Barinov: "The preservation of the languages of the peoples of the country is very important for the harmonization of national relations and ensuring civil unity. In Russia, about 193 peoples speak 300 languages and dialects...At present 89 languages are involved in modern Russian school education, of which 30 are used as the languages of instruction" [3].
But that very UNESCO’s Atlas of the World’s Languages in Danger paints a less joyful picture. According to these data, in Russia 136 languages are in danger, and 20 of them have already been declared extinct. Among the extinct languages are mentioned, for example, Ainu, Yugsk, Ubykh, etc. But apart from them, 22 more are considered to be in a critical situation (Aleutian, Tersko-Saami, Itelmen, etc.), 29 languages – in serious danger (Nivkh, Chukchi, Karelian, etc.) [2]. However, the head of the Institute of Ethnology and Anthropology of the Russian Academy of Sciences named after N. N. Miklukho-Maclay V. A. Tishkov does not agree with these data and calls them “a myth about the extinction of languages” [4: 292]. At the same time he admits that "the domain of the existence of minority languages has narrowed, the number of those who know and speak those languages has decreased, there was observed a transition of a considerable part of the representatives of the minority peoples, if not the most of them into the domain of the Russian language" [4: 293]. According to him, there is "a language assimilation in favor of the Russian language" [4: 293]. "...But in general, it was a voluntary choice in favor of a more powerful and more important language of communication in our country. In some regions (primarily Dagestan and the Volga region), these processes were caused by the need to overcome excessive linguistic diversity through the adoption of a common language of communication, in others the language assimilation (or Russification) occurred under the influence of economic development, education, urban growth, migration" [4: 293].

In our view, both positions are not irrefutable. The UNESCO’s Atlas classifies as endangered or threatened languages, which are state ones in the national republics and thus more or less enjoy the support of the regional authorities. Particularly the Udmurt and Kalmyk languages are called disappearing and endangered, and the Chechen and Tuvinian languages are looked upon as being in the situation of concern. At the same time, it is hardly fruitful not to notice the obvious fact that Russia does not stand aside from the processes of globalization with all their positive and negative manifestations, and the sphere of language is not excluded from these processes, and it can hardly be considered a myth that the status of many languages is extremely complicated, and some of them are already in a critical situation.

The Tatar language does not belong to those languages which condition is the most alarming. Tatars are a Turkic ethnos and represent the second largest ethnic group in Russia after Russians. According to the 2010 population census, their number in Russia is more than 5.3 million people – 3.87% of the country’s population [5]. However, the problems faced by the Tatar language are also very significant. Suffice it to say that by the end of the 1980s, there was only one secondary school with the instruction in the Tatar language in Kazan, the capital of the Republic of Tatarstan, and only one in Naberezhnye Chelny, the second largest city of the republic. By the present moment the situation has largely been corrected. Today in Tatarstan there are more than 1000 Tatar schools, in which half of the Tatar children study, and about 900 Russian schools. The Tatar language, according to the republican law on languages of 1992, became a compulsory subject at schools for all students, and article 9 of this law says that "The Tatar and Russian languages at the organizations of general and vocational education are studied in equal volumes on the corresponding levels of secondary general and vocational education" [6].

However, after about one and a half decades of the boost of national education in the regions of Russia in the post-Soviet period, the opposite trend is again noted. According to the Center for Ethno-Cultural Education Strategy of the Federal Institute for the Development of Education, from 2008 to 2015, the average number of children studying languages of the peoples of Russia in the status of their native language at general educational organizations has decreased by 34% all over the country [7: 152]. In the Republic of Tatarstan the situation is not so dramatic, it can rather be considered as contradictory. On the
one hand, sociological studies show that in 2001 two-thirds of the Russian residents of the republic replied that they did not know the Tatar language, but in 2010 the share of such answers was a little bit over 50%. And within the age group of those who are younger than 25 and who studied the Tatar language at school, there are only 23% who indicated complete ignorance of the Tatar language [8: 249-250]. On the other hand, the scale of the functional use of the Tatar language in various social spheres does not grow but even decrease [9: 249-250]. "There is a contradictory trend observed: with the increase in the number of young people who studied the Tatar language at school, the proportion of people using it in everyday life decreases" » [10: 12]

**Materials and methods**

This article deals with the results of the studies that we conducted with a certain frequency since 1989 in the multinational city of Naberezhnye Chelny (the second largest one in the Republic of Tatarstan). The late 80-s and early 90-s brought about a situation when the silence on negative processes in the sphere of interethnic relations was replaced by rapid dynamism and sharp contradictions associated with the end of the Soviet era. It was the interethnic sphere that was most of all affected by those contradictions. In 1989 we conducted the first study on inter-ethnic relations. In this study, monitoring of the problems of ethno-cultural development and interethnic relations included the linguistic situation in the city, the attitude to bilingualism of different groups of the population, the attitude of citizens to the study and application of the Tatar language, the quality of the Russian and Tatar languages teaching at schools, as well as the evolutionary dynamics of the assessments themselves.

The obtained results were quite consistent with the stormy and disturbing atmosphere of that time. It was a period of profound social changes, of high expectations, when the search for new historical prospects was accompanied by painful damage of the previous foundations, and the explosive growth of national consciousness against the General background of interethnic tolerance was often manifested in the form of ethnic radicalism. Naberezhnye Chelny is a mono-industrial city in the Republic of Tatarstan with the multinational population which emerged in the period of the construction of the KAMAZ plant. At present it is inhabited by more than 530 thousand people, including 47.4% of Tatars and 44.9% of Russian citizens. The rest are representatives of other diverse nationalities. The Republic of Tatarstan itself as part of the Russian Federation is a visible example of a multi-ethnic and multicultural space. It is home to representatives of 115 nationalities. Official languages: Tatar and Russian. Tatars make up 53.2 % of the whole population, Russians — 39.7 %.

At the early stages the development was obviously one-sided: the rapid economic growth, huge migration flows were not accompanied by the same increase in the general culture. And the traditional principles of the Tatar, Russian and other nationalities’ culture were paid only minimal attention to. Later on we carried out new researches, which goals were to examine the dynamics of changes in public attitudes and moods [11; 12; 13; 14].

Methods of a longitudinal research allowed us to make a comparative analysis of the empirical data that have been accumulating for about three decades. The empirical surveys were conducted by us in 1989, 1996, 2002, 2008, 2014, and 2017. The survey of Naberezhnye Chelny residents aged over 18 was carried out according to a stratified (regionalized) sample. The peculiarity of the last empirical survey, conducted by us in October-November 2017, is that the sample set consisted of respondents aged from 18 to 35, that is of those who have already studied the Tatar language in the post-Soviet school. The sample size of 450 units of observation provides a reliable representation. Some of the results are
Results and discussions

Ethno-linguistic processes in Russia and the ongoing policy of language education in Tatarstan attract the attention of researchers from different countries [15; 16; 17; 18; 19; 20]. At the same time, one of the most serious and difficult problems, which is ambiguously interpreted and solved in different ways in various regions of Russia and the world, is the problem of bilingualism [21; 22; 23]. Speaking about bilingualism, the well-known American sociolinguist Joshua Fishman highlights four main parameters that determine the individual choice of language: the participants in the conversation, the relationship between them, the topic of the conversation and the situation [24].

The empirically fixed attitude of the population to this problem was one of the significant indicators of the situation and possible prospects for national development and interethnic relations in the city and region. Table 1 presents the views of Chelny residents on this issue in 1989 and 2017.

Table 1

<table>
<thead>
<tr>
<th>Content of opinions</th>
<th>National groups</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilingualism is necessary for everyone</td>
<td>33,4</td>
<td>47,6</td>
<td>17,8</td>
<td>10,5</td>
<td></td>
</tr>
<tr>
<td>Bilingualism is necessary for the representatives of the Tatar population</td>
<td>3,9</td>
<td>8,3</td>
<td>18,9</td>
<td>10,5</td>
<td></td>
</tr>
<tr>
<td>It is necessary for officials</td>
<td>3,9</td>
<td>1,2</td>
<td>3,3</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>It is a private matter of everyone</td>
<td>54,9</td>
<td>35,7</td>
<td>57,8</td>
<td>79,0</td>
<td></td>
</tr>
<tr>
<td>Difficult to answer</td>
<td>3,9</td>
<td>7,2</td>
<td>2,2</td>
<td>–</td>
<td></td>
</tr>
</tbody>
</table>

In 1989 more than half of the Tatars and Russians, as can be seen from the table, agreed that everyone should decide the problem of bilingualism for themselves. At the same time, one third of the Tatar respondents believed that this problem concerned everyone. Just about every sixth Russian respondent was of the same opinion. There were also noticeable discrepancies with regard to the assertion that bilingualism should concern only representatives of Tatar nationality. In both national groups, only a small number of respondents believed that bilingualism was compulsory for officials. In further surveys, it was evident that citizens' opinions evolved and depended on various social factors, including political ones. In particular, the latest survey was conducted in the autumn of 2017 under conditions of a certain political tension created in political circles and in the press.

During all the years of conducting surveys and in the conditions when the Tatar language became a compulsory school subject, the Tatar population of the city gradually increased the opinion that bilingualism is necessary for everyone (from 33.4% in 1989 to 47.6% in 2017) and accordingly the share of those who believed that it was a personal matter of everyone decreased (from 54.9% in 1989 to 35.7% in 2017). The same tendency was observed among Russian citizens until a certain time: in 1989, 17.8% believed that bilingualism was necessary for everyone, while at the time of the previous survey in 2014 there were 23.3% of those who believed so. However, by the time of our last survey in November 2017, this figure had fallen by more than half to 10.5%. At the same time, the number of those who believe that it is personal business of each person has increased dramatically.
Alongside with this, we study the opinion of the Chelny residents on teaching children the Tatar language at school. Table 2 shows the evolution of citizens' opinions on this issue since 1989 till 2017.

Table 2

<table>
<thead>
<tr>
<th>Content of opinions</th>
<th>National groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tatars</td>
</tr>
<tr>
<td></td>
<td>1989 r.</td>
</tr>
<tr>
<td>All the children without fail</td>
<td>14,3</td>
</tr>
<tr>
<td>All the Tatar children</td>
<td>42,2</td>
</tr>
<tr>
<td>All the children at the request of their parents</td>
<td>41,0</td>
</tr>
<tr>
<td>Difficult to answer</td>
<td>2,5</td>
</tr>
</tbody>
</table>

As it can be seen from this table in 1989 the number of Tatars who believed that all the children of the Tatar nationality should learn the Tatar language was approximately equal to the number of those who believed that the Tatar language should be taught to all the children at the request of their parents (42.2% and 41%, respectively). Among Russians, more than half (52.3%) believed that the Tatar language should be taught to all children at the request of their parents, and one third of the respondents (34.2%) believed that it is necessary for all children of the Tatar nationality.

Subsequent studies have shown that it is the problem of learning at school the Tatar language, which became one of the two state languages in the Republic of Tatarstan, where the transformation of opinions (especially among the Tatar respondents) is the most visible. In both ethnic groups, the number of those who believe that it is necessary to teach the Tatar language to all children irrespective of their nationality has significantly increased: among Russians from 8.5% in 1989 to 26.3% in 2017, and among Tatars from 14.3 in 1989 to 60.7 in 2017.

On the contrary in both groups the number of those who believed that Tatar language should be studied only by schoolchildren of the Tatar nationality has significantly decreased (in the Tatar community in 1989 42.2% thought so, and in 2017 – only 7.1%; among the Russians in 1989 this opinion was shared by 34.2%, and in 2017 – only by 10.5%).

Finally, the question of whether the Tatar language should be studied at school only at the decision of parents is extremely important, especially in the light of the fact that it was this issue that caused numerous debates in the media and political sphere, which sometimes happened to be not just tense, but not to all extend conscientious and competent. The issue of the compulsory teaching the Tatar language to all schoolchildren, including students from Russian-speaking families, was a constant subject of disputes among social activists in the Republic, and was nicknamed in the media "ethno-linguistic conflict in Tatarstan". But this debate broke out with a particular force after the statement of the Russian President Vladimir Putin at a meeting of the Council on Interethnic Relations in Yoshkar-Ola on July 20, 2017 that "forcing people to learn languages that are not native to them is as inadmissible as reducing the level and time of teaching Russian" [25]. The work of the Council resulted in some instructions, including those that concerned the situation with native languages [26]. Following these instructions a prosecutor's inspection was being carried out in Tatarstan in the autumn of 2017, and at the same time there was observed intensity of discussions among those who were of the opposite opinion.
But it is important to note that the opinions of people (especially respondents of the Russian nationality) vary depending on the processes in the educational system and various socio-political and legal factors. If among Tatars the number of those who believe that the study of the Tatar language should depend on the desires of the pupils’ parents decreased from 41% in 1989 to 27.4% in 2017, the result of the survey of Russians gave the opposite result: in 1989 such opinions were shared by 52.33%, and in 2017 - by 63.24%.

And here the following fact is important: the percentage of Russian Chelny citizens who believed that the study of the Tatar language should depend only on the parents’ desire had also reduced throughout the survey years and reached 31.3% in the survey of 2014. We also tend to interpret the present ‘burst’ as being influenced by the political and information atmosphere of recent months.

In our study of 2017, as it has already been mentioned, the sample included only young respondents aged from 18 to 35 who had already studied the Tatar language at school. It was meant to find out their opinion on the benefit received (or not received) by them. Table 3 presents these estimates.

Table 3

<table>
<thead>
<tr>
<th>Content of opinions</th>
<th>National groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tatars</td>
</tr>
<tr>
<td>It has brought great benefit</td>
<td>43,1</td>
</tr>
<tr>
<td>It has brought some benefit</td>
<td>45,9</td>
</tr>
<tr>
<td>It has brought no benefit</td>
<td>11,0</td>
</tr>
</tbody>
</table>

The overwhelming majority of Tatars (89%), as can be seen from the table, claim that studying their mother tongue at school was useful for them. At the same time, the number of those who believe that they have received "great benefit” (43.1%) and those who believe that they have received "some benefit” (45.9%) is approximately equal. Among the Russians, two thirds of the respondents in general are positive about the results of their study of the Tatar language, and one in three evaluates them negatively. But here the distinct majority belongs to those (58.7%), to whom the study of the Tatar language “has brought some benefit”.

In studies of ethno-linguistic processes, the respondents’ assessment of the prospects associated with the language training of their children is of exceptional importance. Back in 1990, we were interested in respondents’ attitude to the prospects of learning the Tatar language by their children (table 4).

Table 4

<table>
<thead>
<tr>
<th>Answers</th>
<th>National groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tatars</td>
</tr>
<tr>
<td>Yes</td>
<td>83,0</td>
</tr>
<tr>
<td>No</td>
<td>5,1</td>
</tr>
</tbody>
</table>
The vast majority of the respondents of the Tatar nationality (83.0%) wanted to give their children knowledge of their native language, while among Russians at that time the number of those who wanted their children to learn the Tatar language at school, was much less – 37.5%. In the poll of 2017 the change in methodology affected not only the age parameters of the respondents, but also the questionnaire itself. Since the linguistic legislation of Tatarstan provides for the same amount of study hours for both state languages, it was important to find out how much of the Tatar language the inhabitants of the city consider to be sufficient at school. Their opinions are reflected in table 5.

Table 5

<table>
<thead>
<tr>
<th>Content of opinions</th>
<th>National groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tatars</td>
</tr>
<tr>
<td>Yes, in full measure</td>
<td>70,3</td>
</tr>
<tr>
<td>Yes, in a small volume</td>
<td>27,7</td>
</tr>
<tr>
<td>No</td>
<td>1,0</td>
</tr>
<tr>
<td>Difficult to answer</td>
<td>1,0</td>
</tr>
</tbody>
</table>

Tatars are unanimous (98%) that their children should study their native language at school, with a significant majority (70.3%) willing to give language training to their children in full. Among Russians changes are especially strong, here now the desire for their children to study the Tatar language (79.5%) also prevails, which is strikingly different from the mood of 1989, when this desire was expressed by half as many respondents. But here the majority (56.8%) considers sufficient a small amount of knowledge.

Conclusion

The settlement of ethnic and cultural problems accumulated in the Russian society should contribute to the development of Nations and the improvement of the interethnic atmosphere in all the regions. The materials of our research allow us to see one of the most significant problems for the Republic of Tatarstan and the whole Russian Federation in the period since 1989 till 2017. Our data proves that during the period under study the ethno-linguistic processes in the Republic of Tatarstan, although they were the subject of sharp debates and conflicts, had a general positive trend. The research also suggests that the issue of learning the Tatar language at school requires differentiated approaches to different ethnic groups. And the refusal of compulsory learning of the Tatar language at school in the Republic is, in our opinion, a step back.

References


Main tendencies of Adyghe folklore translation

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Abstract
This article examines a poorly studied area of the national Adyghe literature - the translation of folklore texts. For the first time, they provide a general description of the basic principles for Adyg folklore poetic text translation. According to the analysis of texts, the methods of translation developed historically in the Adyghe (Kabardino-Circassian and Adyghe) folklore are revealed for the first time. In this regard, they determine the general trends of translation. The author justifies his point of view on the basis of the comparative analysis of different ways for folklore text translation.

Key words: Adyghe folklore, principles of translation, the adequacy to the original, text reconstruction, full translation, literal, eclectic, the methodology of translation.

Introduction
In modern Kabardian-Circassian literature, the principles of translation, which differ in character and by method, but at the same time motivated by certain tasks, represent a little studied part of national literature. The principles of artistic translation, aimed at the recreation of an equivalent aesthetic phenomenon in another language, adequate to the original, are undoubtedly the leading ones. However, there is no general theory on the principles of translation, and a serious analysis of specific works in Kabardian literary criticism (except for our works) [1]. Meanwhile, the principles of translation as a phenomenon is one of the most important parts of translation theory and a decent attention should be given to it.

Adygean translation theory is the part of Russian science of translation, that is, while we can not designate it as a separate theoretical microsystem that has developed its own terminology. Nowadays, the practical achievements of the Adygean translation studies can be determined by its contribution not so much in terminology as in the methodology of translation. It has the tendency to combine different principles and methods, which, unfortunately, leads to eclecticism often.

We would like to emphasize that the translators and the theoreticians of literary translation working in the field of literatures of small peoples of Russia, in this case - Adygeyan literature, may conduct an analysis according to their certain level. Only by taking into account this level of literature and translation school development, it is permissible to develop the theoretical problems or private-theoretical translation issues.

As history shows, the translation of the Adyghe texts in the 19th century fluctuated between the prevailing modes of free and literal translations of that time. The first is a literally exact, but artistically inferior translation. The second one is far from an original, a free translation. The first type of translation was based on the tendency of an original language literal reproduction, at that the meaning of a text in general and the language into which the text was translated suffered. The second type of translation assumed the reflection of an original general meaning, while the peculiarities of an original language were not taken into account.
They started to translate the Adyg folklore texts in the XIX century. For the first time we have outlined several ways of translation, which have developed historically.

Among the prerevolutionary translations of Adyghe folklore, the translations by Shore Nogmov (1794-1844) and Kazi Atazhukin (1841-1899) occupy the main places by right. The materials and translations collected and translated by him were published in the following works: "Philological Works" [2] and SMOMPK compilations [3]. These publications belong to the priceless monuments. In artistic terms, Atazhukin's translations are of particular interest, as will be discussed below.

The translations by Kazi Atazhukin can be called artistic ones with some reservations. These translations were of synergetic, multifunctional nature and pursued several goals: 1) to educate; 2) to awaken interest; 3) educational purpose, etc. That is, it was the stage of translation practice mastering. Then, at a later stage, purely linguistic (in the narrow sense of the word) translations appeared: these are the translations by Yakovlev and Turchaninov, and an actual artistic translation along with them in order to present the Kabardian folklore texts to the Russian reader. There was also a different kind of practice: the translations from Russian into Kabardian, which were also synergetic ones at first.

With the advent of the actual artistic translation, all other functions are put aside. The most important function is the artistic function. Already at that time when the translation was not an independent discipline yet, K. Atazhukin gave an adequate translation of the epic poems, historicisms and archaisms found in them. Kazi Atazhukin recorded and translated the works of oral folk art in their traditional original form. This is not difficult to reveal by comparing its collections with later publications of oral folk art works. This is the main advantage of the material collected and published by him, and, consequently, the main advantage of his translations.

"The Tale of Fire Obtaining" from the Nart epic reflects the most ancient elements of mythology. These legends are the most popular ones. They are distinguished by an exceptional stability of the main plot. Atazhukin published the Russian translation of these legends, they preserve many features of the language and the poetics of the tales about the main character, lost by other variants which preserved until now. There are some specific difficulties during the translation of these stories into Russian. The translators of the publication "The folklore of the Adygs in the records and publications of the XIXth - the beg. of the XXth century" [4], were characterized by a careful attitude to the original and its language. They took into account the experience accumulated by pre-revolutionary researchers, in particular, by K. Atazhukin, S. Nogmov and L. Lopatinsky. The same can be said about the authors of the translation book "Folk Songs and Instrumental Tunes of Adygs" [5]. Using the comparative analysis of different publication translations that used different principles in these translations, we will try to determine which of them is a preferable one, based on such criteria: the accuracy degree by which the translations convey the content of the original, what means reproduce the originality of the national artistic thinking of Adygs most faithfully, the way of Adyghe speech syntactic system peculiarities representation in Russian language, the revealing of idiomatic expression meaning with a different equivalent in Russian, etc.

For example, let's take a fragment from the translations of the above-mentioned editions (let's designate them conditionally as the second variant "Narts. Adyghe heroic epic", and the third variant "Folk songs and instrumental tunes of the Adygs"):

The first variant:
Сосырукъэ ди нэху,
Ямыуээу дыщафэ,
Афэр зи гьанэ куэшти,
Дыгъэр зи пы1э цыгу,
The translation of the first variant:
Sosruko is our kan,
Sosruko is our light,
Whose gold-colored shield,
Whose shirt is a chain mail,
And the sun is the top of the cap.
The second variant:
Сосрыкъуэу ди къанкъэ...
Ежъу: А-А...
Сосрыкъуэу ди нэхукъэ...
Ежъу: А-а...
Афэр зи джанэ куэшти (жи)...
Ежъу: А-а, ареда!
Дыгъэр зипы1э цыгу (жи)...
Ежъу: А-а-а...
The translation of the second variant.
Sosruko is our kan,
Everyone: Ah ...
Sosruko is our light ...
Everyone: Ah, an old skinflint!
Whose shield is light and golden ...
Everyone: Ah ...
Whose shirt is a chain-mail (zhy) ...
Everyone: Ah, an old skinflint!
And the sun is above his helmet (zhy) ...
Both translation versions are generally expressive ones. But some of the costs associated with a poetic form observance are quite noticeable. Other epithets, details, realities were in translated text and differed from the original, and some realities were omitted.
Compare in the second variant:
"The one who has a golden-colored shield"
As you can see, the versions of the translations differ, although they coincide in the original. The third version of the translation (the second line), includes the missing epithet "light" (shield). The literal translation is the following one: "Whose shield has a golden color".
However, the word "дыщафэ" has a double meaning in the Kabardian-Circassian language and can be translated as follows: 1. "the color of gold"; 2. "golden surface", "gold coating" (of an object). In the second line, in both variants of the translation have no explanation "ку-эшти": the phrase "Афэр зи куэшти".
In both variants, the Adygian "къан" is presented in the first line of the translation. The book "Narts" has the explanation for the Russian text, which gives the Adygean "къан". However, there are inaccuracies in this explanation. We have explained the meaning of this word earlier. Let us return once more to it. The collection of 1974 "Narts. Adyghe heroic epic" provides such an explanation: "къан" means "a beloved one", "dear", "a patron" [6]. One can not agree with the following: the Adygian people never mean by
"клан" either beloved one or dear. Since originally this word was used to refer to such a phenomenon as the raising of a child in another family, then it also could not be in the sense of "patron". It was used in the sense of "one whom is patronized and educated" ...

2. CONCLUSION. The result of the analysis based on the comparison of Russian and Kabardian translated art texts by the translators of various fields, is our conclusion that they have some drawbacks covering the most important artistic and compositional features of the original, its lexical-semantic and stylistic structure.

During a complex text translation, the translators from Kabardian either omit a corresponding place or simplify it. Often the translators resort to a brief description of hardly translated paragraphs of the original, sometimes merging several paragraphs into one; It is often used and the omission of some original text is applied to prosaic texts more often.

We should note that each translation has its own function - based on the purpose of a translation, but not its type.

Different types of translation are motivated not by evolution, but by function.

When one considers the history of literary translation, the stage of literary translation practice mastering is evident. It has the peculiarity of a syncretic multifunctional character.

3. Summary. As the results of the analysis show, from the end of the XIXth century (the time of the first translated texts of the Adyg folklore appearance) up to the present time, five types of translation have been developed historically:

1. The voluntary translations by Sh. Nogmov and K. Atazhukin;
2. The linguistic or three-linear translation by L. Lopatinsky;
3. The scientific and artistic translation from the publishers of the academic collection of 1936: "Kabardin folklore";
4. A poetic translation, adopted by IMLI in the series "The monuments of the USSR people epos";
5. The structural translation of texts, expressed in a musical form with mandatory preservation of funds.

When you look closely at these historically developed translation types or methods, they can be divided into two main areas. The first area is the literary and poetic translation, including free translation during early stages. The second area is scientific-linguistic, literal and apoetical translation. These are two extremes that do not correspond to the essence only in some of their parameters that prevent the maximum adequacy of an original epic text translation.

CONFLICT OF INTERESTS. The author confirms that the submitted materials do not contain a conflict of interest.

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References

Excerpts from the folk poem "Sosruko" and the short stories translated into the Kabardian language by Kazi Atazhukin. Tiflis, SMOMPK, 12, 1891, "Kabardian texts" dep., p. 4. Trans. of the page 13.
Boosters as Metadiscourse in Pakistani English Newspaper Editorials: A Corpus-Based Study

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Abstract
Boosters as metadiscourse markers (MMs) have been the focus of many studies. Boosting devices as metadiscourse have been analysed in Pakistani English Newspaper Editorials (PENE). Being a corpus study, a corpus of 1000 editorials has been extracted from the four renowned Pakistani English Newspapers such as Dawn News (DN), The Frontier (TF), The Express Tribune (TET) and The News (TN). The distribution of editorials has been set as 250 editorials from each newspaper using online sources. This study has calculated frequency of boosters as MMs out of Pakistani English Newspaper Editorials (PENE) and has made a comparison of numerical results on the basis of propositional and non-propositional contents. This study has also interpreted boosters as MMs functionally under the set parameters. A comprehensive model for boosting devices as metadiscourse has been proposed after listing of existing models on boosters. This proposed model has been categorized into expressions of certainty, repetition and attribution. A comprehensive scheme of boosters as MMs has been proposed in this study for data analysis. The findings of this study have been noted that the corpus of The Frontier (TF) has frequently used boosting devices as compared to other corpora. In conclusion, this study has claimed that the corpus of The Frontier (TF) has greater effectiveness and persuasiveness as compared to other corpora because of the excessive use of boosters as MMs.

Keywords: Boosters, Certainty markers, Attribution, Repetition, Pakistani English Newspaper Editorials (PENE)

1. Introduction
The linguistic term booster is known as certainty markers or emphatic markers. The role of boosters plays a significant role not only in persuasive writing, but also in effective or meaningful writing. The active use of boosters is thought as an intentional act of the writer. Boosters as metadiscourse is very important in teaching English writing. The practical use of boosters is perceived as a very useful source in not only developing effective writing but also showing writer’s stance. The reason behind this research is conceived as an unfortunate situation relating to Pakistani learners who are perceived as immature in the employment of boosters as metadiscourse in an effective writings.

Keeping in mind, the focus of this study mainly emphasizes the study of boosters as metadiscourse in PENE. This study shares an advancement in the analysis of boosters as metadiscourse of PENE. For the present study, a corpus of 1000 editorials has been retrieved manually from online sources. The distribution of 250 editorials from each newspaper has been devised to the following newspapers (i.e. DN, TET, TE, & TN). The developed corpus has been used for analysing boosters as metadiscourse in PENE.

A brief overview of previous works is portrayed here. Firstly, Yazdani, Sharifi and Elyassi (2014) recently conducted a research on exploring hedge and boosters in 9/11 English front page news articles. Secondly, another study which was aimed to know that Japanese EFL learners were at the lack of lexical variations
of boosters in their texts (Kobayashi, 2009). Next, a study was conducted by Serholt (2012) on the use of hedges and boosters in academic writing. Furthermore, a number of studies were conducted in exploring the use of boosting devices in academic writings (Allison, 1995; Hyland, 2000; Hyland & Milton, 1997). A very broad study on metadiscourse was conducted in England by the Oskouei (2011) discussing the interactional variation in English and Persian. The said study was proved to be a source of great assistance in order to develop a new model on boosters as taken in the present research. In addition, Hyland and Milton (1997) conducted a comparative research with texts written by the British and Hong Kong learners of English. Finally, a comparative study was conducted in Turkey by Yagiz and Demir (2015) on boosting devices in Academic Texts. All these studies have been criticized on the basis of the following factors as mentioned in the upcoming section.

1.1 Objections on Prior Studies

In order to conduct the present research, this study is set to view the boosters as MFs of Pakistani editorials (PEs) used by the editors in their newspapers. On the basis of this study, it highlights the objections and the challenges as above mentioned studies on boosters as MFs of newspaper editorials (NEs) and the aforesaid works. Such expositions are unsatisfactory because they are having insufficient details of corpus development, lack of procedural analysis, the inappropriate size of data and undefined data processing through software even though all studies were of corpus-based. No significant previous study has provided information on an inappropriate data size, does not present an appropriate way of analysing data and insufficient detail about corpus development. This is why, the current study attempts to hit the metadiscourse studies of NEs by Congjun Mu (2010) and all prior researchers on NEs.

After having investigated the above mentioned studies, the researcher has proposed a new model on boosters as metadiscourse after listing of models. In order to view the frequencies, this study has proposed 81 boosters as MFs after merging markers from Hyland’s book and textinspector.com. This study aims to find the frequencies of booster as MFs on the basis of propositional and non-propositional content following the set parameters as discussed in the section: methodology. After having calculated frequencies, then identified frequencies have been categorized on the basis of propositional and non-propositional metadiscourse. Later, the calculated frequencies have been interpreted functionally. Lastly, as per functions the frequencies of four different newspaper editorials have been compared on the basis of similarities and differences.

For this research, the present study has been conducted to probe into the following speculated research questions: 1) What are the frequencies of Boosters in PENE? 2) What are the functions of Boosters in PENE? 3) What are the similarities and differences of Boosters, among the national editorials of Pakistan: DN, TET, TF, and TN? This study has answered the speculated questions in this research.

2. Review Literature

The term boosters has been studied by researchers through different glances finding its features. In this section, the studies which have been conducted already focused on cross-disciplinary bases viewed under the shed of boosting devices. The research study on Boosters as a sub-category: interactional metadiscourse has been taken for the purpose of developing a model of boosters. A number of studies have been considered for this study.

Firstly, Yazdani, Sharifi and Elyassi (2014) recently conducted a research on exploring hedge and boosters in 9/11 English front page news articles. He discussed further divisions of boosters and hedges in developed model. The researcher presented numerical results by employing the quantitative method, while he concluded that journalists intentionally preferred to be conservative by engaging indirect
strategies like adjectives and adverbs about the controversial issues 9/11. This study has helped in constructing a new model on boosters as a sub-category of Interpersonal metadiscourse.

Another study which was aimed to know that Japanese EFL learners were at the lack of lexical variations of boosters in their texts (Kobayashi, 2009). This study has been taken for the purpose of proposing a new model. This study has also helped in specifying the research question no.3.

Next, a study was conducted by Serholt (2012) on the use of hedges and boosters in academic writing. The aim of this study was based on observing modifiers in structures what they used in their essay writing. At the end of this study, she concluded that both male and female used more hedges and boosters, especially in the sections: Introduction and Discussion than the remaining sections of the academic essays. A number of studies have been conducted in exploring the use of boosting devices in academic writings (Allison, 1995; Hyland, 2000; Hyland & Milton, 1997).

A very broad study on metadiscourse was conducted in England by the Oskouei (2011) discussing the interactional variation in English and Persian. She worked on explaining the ‘certainty’ and ‘uncertainty’ markers in Magazine editorials. She concluded that the use of interactional MFs by British and Persian editorialist reasonably varied because of different cultural backgrounds. British editorialists favoured the use of uncertainty markers. On the other hands, Iranian editorialists seemed in favour of the use of certainty markers. The said study was greatly in support of the current study. This research has helped in specifying the research question no. 2 and 3.

In addition, Hyland and Milton (1997) conducted a comparative research with texts written by the British and Hong Kong learners of English declared that the “Hong Kong learners employed syntactically simpler constructions, relied on a more limited range of devices, offered stronger commitments to statements and exhibited greater problems in conveying a precise degree of certainty” (p. 201). This study has helped in specifying research question no. 1 and 2.

Similarly, a comparative study was conducted in Turkey by Yagiz and Demir (2015) on boosting devices in Academic Texts. This study was a contrastive rhetoric. They investigated certainty markers in the English research articles written by Turkish, Anglophonic and Japanese authors. They explored that Japanese and Anglophonic authors used boosting devices at similar scale, but their markers categories were different. The authors of Turkish less used of booting devices in the research articles. This study has greatly supported in research questions and in the section: methodology.

Finally, Siddique and Mahmood (2018) recently conducted a detailed study on the metadiscourse analysis of Pakistani English Newspaper Editorials in which they proposed a model on Interpersonal metadiscourse after listing of existing models, a detailed scheme of MMs and developed metadiscoursal expressions. This study has helped in developing research methodology for the current research. This specific study has also assisted in specifying the research questions no. 1, 2 and 3.

In the end of this section, a number of models of boosters have been studied critically. After having studied, the researcher has enlisted the studies’ models and developed a new model for the present research. See the table below.

| Certainty Markers (Oskour, 2011) | Expressions of certainty | Epistemic Modality | e.g. clearly, obviously, of course, undoubtedly | e.g. certainty, surely, definitely, certainly | e.g. we can sure, no one should |

Table 2.1 Listing Models on Boosters
First time this sort of technique has been practiced in this study that the boosters has been replaced with certainty markers and this has been further categorized into expressions of certainty, repetition and attribution. They have been further categorized as above mentioned table. This chosen model has been practiced on PENE in the upcoming section.

3. Research Methodology
3.1 Proposed Model for this Study
In order to cover qualitative component of the present research, after examining the list of models the present model was devised in order to cover major categories and all sub-categories of MFs. In this connection, this study proposed a new model for metadiscourse analysis that dealt: Boosters as metadiscourse category. The proposed model covered an extensive and maximum feature of boosters as metadiscourse for the analysis purpose.

Table 3.1 Proposed Model for this Study

<table>
<thead>
<tr>
<th>Boosters: (Yazdani et al. 2014)</th>
<th>Sentence</th>
<th>doubt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auxiliary verb</td>
<td>e.g. must</td>
<td></td>
</tr>
<tr>
<td>Repetition</td>
<td>Synonymous Expressions</td>
<td>e.g. work and trade</td>
</tr>
<tr>
<td>Attribution</td>
<td>Modality Markers</td>
<td>e.g. As our political editor, According to Doctor,</td>
</tr>
</tbody>
</table>

| Intensifier Adverbs | e.g. obviously, absolutely |
| Intensifier Adjectives | e.g. worst, highest |
| Intensifier Verbs | e.g. show, prove |

3.2 Formation of List of Metadiscourse Markers
Keeping in view data analysis, this study has designed individual MFs that belonged to Hyland’s (2005) work. For each category, the lists of MMs were planned by using two sources, i.e. firstly, interpersonal MMs were taken from textinspector.com. Secondly, interpersonal MMs were taken from Hyland’s (2005) book ‘Metadiscourse: Exploring Interaction in Writing’. After refining the final lists, both lists were merged together and duplicate markers were removed from the final list of boosters as metadiscourse. The detail of boosters as MMs has been given below.

Table 3.2 Formation of Final Lists of Metadiscourse Markers

<table>
<thead>
<tr>
<th>Category</th>
<th>Sub-Category</th>
<th>Textinspector.com</th>
<th>Ken Hyland’s Book</th>
<th>Merged Markers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interaction</td>
<td>Boosters</td>
<td>39</td>
<td>65</td>
<td>81</td>
</tr>
</tbody>
</table>
The final column of merged markers has been developed by removing duplicate markers. The total 81 individual MM$s have been finalized for the data analysis. The final list has been provided in table 3.4 for the data analysis.

### 3.3 Corpora Length and its Distribution

For the present study, the corpus has contained 1000 editorials of Pakistani English newspapers. The following editorials have been selected 250 from each PENE: DN, TET, TF and TN. The selected editorials have been examined under the proposed model of boosters as metadiscourse. Keeping in mind the aforementioned variable involved in the writing of the texts, namely topic, altogether a set of 1000 editorials has been chosen from four well-reputed Pakistani English newspapers. The corpora strength is given in the table below.

<table>
<thead>
<tr>
<th>No. of Newspapers</th>
<th>Token Words</th>
<th>Type Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dawn News</td>
<td>103,596</td>
<td>10,053</td>
</tr>
<tr>
<td>The Express Tribune</td>
<td>93,048</td>
<td>9,737</td>
</tr>
<tr>
<td>The Frontier</td>
<td>172,878</td>
<td>14,812</td>
</tr>
<tr>
<td>The News</td>
<td>103,860</td>
<td>9,633</td>
</tr>
<tr>
<td>Total Corpora Length</td>
<td>473,382</td>
<td>44,235</td>
</tr>
</tbody>
</table>

### 3.4 Developed Expressions of Metadiscourse Features

For analysis purposes, this study has developed expression of booster category which is supposed to be processed in software Antconc 3.4.4.0 for having numerical results. The significance of these expressions made a new way for the future researches. In order to have an innovative way, the markers have been devised in the form of an expression and they have been used in order to check all required MM$s at once. It has saved the time of the researcher and has kept away from discrepancies during analysis and finding frequencies. See the table below.

<table>
<thead>
<tr>
<th>Boosters:</th>
</tr>
</thead>
<tbody>
<tr>
<td>always</td>
</tr>
<tr>
<td>that</td>
</tr>
</tbody>
</table>

### 4. Results and Discussion

#### A) Numerical Results
This study has presented results and discussion for data analysis. The present research is both quantitative and qualitative in nature. The quantitative approach is set to present numerical results in the form of frequencies based on propositional and non-propositional. The second aim of this approach is set to compare the frequencies of propositional and non-propositional metadiscourse on the basis of similarities and differences. On the other hand, the qualitative approach is set to interpret the numerical results functionally. As for as quantitative approach is concerned, the proper distribution of propositional and non-propositional MMs out of PENE (for example, DN, TN, TET & TF) have been presented in the table below.

Table 4.1 Numerical Results of Boosters

<table>
<thead>
<tr>
<th>Booster s</th>
<th>The Dawn News</th>
<th>The Express Tribune</th>
<th>The Frontier</th>
<th>The News</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pro</td>
<td>Meta</td>
<td>Sum</td>
<td>Pro</td>
</tr>
<tr>
<td></td>
<td>111</td>
<td>1325</td>
<td>1436</td>
<td>37</td>
</tr>
</tbody>
</table>

In order to view the results, the above mentioned table showed that the corpus of The Frontier (TF) more frequently used the boosters as MMs as compared to other corpora. Secondly, the corpus of Dawn News (DN) used boosters frequently, but less than the corpus The Frontier used. The most important point was that the editorialists of The Frontier frequently used boosters as MMs rather than propositional.

B) Discussion

4.1 Certainty Markers

Certainty markers refer to surety, emphasis, certainty, validity, obligation, probability and the telling truth in propositional material. Certainty markers have been named as a booster (Hyland, 2005) and emphatic (Crismore & Farnsworth, 1989, Vande Kopple, 2002). In this study such MFs will be accounted for certainty markers, e.g., undoubtedly, obviously, clearly, must. The emphasis will be on boosters as MFs that direct the high effectiveness of the text. In the current study ‘certainty markers’ are distributed into three sub-categories: expressions of certainty, repetition and attribution. Each of these sub-groups is widely discussed and exemplified below.

4.1.1 Expressions of Certainty

In the case of certainty markers the certainty of the writer may also be expressed using an epistemic modality. The role of certainty can be expressed using modals in the following instances where number of certainty markers have been used to point the high probability of the subject in the main issue. Certainty markers are used to show ‘certainty’, can be expressed through using adverbs as in the mentioned below examples where they are used to refer to certainty, e.g. clearly, undoubtedly, obviously. The following examples are given below:

1) Experts have rightly termed the Middle East an ‘arc of crisis’. However, the factors behind the current crises must be **clearly** understood. (Dawn File no. 92)

   Adverbs have been used to indicate certainty in the above example (1), e.g. clearly. The writer has employed these markers showing certainty about the issue to the readers.

   On the other hand, using intensifier verbs, a high degree of certainty has been expressed through ‘show’ and ‘prove’. The following examples are seen below:

   2) Opinion polls **show** that voters believe that even if they did exercise their right to leave the EU, the politicians wouldn’t obey them. This is what a democratic crisis looks like. (The Frontier file no. 76)
As above mentioned in the example (2), the use of the show has exposed the degree of certainty about the matter what is under consideration by the writer.

Using modals, we can express certainty in the following example where ‘must’ is employed to show high probability of Pakistan’s responsibility in order to understand the crisis what are coming to Afghan refugees.

3) For its part, Pakistan, host to 1.5 million documented Afghan refugees, must understand the implications of this crisis. (Dawn News file no. 56)

In the above example (3), must is being used by the writer to realize the government that should take responsibility regarding the Afghan refugees. This marker has been used to show the responsibility in the eyes of the readers against the government.

All above mentioned examples, these have been regarded as ‘expression of certainty’. These are sub-categorized under certainty markers. This category is also called boosters.

4.1.2 Repetition

Repetition refers to the synonymous repetition of words and phrases in this study to focus the truth of a propositional stuff. The use of ‘repetition’ has only seen in Oskouei’s (2011) study, perhaps because it is an unusual phenomenon in English. As such no case of ‘repetition’ in the sense above mentioned. Though, it has also been observed in Pakistani editorials when authors attempt to focus a point by providing numerous synonyms. Since it may be a source of representing certainty, it has been added in MMs. The following are examples of repetition in Pakistani editorials:

4) But the IMF said the Saudi banking sector was strong and well-positioned to weather a slowing economy, and that tightening liquidity was not yet hurting credit growth. (The News file no. 225)

In above mentioned example (4), strong and well-positioned has been used synonymously to focus the current situation. The phenomenon of repetition is perceived infrequently in the present study. The function of synonyms has been observed to emphasize the present situation.

4.1.3 Attribution

Attribution is a rhetorical strategy used to gain credibility (Crismore, 1989, p. 31). Vande Kopple (1985) and Crismore and Farnsworth (1989) include attribution in their category of ‘modality markers’. If used to guide readers to judge or respect the truth value of propositional content as the author would wish. Crismore and Farnsworth (1989, p. 98) maintain that modality markers may include emphatics, hedges, and attributors and argue that attributors permit authors to encourage their readers to emphasize the truth value of propositional material.

In this study, certainty and uncertainty markers are separated and ‘attributors’ are classed as a sub-category of ‘certainty markers’ when they confirm the truth of information by virtue of credibility of the source of information. See example below.

5) According to US officials, the commando raid on Tuesday targeted an Al Qaeda compound in response to intelligence about terrorist activity in the area. (Dawn News file no. 130)

In the above example (5), According to US officials has been used attributively to show the credibility of the propositional content pursuing readers. Using modality markers, the certainty is reinforced in order to provide truth-value of the text.

In conclusion, all sub-categories are categorized under the major category of ‘certainty markers’, named as boosters. This major category is marked under ‘Interactional metadiscourse’.

5. Conclusion
The conclusion of this study is viewed that the editorialists of the corpus of The Frontier have frequently used boosters as MMs as compared to the other corpora such as Dawn News, The Express Tribune and The News. The overall use of boosting devices has been observed on the basis of propositional and non-propositional (metadiscoursal) contents. The results have been observed and taken a non-propositionally in this study. The excessive use of boosting devices in The Frontier shows how much the editorialists are persuasive and effective for the readers. This is the way through the editorialists interact with the readers effectively by using boosting devices. Similarly, the corpus of Dawn News has used a great use of boosters as compared to the rest corpora such as The Express Tribune and The News. Out of the results, the only corpus The Frontier has used the most boosters in the newspaper editorials.

This study has speculated the research questions in the form of frequencies, a comparison of numerical results and interpretation of boosters functionally. In order to find the solutions, the previous research works have helped in conducting this research. This study may be a source of future researchers in order to work more in this area. In fact, the use of boosters is gaining a significant importance in the last decades. Conclusively, the future researches considering all these advancements and helpful proposition in consideration may improve the proposition as literature in form of authorial stances of editorialists of Pakistani English Newspapers, especially the editorialists of The Frontier. This study will further help in comprehending the stance of the editorialists through observing the boosters in PENE.

References


Derivation As The Main Way Of Adapting New Terms To Arabic

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Abstract
The classical Arabic grammarians firmly worked to maintain the Arabic by adapting the non-Arabic terms and applying the potential abilities of phonological, morphological and semantic systems of Arabic language to make foreign terms adaptable. This process was made by several ways on which the linguists relied to keep the identity of Arabic. Derivation is the most effective way by which the non-stopped modernization of Arabic is done. Derivation makes Arabic able to receive the foreign terms and adapt them to itself; it also works as the most important way of enriching Arabic with native words that are semantically equivalent to foreign terms. The ability of other ways to adapt foreign terms to Arabic is checked by the mechanism of comparing them with derivation. This mechanism is based on five criteria: (1) semantic maintenance; (2) easy cognitive access; (3) morphological pattern set; (4) ability to recreate according to the pattern set; (5) applying the Arabic language system of self-defense. The results of this comparison show that derivation is the safest and the most effective way to adapt and assimilate foreign terms to Arabic, it must be called “the trusted keeper” of Arabic.

Keywords: Derivation, arabization, Arabic, root, Arabic language system of self-defense, translation.

1. Introduction
Terminology and modern neologisms developed by different nations aren't understood without recognizing their real meanings by native speakers of any language. The classical Arabic grammarians fixed non-arabic terms in dictionaries and indicated to their original languages to make this problem easy to solve using the existent ways of creating Arabic equal terms and adapting them to Arabic. The classical Arabic lexicographers strictly worked to distinguish the original Arabic words from others in the early successful attempts of making Arabic lexicography. Al-Khalil ibn Ahmad al-Farahidī clearly stated about non-Arabic words in his dictionary (Al-ʾAin) [1]. The other Arabic classical dictionaries also indicated to al-dāḥīl (word adopted from another language; non-Arabic) and to al-muʿārib (transformed into Arabic; arabized). Other terms were used to mark an etymology of words in Arabic dictionaries like šīḥāh (Arabic original word) and al-mūallad (word derived from Arabic origin by Arabic rules, but it wasn't used by old Arabs) [2], for instance, šāṭra (money-exchanger – from "ṣrīf", to divert; turn; change money); šaiqal (burnisher; polisher – from "ṣql", to polish; make bright; make brighter). Such examples show that classical Arabic grammarians chose the exact root which the new term is semantically associated with and then they created the new term by Arabic pattern set (faiʿal) to give the created terms ability to be assimilated and adapted to Arabic.

The Arabic grammarians had strictly attempted to maintain Arabic language using the safest ways of adapting new foreign terms to Arabic. This situation was caused by requirements of the past. These requirements were performed by Arabic language when the universal civilization of Arabs displayed the abilities of Arabic to create and adapt the scientific and cultural terms to itself. We should investigate these ways by which the terminological concepts are transferred to Arabic and display the most effective classical and modern ways of adapting foreign terms to Arabic used by old and modern Arabic grammarians. The classical ways are:
1.1. **al-ištiqāq (derivation)**

Derivation is a morphological term used by Arabic grammarians to refer to generating a new word from another, both words have the same origin (three cardinal consonants), determining their material and indicating to mutual original meaning [3]. Arabic derivation practically refers to generating a new word from another; both words have the same root and the same general lexical meaning, but they aren’t alike morphologically. Their lexical meaning is guaranteed by the original elements of a root repeated in these two words. The grammatical meanings are different according to the pattern sets with which the phonetic structures of new derived words are rhymed, for example, (1) qaṭa’a (to cut - from “qṭ”, to cut, formed by the pattern set fa’ala); quṭi’a (it was cut - from “qṭ”, to cut, formed by the pattern set fu’ila); qaṭi’ (cutting - from “qṭ”, to cut, formed by the pattern set fā’al); (2) ḥamala (to bear; carry - from “ḥml”, to bear; to carry, formed by the pattern set fa’ala); ḥumila (it was carried - from “ḥml”, to bear; to carry, formed by the pattern set fu’ila); ḥāmil (bearer; bearing; carrier; carrying - from “ḥml”, to bear; carry, formed by the pattern set fā’il). This way is called general or small derivation and there are other types of it: (1) big derivation; (2) biggest derivation; (3) al-naḥ (blending). It is safe to say that derivation is able to keep the identity of Arabic since it requires that the foreign terms should be formed in accordance with Arabic pattern sets. The pattern sets of derivation were used as criteria for checking the ability of arabized terms to be assimilated to Arabic, for example, dirham (dirham) formed by the pattern set of hijra (crazy; stupid); dinār (dinar) coined by the pattern set of dimās (dark drift); rustāq (place of villages and farmed lands) formed by the pattern set of qurtās (paper; sheet of paper) [4].

Practically, the inflected morphology of Arabic is able to offer a limitless potential of deriving new terms by analogy, it depends on a wonderful system of triconsonantal roots. Roots are able to carry specific meanings and generate many variant verbal or nominal forms by their high ability to be inflected according to the morphological pattern set, for instance: (1) the root "drs" which means (learning) - darasa (to learn), durisa (it was studied), dāris (learner); dars (lesson) and durūs (lessons) [5]; (2) the root "ktb" that means (writing) - kataba (to write), kutiba (it was written), kātib (writer) and kutāb (writers); (3) the root "ḥlq" (to create, to make) - ḥalaqa (to create), ḥiliqa (it was created) and ḥaliq (creator).

1.2. **al-ta’rib (arabization)**

Arabized terms mean the words formed by the rules of Arabic language or resembled to Arabic words [6]. An arabization may be also defined as a process of adapting foreign words by applying the rules of Arabic phonology and morphology to them and making foreign terms able to be used in Arabic, for instance, dirham (dirham - phonetic arabization from Persian diram); ṣāiqal (burnisher - morphological arabization formed by pattern set fai al); ṣaʿaraf (money-exchanger - morphological arabization formed by pattern set fai al).

It is worth noting that classical Arabic grammarians exactly distinguished the arabized terms from these ones borrowed from another language - calques. These words (calques) can be seen in nowadays Arabic, for example, radio (radio); heater (heater); telephone (telephone); traffic light (traffic light), but later they were adapted by derivation, here are some of them: miḍiā’ (radio); midfa (heater); ḥātif (telephone); iṣāra murūr (traffic light). To make this phenomenon clearer for Arabic reader, we will give some Arabic terms borrowed by English and the Arabic native speakers can cognize their meaning according to an arabic root, for instance, algebra (mathematic term borrowed from Arabic and derived from the arabic root "jbr", to adjust; repair; restore to good condition); albacore (term borrowed from Arabic and derived from the arabic root "bkř", to be early at or get up early); albag (name of essential oil; volatile oil was borrowed from Arabic and derived from the arabic root "ṭr", to aromatize). The terms algebra; albacore and albag.
are English borrowed from Arabic, therefore an Arabic reader is able to cognize them by the main elements of root with which the meaning is associated. These definitions are given to arabicization many centuries ago, but they show the actual ability of Arabic to adapt foreign terms by its rules, therefore the modern definitions of this phenomenon aren't able to oppose or to negate the scientific facts made by classical Arabic philologists. The arabicization is understood as a way of adapting foreign terms by the rules of Arabic. According to these rules formed by Arabic linguists, an arabicization can be defined as the process of adapting non-Arabic terms to Arabic language by applying the rules of the phonological, morphological and systems of the language to the foreign terms [7].

One of the most important questions of arabization is are the arabized words able to be assimilated to Arabic or can they exist according to the derivational system of Arabic? The classical Arabic grammarians investigated this problem and solved it by establishing the necessary rules. Ibn Jinni affirmed that the derivation from arabized words is possible only when they are formed by the Arabic pattern set [8]. He proved his rules by the history of Arabic language when Arabs derived from arabized terms by pattern set like mudarham (formed as the shape of dirham).

For many decades, the language academies in Arabic states have attempted and done their best to make the creation and adaptation of new terms, standardized by trying to set strict mechanism for adapting foreign terms to Arabic, in accordance with the classical ways. These ways are classified differently by language researchers, but the majority of them have taken in to consideration the scientific opinions of classical Arabic grammarians who considered derivation the main way of creating and adapting new terms to Arabic, for instance: (1) derivation; (2) istinbāṭ (discovery); (3) arabization; (4) derivation by translation (loan translation / calques) [9]. We will compare all these ways with each other to discover their abilities to assimilate foreign terms to Arabic.

2. Methods Of Study
In order to do a language analysis of the ways by which foreign terms are adapted to Arabic language, the following methods were used: descriptive, comparative and the methods of semantic and linguistic analysis. The descriptive method was performed to characterize the classical and modern ways of adapting new terms to Arabic. An objective description of the Arabic ways of adapting foreign terms to Arabic, is taken into consideration to describe the language features of the ways of adaptation. The comparative method was used to show the ability of each way to adapt foreign terms to Arabic by comparing them with derivation which is highly able to adapt non-terms to Arabic. The semantic association of adapted terms with Arabic roots was analyzed by the semantic method on which the cognitive processes were based to discover the cognitive relation of adapted terms with a real or a metaphoric meaning of Arabic roots.

3. Discussion And Results
Keeping the original meaning of root, derivation is able to give native speakers of Arabic language an easy access to the meaning of foreign term, adapted to Arabic by derivation. Derivation is applied to find a nearest semantic equivalent in Arabic, using the system of three radical consonant roots on which the Arabic language is based, and then it will be formed by the well-known Arabic morphological set - standardized set of Arabic derivation. For example the word motor to be adapted to Arabic, we have to find an equal semantic root in Arabic and then form it by the appropriate Arabic set by which "the noun of tool" can be derived. As the word motor means an engine which operates a machine, the equal
The ability of derivation to keep the entomological bases of Arabic root is clear when it’s used to adapt foreign terms to Arabic language, because the semantic association between the elements of root and derived term is kept. This process gives the Arabic native speakers an easy access to recognize the lexical meaning of a derived term by the radical consonant elements whose meaning is associated with new terms and to recognize the real language features of new adapted terms by the morphological pattern. The terms indicating to tool by their morphological standardized set which enables the Arabic native speakers to understand the meaning of tool as long as they are formed by the pattern set that the new terms must be rhymed with. For example, the well-known Arabic pattern set (mif’al) with which the noun of tool must be rhymed to express such activity that can be made by this tool, when the cardinal consonant roots clearly indicate the meaning that they associated with, for instance, miṣ’ād (Elevator – from “ṣ d”, to go up; move up; elevate).

To check these ways of adapting foreign terms to Arabic, we have to compare them with each other to show the most powerful one which is able to assimilate the foreign terms to Arabic and to make the semantic and grammatical structures of them easy to understand by Arabic native speakers. This job isn’t easy, because depending on the type of word-formation and inflection, the languages are divided into different groups. Classification is determined by the way that new words are created by. Language is not something finished in general; it is always renewed by defined rules [10]. For checking, we have to create the mechanism of comparing which must be investigated in accordance with five criteria, here are they: (1) semantic maintenance; (2) easy cognitive access; (3) pattern set; (4) ability to recreate new terms according to pattern set; (5) applying the Arabic language system of self-defense [11].

Arabization as a way of adapting foreign terms to Arabic language, doesn’t able to perform the semantic maintenance by which the Arabic native speakers are recognizing the meaning of an original Arabic root by three consonants. The meaning is always associated with these consonants [12], but the arabization is based on doing some simple phonological or morphological changes to adapt a foreign terms to Arabic, for instance, dirham (dirham) or it makes no essential changes, for example, al-komuter (computer), fâksmaili (fax mail), but when we will adapt these terms by derivation, the Arabic native speaker will easily understand them as follows: ḥāṣūb (computer – from "ḥsb", to count, think, consider, rate); nāsūh (fax mail – from "ns ḥ", to copy; duplicate; make an exact cope of; reproduce). In these examples, we can see that an arabization as a way of adapting foreign terms, isn’t able to maintain the semantic features of Arabic root when the foreign terms fâksmaili and al-komuter were adopted by arabization, because the association of meaning with the elements of roots is lost. There is no easy access to recognize the meaning of roots with which arabized foreign terms must be associated with in fâksmaili and al-komuter. These terms aren’t able to be productive and they don't give new words according to Arabic pattern set. Arabic terms adopted by arabization break the Arabic language system of self-defense, because this system works as a exact mechanism by keeping the association of adapted term with the meaning of original Arabic root which is able to be highly productive by derivation, for example, the same terms when they are adapted by derivation, they will give the native Arabic speakers an easy access to recognize the real meaning of Arabic root (nṣḥ) (to copy; duplicate; make an exact cope of; reproduce); (ḥṣb) (to count,
think, consider, rate) by the cognized semantic relation of Arabic roots (nš) (ḥsb) with adapted by derivation foreign term nāṣūḫ (fax mail); ḥāṣūb (computer). These terms adapted by derivation are created by Arabic pattern set meaning the noun of tool fāʿūl, for instance, jārūf (shovel); šārūḥ (rocket); nāqūs (bell); nāqūr (horn); sāṭūr (chopper), and they are able to be highly productive by generating new Arabic words.

Foreign terms adapted to Arabic by derivation always maintain the semantic association with an original Arabic root: mikbas (compressor – it is associated with Arabic root "kbs", to compress); miṭqāb (punch – it is associated with "ṭq", to bore; to make a hole). Arabic native speaker cans easily recognize the meaning of adapted term, because he relies on a root elements to understand the essential meaning of a term, and then he will know the derivational meaning of adapted term by pattern set which indicates to the derivational meaning by its structure. Terms created and adapted by derivation terms are able to be productive in Arabic since they can give new Arabic words. Adapted terms like mikbas (compressor); miṭqāb (punch) nāṣūḫ (fax mail); šārūḥ (rocket) are made according to the system of self-defense in Arabic as long as they are associated with Arabic roots, formed by Arabic pattern set, and they are able to produce new words in Arabic.

The results of comparing arabization with derivation as two ways of adapting new terms to Arabic testify that arabization isn’t a save way to make foreign term adapted to Arabic because: (1) semantic maintenance of Arabic root is broken since the arabized term isn’t associated with an Arabic root; (2) native speakers of Arabic aren’t able to get easy access to the essential meaning of arabized term because the terms sound strangely for native speakers and an inaccessible to be cognized; (4) arabized terms aren’t always formed by Arabic pattern set. Arabs recognize the essential meanings of words by the elements of root, for example, (k-t-b) which essential meaning is writing in kataba (to write); kātib (writer); kutāb (writers) or (ḥ-lq) ḥalaqa (to create); ḥāliqa (it was created); ḥāliq (creator), and the derivational meanings are understood by pattern set. It means that the derived words in Arabic must be exactly rhymed with pattern sets; (5) these terms adapted to Arabic by arabization are out of the system of language self-defense.

Translation as a way of adapting foreign terms to Arabic isn't able to be compared with derivation since it relied on it and other ways to find the equal Arabic word to the foreign term. The results of comparing derivation with other ways are quite enough to show the ability of translation to adapt foreign terms to Arabic.

Another way that we compare with derivation is al-istinbāṭ (discovery) represented by searching for any metaphoric association of foreign term with arabic root and forming it by the Arabic pattern set; it is also called a metaphoric derivation [13]; "qitār" (train; originally used to describe a group of camels) [9]. This way is fully based on the rules of derivation since it requires the semantic association with Arabic root, full rhyming with Arabic pattern set, but it differs from derivation. The al-istinbāṭ or discovery always consists with the metaphoric meaning of Arabic words. However, discovery needs an association with an Arabic word and it is formed by the pattern set; it isn't able to give a direct cognitive access to know the essential meaning of adapted term as the derivation does.

4. Conclusion
This study shows that derivation is the safest way used by classical and modern Arabic linguists to adapt foreign term to Arabic; it is also works systematically to keep the rules of arabic language by which the foreign terms can be adapted and able to produce new arabic words. Derivation is practiced actively in Arabic to adapt foreign terms because it: (1) guarantees the semantic maintenance of Arabic roots; (2)
gives an easy cognitive access to recognize the essential meaning of adapted terms; (3) is able to form terms by pattern set; (4) makes the adapted foreign terms able to produce new words according to the pattern set; (5) applies the language system of self-defense; (6) saves the order of radical consonant by which the meaning of adapted terms is recognized.

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5. References
The Impact of Teaching English Synonym and Antonym Pairs Adjacently and Non-Adjacently on Iranian EFL Learners’ Vocabulary Learning and Retention

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Abstract
The present study investigated the effects of teaching English synonym and antonym pairs adjacently and non-adjacently on Iranian EFL learners’ vocabulary learning and retention. In so doing, the study utilized an experimental design with 80 randomly selected participants ranging in age from 15 to 25 who were assigned into four experimental groups of 20. The results of a pre-test indicated that the participants of the two groups were homogenous regarding their proficiency level. All groups were exposed to the synonym and antonym pairs illustrated with pictures and Microsoft Power-Points slides. After interventions, immediate and delayed post-tests were administered with 2 weeks interval. The researcher came to the conclusion that teaching new words out of context might be as helpful as teaching them within the language context (co-text); teaching synonyms and antonyms gives the language learners an opportunity to enhance their memory for semantically-related words; teaching synonyms and antonyms in separate sessions with short intervals in between might positively affect the students’ long term memory for words and consolidate their experience of learning words in a foreign language.

Keywords: Antonyms; Retention; Synonyms; Teaching Adjacently and Non-adjacently

1. Introduction

In the last three decades, the field of second language acquisition has seen renewed interests in vocabulary learning and acquisition. There are many dimensions to vocabulary learning and acquisition, as reflected in the multitude of different areas of research being done on the topic. Richards and Schmidt (2010) defined vocabulary as “a set of lexemes, including single words, compound words and idioms” (p. 580).

According to Zimmerman (1997), vocabulary plays a significant and central role in language learning and language use. As Laufer (1997) asserted, speakers cannot communicate and convey meaning without vocabulary in every language. The results of several studies such as Vermeer (2001), Nunan (1999), and Meara (1996), especially in the last two decades, noticed that vocabulary knowledge is at the heart of foreign language acquisition. Then, vocabulary teaching plays a vital role in language teaching and learning.

One of the main provokes that foreign or second language learners continuously encounter is how to become proficient of the large pile of vocabulary items in a language to communicate successfully. In the same vein, it is stated that giving a list of antonymous words would be one of the most effective strategies to learn new words, since it accelerates the process of lexical learning and makes the retention of words better and easier (Schmidt, 2008). Similarly, Yaghoobi Karnami (2004) claimed that specific attention to vocabulary plays a vital role in teaching English to Iranian EFL learners.

The findings of Storkel and Maekawa (2005) indicated that learners, teachers, and material designers can make use of homonym pairs whenever the focus is on the short-term memory and word forms. Their experiment revealed that when learning is measured by semantic representations, synonyms can facilitate word learning by decreasing cognitive demands as the meaning of the words are rather equal in
synonym pairs. Accordingly, practitioners in the field of language teaching can group and teach the words with the similar meaning for a better understanding and fast learning. Such being the case, if the center of attention is shifted towards the semantic learning phase, synonym pairs would be more successful.

2. Literature Review

The results of Higa (1963) suggested that learners are more likely to be confused by the words that are similar in meaning than words that do not have close semantic relations. Tinkham (1993) and Waring (1997) also maintained that learning semantically related sets is more difficult than learning semantically unrelated sets (i.e., the words that are not linked by meaning). They also mentioned that learning synonyms at the same time may reduce the probability of acquisition. Although their finding is very useful, it may not be used in the usual way of learning synonyms.

As mentioned before, Powell (1986) noticed that semanticists consider three types for antonyms including contradictories (complementary), contraries, and reciprocals (converse). Single/married and part/whole are examples for contradictories which are limited. This study focused on contraries which allow for gradations (e.g., giant/miniature; transparent/opaque). In reciprocals, one word opposites or unwraps the other’s meaning (e.g., buy/sell; gather/disperse).

2.1 Internal Lexicon

When it is said that an individual knows a word, it is expected that he knows the phonological, morphological, syntactic, and semantic features of the word. Sense and reference are two important elements forming the meaning of the word. The former pertains to the relationship existing between a specific word and other words. While the latter is concerned with the relationship words and objects have in the real word. In this case, the term internal lexicon is employed in order to the organization of the knowledge of the word in an individual’s permanent memory. Words, in a semantic network, are indicated as nodes that are connected to other words available in the network by some relations (Carroll, 2008).

2.2 Semantic Memory

According to Sowa (1987), a semantic or frame network is a network by means of which semantic relations between concepts are shown, and is often used as a form of knowledge representation. It is a directed or undirected graph that contains vertices which represent concepts, and edges by which semantic relations between concepts are represented.

2.3 Lexical Access

What is lexical access? According to Field (2004), it is firstly important to explain what the mental lexicon, lexical entries, and lexical storage are to see what lexical access is. He noticed that the lexicon refers to a systematic organization of vocabulary that is stored in the mind in the form of single lexical items. It has been alluded to as individuals’ mental word reference and analogies between accessing a composed lexicon and accessing the mental vocabulary have developed. Lexical sections are characterized as the information kept in the mind with respect to a particular word. Information about lexical items’ content is needed to identify and understand words. As Levelt (1989) noticed, lexical entries contain two types of information (including content about the form and meaning of lexical items) by which individuals can recognize and understand words. The form refers to phonological and morphological information; while the meaning component refers to the syntax and semantic information. Lexical capacity alludes to the path in which lexical items are sorted out for ideal availability in the lexicon.
Field (2003) defined lexical access as the way which people access words in the mental lexicon. Some specialists like Chumbley and Balota (1984), Field (2003), Mason and Just (2007), Simpson (1984), Simpson (1994), Swinney (1979), Tabossi and Zardon (1993), Vakoch and Wurm (1997) have identified that lexical access could be affected by numerous factors such as the frequency effect, the word/non-word effect, word superiority effect, the length effect, and the image ability effect.

2.4 Models of Lexical Access

As Gleason and Bernstein (1998) stated, it is crucial to know how language users recognize a lexical item’s meaning, so lexical access models try to clarify the way people access words and their related meanings in their minds.

2.5 Search Model

The autonomous search model was developed by Forster (1976) which is the earliest and most influential model that views the word recognition process as being divided into several parts. In this model the lexicon is compared to a library. Although several catalogs can be used to determine where the lexical items are located, considering lexicon and library, a word similar to a book can only be found in one place. Forster stated that orthographic, phonological, and semantic/syntactic elements are three major types of access files. The orthographic element which is the first type of access file means that words are accessed based on their visual features; words retrieved through the phonological access file are done so through how they sound; and finally, words recovered using the syntactic/semantic file are done so according to their meaning. The search model mainly involves the process of going to the precise access file and comparing stimulus with access code. Frequency effects can be clarified by the ranking of the bins, but as an example, training repetition is more difficult to describe. The activation of word candidates begins before a complete word has been presented. Therefore, memory traces facilitate decision.

2.6 Logogen Model

The Logogen Model was developed by Morton (as cited in Field, 2003) who asserted that the model relies on the assumption that listeners have a limitless number of particular specialized recognition units and each listener can remember one particular word. The specialized recognition units are called logogens, and these contain data about the sounds of the word, its syntactic and semantic attributes, and data about word sort. According to Morton (1969), words are accessed by being activated by a certain threshold, not by determining their locations in the lexicon. Making a comparison between Morton's model and a light bulb together with a word and a light bulb, Gleason and Bernstein (1998) claimed that a word is activated when enough energy is being delivered to the source. In this manner in relations to the logogen show, words are initiated when their edge has gotten enough vitality to get to the lexical passage. Morton (as cited in Field, 2003) asserted that each lexical passage had its own logogen which followed the quantity of components a lexical section had in a similar manner as a focused on boost.

2.7 Cohort Model

The cohort model confesses similarities to Morton's (1969) logogen model in that multiple words can be activated, and the system continues searching through all activated words until it settles on a single choice. The second stage of Marslen-Wilson’s (1987) model is known as the selection stage, during which every initiated word is continuously dispensed with in this manner narrowing the partner. An actuated lexical thing in the companion can be wiped out either in the light of unseemly setting or if a superior hopeful is enacted. Every single lexical thing in the partner keep on being dispensed with until a solitary lexical thing stays, known as the joining stage. Moreover, the original cohort model asserted that an exact match was required between a lexical item and its phonological properties. According to Gleason and
Bernstein (1998), however, consequent studies exposed that individuals are still able to access a correct lexical item, even if words are distorted or left out (i.e., if an individual yawned part way though a word). In the light of this information, the cohort model was revised and currently it conserves that an exact match between a lexical item and its phonology is not necessary for lexical access. The cohort model additionally represents recurrence and non-word impacts like Morton’s logogen model. Both theories assume that context and primed words narrow the original set of activated lexical items leading to a faster recognition of directed stimulus.

2.8 Hierarchical Model of Lexicon
The hierarchical network model (HNM) was the first systematic model of semantic memory which was proposed by Collins and Quillian (1969), from which Teachable Language Comprehender (TLC) which was a computer program was created to model human language comprehension. The objective is using relations between the text input and a pre-existing large semantic network (SN) to understand it. This model proposes that semantic memory is organized into a series of hierarchical networks, consisting of nodes and properties. A node is a major concept, such as ‘animal, bird, canary’. A property, attribute or feature is, as expected, a property of that concept. For example ‘has wings, is yellow’. According to this model which focuses on the existence of the hierarchical levels, nodes are set on higher levels and a sentence is successfully comprehend if it appropriately connects inputs to the knowledge bags. In the same vein, learning is achieved when comprehended rules are successfully incorporated into SN.

3. Method
3.1 Participants
The data of this study were collected from 80 female EFL learners enrolled at private language institutes in Shahriar, Tehran. They were between 15 to 25 years of age. The participants were selected non-randomly from the population of 100 EFL learners after participating in the Preliminary English Test (PET). They were randomly assigned into four groups of 20 called Synonym Adjacent Group, Synonym Non-Adjacent Group, Antonym Adjacent Group, and Antonym Non-Adjacent Group.

3.2 Instruments
To accomplish the objectives of this study, the researcher utilized the following instruments.
3.2.1 Preliminary English Test (PET as pre-test)
Preliminary English Test (PET) is a well-known placement test consisting of four parts to homogenize the participants for their language proficiency on the four macro-skills of reading, writing, listening and speaking. PET is the second easiest diploma offered by University of Cambridge ESOL Examinations in England. The participants in this study took part in just the reading section of PET, 2004. The other sections were excluded due to the shortage of time and their irrelevance to the scope of the study. It took 90 minutes for the sample of 100 EFL learners to complete the pre-test. After administering the pre-test, 80 students whose scores ranged within the 2SD below and above the mean score were selected as the main subjects in this study.

3.2.2. Reading Comprehension Test (immediate and delayed post-tests)
After the treatment sessions, all four groups of the participants performed on a reading comprehension test twice as the immediate and delayed post-tests in this study. Two sets of descriptive passages were selected by the researcher after measuring their difficulty indices (DI ≥.7), which indicated that all of them were somehow at a same level. Each set consisted of 3 passages followed by 30 multiple choice items. The participants were supposed to choose the best synonyms (in Synonym Adjacent and Synonym Non-
Adjacent groups) or the best antonyms (in Antonym Adjacent and Antonym Non-Adjacent groups) out of three alternatives in every multiple-choice item (a, b, or c).

3.3 Procedure
The sample in this study was non-randomly selected and later homogenized after taking a Preliminary English Test (PET). After exclusion of the less proficient participants, the main sample was assigned into 4 experimental groups. The arrangement of the groups and the type of treatment they received are summarized in Table 1.

Table 1. Experimental Groups Arrangement

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<th>Group</th>
<th>Treatment Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonym Adjacent Group</td>
<td>Received the synonym pairs simultaneously every session.</td>
</tr>
<tr>
<td>(SA)</td>
<td></td>
</tr>
<tr>
<td>Synonym Non-Adjacent Group</td>
<td>Received the synonym pairs in separate sessions.</td>
</tr>
<tr>
<td>(SNA)</td>
<td></td>
</tr>
<tr>
<td>Antonym Adjacent Group</td>
<td>Received the antonym pairs simultaneously every session.</td>
</tr>
<tr>
<td>(NA)</td>
<td></td>
</tr>
<tr>
<td>Antonym Non-Adjacent Group</td>
<td>Received the antonym pairs in separate sessions.</td>
</tr>
<tr>
<td>(ANA)</td>
<td></td>
</tr>
</tbody>
</table>

The number of the words was similar for all of the experimental groups every session. The Synonym Adjacent (SA) and Synonym Non-Adjacent (SNA) groups received similar synonym pairs with the only difference in one week time interval as the SA group had the chance to receive synonym pairs simultaneously and SNA group had similar synonym pairs separately. The words were illustrated within Microsoft office power point slides so that the students were exposed to some pictorial cues as well as the written target words for better learning and longer retention. It took nine sessions of 20 minutes that lasted for three consecutive weeks to present the target words. The Synonym and Antonym pairs in Adjacent groups (i.e., Synonym Adjacent and Antonym Adjacent) were instructed in binary sets such as affluent/wealthy and barren/fertile, while the Synonym and Antonym pairs were presented separately within a week time interval for the Non-Adjacent groups (i.e., Synonym Non-Adjacent and Antonym Non-adjacent). Right after the treatment sessions, a Reading Comprehension Test (RTC) was administered as the immediate post-test in this study. Two weeks later, the same RCT test was administered to assess the students’ ability to retrieve the instructed words.

4. Results and Discussion
To achieve the objectives of the current study, the researcher collected a wide range of data and a series of statistical analyses which are thoroughly elaborated in this section to draw the final conclusion. After the raw data were submitted to the Statistical Package for Social Science (SPSS) 21, the Descriptive Statistics of the pre- and post-tests together with the Inferential Statistics were calculated so that the researcher could test the five null hypotheses of the study.

4.1 Descriptive Statistics for PET as the Pre-Test
In the present research, Preliminary English Test (PET) was administered as the pre-test to the four experimental groups to homogenize the participants based on their English proficiency level. The descriptive statistics of the experimental groups on PET are presented in Table 2.

Table 2. Descriptive Statistics of PET as the Pre-Test

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>Statistic</th>
<th>Statistic</th>
<th>Statistic</th>
<th>Statistic</th>
<th>Std. Error</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Minimum</td>
<td>Maximum</td>
<td>Mean</td>
<td>Standard Deviation</td>
<td>Skewness</td>
</tr>
<tr>
<td>Synonym Adjacent Pre-test</td>
<td>20</td>
<td>13.00</td>
<td>23.00</td>
<td>17.9000</td>
<td>4.06396</td>
<td>-.077</td>
</tr>
<tr>
<td>Synonym Non-Adj Pre-test</td>
<td>20</td>
<td>15.00</td>
<td>23.00</td>
<td>18.4000</td>
<td>2.30332</td>
<td>.544</td>
</tr>
<tr>
<td>Antonym Adjacent Pre-test</td>
<td>20</td>
<td>13.00</td>
<td>21.00</td>
<td>17.3000</td>
<td>2.29645</td>
<td>-.409</td>
</tr>
<tr>
<td>Antonym Non-Adj Pre-test</td>
<td>20</td>
<td>13.00</td>
<td>21.00</td>
<td>16.6000</td>
<td>2.34857</td>
<td>.267</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As Table 2 displays, the group size in four groups is equal to 20. The largest mean score on PET belongs to the Synonym Non-Adjacent group (18.40) and the smallest mean score can be seen in the Antonym Adjacent group (16.60). The measures of Standard Deviation are also reported as =4.063, =2.303, =2.296 and =2.348. The measures of Standard Deviation indicate that there is a large spread of scores in the Synonym Adjacent group that is almost twice more than the values available in the other experimental groups.

As Table 2 indicates, the Synonym Non-adjacent and the Antonym Non-adjacent groups had an asymmetrical distribution with positive skewness, while the Synonym Adjacent and the Antonym Adjacent groups had an asymmetrical distribution with negative skewness. However all measures of Skewness were statistically insignificant. Measures of Kurtosis that quantify the shapes of the data distribution in the four experimental groups rarely match the Gaussian distribution as all of the experimental groups had negative but insignificant Kurtosis. It can be concluded that the sample of participants were more or less homogenous. To further examine the normality of distribution of PET, a Kolmogorov-Smirnov Test of Normality was run.

Table 3. Kolmogorov-Smirnov Test of Normality of PET as the Pre-Test

<table>
<thead>
<tr>
<th>One-Sample Kolmogorov-Smirnov Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonym Adjacent Pre-test</td>
</tr>
<tr>
<td>Synonym Non-Adj Pre-test</td>
</tr>
<tr>
<td>Antonym Adjacent Pre-test</td>
</tr>
<tr>
<td>Antonym Non-Adj Pre-test</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>Normal Parametersa,b Mean</td>
</tr>
</tbody>
</table>
As it can be seen in Table 3, measure of $\text{Kolmogorov-Smirnov Z}$ was insignificant at P-value= .417 in the Synonym Adjacent group, $\text{Kolmogorov-Smirnov Z}$ was insignificant at P-value= .418 in the Synonym Non-adjacent group, $\text{Kolmogorov-Smirnov Z}$ was insignificant at P-value= .289 in the Antonym Adjacent group and $\text{Kolmogorov-Smirnov Z}$ was insignificant at P-value= .628 in the Antonym Non-adjacent group.

Fig. 1. Normality of distribution in the experimental groups’ scores on PET as the pre-test

Figure 1 illustrates the histogram for the pre-test scores and also it shows an approximately normal distribution of scores. To statically demonstrate the homogeneity of variances among the four experimental groups and their insignificant initial differences, a Levene’s Test for equality of variances was conducted.

Table 4. Levene’s Test of Homogeneity of Variances for PET as the Pre-Test

<table>
<thead>
<tr>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>.882</td>
<td>.417</td>
<td>.418</td>
<td>.289</td>
</tr>
<tr>
<td>.882</td>
<td>.417</td>
<td>.418</td>
<td>.289</td>
</tr>
<tr>
<td>.983</td>
<td>.289</td>
<td>.289</td>
<td>.628</td>
</tr>
<tr>
<td>.750</td>
<td>.289</td>
<td>.289</td>
<td>.628</td>
</tr>
</tbody>
</table>

a. Test distribution is Normal.
b. Calculated from data.
As the results of Levene’s statistic displays, the variances of scores on PET are not homogeneous as the index of F=9.231 is significant at p-value=.000. This statistic pushed the researcher to run a group box plots.

![Box plots for the experimental groups’ scores on PET as the pre-test.](image_url)

Fig. 2. Box plots for the experimental groups’ scores on PET as the pre-test.

As Figure 2 shows, the Synonym Adjacent group’s scores on the pre-test range from 13 to 23, while the range of scores in the Synonym Non-adjacent group is from 15 to 21 with two outlier scores of 12 and 25, the range of scores in the Antonym Adjacent group is from 13 to 21, and in the Antonym Non-adjacent group, it ranges from 13 to 21. Following Figure 2, the length of hinges in the Synonym Adjacent group’s score is the most among the other experimental groups, whereas the Synonym Non-adjacent group shows the smallest variance. The absence of similar variance in the experimental groups made the researcher draw her conclusions with more cautions.

4.2 Descriptive Statistics of the Immediate Post-Test

In the current research, immediately after the treatment period was over, a Reading Comprehension Test was conducted to assess the participants’ vocabulary achievement. The descriptive statistics for immediate post-test scores are presented in Table 5.
Table 5. Descriptive Statistics for the Immediate Post-Test

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>Statistic</td>
<td>Statistic</td>
<td>Statistic</td>
<td>Std. Error</td>
<td>Statistic</td>
<td>Std. Error</td>
</tr>
<tr>
<td>Synonym Adjacent</td>
<td>20</td>
<td>14.00</td>
<td>20.00</td>
<td>18.0000</td>
<td>2.00000</td>
<td>-1.053</td>
<td>.512</td>
</tr>
<tr>
<td>Immediate post-test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Synonym Non-Adj</td>
<td>20</td>
<td>20.00</td>
<td>25.00</td>
<td>21.8000</td>
<td>1.70448</td>
<td>.629</td>
<td>.512</td>
</tr>
<tr>
<td>Immediate post-test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antonym Adjacent</td>
<td>20</td>
<td>13.00</td>
<td>20.00</td>
<td>17.6000</td>
<td>2.21003</td>
<td>-.928</td>
<td>.512</td>
</tr>
<tr>
<td>Immediate post-test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antonym Non-Adj</td>
<td>20</td>
<td>21.00</td>
<td>25.00</td>
<td>23.3000</td>
<td>1.30182</td>
<td>-.305</td>
<td>.512</td>
</tr>
<tr>
<td>Immediate post-test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As it can be seen in Table 5, the immediate post-test scores’ ranged from 14 to 20 in the Synonym Adjacent group, 20 to 25 in the Synonym Non-adjacent group, 13 to 20 in the Antonym Adjacent group and 21 to 25 in the Antonym Non-adjacent group. The largest mean score on the immediate post-test belongs to the Antonym Non-adjacent group (23.30) and the smallest mean score was achieved by the Antonym Adjacent group (17.60). The measures of Standard Deviation on the immediate post-test for the four experimental groups are also presented as =2.00, =1.70, =2.21 and =1.30. The measures of Standard Deviations indicate that the largest spread of scores exists in the Antonym Adjacent group. To further examine the normality of distribution on the immediate post-test scores, a Kolmogorov-Smirnov Test of Normality was run.

Table 6. Kolmogorov-Smirnov Test of Normality for the Immediate Post-Test

<table>
<thead>
<tr>
<th></th>
<th>Synonym Adjacent Immediate post-test</th>
<th>Synonym Non-Adj Immediate post-test</th>
<th>Antonym Adjacent Immediate post-test</th>
<th>Antonym Non-Adj Immediate post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Normal Parameters a,b</td>
<td>Mean 18.0000 21.8000 17.6000 23.3000</td>
<td>Std. Deviation 2.00000 1.70448 2.21003 1.30182</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td>Absolute .291 .181 .272 .205</td>
<td>Positive .159 .181 .139 .141</td>
<td>Negative -.291 -.145 -.272 -.205</td>
<td></td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
<td>1.303</td>
<td>.808</td>
<td>1.216</td>
<td>.915</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.067</td>
<td>.532</td>
<td>.104</td>
<td>.372</td>
</tr>
</tbody>
</table>
According to Table 6, the scores of the four groups on post-test1 can be assumed as normally distributed (1.303 insignificant at P-value=.067 in the Synonym Adjacent group, .808 insignificant at P-value=.532 in the Synonym Non-adjacent group, 1.216 insignificant at P-value=.104 in the Antonym Adjacent group and .915 insignificant at P-value=.372 in the Antonym Non-adjacent group). To graphically demonstrate the distribution of immediate post-test scores a histogram was created.

![Histogram of post-test scores](image)

**Fig. 3. Normality of distribution in the experimental groups' scores on immediate post-test**

As Figure 3 illustrates, the immediate post-test scores are distributed asymmetrically with a long tail to the left to represent a negative skewness of scores around 18.00 and 25.00. However the measure of skewness needed statistical proof which was given with a Leven’s test of homogeneity of Variances.

<table>
<thead>
<tr>
<th>Table 7. Test of Homogeneity of Variances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levene</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>1.544</td>
</tr>
</tbody>
</table>

As Table 7 demonstrates, the index of F in Levene test is equal to 1.544 and is insignificant at p-value=.210 which proves the statically insignificant performance of the four groups on the immediate post-test. To graphically examine the heterogeneity of variances among the four experimental groups, box plots of the immediate post-test scores were drawn.
Fig. 4. Box plots for the experimental groups' scores on the immediate post-test
As Figure 4 indicates, the four groups' variances are more or less similar but around different scores. Accordingly, the Synonym Non-Adjacent and the Antonym Non-Adjacent groups performed much better than the other two adjacent groups. Meanwhile, as Figure 4 shows, the long lower whiskers for the Synonym Adjacent and the Antonym Adjacent groups show their positive skewness and their weaker performance on the immediate post-test.

4.3 Descriptive Statistics of the Delayed Post-Test
In this study, a delayed post-test similar to the immediate post-test in its content was administered after a two-week time interval to examine the participants' level of retention in this study. The descriptive statistics for the delayed post-test scores are presented in Table 4.7.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonym Adjacent \ Delayed Post-test</td>
<td>20</td>
<td>13.00</td>
<td>19.00</td>
<td>17.3000</td>
<td>1.71985</td>
<td>-.622</td>
<td>.512</td>
</tr>
<tr>
<td>Synonym Non-Adj Delayed Post-test</td>
<td>20</td>
<td>13.00</td>
<td>19.00</td>
<td>17.3000</td>
<td>1.71985</td>
<td>-.622</td>
<td>.512</td>
</tr>
<tr>
<td>Antonym Adjacent Delayed Post-test</td>
<td>20</td>
<td>10.00</td>
<td>19.00</td>
<td>14.3000</td>
<td>3.11364</td>
<td>-.404</td>
<td>.512</td>
</tr>
<tr>
<td>Antonym Non-Adj Delayed Post-test</td>
<td>20</td>
<td>22.00</td>
<td>27.00</td>
<td>24.5000</td>
<td>1.31789</td>
<td>-.153</td>
<td>.512</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As it can be seen in Table 8, the mean scores on the delayed post-test in the Synonym Adjacent, Synonym Non-adjacent, Antonym Adjacent and Antonym Non-adjacent groups are $\bar{x} = 17.3000$, $\bar{x} = 17.3000$, $\bar{x} = 14.3000$ and $\bar{x} = 24.5000$, respectively. The measures of Standard Deviation for the delayed post-test in the four groups are also reported as $\sigma = 1.719$, $\sigma = 1.719$, $\sigma = 3.113$ and $\sigma = 1.317$. As it can be seen, the participants in the Antonym Non-adjacent group outperformed the other experimental groups with a more homogeneous variance. To further examine the normality of distribution in the delayed post-test scores, a Kolmogorov-Smirnov Test of Normality was run.
As Table 9 shows, the performance of the groups on the delayed post-test can be assumed to be normally distributed ( = 1.154 insignificant at P-value=.139 in the Synonym Adjacent group,  = 1.154 insignificant at P-value=.532 in the Synonym Non-adjacent group,  = 1.292 insignificant at P-value=.071 in the Antonym Adjacent group and  = 1.128 insignificant at P-value=.157 in the Antonym Non-adjacent group). To graphically demonstrate the distribution of experimental groups’ scores on the delayed post-test, another histogram was created.

![Histogram of Delayed Post-test Scores](image)

**Fig. 5. Normality of distribution in experimental groups’ scores on the delayed post-test**

As Figure 5 displays, the experimental groups’ scores are distributed rather symmetrical with most frequent scores jammed around the mean. However a slight skewness is observable which encouraged the researcher to interpret the results more cautiously. 

Table 9. Kolmogorov-Smirnov Test of Normality of the Delayed Post-test

<table>
<thead>
<tr>
<th>Synonym Adjacent</th>
<th>Synonym Non-Adjacent</th>
<th>Antonym Adjacent</th>
<th>Antonym Non-Adjacent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delayed Post-test</td>
<td>Delayed Post-test</td>
<td>Delayed Post-test</td>
<td>Delayed Post-test</td>
</tr>
<tr>
<td>Mean</td>
<td>17.3000</td>
<td>17.3000</td>
<td>14.3000</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>1.71985</td>
<td>1.71985</td>
<td>3.11364</td>
</tr>
<tr>
<td>Most Extreme Absolute Differences</td>
<td>.258</td>
<td>.258</td>
<td>.289</td>
</tr>
<tr>
<td>Positive</td>
<td>.161</td>
<td>.161</td>
<td>.216</td>
</tr>
<tr>
<td>Negative</td>
<td>-.258</td>
<td>-.258</td>
<td>-.289</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
<td>1.154</td>
<td>1.154</td>
<td>1.292</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.139</td>
<td>.139</td>
<td>.071</td>
</tr>
</tbody>
</table>
Table 10. Levene’s Test of Homogeneity of Variances for the Delayed Post-Test Scores

<table>
<thead>
<tr>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.611</td>
<td>3</td>
<td>76</td>
<td>.000</td>
</tr>
</tbody>
</table>

As Table 10 displays, the index of F in Leven’s test is 6.61 that is considered to be significant at p-value=.000 and suggests a statistically significant lack of homogeneity of variances among the experimental groups. The drawn box plots further explored such discrepancies.

Fig. 6. Box plots for experimental groups’ scores on the delayed post-test

As Figure 6 shows, the scores on the delayed post-test show a various pattern of homogeneity and dispersion. The highest box plot belongs to the Antonym Non-adjacent group with four outlier scores and a twisted range of scores. The next noticeable performance belongs to the Synonym Non-adjacent group with a normally spread scores and a slightly negative skewness. The Synonym Adjacent group ranked third with a very small variance of scores and two outlier scores far below the range. The worst performance on the delayed post-test belongs to the Antonym Adjacent group which displays a large range of low scores which are negatively skewed. After statistically describing the performance of the experimental groups on the pre-test, immediate post-test and the delayed post-test, the researcher testifies the null hypotheses by running parametric tests with the scores.

4.4 Testifying the Null Hypotheses

In order to testify H01, the researcher planned to run the One-way ANOVA with the scores of the Synonym Adjacent group on the pre-test, immediate post-test and delayed post-test.

Table 11. One-Way ANOVA for Synonym Adjacent Group’s Scores on the Pre-Test, Immediate Post-Test and Delayed Post-Test

<table>
<thead>
<tr>
<th>ANOVA Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum of Squares</td>
</tr>
<tr>
<td>-------------</td>
</tr>
</tbody>
</table>
Table 11 shows the output of One-way ANOVA. The participants in the Synonym Adjacent group outperformed differently both on the immediate and the delayed post-tests relative to the pre-test, with the index $F (df= 5, 14) = .689$ which is significant at $P$-value= .040 and the index $F (df=5, 14) = .770$ that is significant at $P$-value= .006. The results confirmed the effectiveness of teaching synonym pairs adjacent to one another in similar sessions of EFL classrooms. To further study the effect size of teaching synonyms adjacently, a test of Eta Square was run.

Table 12. Effect Size of Synonym Adjacent Teaching on Vocabulary Learning and Retention Measures of Association

<table>
<thead>
<tr>
<th></th>
<th>Eta</th>
<th>Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate Post-test * Synonym Adjacent Pre-test</td>
<td>.444</td>
<td>.398</td>
</tr>
<tr>
<td>Delayed Post-test * Synonym Adjacent Pre-test</td>
<td>.465</td>
<td>.216</td>
</tr>
</tbody>
</table>

As Table 12 suggests, the measures of Eta squared show high effect sizes. It can be interpreted that a large amount of variances in the immediate post-test and delayed post-test can be accounted for by the treatment that the students received in the Synonym Adjacent group. Therefore, the first null hypothesis is rejected. Accordingly, it can be said that: Teaching synonym pairs adjacently has a significant effect on EFL learners’ vocabulary learning and retention.

Similar to the scores of the Synonym Adjacent group, to testify H02, the researcher decided to run the One-way ANOVA with the Synonym Non-Adjacent group’s scores on the pre-test, immediate, and delayed post-tests.

Table 13. One-way ANOVA for the Synonym Non-adjacent group’s Scores on the Pre-Test, Immediate and Delayed Post-Tests

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum of Squares</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[DOI: 10.26655/mjltm.2018.3.1]
As Table 13 illustrates, the participants in the Synonym Non-adjacent group have performed differently on the pre-test from immediate and delayed post-tests, with the index $F (df= 6, 13) = .998$ which is reckoned to be significant at $P$-value=.006, and $F (df= 6, 13) = .867$ that is significant at $P$-value= .004. The significant indices of $F$ support the effectiveness of the treatment in the group. To measure the effect size, a measure of Eta Squared was calculated.
Table 14. Effect Size of the Synonym Non-Adjacent Teaching on Vocabulary Learning and Retention
Measures of Association

<table>
<thead>
<tr>
<th></th>
<th>Eta</th>
<th>Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate Post-Test * Synonym Non-Adj Pre-test</td>
<td>.562</td>
<td>.315</td>
</tr>
<tr>
<td>Delayed Post-Test * Synonym Non-Adj Pre-test</td>
<td>.535</td>
<td>.286</td>
</tr>
</tbody>
</table>

As Table 14 demonstrates, the measures of Eta squares are large enough to account for the major variances in the immediate and delayed post-tests. Therefore, the second null hypothesis is rejected. In accordance with the findings of the study, it can be stated that:
Teaching synonym pairs non-adjacently has a significant effect on EFL learners' learning and retention of vocabulary.
Similarly, the One-way ANOVA was run among the Antonym Adjacent group's scores on the pre-test, immediate post-test and delayed post-test.

Table 15. One-way ANOVA for the Antonym Adjacent Group's Scores on the Pre-Test, Immediate and Delayed Post-tests

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate Post-test* Antonym Adjacent Pre-test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>24.967</td>
<td>5</td>
<td>4.993</td>
<td>.620</td>
<td>.687</td>
</tr>
<tr>
<td>Within Groups</td>
<td>112.833</td>
<td>14</td>
<td>8.060</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>137.800</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delayed Post-test* Antonym Adjacent Pre-test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>30.867</td>
<td>5</td>
<td>6.173</td>
<td>.685</td>
<td>.642</td>
</tr>
<tr>
<td>Within Groups</td>
<td>126.083</td>
<td>14</td>
<td>9.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>156.950</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As Table 15 shows, the participants in the Antonym Adjacent group did not have a different performance on the pre-test, immediate and delayed post-test. This finding suggests the absence of meaningful impact of this treatment on the participants' vocabulary achievement and retention. Accordingly, the index F (df=5, 14) = .620 is insignificant at P-value= .687 for the immediate post-test and the index F (df=5, 14) =.685 is insignificant at P-value= .642 for the delayed post-test. To measure the effect size in this experiment, the index of Eta Squared was calculated.

Table 16. Effect Size of the Antonym Adjacent Teaching on Vocabulary Learning and Retention
Measures of Association

<table>
<thead>
<tr>
<th></th>
<th>Eta</th>
<th>Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-Test1 * Antonym Adjacent Pre-test</td>
<td>.426</td>
<td>.181</td>
</tr>
<tr>
<td>Post-Test2 * Antonym Adjacent Pre-test</td>
<td>.443</td>
<td>.197</td>
</tr>
</tbody>
</table>
As Table 16 suggests, the Eta Squared for the effectiveness of teaching antonyms adjacently (.181) is not large enough to account for the impact of this treatment on the participants' vocabulary achievement. Therefore, the researcher failed to reject the third null hypothesis.

In order to testify Null Hypothesis 4, the researcher ran another One Way ANOVA.

Table 17. One Way ANOVA for the Antonym Non-adjacent group’s vocabulary learning and retention

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate Post-test *</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antonym Non-Adj Pre-</td>
<td>35.800</td>
<td>6</td>
<td>5.967</td>
<td>.760</td>
<td>.013</td>
</tr>
<tr>
<td>test (Combined)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within Groups</td>
<td>102.000</td>
<td>13</td>
<td>7.846</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>137.800</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delayed Post-test *</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antonym Non-Adj Pre-</td>
<td>35.450</td>
<td>6</td>
<td>5.908</td>
<td>.632</td>
<td>.003</td>
</tr>
<tr>
<td>test (Combined)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within Groups</td>
<td>121.500</td>
<td>13</td>
<td>9.346</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>156.950</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As Table 17 shows, contrary to the Antonym Adjacent group, the participants in the Antonym Non-adjacent group performed differently on the pre-test, immediate and delayed post-tests with the index F (df= 6, 13) = .760 to be significant at P-value= .013 in the immediate post-test and the index F (df=6, 13) = .632 as significant at P-value= .003 in the delayed post-test. An index of Eta squared was measured to study the effect size of the treatment.

Table 18. Effect Size of the Antonym Non-Adjacent Teaching on Vocabulary Learning and Retention Measures of Association

<table>
<thead>
<tr>
<th></th>
<th>Eta</th>
<th>Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate Post-test* Antonym Non-</td>
<td>.510</td>
<td>.260</td>
</tr>
<tr>
<td>Adj Pre-test</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delayed Post-test * Antonym Non-</td>
<td>.475</td>
<td>.226</td>
</tr>
<tr>
<td>Adj Pre-test</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As Table 18 demonstrates, the measures of Eta squares are large enough to account for the major variances in the immediate and delayed post-tests. Therefore, the fourth null hypothesis is rejected. By the same token, it should be asserted that:

Teaching antonym pairs non-adjacently has a significant effect on EFL learners’ vocabulary learning and retention.
To testify Null Hypothesis 5 which assumes no significant differences can be observed with regard to the effects of teaching synonyms and antonym pairs adjacently or non-adjacently on EFL learners’ vocabulary learning and retention, a ANOVA Test was run.
Table 19. One-way ANOVA for the Experimental Groups’ Performance on the Immediate and Delayed ANOVA Table

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Post-Test 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>475.350</td>
<td>3</td>
<td>158.450</td>
<td>47.003</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>256.200</td>
<td>76</td>
<td>3.371</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>731.550</td>
<td>79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Post-Test 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1225.350</td>
<td>3</td>
<td>408.450</td>
<td>89.666</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>346.200</td>
<td>76</td>
<td>4.555</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1571.550</td>
<td>79</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As displayed in Table 19, in both of the immediate and delayed post-tests, all of the four experimental groups performed significantly different from pre-test, which partly proves the effectiveness of all treatments in this study. The index $F (df= 3, 76) = 47.003$ is regarded to be significant at $P$-value= .000 for the first immediate post-test and the index $F (df= 3, 76) = 89.666$ is significant at $P$-value= .000 for delayed post-tests are presented in the table. The measure of Eta squared for both immediate and delayed post-tests are totally large and meaningful as illustrated in Table 20.

Table 20. Effect Size of all Treatments on the Immediate and Delayed Post-Tests

<table>
<thead>
<tr>
<th>Measures of Association</th>
<th>Eta</th>
<th>Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate Post-test* Groups</td>
<td>.806</td>
<td>.650</td>
</tr>
<tr>
<td>Delayed Post-test* Groups</td>
<td>.883</td>
<td>.780</td>
</tr>
</tbody>
</table>

Finally, to compare the four treatments in this study, Table 21 summarizes the participants’ improvement of mean scores in the immediate post-tests and their lower achievement in the delayed post-tests.
Table 21. Comparison of the Groups’ Performance on Immediate and Delayed Post-Tests

<table>
<thead>
<tr>
<th>Groups</th>
<th>Immediate Post-test</th>
<th>Delayed Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonym Adjacent</td>
<td>Mean 18.0000</td>
<td>17.3000</td>
</tr>
<tr>
<td></td>
<td>N 20</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation 2.00000</td>
<td>1.71985</td>
</tr>
<tr>
<td>Synonym Non-Adjacent</td>
<td>Mean 21.8000</td>
<td>21.6000</td>
</tr>
<tr>
<td></td>
<td>N 20</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation 1.70448</td>
<td>1.95744</td>
</tr>
<tr>
<td>Antonym Adjacent</td>
<td>Mean 17.6000</td>
<td>14.3000</td>
</tr>
<tr>
<td></td>
<td>N 20</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation 2.21003</td>
<td>3.11364</td>
</tr>
<tr>
<td>Antonym Non-Adjacent</td>
<td>Mean 23.3000</td>
<td>24.5000</td>
</tr>
<tr>
<td></td>
<td>N 20</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation 1.30182</td>
<td>1.31789</td>
</tr>
</tbody>
</table>

According to Table 21, the outstanding performance in both immediate and delayed post-tests belongs to the Antonym Non-Adjacent group with the mean scores of 23.30 and 24.50 on the immediate and delayed post-tests, respectively. The second performance belongs to the Synonym Non-adjacent group with the mean scores of 21.80 and 21.60 on the immediate and delayed post-tests, respectively. At the third level of performance the Synonym Adjacent group stands with the mean scores of 18.00 and 17.30 on the immediate and delayed post-tests, respectively. Finally, the lowest performance on both of the immediate and delayed post-tests belongs to the Antonym Adjacent group with the mean scores of 17.60 and 14.30, respectively. Therefore, the researcher could reject the fifth null hypothesis and maintain that:

It makes a meaningful difference on EFL learners' vocabulary learning and retention whether synonym and antonym pairs are taught adjacently or non-adjacently.

5. Discussion
Teaching synonym pairs adjacently has no significant effect on EFL learners’ vocabulary learning and retention.
The observational and statistical results in this study confirmed the effectiveness of teaching synonym pairs adjacently on Iranian EFL learners' vocabulary learning progress and their longer retention. In the same vein, Nation (2000) stated that synonyms are one of the most versatile materials in teaching English vocabulary. Since, effective vocabulary instruction has an enormous impact on all language skills,
knowing about different semantic aspects of words would cause better language performance. In this research, the findings supported the effectiveness of teaching new words out of context through the technique of using synonym pairs.

According to Aksoy (2006), intentional vocabulary learning is defined as intended learning of vocabulary. Language learners endow the necessary mental efforts and memorize the words until they know their meanings when they want to upturn their vocabulary or have to learn new words for a test. Incidental learning, on the other hand, does not encompass an effort to learn words.

Explicit vocabulary learning is essential for beginners who need to learn adequate words to be able to read more texts. Students can improve their reading with studying the 3000 most frequent words until the word forms and meanings become inevitably known. Explicit vocabulary instruction helps comprehending difficult words or passive words that represent complex concepts that are not part of their everyday experiences. It also leads to a better reading comprehension by installing known words into a given text.

Teaching synonym pairs non-adjacently has no significant effect on EFL learners’ vocabulary learning and retention. Several recent studies have examined the relative effectiveness of different techniques to presenting new words (Morsali, 2012; Soleimanifard, 2011). Some may be more helpful for improving language learners’ vocabulary learning and retention than others. According to Hashemi and Ghodasiae (2005), there has been a growing interest in the effectiveness of the Lexical Sets and the Semantically Unrelated vocabulary instructions, but a firm conclusion is still somewhat elusive. They also noticed that several studies supported semantic lexical sets to be useful in organizing and chunking words into related classes as vocabulary instructions. The applicability of the concept of vocabulary spurt to L2 vocabulary contexts was also supported. However, with all the predictions made by the first language interference theory, the results were not as reliable as expected.

Teaching antonym pairs adjacently has no significant effect on EFL learners’ vocabulary learning and retention. To reach this conclusion, the researcher ran a One-way ANOVA among the Antonym Adjacent group’s scores on the pre-test, immediate post-test and delayed post-test and findings proved that they made no meaningful improvement in their knowledge of vocabulary before and after receiving the antonym pairs adjacently.

There are a number of studies arguing the effectiveness of presenting new vocabulary items loaded in single classroom sessions (Morsali, 2012; Soleimanifard, 2011). In Morsali’s research, the participants who practiced semantically unrelated sets of words performed better than those who received antonym word sets adjacently (as semantically related). The findings in Soleimanifard (2011), however, proved that the presented vocabulary in terms of hyponyms and semantically related clusters would lead to longer word retention. The results of these studies also put emphasis on presenting and practicing the semantically related words in separate sessions.

Teaching antonym pairs non-adjacently has no significant effect on EFL learners’ vocabulary learning and retention. In the current study, participants in the Antonym Non-adjacent group outperformed on the immediate and delayed post-tests than on the pre-test. It was interpreted as teaching the antonym pairs separately might positively affect the language learners’ vocabulary improvement and retention. This finding supports Waring (1997) who believed that teaching new vocabulary items in semantic sets increases the burden of learning on the shoulders of the learners since they should not only try to gain the meaning of...
the new items but also attempt to keep them apart in order to prevent themselves from the long-term confusion.

It makes no significant difference on EFL learners' vocabulary learning and retention if synonym and antonym pairs are being taught adjacently or non-adjacently.

After data analysis, the researcher examined whether or not any difference can be observed in EFL learners' vocabulary learning and retention when the synonym and antonym pairs are taught adjacently and non-adjacently. In Table 21, the first ranked performance in both immediate and delayed post-tests belonged to the Antonym Non-Adjacent group. The second performance belonged to the Synonym Non-adjacent group. The Synonym Adjacent group stands at the third level of performance. Finally, the lowest performance on both the immediate and delayed post-tests belonged to the Antonym Adjacent group. These graded performances suggested the superiority of teaching semantically related words, either antonyms or synonyms, non-adjacently.

Nation (2000) declared that if the words are to be instructed in semantically-related sets, the teacher should create a context which helps learners to relinquish the extent of interference caused by semantic clustering through visual aids. Like some scholars, Nation (2000) believed that clustering words is troublesome when the pair words are new and the learners have no background knowledge for both, but when the learners know at least one of the words and try to learn the other one, their previous knowledge facilitates learning and retaining the word set. This accounts for the relative outperformance of Non-Adjacent groups over adjacent groups in this study.

6. Conclusion
The purpose of this study was to examine the comparative impacts of teaching synonym and antonym pairs adjacently and non-adjacently on Iranian EFL learners' vocabulary learning and retention. Based on the findings, the following conclusions were drawn:

First, teaching new words out of a context might be as helpful as teaching them within the language context (i.e., co-text). As Stahl and Fairbanks (1986) reviewed, not long ago, vocabulary instruction techniques most often relied on mastering lists of new words along their definitions. Today, it is believed that such instructions are of limited value, mostly in terms of improving students' language skills such as reading comprehension or spontaneous speech production. Students need to know how a word functions in different contexts. Therefore, instructional methods that provide students with both definitional and contextual information do improve comprehension, and do so significantly.

Morsali (2012) confirmed that the vocabulary items presented in a list but not in a context could be learned successfully if pictorial primes were used to suggest their meaning. Using a pictorial context which was suggested by some scholars like Nation (2000) minimizes the word disruption while learning semantically related words. In the same vein, this study suggested that the use of pictures to create a situational context for the new and semantically related words can be as effective as a linguistic context, or co-text.

Second, teaching synonyms and antonyms gives language learners an opportunity to enhance their memory for semantically-related words. As Morsali (2012) pointed out, a disputable technique for presentation of new words is that they are packed as semantically unrelated sets in order to prevent the probable confusion for lexical internalization. Some scholars such as Erten and Tekin (2008), Tinkham (1993), and Waring (1997) suggest that the presentation and instruction of new vocabulary items in semantically related sets might be more confusing for novice learners and so learning those related words will be more difficult. Soleimanifard (2011) asserted that a glance into most of the English language
textbooks shows that each unit usually contains many related words that the teacher must present in one session and the students have to learn them all together. She also noticed that it seems that many people consider bring words of related meaning together such as lexical sets, synonyms, antonyms, and so on, much more useful since they allow learners to see their difference and to advance a better knowledge of the new items in their definite relation with other words. (Soleimanifard, 2011)

Third, teaching synonyms and antonyms in separate sessions with short intervals in between might positively affect the students' long term memory for words and consolidate their experience of learning words in a foreign language.

In Morsali’s (2012) study, the vocabulary items were presented in a list accompanied with pictorial cues but not in a context. Priming pictures, which was suggested by some scholars like Nation (2000) in order to minimize the word disruption while learning semantically related words, was not quite successful. Although learners learnt the new vocabulary items through pictures, yet those participants who received the target words without semantic relations had less confusion.

The current study attempted to investigate the impact of teaching synonym and antonym pairs adjacently versus non-adjacently on Iranian intermediate EFL learners’ vocabulary learning and retention after a two-week interval. Accordingly, foreign language syllabus designers and materials writers who select and order new words to be presented in different courses and classes might receive better results if the words are grouped under a hierarchy of semantically-related words.

In addition, the findings of this study can be beneficial for language teachers by providing them with further opportunities to presenting new vocabulary and add variety to the classroom tasks and activities so that they could enhance learners’ vocabulary acquisition. The findings also suggest the possibility of including some out-of-the-context enlisted words sets to the students every session so that the words are noticed not purely based on their contribution to the language discourse but according to their componential differences and similarities to one another.

Suggestions for future research on this topic may go around the following issues: Further studies might be conducted to study the role of teaching other semantically related words, such as meronyms or hyponyms on EFL learners' vocabulary learning and retention. Moreover, according to Powel (as cited in Blachowics & Fisher, 2005), there are three main kinds of antonyms including contradictions (which are mutually exclusive such as female/male), contraries (the terms used in the current research such as giant/ miniature), and reciprocal terms (or converse terms like give/take). In this research, a set of contrary antonyms were selected which were presented adjacently and with one week time interval. Further research can investigate the effect of other kinds of antonyms on EFL learners' vocabulary achievement. Finally, the participants in the study received the materials in Microsoft power point slides where some pictorial cues helped them learn and recall better. Other presentation aids such as flash cards or games may have different effects on language learners and a different result might be achieved.

7. References


Generalized Fixed Point Theorem For Discontinuous Functions And It's Application In Nash Equilibrium For Discontinuous Games.

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Abstract
Discontinuous functions are important in many fields such as engineering, economic and game theory. In this study the fixed point theorem generalized for discontinuous functions. The existence of a fixed point is deter- mind when that any function from a non-empty polytope in the n-dimensional Euclidean space \(\mathbb{R}^n\) into itself have locally gross direction preserving property. Then we use this quality to prove that there is a fixed point when the continuity condition is remove. Also, we've been reviewed the application of fixed point theorem in game theories and especially the Nash equilibrium.

Keywords: Fixed point, Discontinuities, Nash equilibrium, Game theory

1. Introduction

Brouwer in 1912 proved his famous theorem, fixed point theorem:
Any Continuous function from the n-dimensional unit ball to itself has a fixed point.
The fixed point is a point which is mapped to itself by function. This theorem was one of the most important achievements in Algebraic topology. This celebrated theorem has been generalized in several ways. First Schauder extended Brouwer's fixed point to normed linear space and then it was extended by Tychonoff. He suggested that even if the function is defined on Hausdorff topological vector space locally convex, this theorem is true.
The first generalization on topological fixed point for multi-valued continuous mappings was achieved by Von Neumann which was used in basic theorem on game theory in 1937. The generalization of Brouwer's fixed point theorem to multi-valued mapping with upper semi continuous from a n-dimensional ball to itself was done by Kakotani in 1941 and Karlin-Bohnenblust and Glicksberg followed by Schander's work separately on Banach space in 1950. Also corresponding generalization of the Tychonoff theorem on topological vector space locally convex was proved by Fan. Fixed point theorem is applied in many fields such as game theory, economic, in-dustry, marketing and economical behavior.
The aim of this paper is to present use of this theorem in game theory and especially Nash equilibrium. In this paper, we give a general condition, called the locally gross direction preserving property, under which a fixed point of a function \(f\) from an arbitrary non-empty polytope to itself exists. The condition says that function \(f\) is satisfied in the locally gross direction preserving property. The condition says that at any point \(x\) which is not a fixed point of \(f\) it must hold that the direction of \(f(y) - f(x)\) is grossly preserved in some neighborhood of \(x\), in the sense that for any \(y\) and \(z\) in this neighborhood the inner product of \(f(y) - y\) and \((f(z) - z)\) is positive.
This novel condition allows for various kinds of discontinuities of function \(f\). On the other hand, any continuous function is locally gross direction preserving, so that Brouwer's fixed point theorem is covered by the result. Existence results of fixed points for discontinuous functions were previously given by Tarski and Caristi. Our existence condition differs from Tarski's theorem. In the sense that the latter theorem is restricted to a weakly increasing function on a (finite) sublattice. The monotonicity property is
not required by our condition. It should be noted that a continuous function does not need to satisfy the conditions in Tarski's or Caristi's theorem and thus both theorems do not cover Brouwer's theorem. We also demonstrate that a locally gross direction preserving function is not necessarily upper or lower semi continuous.

In the latter paper, it is shown that better-reply secure games have pure strategy Nash equilibria. We will use our theorem to state some existence results for games with discontinuities, including the case of two-person non-zero-sum noisy games of timing.

2. Fixed point theorems

In this part. We state several different version from fixed point theorem. Suppose that \( \| \) be Euclidean norm in \( i^n \) space and \( C \subseteq i^n \).

2.1. Multi-valued mapping

Assume that \( X \) and \( Y \) are two non-empty sets. However, it is stated that function \( F: X \rightarrow Z^Y \) is multi-valued mapping. It means that multi-valued mapping is a function with values \( F(X) \subseteq Y \) for \( x \in X \).

2.2. Closed mapping

Let \( X \) and \( Y \) be Hausdorff topological spaces and \( S \subseteq X \) and \( \phi: S \rightarrow Y \) is multi-valued mapping with non-empty values and convex. It is said that \( \phi \) is \( G(\phi) = \{(x, y) : y \in \phi(x)\} \) is a closed subset of \( X \times Y \).

2.3. Fixed point

Let \( f: C \rightarrow C \) is a function. \( x^* \in C \) is fixed point if \( f(x^*) = x^* \).

2.4. Multi-valued fixed point

Let \( f: C \rightarrow C \) be a multi-valued mapping. \( x^* \in C \) is a multi-valued fixed point of \( F \) if \( x^* \in F(x^*) \).

2.5. Brouwer's fixed point theorem

Any continuous function mapping from closed Euclidian ball into itself at least has a fixed point.

2.6. Conclusion

Let \( M \subseteq i^n \) be a subset of compact convex and \( f: M \rightarrow M \) be a continuous function. Then \( \exists x \in M : f(x) = x \).

2.7. Theorem

Any continuous function mapping from a non-empty compact and convex subset of Banach space into itself has at least a fixed point.

2.8. Kakotani's fixed point theorem

Let \( X \subseteq i^n \) be a non-empty compact and convex subset and \( \phi: X \rightarrow X \) be a multi-valued closed mapping with non-empty and convex values. Then \( \phi \) has a fixed point. i.e:

\[ \exists x \in X : x \in \phi(X) \]
2.9. Schauder's fixed point theorem
Let $M$ be a non-empty and convex subsets from Banach space $X$ and $N$ be a compact subset of $M$. If $f : M \to N$ be continuous function, then
$$\exists x^* \in M : f(x^*) = x^*$$

2.10. Tychonoff's fixed point theorem
Let $M$ be a non-empty compact and convex subset from Banach space and $f : M \to M$ be a continuous function. Then
$$\exists x^* \in M : f(x^*) = x^*$$

2.11. $\varepsilon$-fixed point
a) Let $F : C \to C$ be a function. Then $x^*$ is called an $\varepsilon$-fixed point of $F$ if:
$$\| F(x^*) - x^* \| < \varepsilon$$
b) Let $F : C \to C$ be a multi-valued mapping. Then $x^*$ is an $\varepsilon$-fixed point for multi-valued mapping $F$ if:
$$\exists y^* \in F(x^*) : \| y^* - x^* \| < \varepsilon$$

2.12. Semi continuous functions
Let $X$ be a non-empty subset of $\mathbb{R}^n$. Then
a) $f : X \to \mathbb{R}$ is upper semi continuous function in $x \in X$ if for every convergent sequence $\{X^k\}_{k \to \infty} \subseteq X$ that
$$X^k \to x$$
satisfy:
$$f(x) \geq \limsup_{k \to \infty} f(X^k)$$
b) $f : X \to \mathbb{R}$ is lower semi continuous function in $x \in X$ if for every convergent sequence $\{X^k\}_{k \to \infty} \subseteq X$ that
$$X^k \to x$$
satisfy:
$$f(x) \leq \liminf_{k \to \infty} f(X^k)$$

2.13. Upper semi continuous with respect to neighborhood view
$f : X \to Y$ is upper semi continuous function in $x_0 \in X$ if for every neighborhood $N(f(x_0))$ of $f(x_0)$ that there exist a neighborhood of $x_0$ like $N(x_0)$ such that for any $x \in N(x_0)$:
$$f(x) \subseteq N(f(x_0))$$

2.14. Remark
Let $f : X \to Y$ be a multi-valued mapping. We define $f^{-1}(A)$ for any $A \subseteq N$ as follows:
$$f^{-1}(A) = \{ x \in X : f(x) \cap A \neq \emptyset \}$$
We also have
$$f^{-1}(y) = \{ x \in X : y \in f(x) \}$$
2.15. Theorem
f is upper semi continuous if and only if for any closed subset \( A \subseteq Y \), \( f^{-1}(A) \subseteq X \) be close.

2.16. Non-empty polytope's fixed point
Let \( P \) is a non-empty polytope in the \( n \)-dimensional Euclidean space \( \mathbb{R}^n \) and \( f \) is a function which is mapped polytope \( P \) into itself. If \( x^* \in P \) and \( f(x^*) = x^* \) then \( x^* \) is called a fixed point of function \( f \). Brouwer in 1912 proved that if \( f \) be a continuous function on \( P \). Then \( f \) has a fixed point.

2.17. Notation
We denote \( B(x, \delta) \) and \( x \perp y \) as follows:
- \( B(x, \delta) \) is a \( n \)-dimensional ball in \( \mathbb{R}^n \) for any \( x \in \mathbb{R}^n \) as center and \( \delta > 0 \) as radial.
- \( x \perp y \) is inner product of \( X \) and \( Y \) for any \( x, y \in \mathbb{R}^n \).

3. Main theorem and it's results
In this paper, Brouwer's fixed point theorem is generalized for discontinuous functions. The existence of fixed point is caused when that \( f \) has locally gross direction preserving property (L G D P). This feature is used for proving the existence of a fixed point in case of removing continuity condition.

3.1. Locally gross direction preserving function (L G D P F)
\( f : P \rightarrow P \) is locally gross direction preserving function if for any \( x \in P \) with condition \( f(x) \neq x \), there exist \( \delta > 0 \) such that for any \( x \) and \( y \) belongs to \( B(x, \delta) \) in \( P \):
\[
(f(y) - y) \perp (f(z) - z) \geq 0
\]
Now we are ready to present the main result of this paper. The proof is constructive and involves two basic arguments, one based on Brouwer's fixed point theorem and the other one, the use of locally gross direction preservingness, on basic algebra.

3.2. Theorem
Let \( P \) be a non-empty polytope in \( \mathbb{R}^n \) and let the function \( f : P \rightarrow P \) satisfy the locally gross direction preserving property. Then \( f \) has a fixed point.

Proof. Take a sequence of simplicial subdivisions, \( \{T_k\}_{k \in \mathbb{N}} \) of \( P \) with mesh size tending to zero if \( k \) goes to infinity, i.e., for each \( k \in \mathbb{N} \), \( T_k \) is a finite collection of simplices whose union \( p \) and for which the intersection of any two simplices is either empty or a common face of both. Since \( P \) is a polytope and therefore the convex hull of a finite number of points in \( \mathbb{R}^n \), such a sequence exists; For \( k \in \mathbb{N} \), let \( f^k \) denote the piecewise linear approximation of \( f \) with respect to \( T_k \), i.e., for \( x \in P \)
\[
f^k(x) = \sum_{j=1}^{n+1} \lambda_j f(x^j),
\]
Where \( x^1, \ldots, x^{n+1} \) are the vertices of a simplex in \( T_k \) containing \( x \), and \( \lambda_1, \ldots, \lambda_{n+1} \) are the unique non-negative numbers with sum equal to one satisfying
Since they function $f^k$ is piecewise linear and therefore continuous on $P$, the Brauer's fixed point theorem implies that for every $k \in \mathbb{Y}$ there exists a fixed point $x^k$ of $f^k$. Next we consider the sequence of points $(x^k)_{k \in \mathbb{Y}}$. Since this sequenced is a sequence of points in the compact set $P$, there exists a convergent subsequence. Without loss of generality we assume that the sequence $(x^k)_{k \in \mathbb{Y}}$ itself converges to some $x^* \in P$. For $k \in \mathbb{Y}$, let $\sigma^k$ be an n-dimensional simplex in $T_k$ with vertices $x^{k,1},\ldots,x^{k,n-1}$ containing $x^k$. Then there exist unique non-negative numbers $\lambda^k_j, j \in I_{n+1},$ with sum equal to 1, satisfying

$$\sum_{j=1}^{n+1} \lambda^k_j x^{k,j} = x^k$$

and

$$\sum_{j=1}^{n+1} \lambda^k_j f(x^{k,j}) = f(x^k).$$

If $f(x^*) = x^*$, then $x^*$ is a fixed point of $f$ and the theorem has been proved.

Suppose therefore that $x^*$ is not a fixed point of $f$, then according to the condition of the theorem there exists $\delta^* > 0$ such that for all $y,z \in B(x^*, \delta^*) \cap P$ it holds that

$$(f(y) - y) \cdot (f(z) - z) \geq 0.$$

Since the sequence $(x^k)_{k \in \mathbb{Y}}$ converges to $x^*$ and the mesh size of $T_k$ converges to zero when $k$ goes to infinity, we obtain that for every $j \in I_{n+1}$ the sequence $(x^{k,j})_{k \in \mathbb{Y}}$ converges to $x^*$. Hence, there exists $k^* \in \mathbb{Y}$ such that for all $k \geq k^*$ it holds that $x^{k,j} \in B(x^*, \delta^*) \cap P$ for all $j \in I_{n+1}$ and therefore

$$(f(x^{k,j}) - x^{k,j}) \cdot (f(x^{k,j}) - x^{k,j}) \geq 0 \quad (1)$$

for all $i,j \in I_{n+1}$. On the other hand, since $f^k(x^k) = x^k$, for all $k \in \mathbb{Y}$, we have that

$$\sum_{j=1}^{n+1} \lambda^k_j (f(x^{k,j}) - x^{k,j}) = 0^n \quad (2)$$

Where $0^n$ is the n-dimensional vector of zeros. Fix any $k \geq k^*$. Since $\sum_{j=1}^{n+1} \lambda^k_j = 1$, there exists $j^* \in I_{n+1}$ satisfying $\lambda^k_{j^*} > 0$. Premultiplying system (2) with $(f(x^{k,j^*}) - x^{k,j^*})$ we obtain

$$\sum_{j=1}^{n+1} \lambda^k_j (f(x^{k,j^*}) - x^{k,j^*}) \cdot (f(x^{k,j}) - x^{k,j}) = 0.$$

Since, according to inequality (1), every term in this summation is non-negative, every term must be zero. So, taking $j = j^*$ we obtain that

$$(f(x^{k,j^*}) - x^{k,j^*}) \cdot (f(x^{k,j^*}) - x^{k,j^*}) = 0,$$

Implying that $f(x^{k,j^*}) = x^{k,j^*}$. Hence $x^{k,j^*}$ is a fixed point of $f$. $\square$

3.3. Remark
After proving the main theorem, we have two important possibilities. First: the case where the limit point $x^*$ of point, and second, for $k$ large enough, any simplex in the converging sequence has at least one of its vertices as a fixed point. This also implies that the result does not follow from applying the Kakutani fixed point theorem to the mapping $F$ defined as the convex closure of $f$.

3.4. Remark
The following lemma shows that Brouwer’s theorem is indeed a special case of Theorem 2-3, in the sense that a continuous function satisfies the locally gross-preserving condition.

3.5. Corollary (The result of main theorem)
Let $P$ be a non-empty polytope in $\mathbb{R}^n$ and let $f : P \rightarrow P$ be a continuous function. Then $f$ is locally gross direction preserving and therefore has a fixed point.

Proof. Take any point $x$ in $P$ and suppose that $f(x) \neq x$. Clearly,

$$ (f(x) - x)^- (f(x) - x) > 0. $$

Consider the function $g : \mathbb{R} \times \mathbb{R} \rightarrow \mathbb{R}$ defined by $g(y, z) = (f(y) - y)^- (f(z) - z)$.

Since the function $f$ is continuous, the function is also continuous. So, since $g(x, x) > 0$, there exists $\delta > 0$ so that for all $y, z \in B(x, \delta) \cap P$ it holds that $g(y, z) > 0$. Hence $f$ is locally gross direction preserving and the result follows from theorem 2-3.

3.6. Remark
Corollary 3-5 shows that the locally gross direction preserving condition indeed gives a natural and novel relaxation of continuity. Although the condition allows for various kinds of discontinuities, the condition puts sufficient properties on the function to guarantee the existence of a fixed point. To illustrate and clarify this, we consider the next example of a one-dimensional function on $[0, 2]$, where at any $x$, $f^-(x)$ denotes the lower limit of $f$ from the left and $f^+(x)$ the upper limit of $f$ from the right.

3.7. Example
Let $f : [0, 2] \rightarrow [0, 2]$ be continuous at any $x \in [0, 2]$, except at $x = 1$. Without loss of generality we assume that $f(x) > x$ for all $x < 1$ (otherwise there is a fixed point $x^*$ satisfying $x^* < 1$). So, $f^-(l) \geq 1$. Now the locally gross direction preserving condition requires that $f(l) \geq 1$, since $f(l) < 1$ contradicts that for every $y$ and $z$ in some $B(1, \delta)$ it holds that $(f(y) - y)^- (f(z) - z) \geq 0$. Further, when $f^+(l) > 1$, then there exists a fixed point $x^* > 1$. So, suppose $f^+(l) \leq 1$. Then the locally gross direction preserving property requires that either (i) $f(l) = 1$ and thus $x^* = 1$ is a fixed point, or (ii) $f(l) > 1$ and there exists some $y$, $1 \leq y \leq 2$, such that $f(x) \geq x$ for all $1 < x \leq y$. In the latter case there is a fixed point $x^* > 1$. In particular it may occur that $f(x) = x$ for all $1 < x \leq y$, corresponding to the case in the proof that for $k$ large enough any simplex in the converging sequence has at least one of its vertices as a fixed point observe that the locally gross direction preserving property excludes that $f(l) > 1$ and $f^+(l) < 1$ and also that $f(l) < 1$ and $f^-(l) > 1$.

3.8. Remark
More generally, the locally gross direction preserving condition requires that if \( x \) is not a fixed point of \( f \), there exists a neighborhood of \( x \) such that for any two points \( y \) and \( z \) in this neighborhood it holds that the vectors \( f(y) - y \) and \( f(z) - z \) either make a sharp angle with each other or are orthogonal to each other, i.e., the direction of these two vectors is grossly preserved. This condition replaces continuity at \( x \). If \( x \) is a fixed point of \( f \) nothing about \( f \) around \( x \) is required. Locally gross direction preserving does not require that the function is monotone non-decreasing, a property required by Tarski’s theorem. One other hand, a function satisfying Tarski’s theorem does not need to be locally gross direction preserving.

3.9. Example
If \( f(x) = \frac{1}{3}(x + 1) \) for \( 0 \leq x \leq 1 \) and \( f(x) = \frac{1}{3}(x + 3) \) for \( 1 < x \leq 2 \), then \( f \) is monotone increasing on the interval \([0, 2]\), but \( f \) is not locally gross direction preserving at \( x = 1 \).

3.10. Remark
It should also be noticed that a locally gross direction preserving function may be neither lower nor upper semi continuous.

3.11. Example
A function \( f : [0, 1] \to [0, 1] \) is said to be lower semi continuous if for all sequences \( (x^k)_{k \in \mathbb{N}} \) with \( x^k \in [0, 1] \) for all \( k \in \mathbb{N} \), such that \( x^k \to \bar{x} \) it holds that \( \liminf_{k \to \infty} f(x^k) \geq f(\bar{x}) \). A function \( f : [0, 1] \to [0, 1] \) is said to be upper semi continuous if for all sequences \( (x^k)_{k \in \mathbb{N}} \) with \( x^k \in [0, 1] \) for all \( k \in \mathbb{N} \), such that \( x^k \to \bar{x} \) it holds that \( \limsup_{k \to \infty} f(x^k) \leq f(\bar{x}) \). Clearly, if \( f(\bar{x}) > \liminf_{k \to \infty} f(x^k) > f(\bar{x}) \), but \( f \) is locally gross direction preserving at \( \bar{x} \), but \( f \) is not lower semi continuous at \( \bar{x} \). Similarly, if \( f(\bar{x}) < \limsup_{k \to \infty} f(x^k) < f(\bar{x}) \), then \( f \) is locally gross direction preserving at \( \bar{x} \), but \( f \) is not upper semi continuous at \( \bar{x} \).

4. Theory of discontinuous games and Nash equilibrium
Nash equilibrium i.e. such a positions that your choice depends on other choices. Nash stated his theory like this: the best results are achieved when everybody do the best for himself/herself and his/her group. He extended cooperation in theory of discontinuous games and suggested that if people cooperate with them and they consider group function in such a way to achieve interest and benefits for himself/herself and his / her group. This subject is clarified better through example “Prisoner’s dilemma”

4.1. Game
In theory of discontinuous, the goal of game is interactions that there is Interdependence and interconnectedness between two sides (or more). The games is divided to two categories: cooperative and non-cooperative game. In non-cooperative game, each player decides independently while, in non-cooperative game, each player decides collectively.

4.2. Player (actor)
Each decision maker is said to be a player. Set of players is shown $N$. For example, if there are $n$ players in the game then set is shown as follows:

$$N = \{1, 2, ..., n\}$$

### 4.3. Strategy

The strategy is complete program of action for player. Otherwise, in a game with moving simultaneously which is played only once, each player has opportunity to select and this choose is done without any information about opponent’s selection. Also, the action of player is about possible choices for each player which can choose only one choice and it said to be choice or action of player. Thus, it does not make any real difference between strategy and action.

### 4.4. Strategy set

In many games, every player has finite strategy (action) which chooses one of them. It is said to be player’s strategy set. Strategy set in every player is shown $S_i$ where index $i$ indicate player $i$. Member of set $S_i$ is shown all possible choices:

$$S_i = \{s_{1i}, s_{2i}, ..., s_{ki}\}, \quad i \in \mathbb{Y}$$

### 4.5. Outcome of player

Outcome of player in game, one of the main elements of game and the function of strategy choices of that player and opponent players. Outcome of player $i$th is shown by $u_i$ and it is defined as follows:

$$u_i : S \rightarrow \mathbb{R}, \quad \forall i \in \mathbb{Y}$$

Where $S$ is a Cartesian product of set of player’s strategy and $\mathbb{R}$ is real number set.

### 4.6. Remark

This product shows ordered $n$-tuples which every one of them shows the combination of selective strategy by players. For instance the combination $\{S_1, S_2, ..., S_i\}$ is indicated that player 1, strategy $S_1$ and player 2, strategy $S_2$ and player $N$, has been selected strategy $S_i$. Thus, every player selected one strategy from set of strategies for example $S_i \in S_i$, then $S_i$ along with selective opponent strategies indicate Outcome and opponents.

### 4.7. Combination of strategy and equilibrium

Elements of $S$ indicates all combination of selective strategies of players in a game. We find answer and solution in order to predicate and explain the way of behavior players in game. Otherwise, we intend to know between combination of strategy for each player. In practice which action takes place or it should take place. That combination of strategy which takes place is said to be equilibrium.

### 4.8. Nash equilibrium

In game theories, in case of a game including two or more players and every player knows equilibrium strategies of other player and no player does not benefit by changing strategy (assume that strategy of remaining players does not change) is said to be Nash equilibrium. John Nash (1950) indicated that limited games always have a equilibrium point which select maps due to role of opponents and has most benefit to them. Important work that John performs and before him, it hadn’t been presented theory games was equilibrium problem and each game has one equilibrium atlast.
this equilibrium can be lose or win. Of course, John Nash suggested that every game both side have win or lose but, game has equilibrium.

4.9. Two-player game with zero resultant
In two-player game or zero resultant means that win of player is caused to loss of other player and vise versa.

4.10. Two-player game with non-zero resultant
In this type of games, win of a player it doesn’t mean loss of other player and it is not possible to predict game in many cases and it does not depend on other factors. Consider following example.

4.11. Example (paradox of two prisoners)
Assume that two people are arrested which commit a crime. Prosecutor to get confession of these two people, they separate from them and they have these choices:

a) If one of criminals confess to the crime and inform us about his partner then he will free from prison and his partner will sentence 15 years in prison
b) If both of them confessed to the crime, then they will sentence 5 years in prison.
c) Their lawyer tell them Prosecutor has not strong evidence against you and by law, if none of you confess to the crime then they will sentence only one year in prison.

Due to example we can consider table as follows. This game is non-zero resultant because in this game win of person doesn’t mean loss of other person. We have used pair ordered in every cell of table, first right number indicates years of imprisonment of first person and left number shows that years of imprisonment of second person. Also, in this table, negative number is indicative of loss.

<table>
<thead>
<tr>
<th>Second person</th>
<th>admission</th>
<th>admission</th>
<th>First person</th>
</tr>
</thead>
<tbody>
<tr>
<td>silent</td>
<td>(-15,0)</td>
<td>(-5,-5)</td>
<td></td>
</tr>
<tr>
<td>(-1,-1)</td>
<td>(0,-15)</td>
<td>Silent</td>
<td></td>
</tr>
</tbody>
</table>

At first glance, answer to this problem seems easy. It is better both of them to be silent and spend in a prison a year. But, it might one of prisoners think that because his/her partner choose the same as him/her and he is silent, he /she can buy freedom for himself. But, other person also base on this reasoning and both of them are sentenced 5 years. If both of them said that act reasonably, i.e. they seek to minimize their duration of conviction, then they will receive long conviction. i.e. they are losing.

4.13. Strategy game space
Cartesian product \( \prod_{i=1}^{N} S^i \) is called strategy game space and it is shown \( S \).

4.14. Mixed strategy
One member of \( S, X = (x_1, ..., x_N) \) is shown and it is called mixed strategy.
4.15. Remark
A mixed strategy $x \in S$ is the result of $u_i(x_i, x_{-i})$ for player $i$ and $x_{-i} = (x_j)_{j \neq i}$ is referred to action of players except player $i$ in strategy $x$.

4.16. Nash equilibrium in mixed strategy
Mixed strategy $x^* \in S$ is a equilibrium if for every player $i \in I_N$, action $x_i^*$, it is maximized score of player $i$ and remaining players choose action $x_{-i}^*$ so that for every $i \in I_N$ and every $x_i \in S^i$:
$$u_i(x_i^*, x_{-i}^*) \geq u_i(x_i, x_{-i})$$

4.17. Remark
For $j_i \in \prod_{j \neq i} S^j$ assume that $b_i(x_{-i})$ is the best answer of player $i$ when other players select the action according to $x_{-i}$. For every $x_i \in S^i$ and $i \in I_N$, $b_i(x_{-i})$ maximize $u_i(x_i, x_{-i})$. Therefore $x^* \in S$ is a Nash equilibrium if for every $i \in I_N$:
$$b_i(x_{-i}^*) = x_i^*$$

4.18. Remark
Consider that function $b_i$ indicates the best reaction. Then, from Brouwer’s fixed point theorem is caused for every $i \in I_N$, Nash equilibrium establishes if function $b_i$ be continuous. In this part we show that condition of Nash equilibrium on functions $b_i$ to condition of continuity be weaker.

4.19. Theorem
Let $S = \prod_{i=1}^N S^i$ be the strategy space of a non-cooperative game, the Cartesian product of $N$ non-empty polytopes and let $b_i : \prod_{j \neq i} S^j \to S^i$, for $i \in I_N$, be best reply functions satisfying that for every $x \in S$ for which $b_i(x_{-i}) \neq x_j$ for some $j \in I_N$ there exists $\delta > 0$ such that for every $y, z \in B(x, \delta) S^i$ it holds that
$$\sum_{i=1}^N (b_i(y_{-i}) - y_i) \perp (b_i(z_{-i}) - z_i) \geq 0$$

Then there exists a Nash equilibrium.

**Proof.** We define the function $r_i$ from $S$ to $b_i$ by $r_i(x) = b_i(x_{-i})$. The condition in the theorem implies that for all $x \in S$ for which $b_j(x_{-j}) \neq x_j$ for some $j \in I_N$ there exists $\delta > 0$ satisfying that for every $y, z \in B(x, \delta) S^i$ we have
$$\sum_{i=1}^N (r_i(y) - y_i) \perp (r_i(z) - z_i) \geq 0.$$
For \( x \in S \), define \( r(x) = (r_1(x), \ldots, r_N(x)) \). Clearly, the set \( S \) is an \( m \)-dimensional in \( n \), with \( m = \sum_{j=1}^{N} m_j \) and \( n = \sum_{j=1}^{N} n_j \). Then \( r \) is a function from \( S \) into itself and for every \( x \in S \) for which \( r(x) \neq x \) there exists \( \delta > 0 \) satisfying that for every \( y, z \in B(x, \delta) \subset S \) we have
\[
(r(y) - y) \cdot (r(z) - z) \geq 0,
\]
i.e., the function \( r \) satisfies the conditions of Theorem 3.2 with \( P \) equal to \( S \). Hence, the function \( r \) has a fixed point \( x^* \) on \( S \), i.e., \( r(x^*) = x^* \). Clearly, a fixed point \( x^* \) of \( r \) satisfies \( b_i(x^*) = x^*_i \) for all \( i \in I_N \).

5. Conclusion

Brouwer in 1912 proved his famous theorem, fixed point theorem:
Any continuous function from the \( n \)-dimensional unit ball to itself has a fixed point, a point that is mapped by the function into itself. In this paper, we give a general condition, called the locally gross direction preserving property, under which a fixed point of a function \( f \) from an arbitrary non-empty polytope to itself exists. In the latter paper, it is shown that better-reply secure games have pure strategy Nash equilibria. Also we presented applying of our theorem to state some existence result for games with discontinuities, including the case of two-person non-zero-sum noisy games of timing.

References

P. Jean-Jacques Herings, A fixed point theorem for discontinuous functions, Maastricht University (2008).
The Holy Qur'an and the sudden transformation of the wizard of Moses' time

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Abstract
The Quran uses popular figures with modeling approach introduces general categories. The same figure is despised and rejected by describing the general headings mentioned. Quran with popular and unpopular figures together, the Humane Society to invite their choices with the desired patterns certainly Qur'anic stories are designed with a specific purpose and a course of lessons, showing therein lies perfection. Contemplating in remnants of the past, he persuades people that it is not necessary to avoid error in order to avoid error, but to make the facts of the past accessible to learners.
The living picture of the difference between the realm of disbelief and faith, the influence of faith in increasing the spiritual and spiritual power of man and the dare of truth without fear of enemy threat and, in general, the change in the mindset of Sahra and how continue to the world today is the main objective of this article. Of course, at first sight, the fundamental change in the mindset of the wizard can be attributed to the perception of the wizard from the shortness of worldly life and the immortality of the eternal life.
One of the groups that have been praised in their Qur'an and celebrated in their honor are Pharaoh's wizards who, after hearing the monotheistic arguments, relied on the conversion of the divine verses and the occultation of the Prophet to Musa (peace be upon him), and despite all the tensions and torture, this faith The feet are pressed. The story of this revolutionary and leading group has been narrated in about fifty verses from the Arabs, Taha, poets and Younes, along with the story of Moses (PBUH). The witches with their clear faith and their resistance to Pharaoh's threats have determined their position, resisting the feet of John. This article seeks to illustrate how such a revolution and development and endurance, the divine hand in all affairs, by modeling the Holy Quran to explain the place of faith and good action in the lives of individuals and how to protect believers against the appearances of the life of the modern world.

Keyword: Transformation, Behavior, Courage, Pattern, Implication

1. Introduction

Almighty God by providing toys to the objectives in the field of related and concurrent receipt of creatures, any creature, including humans null and without goal. created and provided toys perfection. The base from which to conduct public interpreted, the man is also true though man to develop, test, and therefore has the authority and the will to determine their own lot bring, so God through thanks to the nature of the data that its citizens can find the way and move on the path to perfection. The religion in accordance with the provisions of human innate wisdom and prosperity sent down to make his choice and will be corrected. Prophets, who are carrying the message of God, of human and compassionate workers who provide life for her exam can be won
If a person honestly converts to religion and takes religion, as does the clarity of conformity between his inner requirements and religious doctrines, he also understands the conformity of the doctrines of religion with the external facts of the system of being.
Therefore, in addition to "universal guidance", man also has the "specialty of theology". Going to the path of God and committing to the path of nature, in a single wise, have led people to come to life.
In general, the happiness of the worldly life is unique to the path of religion, and human beings will have the prosperity of their worldly life only by walking through this path. Deviations in this way, however, are not fatal except in the fall of corruption and falling into the abyss of destruction. The Holy Qur'an also states in this sense that corruption in the sea and the drought is due to bad people's actions, and in the Surah al-A'raf declares the decline of blessings as the faith and piety of the people. The need for this fact is that the rejection of religious scholarship is the loss of the truths of the life of the world to all its forms, so whoever is deprived of the happiness of religion is also deprived of the happiness of the world and does not enjoy any attempt or effort. Ward. (Tabatabaei, 1374, 4, p577-578).

In short, it is possible to reach the highest stages of life, the life of Tayyeb (pure life), and to try to achieve it only through religion and religion, because believing in God and His apostles is the soul of life, and the survival of this spirit and the preservation of this life to righteous deeds. (Tabatabaei, 1374, 4, p. 80 and p. 7, p. 64).

We see all the factors that lead to the life of Tayyeb (pure life) in the particular behavior of the time of Moses, so the factors that caused the Sahara to appear ostensibly suddenly, by leaving the worldly pleasures for the pursuit of happiness in the hereafter.

2. Sage character in confrontation with the truth

Human beings are personally different. Some people, having transcended the manifestations of the world, take divine effects and the ornaments of the world do not fascinate them. Such people can decide against the air.

The magicians, when they encountered the clear proofs and miracles of Prophet Moses (PBUH), instantly realized what they had found, and even fell down on prostrate, and without fear of Pharaoh and without greed, to the property and the position promised by Pharaoh Were surrendered. The reason for this immediate surrender may be that the health of nature and divine knowledge of them because they did not resist the prophet of Allah and obeyed the literacy. Despite their high social status, they remained silent in front of Moses (PBUH) and stood up in a dispute between themselves and talked with each other secretly (Tabatabaei, 1374, p. 4, p. 62).

In addition, the witches were alive with eternal weight, responding to the call of God and the Holy Spirit. As the Qur'an says,

"Those who believe! Answer the call of allah and the prophet when He calls you to something that gives you life! And you know that God is kept between man and his heart, and all of you (in the Hour) will be gathered to Him! (8 / 8)

They were given life forever, since they called for the right and passed through the kingdom. Most importantly, they said: "Do not care," "Do not mind, do whatever you do!" We return to our Lord (26 / 50)

Sahara believed after seeing the miracle of Moses (peace be upon him) and examining his arguments, which were truth and truth, although apparently their faith was overthrown, but in fact their salvation in their faith was on the three principles that made them Saved eternal destruction. They explicitly stated that:

when they saw the truth, accepted the false annihilation and surrendered the truth (7 / 121-122).
Therefore, if a person recognizes the truth and pursues it sincerely, the Almighty God will guide him to identify the path of growth from the "non". "The Height of My Excellency" (2 / 256) And they gain the life of a person who is due to reason.

3. Do not hate the world and do not be proud of it
The ghostly hearts of the so-so violent world talked with Pharaoh, who disappointed him completely and assured him that their guidance was not exchangeable with anything. They said to Pharaoh:

"وَ الَّذي فَطَرَنا فَاقْضِ ما أَنْتَ قاضٍ إِنَّما تَقْضي هذِهِ الْحَياةَ الدُّنْيَا"

...and Allah is forbearing for us." "Oath to those who created us will never give you precedence over the clear proofs that come to us!" You want every sentence you can only rule in this life of the world! "(20 / 72)
The Pharaoh's pleasure was that he would turn them away, but they said to him:

"جَنَّاتُ عَدْنٍ تَجْري مِنْ تَحْتِهَا الَْْنْهارُ خالِدينَ فيها وَ ذلِکَ جَزاءُ مَنْ تَزَکَّي"

"The eternal gardens of Paradise, where rivers flow from below its trees, While they will always be there, it is the reward of the one who cleanses himself! "(20 / 76)

Despite their very high social status, Sahara passed through their lives and lives for the sake of religion. The witches of the heart of the world and their loved ones, having achieved their high knowledge and hoping for God and His glory, including "إِنَّا نَطْمَعُ أَن يَغْفِرَ لَنَااَبُّنَاا طَطَايَانَاا"

"We never prefer you, We will not be with all the miracles we have seen "(20 / 72)

Somewhere else they say:

"قالُوا لا ضَيْرَ إِنَّا إِليََِّبِّنا مُنْقَلِبُونَ"

"We prefer to return to our Lord!" (26 / 50)
They said: "It does not matter, we will return to our Lord!" (26 / 51), showed that nothing but the satisfaction of God and the glory of their sins for them They did not prepare themselves for any torture. They answered Pharaoh, who threatened them with murder, that they said:

"قالُوا لَنْ نُؤْثِرَکَ عَلي مَا جاءَنا مِنَ الْبَيِّناتِ"

"We never prefer you, We will not be with all the miracles we have seen "(20 / 72)

4. Hope for a bright future in the light of faith in God
The first step in divine forgiveness is to believe in him. Faith, as the Qur'an says, guides the divine heart and divine blessings:

"مَنْ يُؤْمِنْ بِاللَّهِ يَهْدِ قَلْبَهُ وَ اللَّهُ بِکُلِّ شَيْءٍ عَليمٌ.

Whosoever believes in God, Allah guides his heart, and Allah is Knower of all things." (64 / 11)
Greed for mercy and the right of the individual, the greed for entering paradise, forgiveness and forgiveness with faith and action, and the fulfillment of divine orders and the quest for mercy, and the greed for prayer is a kind of positive greetings, and in fact, it is the hope that the guilty petition should be Have the right to excellence. In this regard, the Holy Qur’an says:

"وَ ما لَنَا لاَ تَوَلَّىٰنَ بِاللَّهِ وَ مَا جَانَا مِنَ الْحَقِّ وَ نَطَعُ مَا يَدْخِلُنا رَبَّنَا مِنَ الْقُوْمِ الصَّالِحِينَ"

"We do not believe in Allah and that which is right for us, and we do not believe that our Lord will put us in the door." The rank of the righteous " (5 / 84).

As you can see, the cause of hope and greed to heaven in this verse is to believe in God in order to make it clear that the first condition for entering paradise is the same faith. As for the pharaohs, he says:

"إِنَّا آمَنْ بِرَبِّنَا لِيُغْفِرَ لَنَا طَطَايَا وَ مَا أَكْرَهْتُنَا عَلَيْهِ مِنَ السِّحْرِ وَ اللَّهُ طَيْرٌ وَ أَبْقِيَ"

"We have believed in our Lord, so that we may have mercy upon our mistakes and the sorcery that you have compelled us to do with it (20 / 73)."

And the sentence "good and evil" is a pretext for the verse. Allameh says: It is as if they said that God's forgiveness is better and more permanent, that is, from any good, better and more than anything else. (Tabatabaei, vol. 14, p. 254).

5. Lack of despair and hope for the blessings of the Lord

The disappointment of God's mercy and divine blessing is one of the greatest sins, because what causes the disappointment of the mercy and blessings of the Lord of the universe is the weakness of believing in his endless power and grace and the Holy Qur’an makes it one of the attributes of the infidels and The believers have ordered Raja and forbade them. Says:

They call their Lord with fear and hope ... "(32 / 16)

That is, the believer is someone who fears and hopes for the future.

On the other hand, when one prays to God, he should not be disappointed even if he does not have any good deeds. Therefore, the Quran denies the disbelief of mercy and says:

"قُلْ يَا عِبَادِي الَّذِينَ أَسْرَفُوا عَلَى أَنْفُسِهِمْ لَا تَقْنَطُوا مِنْ ََحْمَةِ اللَّهِ إِنَّ اللَّهَ يَغْفِرُ الذُّنُوبَ جَمِيعًاا إِنَّاهُ هُاوَ الْغَفُوَاُ الارَّحِيمُ"

"Say:" O my servants, who have been wronged and wronged to you! " Do not despair of God's mercy, God forgives all sins, for He is All-Forgiving and All-Compassionate. "(39 / 53)

The wise men were not only not disappointed, they said: "We have GOD of greed and hope for blessings and forgiveness." The Almighty God in the Quran describes himself as the acceptor of repentance, in which he says:

"وَ هُوَ الَّذي يَقْبَلُ التَّوْبَةَ عَنْ عِبادِهِ وَ يَعْفُوا عَنِ السَّيِّئاتِ وَ يَعْلَمُ ما تَفْعَلُونَ"
"He is the one who accepts repentance from his servants and heals them." And knows what you are doing. 

What is important is the success of repentance and the practice of its conditions, including repentance and regret of sin, determination and determination to leave the guilty and not to return and commit it again.

6. The sudden transformation of the Sahara after the defeat of Moses (PBUH)

The most important issue in the verse "وَ أُلْقِيَ السَّاحَرَ ُ سااجِدينَ" is the deep and rapid transformation of the witches against the miracle of Moses (peace be upon him). Those who had previously been the harsh enemy of Moses (PBUH), when they saw the first miracle, shook so much, woke and redirected, which surprised all the people, especially Pharaoh, so that Pharaoh tried to consider it a conspiracy. But she knew that such a relationship was false. Those who had tied their victory to the dignity of Pharaoh after a time when the right was clear to them and their eyes opened, they suddenly forgot about what Pharaoh had in their hearts (Tabatabaei, 1374, p. 14, p. 251).

Imam Sadiq (AS) states the reason for this sudden change: "Everyone considers himself superior to others, is arrogant." They asked: Do the clean people, who consider themselves better than sinners, are mistreated? Imam (AS) expressed the adventure of believing magic that man sometimes thinks of change in a few moments, so do not know yourself better than others because you do not know about your final and final outcome (Kolaini, 1388, p. 8, p. 328).

The first feature of the evolution of the term "al-Qi", which is implicitly expressed, means "throwing", indicating the dominance of the will and the kingdom and the divine attraction on their will and their hearts, as in the commentary of Al-Mizan: when the temptation of miracles They saw Moses, so terrified they were inclined to prostrate, so that they did not understand who brought Awan to prostrate (Tabatabaei, 1374, p. 8, p. 276).

The second feature, the inner transformation and repentance of the wizard, is to receive and express the most precise way of entering the domain of religion and religiosity, which the witches have taken to them with complete incarnation in prostrate, namely, testifying to monotheism, testifying to the Prophethood of Moses and the Aaron (peace be upon him)."

"قالوا آمَنَّا بِرَبِّ الْعالَمينَ " قالُوا آمَنَّا بِرَبِّ الْعالَمينَ "We believe in the god of the two worlds, the God of Moses and Aaron "(7/ 121-122).

The basic question is that this condition of religion, which the wizards found in a short time when dealing with Moses (PBUH), but the Israelites did not come across fifty years of age, and they disobey the commandment of Aaron in the calf incense, they were drawn to apostasy, where Created on wizards? Although they did not have a history of dealing with Moses (as).

In this example, this change and the revolution of thought and spirit in this brief period of knowledge of the science of sahar says: "This consciousness was the source of a burning love that encompassed all of them, that is, if faith is combined with complete consciousness, it brings forth a love that any sacrifice in its path will not be marvelous." (Makarem Shirazi, 1374, p. 6, p. 305)

The witches may implicitly have understood the wisdom of Moses (a) before the beginning of the struggle; they may have received divine inspiration by blessing to break their own soul against Pharaoh
and the community; all this by blessing the adoration of the wali God has come to them. According to Rumi:
The magicians married Moses to Queen at the time of Pharaoh's rule Luke gave Moses the fortune telling of her wizards Zanke told her that it's yours, you'll be the first cake You said the first strap of the wizards, and cut off the wicked So much of their religion's bosom was bought by the dead body of their hands and feet The wizards, because they knew his right, had fallen victim to it (Molavi, 1370, the first office).

7. Demanding patience and glad tidings from God Almighty
At the last point, they refer to the great themes of the believers' wizard's words, including initially seeking patience from the Most High God. In order to clarify the truth of the matter to the people who watched this scene and prove their innocence, they said to Pharaoh: "The only objection we have about us is that we came to the verses of our Lord when they came to us." We believe. That is, we did not intend to disrupt and conspiracy against you, but when we saw the truth, we responded to the call of our Lord.
The Holy Quran calls on all the goodness of the world and the Hereafter as the achievement of patience, and every success in the world and the hereafter depends on patience and attaining paradise and deliverance from hell, and every prosperity and reflection that individual and human society have in mind, (Qaradawi, 1378, p. 121).

"Also, the Prophet of Islam (PBUH) orders that he tolerates the persecution of the people. "And say:" استَبِرْ عَلي ما يَقُولُونَ وَاخْجُرْهُمْ هَجْراً حَميلاً" (73 / 10)

"and they are patient with what they (enemies) say, and deserve to be disposed of them!" (73 / 10)

Likewise, all the prophets are brilliant examples of this kind of patience.

وَ لَنَصْبِرَن على ما آذَيْتُمُونا وَ عَلَي اللَّهِ فَلْيَتَوَكَّلِ الْمُتَوَكِّلُونَ;

"and we will surely wait for your persecution (and we will not give up our duty)! And those who believe, must trust only Allah (14 / 12)"

This verse, Sharifa, speaks of the language of all prophets without exception to their people, in order to show that they waited against denials and reprisals and harassment, until they came to the aid of the divine.

This great patience and unparalleled tolerance of divine prophets also affects their followers, making them also a solid and invincible mountain.

We also see the effect of patience and patience of Prophet Moses (PBUH) in the spirit of the wizards of Pharaoh. Wherewith Pharaoh threatens them with torture and murder with all their glory and with a world, and says: "Do you believe in Musa without my permission? ... While they were the mercenary and salaried man of Pharaoh's system, But the slightest fear of this claim was that they did not create the Great Passover and God of the gods, and they said, like the high mountains, relying on the new faith and in the shadow of divine grace and support:

قالوا إِنَّا إِلي ََبِّنا مُنْقَلِبُونَ ( witches) said: "We will return to our Lord!" (7 / 125).
After this bold and rigorous statement, Zahan went out from Pharaoh and noticed his Lord and demanded him patience and perseverance because they knew that if they were not of the Almighty God, they would never be able to cope with the terrible threats of Pharaoh. And resist.

8. Good luck
Another important demand for them was the death of Muslims and the subsequent goodness.

The magicians did not surrender to the monotheistic evolution resulting from the miracle of Musa Calim; they did not surrender to the threatened power of Pharaoh, who had broken their hands and feet, and eventually became martyrs. "(Javadi Amoli, 1378, p. 11, p. 696).

Applying the sequel to goodness is one of the most important prayers because Abraham (PBUH) also says in his will to his children:

"... فلا تَمُوتُنَّ إِلاَّ وَ أَنْتُمْ مُسْلِمُونَ"

"... You do not die except for the religion of Islam (submission to God's command)." (2 / 132)

The magician, after asking God for full and complete patience, asked the Almighty God for such a thing because it was a very important event for them because they had lost their faith in the faith, instead of God's satisfaction and submission. They got in front of him that was more important than everything.

Imam Ali (peace be upon him) at the end of the famous treaty "Malek Ashtar" asks for prosperity and perfection:

"وَأَنَا أَسْأَلُ اللَّهَ...
وَأَنْ يَخْتِمَ لِي وَلَكَ بِالسَّعَادَ وَالشَّهَادَ"

"I ask God to finish my life and bring you happiness and martyrdom" (Sayed Razi, 1999, Letter 53). "Sahara, after asking God for complete and complete patience, demanded from the Almighty God that the last of the death and the Muslim should be dying, which is the wish of all the blessed of the world, even the prophets of Allah, because this is a very good event for them, with faith Losing the world would have to be, and instead they had to get more important things, and that was God's satisfaction and satisfaction and submission to him.

In the description of the witches, it is enough that the martyrs' server of Abu Abdullah al-Hussein says in Arafat's prayer:

"O God who saved the wicked wickedness after a long time of blasphemy and denial of torment. If they were constantly praising your servant and drinking rashness, they worshiped other than you, and they rose to the enemy of Allah and his companions (Qomi, 2008, Arafah prayer)."

This sudden evolution, which originated from the opposition to the air, caused the wizard to enter into the good life, a life which God considers in the light of faith and righteous deeds: "I practice the righteousness of me, and I am convinced that "It's a good deed for us.

"من عمل صالحًا من ذَکَرٍ أَوْ أُنثى وَ هُوَ مُؤْمِنٌ فَلَنُحْيِيَنَّهُ حَياً طَيِّبَةً وَ لَنَجْزِيَنَّهُمْ أَجْرَهُمْ بِأَحْسَنِ ما كَانُوا يَعْمَلُونَ"

"Everyone from a man or woman does a good deed while he is in the faith, then we will surely live him in a clean life, and in the hereafter, they will reward their verses We will do our very good deeds" (16 / 97).

9. Getting to pure life (Hayat Tayyebah)
Hayat Tayyebah, as its name suggests, is vital to human life. Such humans in the worldly life have set foot in a different valley called the Hayat Tayyebah in the Holy Qur'an. If we look at a logical vision, human
life in the Qur'an's view is not about physical growth and sleep, but the Holy Qur'an has used the term "life" as a gender in the definition of man, and used it as "chapter" as its chapter.

Human beings have a lifetime in their chapter of the "divination" and "tayebeh"; it is obtained by religious teachings in the light of the Qur'anic commandments (Ali, 2001, pp. 105-106). These human beings have understood the basic law of life that:

I saw the water I saw myself sea, I saw the bubble.I became aware that I was neglecting I woke up to dreaming I saw myself (attributed to Binava Badakhshani, Ja'fari, 1361, p. 45)

These people have come to a new life, apart from life, but not apart from it. Life in the light of faith and righteous action is a new life that the magic of Moses was able to achieve. According to Allameh Tabatabai, following verse 97 of Nahl's Sura:

This sentence explicitly implies that the God of the transcendent transcendent, who works righteousness, brings a new life other than that which is vital to others and gives the new life to human beings, and if it was the same earlier life that only His adjective has changed; he said: "We will calm his life." But he did not say so, but said: "We will make him alive with vitality." So the verse of Shrifa ... makes a mistake. He gives him the first and lasting divine vital excellence (Tabatabaei, 2007, 12, p. 491).

This new life is not ceremonial or virtual, and it lightens the mind and the heart and the living space. This light can be a useful knowledge and knowledge that man can lead to it rightfully and believe in right and righteous deeds (Tabatabaei, ibid., P. 492). Such a person has nothing to do with the truth and truth, and always hopes for the mercy and opening up of the Lord.

Allameh Tabatabai describes those who have come to life as follows:

Such people have their hearts and belong to their true Lord, the same Lord who accepts every right with his words; except the Lord, they do not want it. For yourself, life is a permanent and permanent phenomenon that is not the life of anyone except the ghfvr and somebody. From their sight, they see everything God created Hassan and Jamil ... God has made these works vital, making it unique to people with faith and righteous deeds (Tabatabaei, ibid., P. 493).

The interesting and original point that comes from verse 97 of the chapter of Nahl is that this life, which is believed to be a new and unique life, is not separate from the ordinary and public life of all people, while not in the rank of the other. The same. Allameh further goes on to state that not only is life relevance to the life of the believers not virtual, but the naming of this way of life is more desirable than the life of ordinary humans by the name and "life". The same is true of the general human life toward the animal and the life of the animal relative to the plant (Tabatabaei, 2007, p. 7, p. 358).

This new life in the believer is due to the promotion of the degree, not the multiplicity of personality, as the confirmation of the divine prophets with the sacred spirit represents the promotion of their degree, not the multiplicity of their personality. It's important that human beings have reached humanity with this life and have earned their season of animals.

It is noteworthy that life is the basis of consciousness and will, and the "life of the Tayba" is also the origin of a particular consciousness and will, therefore, is considered as another "life", not a developmental one (Tabatabaei, 2007, 12) , P. 365).

In the Quranic view, the chapter of the human chapter is from other living beings, because if human beings tend to disbelieve, it will be lower than any other movement. Therefore, apart from the delusion of man to the "animal of the righteous", another chapter is required. Therefore, Ayatullah Javadi considers the final limit of man to be "alive". According to this definition, the human genus is "HI", which is a comprehensive plant, animal, and human life; and the chapter in this definition, which is the last chapter of the human limit, is "allegorical". Thus, the sex of this definition expresses the common essence of the
Qur'anic man with the customary human being, and the chapter presents the Qur'anic man's subjectivism. With this account, this definition also illustrates the inherent nature of mankind as well as the complexity of individuals and impedes endurance (Mesbah Yazdi, 2008, 2 / 5 - 3, pp. 171-175). It is worth noting that "divination", which means melting in gods, is embedded in the human body, and hence its truth is not more than one thing. Accordingly, real human life has also melted in his "dilemma." From the verses of the Quran, it is deduced from the Qur'an that the human being created a person in a "natural way", but with regard to the path of growth and development of nature, many people buried their innate life under dark and dark souls of ignorance and rebellion.

Accordingly, the Holy Qur'an considers the name of man for unbelievers and polytheists as anonymous.

أَمْ تَحْسَبُ أَنَّ أُکْثَرَهُمْ يَسْمَعُونَ أَوْ يَعْقِلُونَ إِنْ هُمْ إِلاَّ کَالْأَنْعامِ بَلْ هُمْ أَضَلُّ سَبيلاً (فرقان/44)

The sentence "إِنْ هُامْ إِلاَّ کَالْأَنْعام" understands that not reading and Not reasoning, but they are just as lobsters who do not hear words, words and words and do not understand the meaning. "They are also lactating" - that is, they are more devastating than livestock, because livestock never take their own losses, but they prefer their own advantage to their advantage, in addition, larvae lose their way. , Are not equipped with a tool to guide the right path, contrary to the human being who is equipped with guidance and at the same time misleads (Tabatabaei, 1374, p. 15, p. 224).

Hazrat Amir regards these people as:

The heart of the animal is the heart of the animal, and its heart is the human face. Neither knows the path of guidance to go through it, nor does it know the way of error to block it. So he is the dead man among the living (Sabhi Salih, Nahj al-Balaghah, Sermon 87, p. 119, Addi Tamimi, 1360, p. 486 and Majlisi, 2000, p. 2, p. 56).

The Holy Quran, with the allegorical representation of man, before the guidance, has considered a dead person deprived of the blessings of life. Now, if man reaches the faith of God, he can know his good and evil and, by drawing good and evil, will lead the way of life. But if the disbeliever turns away, the sea of darkness and darkness will not reach the clean stage of good and evil.

In the verses of the Qur'an, the believers are described as dead and alive, and the disbelievers are dead; like this verse that says:

أَوْ مَنْ كَانَ مَيْتاً فَأَحْيَيْناهُ وَ جَعَلْنا لَهُ نُوَاً يَمْشي بِهِ فِي النَّاسِ کَمَانَ مَثَلُهُ فِي الظُّلُماتِ لَيْسَ بِخاَِجٍ مِنْها کذلِكَ زُيِّنَ لِلْکافِرينَ ما كَانُوا يَعْمَلُونَ (Anaam / 122)

I am the one who died and he lived. We gave him a light that helped the people through the way. So how can it be like to be with someone whose trait is in darkness and is not out of it? Thus, those who disbelieve are arranged for what they have done (Anaam / 122).

Of course, the focus on Qur'anic topics suggests the immortality of the divine life of a man, in which he is protected under the authority of God and to his maintenance and protection, and no tiredness and tortures are for him (Tabatabaei, ibid., P. 357). Such a person has a vital life that others do not enjoy, so the believer has a degree of life that a non-believer lacks.

Therefore, in the case of the general public, in spite of the fact that they share with animals in life because of the wondrous works of general thoughts and manifestations of mankind, we regard a superior and superior animal life, as well as a divine human being. We consider a vital supernatural of human beings in which special life, with particular light, perceives and chooses with a specific will.

In short, if life is the source of the consciousness and the will-which-the believers are more complete, righteous, and beyond the ordinary life of humans. (Tabatabaei, ibid., P 12. p 365).
Some of the symptoms mentioned above may not be consistent with our understanding of ours, because our understanding of life is the same as the vital one that accompanies voluntary consciousness and verb, until death accompanies man, but life in the Holy Qur'an is a precise meaning. There is another, and for this reason, the Almighty God has read the life of the world and the glory and life in the hereafter as the real life: "And we are the Allah and Allah, and Allah, and Allah, and Allah, and Allah, and Allah, and Allah, and Allah" (spider / 64). For the human being who lives in the world is devoted to life, he is busy with his thoughts and remains in the ends of existence, and in fact remains in the veil that forms between him and his truth. (Tabatabaei, ibid., P. 9, p. 42).

10. Relationship of pure life with natural life
Now that it has been proven that believers have a special life whose particular consciousness and will are the effect of this life, then what is the proportion of this life with common human life? Allameh Tabatabai (RA), in answer to this question, is contemplating in verse 97, especially in the meaning of the attribute "Tayyebah" which the life of the believers is described. This life is regarded as a high level of human life that the formation of this life in the presence of a believer does not cause humanity to multiply. As the Holy Spirit attributed to the Prophet by the Almighty God promotes the degree and does not multiply their personality. This can also be taken from contemplation in the meaning of "Tayyebah", because the life of Tayyebah means pure life which is empty and free from any illness that has its life or its effects (Tabatabaei, ibid., 12, p. 366).

Therefore, the believer's life is a heightened level of human life, so the difference between believer's life and common life of humans is a difference of values and not excesses. It is also not worth paying attention to the fact that the "life of the Tayyebah", which is the result of faith and its accompaniment, is similar to faith in the form of formation and degree (Mazaheri Saif, 2006, p. 14).

By acquiring the appearance of religion, man would take steps from the life of Tayyib, but if the inside changes, the movement moves towards perfection and, in terms of entering the world, will gradually progress. Therefore, the magic of Moses, though for many years, served Pharaoh and the devil of the divine and supernatural god, but as they evolved from within, they were placed in the world of the Qur'an and the "Cain Icon", and they traveled through the Ancien way. That's why God of Excellency has introduced them for the entire history of the Temple.

11. Results and findings:
In sum, it can be said that Hayate Tayybah (pure life) is an example of "life" that is special to true believers, because it has real and special effects, and it is not so much that it is an extension of the law. In the reality of life, as long as the Holy Quran for life, apart from its primitive meaning, which is a worldly life from birth to death, indicates another life that is the truth of life.

When a person arrives at a life whose talent has been completed, this human integrity will be ranked among the righteous among the righteousness of religion and enthusiasm. The path to prosperity and the science and practice that leads to it is not hidden and hidden by any human being, and every human being understands his nature, what he believes in and what works to achieve it. Every human being has a stretch of life in Tayybah, and with his own will can evolve as he reaches the ultimate goal of life. The more faith the Tibetan life will be. Due to the lack of faith, Hayat Tayyeb is also misty and the highest point belongs to the most believers, Muhammad and his family. Others will be in the path of faith to the extent that they will have the same amount of life.
When a man realized that the universe was for him, and the Almighty God was aiming for his creation, and on his part and in his will and will, he is the master of God, and that the system of creation is coherent and balanced in the way that the Almighty God chooses, so that he must aim which God loves for him, to benefit from all the benefits and benefits of the divine system. Ultimately, religion is nothing but belief in God and commitment to the Prophets (PBUH) and adherence to God's commandments and acts of action, so it is only religion that the ability to bring humanity to such a vital and because religion is in harmony with human nature. So the origin of the life of Tayyebah is natural, and everyone has some kind of talent. The Sorcerer of the Time of Moses received the faith with the eyes of the lovers of light. They took refuge in God's sovereignty by receiving their impudence and appealed to God for the sake of blaming their sins. Given that man has always used either the world or the Hereafter, Sahara gained a solid perception of the world's instability in the lasting affair of eternal life.

12. Conclusion:
The final result of this article can be stated that humans are striving for perfection, God considers human perfection in the light of faith and righteous action, and the person who reaches this stage will be the owner of the life of Tayyebah. What is important in this regard is the backwardness that the contender must put into a square with a pure heart and walk in the path of perfection, it is possible that many years of worship will not be needed for a moment, and instead of an instant God will move away from hundreds of years more valuable. Just as the Sahara believed and were martyred, but the pattern of all mankind was introduced, they were against the devotees like Bala'm-e- Bāūra, who became known to others.

Reference
The Holy Quran.

Amedi Tamimi, Abdul Wahid, Gharrulahekm and Dorr al-Kalam, A description of Jamaluddin Khansari, Research by Seyyed Jamalodin Mohaddas Armavi, Tehran, University of Tehran, 1360.
Jafari Mohammad Taghi, Hayate of Maghul, Isfahan, Foundation for Transition to Islamic Education, 1361.


Jurisprudential sentences of multi-level marketing According to Holy Quran

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Abstract
In the recent years, there has been a marketing strategy called multi-level marketing or network marketing which appears to be the corrected pyramid marketing model (Gold Quist). And its leaders believe that this model does not Jurisprudential problems. This paper attempts to first explain the difference between two forms of marketing, then with Quran verses which generally implies a license for healthy transactions, like:

اَوفوا بالعقود: "Fulfil your bonds" (Al Maedah/1), and

أحلّ اللهُ البیع: "God has permitted trafficking" (Al Bagharah/275), and

تجارةً عن تراضٍ منكم: "except there be trading, by your agreeing together" (Al Nesaa/29), The right carry out this marketing method has proven.

And this action is Outside of from the examples of verses, like:

لاتأكلوا أموالكم بینكم بالباطل: "Consume not your goods between you in vanity," (Al Nesaa/29) and

إنّما الخمرُ و المیسر و الأنصاب و الأزلام رجسٌ من عمل األشیطان فاجتنبوه: "Wine and arrow shuffling, (sacrificing to) idols and divining arrows are an abomination, some of Satan's work" (Al Maedah/90).

Key words: Holy Quran, Jurisprudential sentences, Multi-level marketing, Network marketing

1) Introduction
The world today is the age of speed and communication. It has featured in all aspects of life, including in the industry and economy and business. The production of products has a major challenge and it is introducing and selling and selling. Therefore, it is one of the important foundations of economics, marketing and sales, which can be considered as an industry. There is no doubt that more supply and better sales will open the way for a mass production of the product, with higher profits. Independent or affiliated companies also offer marketing and sales, and many manufacturers are contracted to get rid of their sales concerns. Obviously, the work of such companies is maximizing sales and sales, and they are pursuing new and modern ways to sell and sell.

One of the new ways in sale is multi-level marketing or network marketing has been used in recent years. In this paper, it is attempted to study the Jurisprudential ruling of this marketing method through the Quranic verses.

2) What is multi-level marketing?
Multi-level marketing or network marketing is a direct sales strategy, in which the marketer also earns money for the sale of people who are hired by him, in addition to direct sales. People who are hired by the marketer are called "sub-collections", and they also receive a reward for the retailer who has been affiliated with the retailer. These sub-collections can be continued up to several levels. Any marketer can get more profit by having more subscribers.

The healthy type of this marketing model helps manufacturers sell their products and create jobs and economic prosperity. (Sahraian: 1384,30)
3) Multilevel marketing difference with pyramid firms:
The American Direct Sales Education Foundation defines the unhealthy network marketing definition: Companies and institutions of the unhealthy network are companies where a large number of low-income pyramids pays a handful of people above the pyramid, and each new participant will have the chance to step ahead of the pyramid and earn a profit from the payment. People who join later will pay money. (look: dsef.org)
These companies can be categorized into two categories of companies without a product offering and product offering.
The basis of these companies is their recruiting and capitalization, so it can be called network marketing of the receiver member. The result of their planning is that people get a little profits and the rest of the members suffer. (Tyler and Bobner: 1385, 25)
But the basis of multi-level marketing is based on the sale of products in a real (rather than formal) way and is aimed at direct marketing and providing the right form. If this is not the case, even if it has a marketing name, it cannot really be called network marketing, and it’s referred to as pyramid plot or Ponzi scheme. (Nasrollahi:1386, 41)
In fact, members' income in pyramid firms is from next-generation investments, but in real-world marketing, the source of revenue and the benefits to members is from the sale of products. Obviously, if the product is not sold, there will be no profit. (Pamphlets of basic concepts in network marketing, 18)

4) Jurisprudence of the network marketing according to Quranic verses:
Now, the main topic of this research is the jurisprudential jurisprudence of multi-level marketing with regard to Quranic verses.
In the Holy Quran, there is no direct and explicit reference to Multi-level marketing, so it is important to study verses that are general and general in terms of dealing with trading. Some of these verses generally proclaim the validity of the current transactions on the basis of the consent of the parties to the transaction, and so-called signatures, and some verses in the form of the prohibition want to be loyal to their contracts and to avoid the property of others.
The following verses are explained below:

A: Verses that indicate the Solvent of the healthy transactions:

1) أحل الله البيع (Bagherah / 275)
This verse states that God has made a lawful decision. It is meant to be a financial transaction that has been common among the people during the time of the Qur'an's decline. In other words, this law is a signing, not a fixation, in the sense that there has been an affirmation among people, and God has endorsed this expression of the common denomination.
One of the current affairs at that time was dealership and marketing, although its new methods, such as multi-level marketing, were not common, but the general title was a variety of economic activities. Therefore, it can be said that a variety of marketing models, if not prohibited by the Shari'a "الشرع" in particular, can be signed by the taxpayer.
Unpolluted pyramid marketing, which is in fact a deceit and deception, cannot be covered by this verse because it does not make sense to do so, and therefore it can not be said that the signing of the Sharia is in place. The jurisprudents do not know many Cheating deals covered by this verse, and they believe that this verse signifies what is reasonably believable, and does not seek to establish anything beyond that, especially the Cheating deals that hates the general intention of doing it. (See: Khomeini: 1421, 1/244)

Therefore, the marketing of a network that is rational enough and ignorance and fraud does not exist under the general verse and is subject to the rule of law.

2) تجارتا عن تراض (Nisaa / 29)

In this verse, the Lord says that the property of others is not lawful to you and that it is not permissible to seize it unless it is done through a business which is obtained from the consent of the parties to the transaction.

This verse is also a signatory of the Shari’a (شرع), which implies the permission of a variety of common trades at that time. Of course, if some kind of trade is forbidden by the Shari’a for specific reasons, such as riba (ربا) or the purchase and sale of wine and gambling devices, although the consent of the parties to the transaction exists, it is forbidden and excluded from the general rule. However, exchanges and transactions that are not prohibited under this general rule will remain, and the order will be verified and authorized.

There may be some kind of insecurity and reluctance in recruiting in the form of pressure to accept or for membership and purchase of coercion, and therefore a satisfying business in that operation is doubtful, but in the Network marketing there is no such a problem on the surface because it is not pressure and reluctance to accept or buy.

3) أوفوا بالعقود (Maedeh / 1)

In this verse, God urges people to be loyal to their treaties. Among the treaties are business contracts, contracts between employers and employees, and contracts between companies and individuals and...

If we consider multilevel marketing as a profit-making contract (sales and networking and training), it can be covered by this verse, and it would be warranted to authorize this contract. Obviously, if a covenant is not contrary to religious orders or based on oppression to others, it does not seek to sign and confirm religious law.

In the commentary of this verse it is stated:
This verse is one of the verses that argued in Islamic jurisprudence throughout jurisprudence, and an important jurisprudential law, which is the absolute wording of the law (مصطلحات النزوم في المعقد) is used. that is, any treaty that deals with Objects and things are concluded between two people is binding, and even - as a group of scholars also believe - the types of transactions and companies that exist in our era and which did not exist in the past, or later in It is composed of the rationale, and is based on the correct points, and this verse is endorsed by all of them. (Makarem Shirazi and others: 1374, 4/245).

B: Verses that indicate that the wrong economic practices are not allowed:

In the Holy Qur’an, there are verses that in general or in particular denote the reverence of certain financial behaviors and transactions, such as hands on others' property or gambling. Now it's time to check these verses whether they include multi-level marketing.
In this verse, the Lord commands: Do not eat the property of one another by falsehood. Do not capture the property of others. Certainly, counterfeiting is considered a theft of this item. Even property that is considered invalid by a void transaction or a transaction that is not in agreement with the parties, and must be returned to the original owner.

In the commentary of this verse it is stated:
This verse actually forms the basis of Islamic law in the issues of "transactions and Economic affairs" and for this reason, the jurisprudents of Islam argue in all cases of transactions, the verse addresses people who believe and can He says: "Do not eat property of each other in the wrong way ", that is, any property seized in other property which has been forbidden without the right and without a rational and logical permission, and is considered to be all "falsehood" (الباطل), which has a broad concept. (Makarem Shirazi and others: 1374, 3/356).

Is network marketing Exemplified (أكل المال بالباطل) can be? In other words, could it be a business without consent? 
There is no doubt that the person who accepts marketing is, of course, based on internal satisfaction. Unless the form of marketing is such that there is no standardization and control, in which, of course, the future of the work is difficult and leads to plenty of losses for low-level marketers, naturally, no one is satisfied with failure and loss. This point is mentioned in the above interpretation with the title of trades whose limits are uncertain.

But market networkers believe that this model is not saturated, and that population growth and demand for goods are faster than marketing activities; in the assumption of saturation, there is no harm to anyone, and only profits are eliminated.

In this verse, wines, gambling, idolatry, and Azlam (which are a kind of lottery) are considered evil, and orders to distract them.

The question now is whether multi-level marketing can be an example of this verse? Like a kind of gambling or lottery?
Some commentators have responded positively:
Gambling is an activity that takes place between two or more people, in which those who are satisfied with the rules accept that, in the event of occurrences of events that may or may not be involved in themselves, the capital between them is exchanged, and the person who The winner is the source of its profit, it is a loss that has come to the loser or the losers, not the gain that has come to anybody or the good that has gained natural blessings. People participate in these activities because in their minds their situation is likely to happen and the capital of others reaches them. In Gold Quest network marketing systems and similar companies, Profitability can be obtained from the detriment of others.

But, as multi-level marketing players explain, this does not hurt anyone in marketing. Because anyone who enters this marketing will actually buy the goods or goods they need for themselves or others at the right price and, if they wish to refer them, has one year to do this. Therefore, there is no harm in causing a problem, it is ultimately that it is possible that someone does not have enough of his or her business to benefit or to the amount of benefit he considers to be. And of course it is about every job and career.

5) Result

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The result of this paper is that if network marketing is the basis of its work on product marketing (rather than selling goods merely as a cover for recruitment and networking) as well as strategies to prevent members from being harmed. And does not consider its activities to be defeated for the members and can provide direct and direct sales with the necessary training, and the profit from the sale of goods and rewards, and not the investment of the members, in terms of the Quranic verses of the activity. It is permissible and prohibited to indicate the verses of the Holy Quran, and gambling or Consume in vanity (أكل المال بالباطل) is not considered void.

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References
Holy Quran
A pamphlet of basic concepts in network marketing, a set of educational pamphlets from step by step up to the top, 1396 (in Persian), Isfahan
Khomeini, Roohollah: 1421 (in Arabic), Ketab-al-Baii, Tehran, Imam Khomeini
Makarem Shirazi and others: 1374 (in Persian), Tafsir Nemooneh, Qom, Hadaf
Nasrollahi, Mohammad Reza: 1386 (in Persian), New scam in the form of pyramid schemes, Tehran, Karagah
Sahrahan, Sayed Mahdi: 1384 (in Persian), E-commerce and multi-level marketing and sales management, Tehran, Maaref
Tylor, John and Bobner, Jeffrey: 1385 (in Persian), Scientific criteria for evaluating network marketing companies, Trns. By: Atefeh Saheb qadam and Javad Yousefian, Tehran, Daawat

Sites:
www.dsef.org
https://fa.m.wikipedia.org/wiki/%D8%A8%D8
http://porseman.org/q/show.aspx?id=128966
Socio-political factors of accountability from the perspective of the Quran

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Abstract
Responsible behavior along with commitment is one of the most important characteristics of healthy humans, which identifies the factors influencing behavior that will strengthen and grow, and consequently appropriate social activities will be realized. The area of human responsibility, which includes personal, family, social responsibility, and responsibility towards God and covenant, is one of the most important components of responsible behavior. The ability of the individual and the performance of the responsibilities should fit to the assignment. Responsibility is one of the topics to be considered in sociology studies. The render of this issue in the Qur'an has been considered because the Qur'an is a book on how to live and has a complete attitude towards the social life approach. In this article, which has been done by descriptive-analytic method, we first discuss key concepts and keywords of responsibility and then mention its social bases. We will explain its place and its significance in the Qur'an. In the following, the most important social and political foundations Responsibility such as inherent dignity, the principle of progress and individual perfection in society, the principle of sense of responsibility towards society and others, the principle of belief in the objectivity of religion and politics, and the principle of cooperation and collaboration in society, according to the verses. And it came to the conclusion that the responsibility to God, the people of the family and the community, in the light of the special Qur'anic insights, will find mankind and dignity inherent in meaning, and other foundations will be realized in the light of this principle.

Key words: responsibility, commitment, assignment, social, political

Introduction
The discussion of "responsibility" is a matter rooted in various sciences in educational science (sociology of psychology). It is discussed in ethics and law. On the other hand, it can be seen from the perspective of the sciences and theology related to religion, especially the Qur'an. The aim of this study was to study the social and political factors of accountability from the point of view of the Quran. What are the causes and factors of social and political development in the formation of accountability? What are the solutions to this important issue? What are the causes and factors of social and political along with the causes and economic factors are decisive or should be considered separately. However, it is important to have these questions in one place. On the other hand, one can empower a person to do his / her tasks and, on the other hand, can play a decisive role in the realization of the ideal and desirable society. In the Holy Quran, many words and terms about responsibility Humanity has a tendency towards God Almighty and other media and the environment. By reviewing and referring to them, one can determine the special place of responsibility in the Qur'an. The Quran considers man to be responsible for all his actions and behaviors, and based on the specific principles of monotheism And resurrection addresses this issue and takes man away from responsibility and dodging the burden of responsibility is heavily prevented by the causes and factors of social and political responsibility in the Quran such points are taken into account as following, but our work in explaining social and political factors is prominent than the others.

Concept of responsibility
Responsibility is an artificial infinitive derived from the root word "responsible" that means the questioned and the person who is considered accountable, and the responsibility is a guarantee, bond, commitment, and liability (Dehkhoda, printed 1372, Vol.12, pages. 18464-18465).

In the dictionary, "responsibility" has come to meaning of Being capable of human accountability, and is often defined as the assignment, duty, and what the person is responsible for (Sayyah, printed 1366, Vol. 1, p. 664). The responsibility (سئولت) is the Arabic term that is derived from the root (سئال) meaning Question, and it implies that a person is in a position where he can be held accountable and asked about doing something. Of course, not a question to ask for a task that it has to do if it is performed, rewarded and praised, and if it is neglecteded, it will be criticized, accused and punished. Therefore, responsibility means "exposed to being held accountable" and with the duty and assignment is in relation. (Mohammad Taghi Mesbah and Sharifi, printed 1381, p. 185)

The concept of accountability in the Quran

In the Holy Qur'an, the human responsibility has always been spoken and it is stated that a person will be questioned and interrogated. It is clear that responsibility must be against the task or duty assigned to it, otherwise responsibility and accountability will not be meaningful. So, whenever it comes to responsibility and responding, it means that the person has the ability and capability to do it and he had to do it. This point is in accordance of talent and readiness with responsibility in the al-Anbia. We find this verse related to the story of breaking idols by Abraham (peace be upon him). When the idolaters told him: They said, 'So, art thou the man who did this unto our gods, Abraham?' He said, 'No; it was this great one of them that did it. Question them; if they are able to speak!'. It follows from this reasoning of Abraham that being responsive and responsible require a kind of ability and power, and thus the idols are not able to do anything, but it will be in vain for them to prove their disability. He said.

Principles and Social Factors of Responsibility in the Quran

Human being is an entity who needs social life to survive and meet his needs. Social life requires laws that have a divine source, otherwise it is not necessary and sufficiently comprehensive, the necessary social justice and order will not be established in society and, ultimately, the ultimate stage of human perfection and prosperity will not be fulfilled.

In Islam, there is also a task that relates to the social aspect of mankind. For example, maintaining public safety and order, social justice and public health will only be meaningful in the presence of the community. In the system of monotheistic purpose, which revolves around the system of law and Righteousness, good and evil, faith and disbelief, oppression and justice are not the same. Injustice affects everyone's rights, afflicts healthy social relationships and creates crises. Thus, we can say that the necessary combination of the existence of man, the human being towards society, the establishment and regulation of economic, social, cultural, political and, finally, commitment and responsibility in relation others.

1. The principle of the inherent dignity of man and the position of the Caliphate of Allah (Viceroy)

In Qur’an, it is pointed out to the principle of human dignity in verse 70 of the Isra Sura, which states that we have given human beings inherent dignity and because human being is Social, his dignity should also be considered as the main purpose. Paying attention to this important issue of the importane of responsibility in humans.
In this verse, Verily we have honoured the Children of Adam., the three parts of the divine blessings, referring to humans, say: "And we have them (the various Transport Means we have given them) on the Land land and sea we carried the sea further, saying: "We gave them daily bread of the best type." Third, "We have made them superior to many of our creatures. "(Isra, No. 17, Verse 70).

This verse refers to one of the divine blessings of man, and then points to the heavy responsibilities that he finds in parallel with this blessing (Makarem Shirazi, printed 1382, Vol. 2, p. 656-657) and in several Qur'anic Suras refers to some of these responsibilities, including this verse:

Oh David, indeed we have made you a successor (Caliphate) upon the Earth.

One of the attributes of Successor is to show attributes and deeds of the God, and the outcomes of his attributes, do his deeds, therefore, as a result, the successor of the God in the Earth must be in full conformity with the ethics of God, and what God wills, He wills, and what God commands, He follows the same, and as God always commands the right. He will not judge except in the right way, and will follow the right path of Allah, and will not violate or exceed the right path.

And it is for this reason that we see in the verse discussed by bringing the "Fa" to the beginning of the verse; O David, behold, We have appointed thee a viceroy in the Earth; therefore judge between men justly, and follow not caprice, lest it lead thee astray from the way of God as the result of that Viceroy and gave him wisdom and speech decisive (to end the Disputes). And this itself confirms that the term "The appointment of the Viceroy" is not that he has given dignity and position to Human as Viceroy, but it is meant to bring dignity, which he had given to him.

Some commentators have said that the Lord in accordance with the meaning of the verse. Indeed we have given, him wisdom and speech decisive to end the Disputes So this position is a Blessing of God and in order to thank this Blessing, the Caliphate must bring Justice to the Men.

Some commentators have said that the Lord and the Caliphate, because being the Viceroy is a great blessing to be grateful for, and to thank the God, he should bring justice among the people (Hamadani Mousavi, 1374, c 17, p. 297).

According to these verses, Allah Almighty, in regard to the love that man has given to him, along with this dignity, he has given a great responsibility, to mankind, including serving the people, judging justly, establishing unity among men, avoiding disagreements And the strife even among the followers of other books.

2. The principle of individual and collective perfection in society

The progress here is based on the Qur'anic teachings of quality, which is interpreted as growth. In the view of the Qur'an, a sage man (Rashid), who, in terms of perfections, has reached the point where theoretical and practical wisdom is at his ultimate stage. Therefore, the Lord has given Rashid a surrender to God (Ahqaf. No.46, verse 15), piety (Hood, No. 11, verse 78), observing the rights of others (Anbia, No. 21, verse 15) and etc. . So the person comes to a place that rationally understands the truth, especially the rightfulness of God, and, on the other hand, dominates his own self, and gives the rights of all the powers of the soul and observes the rights of others to justice and fairness.

Based on this, if this is a growth and progress towards society, then we should say that these indicators can be found. In this sense, a growing society is a society subjugated to the divine law and rules, protects values, is a good factor, establishes justice and fairness, and observes the rights of others.
In addition, other important indicators that the Quran expresses in this field are issues such as cooperation in social affairs, and the strengthening of charity and Ehsan each other (Ma'edeh, verse 2), the increase of marriage and birth, easy marriage and the payment of expenses by the person's parents Or the chief of community affairs (Nisaa, verse 3; light, verse 32), is like that. According to these verses, the acting to duties and responsibilities with the public will provide better conditions for the masses and the society will be brought to fruition.

3. Principle of sense of responsibility towards society and others

The subject of responsibility in the Islamic society is of a high status, and the holy guardians are especially concerned. The Holy Qur'an is responsible for the Prophets who are responsible for the leadership of their community, against the mission they carry, and says about the responsibility of Jesus:

when God said: And when God said, ‘O Jesus son of Mary, didst thou say unto men, “Take me and my mother as gods, apart from God”?’ He said, ‘To Thee be glory! It is not mine to say what I have no right to. If I indeed said it, Thou knowest it, knowing what is within my soul, and I know not what is within Thy soul; Thou knowest the things unseen, I only said to them what Thou didst command me: "Serve God, my Lord and your Lord." And I was a witness over them, while I remained among them; but when Thou didst take me to Thyself, Thou wast Thys

verse 5, verse 116-117). This verse of the Qur'an An important part is the responsibility of Jesus Christ, including:

1- Prophets are responsible for their own people, and God will question them at the resurrection as to how the deviations and vanquished tendencies of the nations are formed.

2- Jesus acknowledged his incompetence and his mother Maryam for bearing worshipped as God, emphasized the mission of divesting and not violating it, and considered himself responsible before God.

3- The extent of Jesus' sense of responsibility towards the management of society is not limited to communion and explanation, but he is also a witness to the beliefs and behavior of their nation and their deterrent to the tendency toward polytheism.

The sense of responsibility of the Prophet as the leader of the nation has taken away the peace and tranquility of his life and led him to an unwieldy effort in the stewardship of those gone astray. The Holy Quran reports from this spirit of responsibility of the Prophet: It is feared that you will perish yourself from the grief that they do not believe in. (Shoara, No.26, verse 3)

This verse shows the great concern of the Prophet of God as the director of the Islamic community in advancing the religion and the guidance of the people, to the point where God bless him and reminds him that it is your primary responsibility to bring the divine message to the people and Not endangering his life. The Messenger of Allah enjoyed a degree of responsibility towards the execution of the commands of God on the one hand and the guidance of the Ummah on the other hand. When in the early years of the Qur'ishic Revolutionary leaders, Abutaleb's uncle, the great uncle of the Prophet and the great Qur'ishis came to the end, and said that the nephews of our gods It counts and fathers mislead us. Or take his in front of him or get upset with you. Abutaleb shared the words of the Quraish leaders with the Prophet. In response to the threats of disbelief leaders, The prophet said to his uncle: Dear Uncle ! I swear to God that if they put the sun in my right hand and the moon in my left hand (to give me the kingdom of all the world) to abandon my religion and not to pursue my mission, I will never do it so that God will Conquer me, or I lose my life in this way (Ibn Hisham, Bita, Vol. I, p. 266), the insistence of the Prophet of God on his divine and religious responsibility created such an enthusiasm in the heart of
Abutaleb, and he was ecstatic about that, despite all the dangers of the Qur'ishis. My nephew expresses that I will not give up your support, as you want to carry out the mission and responsibility, even in the last days of his life, throughout his responsibility, in his address to the people, while expressing his imminent death message, emphasized the responsibility of his leadership and he was afraid of having done it perfectly: indeed, I am in charge of communicating the divine mission. As you are responsible for accepting the mission and obey me. Did you convey the divine mission? What do you say about this? The people cried out altogether: "All of us testify that you have communicated the mission of theology, and in this way you have not neglected to give any advice and benevolence and diligence. God bless you (Ayyashi, printed 1380, Vol. 1, p. 4)

In the Shari'a of Islam, nobody is considered in the society of without responsibility. Everyone has a particular responsibility according to the place he has in society. The Prophet in Hajj al-Wadaa, in the preface to his important Expressions and statements, said: "... I am responsible and you are also responsible ..." (Hosseini Firoozabadi, Bita, Vol. 1, p. 367)

Hence, in order to fulfill human responsibility towards society two basic teachings have been developed. Ordering to do right and the Jihad. If a person observes that religion or religious teachings presented to him as a blessing are suppressed, or that their rules are mocked or not followed in the community, from the practice of ordering to the good and forbidding the evil, and with observance its conditions and details are responsible for defending it and if it does not act on its maintenance of religion and religious affairs, it will be questioned on the Day of Judgment and if the Islamic land is attacked against, it is the duty of man to act (jihad) and defend the Islamic state and Religion against this attack.

4. Belief in the Identicality of Religion and Politics

The people's responsibility for political participation in the Islamic society is one of the most important socio-political components.

Islam is a complete set that not only its social precepts, but also many individual rules, regardless of its political dimensions can not be set forth. Therefore, basically, the fulfillment of many Islamic jurisprudential rules will not be possible without the establishment of a political system (Khatibi, 1384, p. 28). The sense of responsibility in all political affairs and social processes is the duty and assignment of every Muslim. In other words, the participation of every Muslim in political-social matters is not due to individual motives or personal interests, but each Muslim, in line with religious duties and commitment to religious orders, is obliged to take on active participation in political-social affairs. Therefore, the precision in the Islamic law expresses the fact that Islam is a political-social religion.

Many traditions also indicate the necessity of continuous participation of Muslims in all areas and political-social scenes, and they regard the entire Islamic nation as a major responsibility for the whole of the Islamic society, as if each citizen of his own Islamic community Society (Khatibi, 1384, p. 28).

Imam Ali (pbuh) believes that the principle of the religion of Islam is a commitment and responsibility to perform religious practices and performing divine orders ... (Koleini, 1407, Vol. 2, p. 46) Islam is submission to God and submission is the certainty of true belief and true belief is as true confession, and true confession, is fulfilling responsibility and fulfilling responsibility is the practice of religious Codes. (Koleini 1407, Vol. 2, p. 46)

5. The principle of cooperation and collaboration in society
The intellectuals and theologians believe that human civilized in Essence and that the essential needs of human life are fulfilled on the basis of social life. And if he does not step in the social area, much of his needs, not even physiological needs, will not be provided, the needs of man will be divided into two types, constant needs and variable needs. One of the constant needs of man is the need for co-operation and collaboration.

Cooperation as a necessary and essential requirement for the fulfillment of the transcendent goals of man, is emphasized in the Holy Qur'an. Allah Almighty says: and cooperate in goodness and righteousness, and do not associate with sin and Violation (Ma'edeh, No. 5, Verse 2) and cooperation in good deeds and not engaging in evil deeds is necessary for the achievement to utopia. Cooperation in good deeds is based on the recommendations of the well-known Prophet of Islam, which says that God will have mercy on the father who will take his son in his good deeds. Help God bless a neighbor who helps his neighbor in his good deeds. GOD blesses, A comforter that will help his friend in his favored work. May God have mercy on a partner who helped his partner in his good deeds. May God have mercy on a man who helps his ruler in his good deeds (Ibn Babowayh, 1364, p. 186)

Therefore, social and political responsibilities that cover a wide range of tasks, and the whole of the Islamic society and its people with different tendencies and tastes, will increase the need for co-operation and collaboration. Societal and political accountability will surely be acquired by believing in the issue of cooperation and collaboration. In this regard, the prophet and the infallible Imams are well aware of the various social and political aspect. The issue of the advent of the Prophet in the wars of the Khandagh and Ohod, and his methods and practices are in cooperation with the Prophet. Therefore, in the field of social and political issues, the role of responsibility and non-responsibility is prominent. If the officials and those who are in government positions do not use the principle of cooperation and collaboration, they can not, based on personal and individual opinions, fulfill their responsibilities, and may be mistaken.

Therefore, the principle of co-operation and collaboration the firm belief in this field can completely create a sense of responsibility in human beings and save the humans from Non-responsibility state. Therefore, human perfection is in its fullest sense, as God Almighty says and follow not that whereof thou hast no knowledge. Lo! the hearing and the sight and the heart - of each of these it will be asked (Isra 36)

Conclusion
Accountability is one of the most important demands of the Almighty God in the Holy Quran, and the Prophet of Islam and the Prophet (AS) also emphasized the importance and special position of the Qur'anic teachers and called on the believers, based on their commitment and duty, and Act faithfully. In this regard, the Holy Qur'an and the infallible traditions have set forth the factors necessary for the fulfillment of this will of the Prophet, and the fulfillment of those factors, especially in the field of social and political issues, can be addressed to believers. Principles such as the principle of dignity, the principle of cooperation and collaboration, the principle of the identicality of religion and politics, the principle of progress and individual perfection in society and the principle of sense of responsibility towards society and others from the principles of political and social realization of responsibility, using the verses and traditions of the infallibles Can be used. The Holy Quran praises the prophets and Divine Peoples with the characteristic of being responsible and fulfilling their duties and also demands that believers act
accordingly. And in the political and social areas it can only be successful in this field and achieve the great goals of the creation system.

References


Principles for Encyclopaedic Approach to Analysis of Autodescription in Creative Writing

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Abstract
The search for adequate ways of studying the language of literary works, including the analysis of a writer's individual style, is one of the main issues in the contemporary textual studies. Comprehension of the poetic system is possible by addressing the statements of the author about the language, which allows us to take a step closer to understanding the original – author's – code. The complementarity in the system of the language of a literary work is its objective property, which makes it possible to apply this principle, being common for all spheres of human knowledge but manifesting itself in different ways in science and art, and, certainly, in autodescription, where art, science, philosophy and their various paradigms are in complementary relations. In this article we use a method of discourse analysis in a text-oriented form, combining three traditional approaches: a detailed linguistic analysis of the text; an analysis of discursive practices; an interpretive tradition, in which everyday life is seen as a product of actions of the people who follow a set of shared rules and procedures at the level of "common sense", and in imaginary worlds as well.

Keywords: autodescription, discourse, text, principle of complementarity.

Introduction
Works of creative writing can be subject to various interpretations. One of the approaches to such interpretations is to study autodescription of the creative process by the writer.

Autodescription is a complicated, heterogeneous discourse represented by various genres of the verbal art, such as literary works, epistolary pieces and notebooks, which allows considering it a complex semiotic process with a totality of semiotic facts (relations, units, operations, etc.) that are located on the syntagmatic axis of language. The process is related to two macrosemiotic systems: the "verbal world" and the "natural world", or the real world. These two worlds are constantly reflecting each other. The macrosemiotics of the "natural world" represents the real life of the writer, i.e. mainly the everyday reality. The macrosemiotics of the "verbal world" is manifested in various types of expressions related to creativity and writing process, because a text is a realisation of the current verbal reality. Texts reflect formation complexity and ambiguity of statements, their opposite and mutually reciprocal meanings. "Any discourse, or textual narrative, contained in everyday language, represents certain world, presumed in its objective or knowingly imaginary form. Speaking should be referred to things, people, properties
and relations inherent to the understandable world. Apparently, understanding and comprehension can only be divided in an abstraction, as Ricœur does. For the taken-for-granted world has a certain semantic value, which is manifested from certain perspective through the fabric of discourse, always containing a hidden or explicit interpretation. Pulsation of the semantic content of the discourse proves to be dependent on reference to the world, refracted in the creative effort of its author” (Gubman, 2005, 359).

The autodescriptive discourse is a multi-genre system demonstrating a variety of approaches to the study of creativity, each of them associated with a particular method, research field or style.

Materials and Methods

Our research is based on general approaches to studying metapoetics и autodescription of creative writing that were formulated by K.E. Stein (Stein 1999).

In this article we use general functional and systemic-structural approaches. The identification of key topoi, and key words within their structure, helps to define the basic – lexical – level of verbal organisation of autodescription, which requires the use of the componential, distributive analysis and the descriptive method. We used the technique of analysis of the original work as a semiological fact.

During our analysis we have revealed the encyclopaedic nature of autodescription, which predetermined our use of the general scientific principle of complementarity, allowing us to study the textual antinomy and ability to form its organic whole on the basis of limiting diversity through the correlation of mutually exclusive elements and meanings in the text. This principle is based on the non-classical logic and associated with the concept of synergetics; it contains the characteristics of a "profound truth" and breadth of coverage, incorporating partial descriptions corresponding to the antinomy in the structure of the object. And, most importantly, the linguistic situation emerging in the process of its construction and justification is characterised by alignment of mutually exclusive opposites for the same object with the use of a certain antinomic language structure. The complementarity in the system of the language of a literary work is its objective property, which makes it possible to apply this principle, evidencing "the unity of human knowledge" (N. Bohr) but manifesting itself in different ways in science and art, and, certainly, in autodescription, where art, science, philosophy and their various paradigms are in complementary relations.

In this article we use a method of discourse analysis in a text-oriented form (Fairclough 1992), combining three traditional approaches: a detailed linguistic analysis of the text; an analysis of discursive practices; an interpretive tradition, in which everyday life is seen as a product of actions of the people who follow a set of shared rules and procedures at the level of "common sense", and in imaginary worlds as well. The basis for the research is the language of autodescription used to create "representations of reality", which not only reflect what exists in this reality but also "construct" it. This does not mean that the reality itself does not exist. Rather, the point is that only the meanings and perceptions of the reality are real. "[P]hysical objects exist, but [...] meaning is something we ascribe to them through discourse" (Jørgensen 2008, 29).

The analysis of the autodescription, as a systemic representation of heterogeneous discourse characterised by encyclopaedism, allows determining the inner structure (inner form) and the underlying model of the autodescriptive discourse – the author's concepts, which are the basis for studying the individual style. The linguistic analysis of the model and the concepts provides for a systemic comprehension of the inner intentions of creative writing and an adequate interpretation of literary texts.

Results
The "topoi" and "ususes" are given to the writer and, moreover, are burdened with a variety of "foreign" social and historical meanings, and that's why Barthes (at first sight paradoxically) refers to literature as a "language of others" – the language which the writer can neither escape nor avoid, as he voluntarily chooses it as a means of "self-expression" (Barthes 1994).

The term "topos", which has been used since antiquity, correlates with the eidos and the number in the concept of A.F. Losev. At the same time topoi, as structural and semantic models, perform various functions in the creation of utterances. What is more, "some of them are common to all models (for example, expanding the topic of a speech, explaining topic or subject matter or informing about the subject matter). [...] each topos is characterised by some particular functions that help to differentiate it from others" (Assiurova 2006, 18).

The topos in autodescription is a semantic and structural core of a certain notion, repeatedly occurring in varying forms and gaining prevalence and specificity in the discourse; each topos is characterised by some particular functions that help to differentiate it from others.

The autodescriptive discourse is formed through partial fixation of meanings around certain nodal points. "A nodal point is a privileged sign around which the other signs are ordered; the other signs acquire their meaning from their relationship to the nodal point" (Jørgensen 2008, 57). A discourse is established as a totality (sum), in which each sign is fixed as a moment by establishing its relations to other signs. The field of discursivity is "a reservoir for the 'surplus of meaning' produced by the articulatory practice – that is, the meanings that each sign has, or has had, in other discourses, but which are excluded by the specific discourse in order to create a unity of meaning" (Jørgensen 2008, 57).

The notion of the nodal points of the autodescriptive discourse correlates with the notion of keywords. Keywords are "centres of semantic gravity, forming the individual style nodes around which semantic and thematic clusters are arranged" (Karaulov 1976, 34). Keywords are considered to be basic units of a thesaurus of a particular field of knowledge. As well as descriptors, they have structuring functions. In this capacity the keywords encode the most important concepts and categories of the systematically organized space. Being relatively independent of the context, keywords can represent the content of some part of the text, and the entire cluster of keywords can represent the topic of the text. The more complicated the text semantics, the more likely its keywords acquire an "interpretation function" in addition to "the function of comprehension support" (Lukin 2005, 177).

As stated by A. Wierzbicka, "There is no finite set of such words in a language, and there is no 'objective discovery procedure' for identifying them." However, "[b]y exploring these focal points in depth we may be able to show the general organizing principles which lend structure and coherence to a cultural domain as a whole, and which often have an explanatory power extending across a number of domains" (Wierzbicka 2001, 5).

The indicators for selecting keywords are the following: symbolism; ideological, aesthetic and compositional load; recurrence; frequency of use; occurrence in titles; functioning as part of paradigmatic groups. Keywords may be conceptual (logical) or evaluative (expressive). The conceptual, or objective, keywords are associated with naming key images, objects (things, phenomena, actions) or concepts of the text. They concisely convey the thematic-rhetorical progression of objective information in the text. They help to determine the subject matter of the text. The evaluative (expressive), or subjective, keywords express the author's evaluation that is prevailing in the text: sensory (sensory-evaluative), emotional (emotionally evaluative) or rational (rationally evaluative). They also help to understand the authors' attitude or main idea of the text (Stepanova 2006, 27).
Keywords in the autodescriptive discourse are the words that are especially important and indicative for a particular fragment of the discourse. Thus, using the idea of E.V. Kakorkina, we can state that keywords are connoted high-frequency units of the text (words, combinations of words) that bear conceptual information and concentrate certain conceptual stereotypes in author's individual style.

During our analysis we have revealed the encyclopaedic nature of the autodescriptive discourse. Therefore, we have used the general scientific principle of complementarity, which corresponds to the specific organization of a literary text and allows investigating the phenomenon "from within", i.e. on the basis of mutually exclusive meanings limiting topoi in the discourse structure.

The principle of complementarity helps to study the textual antinomy and ability to form its organic whole on the basis of limiting diversity through the correlation of mutually exclusive elements and meanings in the text.

The main result of our research is identification of the model that forms the foundation for an autodescriptive discourse. The model is based on author's concepts – the main terms used in the author's statements about the text; they are identified through the analysis of repetitions in the structure of the autodescriptive discourse and of metapoetic and metatextual data, i.e. the data in which the author defines the importance of the concepts and significance of their implementation in a specific activity.

Author's concepts are part of the general author's conceptual worldview, or "a certain model of the real world reflected by human consciousness ('subjective image of the objective reality')" (Churilina 2001, 87). At the same time "the language, mediating between the poet and the world, has [...] a special role, becoming a constant of his [poet's - V.Kh.] conceptual model of the world" (Lavrova 2001, 76).

It is necessary to distinguish between the author's concept and the keyword. The concept-word is characterized by symbolic and mental associations (nationwide and individual, author's) of consciousness. The semantic content of the concept is understood in abstraction from the concrete linguistic form of its expression. Keywords do not have such mental links. A keyword can acquire the status of a concept, but this does not always happen. Keywords are lexical and semantic dominants organizing the integral unity of a literary text.

V.B. Kataev thus refers to possibilities for identification of author's concepts, "The logic of the writer's artistic thinking can be detected, in particular, in those elements of the content and poetics that are the most persistent, manifesting themselves in a number of works of the writer. That's where the criterion of repetitiveness comes into play. The parallel analysis of several works makes it possible to discover what the author considered to be the most important or peripheral, constant or variable, significant or secondary in the artistic world created by him" (Kataev 1979, 144).

The analytical procedures are based on the encyclopaedic approach, i.e. pursuit of ultimate coverage of topical content in compliance with the principle of complementarity. "The 'principle of complementarity' is especially evident in the humanities. We can observe it in various forms - for example, in explaining the same phenomenon with biographical circumstances, historical surroundings, the state of the "literary discussion" between different authors ... and so on, but the main principle of complementarity in literature, in my opinion, can be seen in regularities and conditionality, on the one hand, and the creator's freedom, on the other hand - freedom as something inexplicable" (Likhachev 1999, 41-42). The global antinomy of the autodescriptive texts, like that of literary texts, "is in their structural closeness and 'impermeability' combined with semantic openness (the text directs deployment of senses and building up of new loops of the meaning through certain correlation between the structural and semantic components in different types of contexts, including scientific ones)" (Stein 2006, 50).
The general scientific principle of complementarity meets the requirement of the integrity of a scientific theory; it is a particular manifestation of symmetry. This principle is based on the non-classical logic and associated with the concept of synergetics; it contains the characteristics of a "profound truth" and breadth of coverage and can be considered as a criterion of beauty and perfection of the theory, which not only reflects the harmony of the material world but also reveals the beauty of logical constructions. It incorporates partial descriptions corresponding to the antinomy in the structure of the object; and, most importantly, the linguistic situation emerging in the process of its construction and justification (which is similar to the speculative philosophical and poetic language) is characterized by alignment of mutually exclusive opposites for the same object with the use of a certain language structure with a harmonic coverage of opposites. Besides, the complementarity in the system of the language of a literary work is its objective property, which makes it possible to apply this principle.

The analysis of all topoi is based on the same principles.

1. To determine speech events, speech genres of the discourse and discourse participants.
2. To identify (on the basis of the principle of complementarity) marginal, extreme, often mutually exclusive meanings that characterize a particular topos or part of the general scheme of the topical content.
3. To determine correlation between the discourse fragments.
4. To list specific occurrences, i.e. discourse fragments.
5. To select keywords.
6. To perform lexico-semantic analysis, based on vocabulary definitions, in order to confirm the meanings – both mutually exclusive and intermediate.
7. Based on the performed analysis, to interpret topical content of the part (fragment) of the total topos.

The analysis of the autometadescriptive discourse, in compliance with the concept introduced by Laclau and Mouffe (Laclau 1985), identifies nodal points, organising discourses, master signifiers, organising identity, and myths, organising a social space.

The analysis is based on a text-oriented form of discourse analysis (Fairclough 1992), combining three traditional approaches:
- a detailed linguistic analysis of the text;
- an analysis of the discursive practice;
- an interpretive tradition, in which everyday life is seen as a product of actions of the people who follow a set of shared rules and procedures at the level of "common sense" and in imaginary worlds.

Any topos has a structure consisting of nodal points of the autodescriptive discourse, while keywords constitute the essence of the discourse processing. "The verbalization and objectification of certain content provided in the act of speech signify processing of information – a cognitive process born during cognition and perception of the world" (Grigorieva 2007, 41). The most important words are identified in the discursive space, and they are defined as author's concepts.

In the practice of discourse analysis, exploring the discourse is seen through the role of the discourse in the constitutional arrangement of the world. M.W. Jørgensen and L.J. Phillips in their book "Discourse Analysis as Theory and Method" (2008) state that, with all different approaches to defining and studying the discourse, its functioning – discursive practice – is the practice that shapes the world. In his critical discourse analysis, Fairclough offers a concept of discourse for the text, conversation and other semiotic systems and separates it from other dimensions of a social practice. In the discourse theory of Laclau and...
Mouffe there is no difference between the discursive and non-discursive dimensions of the social – all practices are discursive.

The purpose of the discourse analysis is not to get ‘behind’ the discourse and find out what people really meant when they said this or that. There is no aim to discover the reality "behind the discourse". The starting point is that reality cannot be considered outside the discourse, so it is the discourse itself that becomes the analysis object. "[T]he analyst has to work with what has actually been said or written, exploring patterns in and across the statements and identifying the social consequences of different discursive representations of reality" (Jørgensen 2008, 49; Tastan et al., 2018).

**Discussion**

The basis for studying the autodescriptive discourse is the language used to create "representations of reality", which not only reflect what exists in this reality but also "construct" it. This does not mean that the reality itself does not exist. Rather, the point is that only meanings and perceptions of the reality are real. "Physical objects exist, but [...] meaning is something we ascribe to them through discourse" (Jørgensen 2008, 29). However, in the writer's "world of ideas" there is certain invariant of representations realised in author's texts and statements corresponding to his "language circle", the analysis of which allows summarizing the verbal representations expressed in the texts.

Our study was aimed at the development of the theory of autodescription, which should reveal the author's perception of the language and author's theory of creative writing represented in certain terms, author's concepts and keywords. Our analysis has shown that autodescription is a complicated, heterogeneous discourse that can be represented by various verbal forms, which allows considering it a complex semiotic process with a totality of semiotic facts (relations, units, operations, etc.) located on the syntagmatic axis of language and paradigmatically correlating to each other. The analysis procedure is based on an encyclopaedic approach.

The main result of our research is identification of principles of autodescription of the literary text. The model is based on author's concepts, expressed in reference terms. On the next stage we identify and analyse their relationship and structures. The author's concepts provide insights into the essence of the writer's work. The model of autodescription not only actualizes reflection on creativity, but also summarizes the author's attitude to reality, including ethical and aesthetic codes.

Our study shows that the autodescription of creative writing has internal dynamics and potentials to build up meanings. It is an open non-linear medium, capable of self-organization. Everything depends on the research objectives and contexts of the creative writing selected by the researcher for the study. The denotative potential and authorial intention can be more clearly defined and expanded through the direct and indirect citation, which will allow determining new actual and potential meanings associated with the key notions and terms of the writer's language and creative work.

**References**


Understanding Cultures through Their Key Words: English, Russian, Polish, German, and Japanese. New York: Oxford University Press.
Model of Efficient Cost Reduction Instrument for Machine Construction

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Abstract
The importance of the studied issue is caused by the necessity of reasonable consumption of material resources in production reducing both the total costs of the products manufactured from them and the costs of their extraction, processing, transportations, storage, and other.

The purpose of the article is preparation of economic and mathematic instruments allowing to perform value engineering for certain types of machine products, because such instruments have not been represented in researches before, especially instruments for all machine product types.

The main approach to this issue study is application of value engineering to find reserves for material resource saving in machine construction.

The necessity and importance of resource saving and the method of value engineering as an instrument of finding of resource saving reserves are described. Economic and mathematic models for value engineering and planning of resource saving measures are suggested.

The article data may be useful for specialists of machine construction plants for analysis of reasonability of material resource consumption, reserve finding, and development of measures for their saving as well as for high-school students.

Keywords: Resource saving, material resource saving, value engineering, measures for material resource saving
Introduction

The Russian Federation possesses huge amounts of resources of raw materials, fuel, and energy, but they are not unlimited. E.g. mineral deposits in the European part of the Russian Federation are reducing and will be in fact exhausted within this century. Extraction of oil, gas, coal, and ores is gradually moving further to the north and the east of the country, particularly, to hardly accessible Siberian regions. The discovered mineral deposits are located deeper and deeper. Raw material supply to the places of their processing becomes more and more difficult. Timber harvesting sites are located in remote areas. The amount of consumed water and, respectively, the costs of its purification and transportation are growing. As a result, raw materials, fuel, and power become more and more expensive for the consumers, and more and more money is required for nature protection. This causes sharp increase of capital investment needs [1, 2, 3].

For further development of the country economics, it is necessary to extent mineral extraction, to increase capital investments, and to raise the number of workers. However, there is a more reasonable way: saving resources at all stages of their processing, engagement, and consumption. Total costs of saving of material, fuel, and power resources are 3-5 times less than the costs of their extraction and production. That is why resource saving is important, and primary attention shall be paid to it [4, 5].

Resource saving means reasonable consumption of material, fuel, power, and human resources based on their conservation. The reasonable consumption supposes reasonable resource consumption without extra losses based on most progressive achievements in this field. Resource saving in production means reduction of the consumption (utilization) of the respective resource per a product unit without its quality decrease [6]. Resource saving process is implemented via carrying out of administrative, legal, technical, technological, economic, and other measures intended to reduce the amount of consumed resources while saving the useful effect of their consumption.

One of the sources of reasonable resource consumption is engagement of internal corporative reserves of the material resource saving.

Material resource saving causes a range of positive economic consequences for national economics in general: first, it is equal to the respective additional increment of the amounts of the resource extraction and production. Therefore, the more output of the final products from the initial resources is, the less their extraction, treatment, and production are required, i.e. less expansion of extracting industries and less capital investment for their development are needed. The reduction of material resource consumption in production helps save money for capital investments and allocate them more reasonably. As a result of the material resource saving, fuel and power resources can be saved. E.g. 1.5-2 tons of reference fuel are consumed per each ton of rolled ferrous metal products, and 0.2 tons of reference fuel is consumed per each ton of cement. In machine production, 1.5 kWh of power is consumed for 1 kg of metal removing. Saving material resources helps reduce their processing, decrease the relative needs in the equipment, and improve capacity utilization.

Material resource saving leads to human labor saving in each current production cycle. It helps increase labor efficiency through processing of less amounts of used material resources. Careful attitude to the resources creates a basis for psychological climate improvement in a company and development of intolerance to a wasteful attitude and an environment for struggling for careful consumption in large and narrow senses.

Material resource saving helps reduce transport costs for both transportation of initial raw materials and supplies through their quantity reduction and transportation of less material-consuming final products.
It is one of the main sources of product cost reduction and, as a result, raising of profitability of a company and savings spent on the company growth and social needs. As a result of the resource saving, financial state of enterprises, production management, and material and technical supply improve. Material resource saving is one of the factors enabling to save natural resources and protect the environment [6].

Thus, material resource saving helps intensify and raise the efficiency of social production and is one of the main factors of efficient development of national economics.

Usage of better materials allows to produce better machines. For example, the development of nuclear physics, radio electronics, and chemistry initiated the production of a whole range of new materials: corrosion-resistant, heat-proof, light, extra conductive, etc. Usage of such materials, e. g. in machine construction allows to produce brand new types of equipment and technologies for processing of these materials contributing to resource saving and, finally, to scientific and technological progress.

Therefore, production efficiency and welfare of the population of a country depend to a large extent on the reasonability of material resource consumption for production. Further development of national economics depends on the extent of intensification of social production determining the reasonable consumption of the national resources with constant reduction of costs based on application of new achievements of research, technics, and management of production and logistic flows. The task of searching for and implementation of sources of more reasonable consumption of raw materials, supplies, and other resources is extremely important. One of them is activation of internal corporate reserves of material resource saving [6].

Methodological Framework

One of the means of efficiency raising is comprehensive and complex discovery and usage of internal corporate reserves based on a systematic approach to analysis of each function of an item (a product, a process, or a structure) - value engineering (VE) intended to raise the efficiency of usage of material and labor resources via optimization of the ratio of the consumer properties of each item and the costs of its design, production, and operation. Besides, one of the ways of VE application is prevention of extra cost occurrence both at the stage of research and development and at the stages of production and operation. VE is one of the most efficient administrative and economic tools allowing to solve the tasks of resource saving, produced equipment progressing, and raising of the quality and competitiveness of the products simultaneously [7].

One of VE advantages is the comprehensibility of study of the item functions. It combines the technics and economics, optimizing the ratio of consumer properties of a labor product and the costs of creation of these properties, all stages of the life cycle of an analysed item - research, design, preparation and management of the production (manufacturing), operation, and utilization processes as well as the activities of the product designers, manufacturers, and consumers [8].

Development of VE as a method started after the war and relates to the works of an engineer L.D. Miles (USA) [9] and a designer Yu. M. Sobolev (Russia) [10]. The Miles’ method is called “value analysis” or “value engineering analysis” in the foreign practice. Sobolev’s method (called “construction element analysis”) is based on the division of product elements into ‘main’ and ‘auxiliary’ ones, elimination of extra ones, from a functional point of view, and reduction of costs of the main element production. The scope of their application is different: the first one is applied for new product design, while the second one is used for existing product analysis. However, the purpose of both analysis types is the same: both are intended to ensure the required properties of the products with less costs [11].
VE proposes considering the functions implemented by an item rather than the item itself. The task of VE is achievement of the item functions with minimum of costs for the benefit of both producers and consumers. The source of the product cost reduction is extra expenses caused by imperfection of product design, the technology of its production, and insufficient efficiency of the used materials.

The main VE principles are:

- a functional principle – considering an item as a complex of abstract functions;
- correspondence of the amount of costs to the ability of function performance and the importance of these functions for a product;
- provision for the socially required quality of a product with reasonable costs at all stages of its life cycle.

Depending on the results of an item operation, positive (necessary, useful) and negative (extra, useless) functions are distinguished. The goal of VE is to eliminate negative functions of an item increasing its quality and reducing costs of the positive function implementation [12].

The following issues and tasks are solved through VE:

- achievement of an optimum ratio of item production costs and its consumer value;
- reduction of costs and increase of quality of the manufactured products;
- reduction of material, labor, and power consumption by the products; reduction of production and operation costs; replacement of deficit, expensive, and imported materials; reduction or prevention of defected product manufacturing [].

The VE result shall be the reduction of costs per a unit of useful effect achieved through: cost reduction with simultaneous increase of consumer properties; quality increase with the same cost level; cost reduction with the same quality level; cost reduction with reasonable decrease of specifications to their functionally required level. In certain cases, quality can be increased with economically reasonable cost increase [13, 14].

VE is mostly efficient when used for new item design preventing extra cost occurrence during their production and operation. VE is a method of non-analog design allowing to obtain unexpected solutions. In addition, correction of a mistake at the stage of research and development (R&D) is 10 times cheaper than its correction during production and 100 cheaper than its correction during operation.

The costs of a product that ensure implementation of the required functions consist of a certain minimum of expenses required to produce an item and so-called ‘extra’ expenses not related directly to the product purpose and caused by imperfection of design and technology and usage of inefficient materials. The extra costs are the source of reduction of the product cost and consumption of material, fuel, power, and labor resources. Elimination of the extra costs of the product manufacturing and operation is carried out through exclusion of extra functions from the design and unreasonable technical solutions while saving the consumer properties and reducing production waste [12].

VE consists of 6 stages: preparation; basic information stage; analytical stage; creative stage; recommendation stage; stage of operation.

The preparation stage includes: the method promotion, teaching the modern methods of technical task solution (brain storming, morphological analysis, and focal item method) to VE specialists, and item selection for analysis.

The basic information stage includes collection and systematization of data, development of structural schemes of the items, determination of production costs, and selection of items or their elements with high cost level.
The analytical stage includes determination of functions of the item elements, the process scheme design, and analysis of the cost ratio per a unit of the product consumption effect itself. The results of the analytical VE stage are:

- a functional ideal model of an item;
- a list of proposals for the item improvement;
- a complex of key tasks to solve the occurring technical contradictions.

The creative stage consists of ideas generation (divergency, boarder extension), their transformation and further convergence (boarder narrowing) for implementation of the resource saving measures. The recommendation stage consists of development of advice on the resource saving through the improvement of design, technologies, and operation conditions based on the expert analysis of the proposed ideas, their economic reasonability, operability, and availability of resources for the idea implementation.

The stage of operation (implementation) consists of organization measures of scheme plan approval for implementation of VE recommendations and control over the execution of the scheme plan of the measure implementation [12].

The effect of VE application can influence the structure of machine construction and related sphere development. It is known that one of the issues for designers and developers is the selection of construction materials, e. g. metal can be replaced with plastics and composite materials. The composite materials can be widely used in machine construction, because they combine high strength with lightness and resistance. Their usage allows to reduce machine weight by 25-50%, to reduce labor consumed for production 1.5-3 times, to reduce power consumed for production 8 - 10 times, to reduce material consumption 1.6-3.5 times, to increase the machine service life 1.5-3 times, to reduce corrosion losses to the minimum, and to reduce fuel consumption by vehicles. Besides, the transition to the industrial usage of the composite materials means not only the significant reduction of metal consumption, but also abandoning usage of hundreds and thousands of expensive machine tools, lines, and flexible production systems and huge consumption of power and auxiliary materials used in metal processing. Therefore, mass usage of the composite materials will lead to sharp changes of the structure of machine construction industry. Fiber coiling and pouring machines, turnkey autoclave systems, automated lines for non-destructive production, and other types of equipment for production of components from the composite materials shall be produced and used in machine construction [6].

**Literature Review**

VE is widely used abroad [15, 16, 17, 18, 19]. E. g. in Japan, more than 90% of all products and 100% of exported products are subject to VE. This method is applied to manufactured and designed products. VE enhances new idea generation and development of invention potential. VE is combined with quality management systems allowing to improve the technical characteristics of machines and equipment and their quality [6].

In our country, VE is also widely used in various spheres and fields [20, 21, 22, 23, 24, 25]. E. g. as far back as in 1980s, VE was mostly used in electrotechnical industry. However, other machine construction industries have not managed to apply this method, having encountered methodic difficulties. This article suggests to compensate for the methodic shortages in the machine construction industry.

**Results**

The most efficient VE instrument can be a model of a product cost in production and operation per a unit of consumption effect able to create such product. Analytically, such model can be represented as follows:
where $C_T$ is the cost of a product production, rub.;

$C_F$ is the cost of the product operation, rub.;

$W$ is an indicator reflecting the product consumer properties most fully.

The operation costs consist of the cost of spare parts and maintenance. They indicate the product reliability: the higher the reliability is, the less spare parts are required to replace the details, and the less the reliability is, the more the cost of the spare parts and, respectively, maintenance is.

The above model (1) is a general one and is intended to be applied to find sources of general cost reduction. For the production costs analysis, a model of unit cost per a unit of consumption effect is applied. The operation costs analysis is applied similarly with the unit cost in operation. As a rule, the sources of material resource saving are found separately for each saving direction and each individual resource, i.e.:

$$\frac{P_T + P_F}{W} \rightarrow min$$ (2)

where $P$ is consumption of a material resource in the measurement units of such resource, e.g. tons for metals, $m^3$ for timber, sq. m for fabric, liters for liquids, and other volumetric units.

All parameters used for the calculation shall characterize the product purpose and its consumer properties most comprehensively, be recorded quantitatively in the respective documents, and correlate with resource consumption by such product. Selecting such parameters, we shall first focus on the efficiency whose quantitative expression depends directly on the main properties of the machines and equipment. E.g. efficiency is the parameter considered to reflect the consumer properties most fully in the indicator of unit metal consumption of agricultural machines, machines for animal breeding and fodder cropping, for consumer goods and food industries, and many others, while for power and electrotechnical equipment such parameter is capacity.

However, machine consumer properties are characterized more fully and completely by the amount of works performed by it during its service life. However, the amount of work of a machine or equipment is determined by its operation characteristics – operation rate, coefficients of the machine load capacity, power, and other ones not always depending on manufacturers of such machines. That is why only characteristics ensured by the manufacturers themselves and feature the machine capabilities shall be taken for determination of the operation resource required for calculation. In general, this parameter can be calculated as the machine (equipment) efficiency multiplied by its service life until its first overhaul for many machines and types of equipment. The received synthetic parameter is measured in units of work of the machine (equipment) for its service life until its first overhaul. E.g. a parameter featuring the consumer properties of a strip hot rolling mill is represented by the technical resource of its operation. It is measured in millions of tons of technically possible rolled products and in millions of ton-kilometers of net transported cargoes for mainline trucks (Table 1).
Table 1. Main specifications and parameters most fully featuring consumer properties of machine construction products

<table>
<thead>
<tr>
<th>Product</th>
<th>Main specification</th>
<th>Parameters most fully featuring consumer properties of a machine</th>
<th>calculation formula</th>
<th>measurement unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steam, gas, hydraulic turbines, diesel power plants</td>
<td>capacity</td>
<td>thousand kW</td>
<td>W=Nt</td>
<td>thousand kWh</td>
</tr>
<tr>
<td>Steam boilers, utilizers, heaters, shortwall combines, tunneling machines, ploughs, coal and ore extraction installations</td>
<td>efficiency</td>
<td>thousand ton/hour</td>
<td>W=Qt</td>
<td>thousand tons</td>
</tr>
<tr>
<td>Water heating boilers</td>
<td>steam productivity</td>
<td>thousand Gcal/h</td>
<td>W=Qt</td>
<td>thousand Gcal</td>
</tr>
<tr>
<td>Diesels and diesel generator</td>
<td>capacity</td>
<td>hp</td>
<td>W=Nt</td>
<td>thousand horsepower-hour</td>
</tr>
<tr>
<td>Underground shovels</td>
<td>efficiency</td>
<td>tonnes per hour</td>
<td>W=Qt</td>
<td>cubic meters</td>
</tr>
<tr>
<td>Diesel locomotives, electric locomotives</td>
<td>pulling force</td>
<td>tf</td>
<td>W=Qg t overhaul</td>
<td>thousand ton-km</td>
</tr>
<tr>
<td>Broad and narrow gage line trucks</td>
<td>lifting capacity</td>
<td>ton</td>
<td>W=Qg t overhaul</td>
<td>thousand tons</td>
</tr>
<tr>
<td>Passenger cars</td>
<td>number of seats</td>
<td>pcs</td>
<td>W=q L t overhaul</td>
<td>thousand passenger-kilometers</td>
</tr>
<tr>
<td>Various cranes</td>
<td>lifting capacity</td>
<td>tf</td>
<td>W=Qg t overhaul</td>
<td>thousand tons</td>
</tr>
<tr>
<td>Turbine generators, electric engines, complete transformer substations</td>
<td>capacity</td>
<td>kW</td>
<td>W=Nt</td>
<td>kWh</td>
</tr>
<tr>
<td>Power transformers</td>
<td>capacity</td>
<td>kW</td>
<td>W=Nt</td>
<td>thousand kWh</td>
</tr>
<tr>
<td>Pumps, compressors</td>
<td>efficiency</td>
<td>cubic meter / hour</td>
<td>W=Qt</td>
<td>thousand cubic meters</td>
</tr>
<tr>
<td>Refrigerator installations</td>
<td>efficiency</td>
<td>standard kcal/h</td>
<td>W=Qg t overhaul</td>
<td>million standard kcal</td>
</tr>
<tr>
<td>Trucks, dumpers, bulk cement trucks</td>
<td>lifting capacity</td>
<td>ton</td>
<td>W=q L t overhaul</td>
<td>thousand ton-km</td>
</tr>
<tr>
<td>Buses, trolley buses</td>
<td>number of seats</td>
<td>pcs</td>
<td>W=q L t overhaul</td>
<td>thousand passenger-kilometers</td>
</tr>
<tr>
<td>Product</td>
<td>Name</td>
<td>unit</td>
<td>calculation formula</td>
<td>measurement unit</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>---------------------------</td>
<td>----------</td>
<td>---------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Internal combustion engines</td>
<td>capacity</td>
<td>hp</td>
<td>W=Nt</td>
<td>thousand horsepower-hour</td>
</tr>
<tr>
<td>Bearings</td>
<td>lifting capacity</td>
<td>ton</td>
<td>W=q</td>
<td>ton</td>
</tr>
<tr>
<td>Product</td>
<td>Name</td>
<td>unit</td>
<td>calculation formula</td>
<td>measurement unit</td>
</tr>
<tr>
<td>Tractors</td>
<td>pulling force</td>
<td>tf</td>
<td>W=Qt</td>
<td>unit of work</td>
</tr>
<tr>
<td>Tractors</td>
<td>capacity</td>
<td>hp</td>
<td>W=Nt</td>
<td>thousand horsepower-hour</td>
</tr>
<tr>
<td>Crop harvesting machines</td>
<td>efficiency</td>
<td>tonnes per hour</td>
<td>W=Qt</td>
<td>thousand tons</td>
</tr>
<tr>
<td>Ploughs, seeding machines, cultivators, harvesters, sprinkling machines, potato harvesting machines</td>
<td>efficiency</td>
<td>hectare/h</td>
<td>W=Qt</td>
<td>thousand hectares</td>
</tr>
<tr>
<td>Excavators, road scrapers, bulldozers, autogriders</td>
<td>bucket capacity, capacity</td>
<td>cubic meters</td>
<td>W=Qr t over haul</td>
<td>million cubic meters</td>
</tr>
<tr>
<td>Concrete mixers, crackers, mixers</td>
<td>efficiency</td>
<td>tonnes per hour</td>
<td>W=Qt</td>
<td>thousand tons</td>
</tr>
<tr>
<td>Furnaces, electric furnaces, chemical equipment, oil equipment</td>
<td>efficiency</td>
<td>ton/year</td>
<td>W=Qr t over haul</td>
<td>thousand tons</td>
</tr>
<tr>
<td>Drilling machines and installations</td>
<td>efficiency</td>
<td>m/h</td>
<td>W=Qt</td>
<td>thousand m</td>
</tr>
<tr>
<td>Pumps</td>
<td>efficiency</td>
<td>cubic meter / h</td>
<td>W=Qt</td>
<td>thousand cubic meters</td>
</tr>
<tr>
<td>Tanks, vessels</td>
<td>capacity</td>
<td>cubic meter, l</td>
<td>W=V</td>
<td>cubic meter, l</td>
</tr>
<tr>
<td>Automated and semi-automated lines</td>
<td>efficiency</td>
<td>units per hour</td>
<td>W=Qt</td>
<td>unit of work</td>
</tr>
<tr>
<td>Metal processing instrument</td>
<td>resource</td>
<td>Hour</td>
<td>W=t</td>
<td>Hour</td>
</tr>
<tr>
<td>Consumer good production equipment</td>
<td>efficiency</td>
<td>sq. m / h</td>
<td>W=Qt</td>
<td>thousand sq. m</td>
</tr>
<tr>
<td>Process equipment for food, meat and milk, and fish production, for mills, elevators, and storage facilities</td>
<td>efficiency</td>
<td>cubic meter / h kg/h tonnes per</td>
<td>W=Qt</td>
<td>thousand m³ t</td>
</tr>
</tbody>
</table>
Compressor and condensate machines  

<table>
<thead>
<tr>
<th>Efficiency (kcal/h)</th>
<th>W = Qt</th>
<th>thousand kcal</th>
</tr>
</thead>
<tbody>
<tr>
<td>hour</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following indications have been taken in Table 1:

- **W** is an indicator (parameter) characterizing the consumer properties of machine construction products to the fullest extent;
- **N** is capacity;
- **t** is product resource;
- **t** _overhaul_ is service life period until the product first overhaul, years;
- **Q** and **Q_r** are product hourly and annual capacity, respectively;
- **q** is lifting capacity or number of passenger seats;
- **L** is annual mileage, thousand km;
- **V** is volume.

Increase of reliability and service life helps reduce material consumption significantly in both the production and operation of machines and equipment. Besides, material consumption for spare parts and maintenance is very significant. For example, metal consumption for production of spare parts and maintenance of home-produced excavators for their whole service life are 1.4-2 times higher than the consumption of metal for production of these machines, tractors, and trucks – 1.5 times [6].

**Discussions**

As mentioned above, a lot of Russian and foreign researches studied VE issues, but the reviewed aspect has not been considered in previous researches. An economic and mathematic model was proposed for cost calculation in product manufacturing and operation per a unit of a parameter most fully reflecting its consumer properties. Parameters most fully reflecting the consumer properties of particular types covering the whole range of machine construction products were selected, and formulas for their calculation were proposed.

**Conclusion**

As a result of resource saving in final production, the product output from initial raw materials and supplies increases, the necessity of capital investment in their extraction is reduced, fuel and power consumption for their extraction and processing reduces, human labor consumption for the processing reduces, logistic expenses reduce, and financial state of enterprises improves.

VE is an efficient method of indication of reserves of cost reduction on production and at the stages of design, operation, in management, etc., and is recommended for wide application. The application of the models represented in this article will help find reserves to save material resources in production and operation and at the stage of designing of new machines with improved specifications.

**Recommendations**

The materials (the model, the parameters) proposed in the article are an addition to VE method and are recommended for application at machine construction plants and by teachers and students.

**References**

- Economic Situation in Russia. URL: KM.RU.
- Material Resources of a Country and Their Consumption. URL: https://yandex.ru/images/search?


Cultural Aspects Of Using Paremiological Units In The Teaching Process

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Abstract
The question of the necessity to evaluate linguistic phenomena becomes particularly important on the basis of comparative analysis in the conditions of modern development of national languages and ever wider integration and integration of cultures. Linguistic culture, which arose at the end of the twentieth century at the junction of linguistics and culturology causes linguists of special interest. In accordance with linguistic culture, linguoculturology is characterized by a number of specific principles, which follows from a theoretical analysis: linguoculturology is a scientific discipline of synthesizing type, borderline between sciences studying culture and philology. The questions of teaching here are derived; the main object is the relationship between culture and language in the process of its functioning and the study of the interpretation of this interaction. The language represents the objective reality, it consists of objects, properties, actions, includes a person with his thoughts, feelings, actions, as well as their language and cultural relations. A significant part of the culture of any nation is realized through its language in the teaching process. It seems to be legitimate using paremiological foundations in the process of studying and teaching languages.

Keywords: linguoculturology, paremiology, paremiological foundation, study, teaching.

Introduction
Paremiological units are an etymological reflection of the national and cultural specifics of a particular language group. The presence of cultural traces in the meaning of communicative paremiological units (i.e. proverbs and sayings by Kunin's definition) has become as an obvious fact in recent decades. "The paremiological layer of the language has the most cultural-national originality, it contains cultural-labeled meanings" (Telia, 1999). It clearly represents the image and conditions of life, the history, customs and traditions of this or that nation. Agreeing with the opinion of V.N. Telia (1999) and A.V. Kunin (1970), we believe that proverbs and sayings are communicative paremiological units. Communicative paremiological units of the language are "intergenerally reproducible signs of the" language "of culture,
participating in the translation of the mentality of the native speaker of the language" (Telia, 1999). Proverbs that arose many centuries ago played an important role in the formation and further development of the language.

The modern study of proverbs and sayings includes two directions: paremiography - collecting paremias, and paremiology - the linguistic science of proverbs and sayings. Paremiological units from the funds of many languages of the world have become the object of research interest for more than one century.

As criteria for distinguishing between the studied linguistic units the structural completeness of the proverb and the unfinished proverb were singled out by O.S. Akhmanova (1984), S.I. Ozhegov (1978), G.L. Permyakov (1975); generalization of the proverbial semantics and concreteness of the topic of the proverb were done by O.A. Dmitrieva (1997), Z.Y. Turaeva (2004), R.A. Yusupov (1999); figurative of the proverbs and the literal meaning of the sayings were singled out by V.P. Felitsyna (1994), L.I. Shvydkaya (1973).

In modern philology there is uncertainty about the definition and delimitation of the concepts "proverb" and "sayings" in native and foreign scientific literature. In the definitions of the proverbs in different languages there are both a number of common features and significant differences and often the concept of "proverb" in studies does not coincide with other languages. English researchers do not differentiate the notion of "proverb" and "sayings" and do not distinguish clear principles of delimiting proverbs from aphorisms or epigrams, in connection with which the proverb is often interpreted through these concepts in the teaching process. Russian authors of phraseological dictionaries essentially refused to use the term "sayings" because of its uncertainty in the linguistic plan.

English and American paremiologists also have not developed a universal definition of proverbial paremiological units. The basis of the majority of definitions are such properties as tradition, age, frequency of use, wisdom (Mieder, 1994). Several approaches to the definition of proverbial paremiological units can be traced as: structural (Dundes, 1999), functional (Burke, 1992), poetic (Blehr, 2010), cognitive (Steen, 1994). Foreign researchers of paremiology study proverbs, traditional completed judgments, proverbial sub-genres, including sayings (verbal metaphorical expressions).

The analysis of modern research directions of the paremiological foundation in native linguistics makes it possible to group them into three grounds:
1. Separation and analysis of individual concepts (such as "laziness", "stupidity", "home", "family", "woman", "labor" "everyday life", etc.) in the paremiological fund of the language (Arutyunova, 1999; Maslova, 2004).
2. Comparison of fragments of paremiological foundations of two or three different languages, as a rule, with the purpose of analyzing similar value concepts like "good", "love", "work", "mind", "feat", "family" (Vorkachev, 1995; Lotrya, 2004).
3. Studying the stylistic effect of occasional changes (transformations) of proverbs in texts of different communicative orientation (Balachik, 1992; Yusupov, 1999).

Research Methodology
A review and analysis of theoretical materials has shown that the method of conceptual analysis, comparative analysis, conspiratorial, linguocultural analysis, the method of phraseological identification and component analysis were used in the course of the work.
Materials
The theory of studying proverbs and sayings of anthropocentric orientation, represents the basis of the paremiological foundation of any language, attracts the attention of such scientists as N.D. Arutyunova (1999), G.A. Bagautdinova (2007), V.N. Telia (1999). Studies on comparative and cognitive linguistics in the works of V.A. Maslova (2004), V.P. Felitsyna (1994) are of interest in comparing and analyzing the linguospecific phenomena of two or more languages.
As auxiliary and additional sources of the paremiological material, dictionaries of various types, including etymological, synonymous considered the item. The appeal to them is connected with the fact that the Russian correspondences of the researched PE were selected in parallel, since the Russian language acts as a language - an intermediary of the scientific description of the content of the research.

Results
It is distinguished that the role of language in connection with the communicative human needs is based on the linguistic personality in the teaching process, since it is impossible to know the essence and laws of language without referring to its creator and bearer - man.
The basic receptions in creation of proverbs and sayings are considered in the article. Their parameters correspond with the many paremiological units and characterize a person and his multilateral relationships to other people, to objects and phenomena, to society, to all spheres of his mental and practical activity, and receive a pronounced anthropocentric expression.
Functioning as means of storing and transferring people's experience, as a kind of crystallization of the ethnic worldview, paremia reveal an organic connection with the concepts as cultural-specific variants of concepts that constitute the cognitive basis of the national language picture of the world.
Paying attention to the grammatical structure of proverbs, it should be noted that the paremiological units are narrative, motivating and interrogative.

Discussions
The theoretical basis for this study was the work of foreign and domestic researchers - a significant contribution to the development of both native and world paremiology in the 20s of the last century was made by G.L. Permyakov (1975). The scientist has developed a logical-semiotic classification of proverbs and sayings. Another area of research of G.L. Permyakov (1975) is the sociological study of the paremiological composition of the language. In the 1970s, he first conducted an experiment to identify the most famous Russian proverbs and sayings, the so-called paremiological minimum.
Scientists considering the stability of the paremiological unit as the main criterion in the language in the teaching process, reproducibility in speech, unconditionally include the studied expressions in the composition of phraseology (Kunin, 1970; Telia, 1999) and others.
Supporters of the "narrow" interpretation of the volume of paremiology hold the view that the proverb is not a phraseological unit. They call proverbs either "proverbial sayings" or "verbal statements". "Narrow" understanding was supported by many linguists and can be argued by the following provisions:
1. The object of phraseology is only stable combinations equivalent to words, and proverbs are whole sentences (Ozhegov, 1978, Smirnitsky, 2004).
2. The semantic structure of the proverb differs from the phraseology: the content of the utterance transmitted by the proverbial sentence is based on judgment, whereas the lexical meaning of phraseology is based on a concept (Molotkov, 1988).
3. Proverbs, unlike FE, do not have semantic indivisibility. "The living syntactic connection between the components is always there, their general meaning is motivated and usually derived from the value of the components" (Felitsina, 1994).

Taking into account all these arguments, one cannot fail to recognize the validity of the counter arguments advanced by A. Kunin (1970), who believes that from the point of view of modern linguistics they are not relevant, and "when colliding with the facts of a living language, they fly like a house of cards" (Kunin, 1970).

Conclusion and Recommendations
A typical picture of the world is a cognitive structure based on cultural, social, and gender factors interacting with cognition processes are superimposed. It is possible to single out the main concepts in the paremiological fund of the compared languages correlated with the basic universal categories that determine the perception of the world by man and of himself in the world. In the paremiological picture of the world, the attitude to the results of cognition is reflected - evaluation and emotion in the teaching process. In paremiological units, the mentality of the nation is manifested, which can be called a proverbial mentality. The conventional mentality consists of stable, deep features of the people's mentality.

It is established that the reliance on such a non-homogeneous language material, like paremia allows reconstructing people's ideas about the essence of different concepts, “showing differences in the understanding and teaching of this concept by representatives of the English and Tatar linguocultures, and proving that the communicative phraseological units of the language are in distributive relations, representing their sites of cultural concepts, giving them a different depth, directly depending on the significance of the concept or phenomenon in the life of the ethnos” (Maslova, 2004). Paremiological units, being a unique part of the national language culture, conceptualize and reflect all its elements, indirectly representing the national life forms of the people and its psychology, and therefore reflect a certain fragment of the language picture of the world.

It is proved that the conducted semantic research aimed at comparing the key concepts of the cultural-national worldview through the units of “the paremiological level of the languages studied made it possible to draw certain conclusions about the degree of similarity and difference in the preferences of choosing a study of a particular linguistic cultural community as a comparative stereotype by the carriers of the two languages being compared” (Smirnitsky, 2004).

Limitation
Taking into account the results of this research, we can single out its further prospects: the study of modern linguistics and related sciences believe that the fact of interconnection and interpenetration of language and culture is generally accepted and relevant. At the same time language, being one of the main features of the nation, expresses the culture of the people who speak it. Recent interest in linguocultural studies of the language is explained by the desire to extract the most complete, adequate information about the whole ethnos or about a specific native speaker in the teaching process.

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References
Modeling Of Industrial Infrastructure Services Influence On Economic Growth Of Regional Industrial Complex

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Abstract
Relevance of the research: The problems of modernization of the domestic economy, the search for effective factors of its economic growth, naturally update the significance of the services of industrial infrastructure as the most important condition for economic growth, which is viewed as a dynamic system entirely dependent on the inflow of investments aimed at its modernization. Therefore, the production infrastructure should be viewed as a factor of economic growth, not as a static quantity, but as a developing or requiring its development. The purpose of the research: using the tools of economic and mathematical modeling, to assess the impact of industrial infrastructure’s services on the growth parameters of the regional industrial complex. Research methods: The main research methods are methods of factor analysis, pair correlation, multiple correlation analysis, matrix models and mathematical modeling. Results of the research: the paper defines the factor variables of the industrial infrastructure’s services that have the greatest impact on the parameters of the economic growth of the industrial complex in the region. Practical significance: The paper is intended for researchers studying the problems of assessing the impact of industrial infrastructure services on the economic development of the industrial complex of the region, graduate students, as well as specialists of government bodies implementing in practice industrial policies and policies for the development of industrial infrastructure. Keywords: industrial infrastructure services, industrial complex, correlation links, economic parameters, economic and mathematical modeling.

Introduction
The industrial infrastructure as a factor of economic growth (Kondratiev, 2010) predetermines the need to develop and implement management and institutional measures related to the formation of the concept of managing the infrastructure development of the country, regions and municipalities (Vysotskaya, 2003), the formation and development of state institutions for the regulation and monitoring of production infrastructure, the development of toolkit for public-private partnership, the development of
special laws governing industrial infrastructure as a type of economic activity, the implementation of measures for state support of entrepreneurship’s small forms in the areas of industrial infrastructure that do not belong to the sphere of natural monopolies (Tretiak, 2001).

Only then one can expect deep economic transformations in this area, and above all, the development of competitive relations, the development of measures to improve profitability, the formation of an attractive investment climate, and the development and implementation of capitalization tools for the production infrastructure (Yakovleva, 2002). In this regard, the problems of managing the services of the production infrastructure, adequate and qualitative assessment (Pomerantsev, 2009) of the influence of the industrial infrastructure’s services on the economic growth of the regional industrial complex are of particular relevance.

Methodological Framework
2.1. Objectives of the study
The objectives of the study are the methodical justification for assessing the impact of industrial infrastructure services on the parameters of the regional industrial complex’s economic growth, including:
- conducting extensive statistical analysis of data to build an economic and mathematical model for assessing the impact of industrial infrastructure’s services on the economic parameters of the industrial complex in the region;
- Identification of the most significant factors of industrial infrastructure impact on the economic growth of the industrial complex;
- Formation of the model of the investigated parameters’ pair correlations;
- Based on the construction of the economic-mathematical model, the nature of the factor variables’ dependencies adopted in the technique is revealed.

Results
3.1. On the basis of extensive statistical analysis of data, two groups of indicators have been formed, reflecting the impact of industrial infrastructure’s services on the parameters of the regional industrial complex’s economic growth.
Services of industrial infrastructure branches exert a huge influence on the growth rates of the regional industrial complex’s economic parameters (Kondratiev, 2010). In order to determine these factors, types of services and industrial infrastructure sectors that have the greatest impact on the economic development of the regional industrial complex, the volume of industrial production was considered (volume of goods shipped from one’s own production, performed works and services by one’s own strength) of the Republic of Tatarstan in million rubles. As indicators reflecting the activities of the industrial infrastructure in the Republic of Tatarstan, the following were selected:
- Volume of shipped goods of one’s own production, works performed and services by own means by type of economic activity “Production and distribution of electricity, gas and water”, million rubles;
- Volume of transport and communication services rendered, million rubles;
- Full accounting value of fixed assets of branches for production and distribution of electricity, gas and water, million rubles;
- Investments into the main capital of industries for the production and distribution of electricity, gas and water, million rubles;
- Coefficient of renewal of industries’ fixed assets for the production and distribution of electricity, gas and water (as a percentage of the total value of funds);
- Average number of enterprises’ employees producing and distributing electricity, gas and water, in people;
- Average monthly wages of enterprises’ workers for the production and distribution of electricity, gas and water, rubles;
- Balanced financial result of enterprises for the production and distribution of electricity, gas and water, million rubles;
- The ratio of one’s own circulating assets of the enterprises for the production and distribution of electricity, gas and water, as a percentage;
- Costs for technological innovation of enterprises for the production and distribution of electricity, gas and water, million rubles;
- The price index for the products of enterprises for the production and distribution of electricity, gas and water, as a percentage of the previous year;
- Profitability of enterprises’ products for the production and distribution of electricity, gas and water, in percent;
- Index of tariffs for freight transportation by transport in total, as a percentage of the previous year;
- The index of tariffs for communication services for legal entities, as a percentage of the previous year;
- Balanced financial result of transport and communication enterprises, million rubles.

The statistical data mentioned above are considered indicators as a factor space of the indicator "The volume of industrial production", which includes 15 indicators in the dynamics of their development over the past 11 years.

3.2. Two principal components were identified, combining 93% of the variance, and the values of loads and bills for the principal components of the model were obtained.

When constructing the model of regression dependence, the "Unscrambler" program was used. As a result of the calculations, two principal components were identified, combining 93% of the variance.

When carrying out the regression analysis, the values of loads and accounts for the principal components of the model were obtained. In Table 1 the load values for the regression model for the first two main components identified in the regression process are shown.

**Table 1. Distribution of loads for the regression model for the principal components**

<table>
<thead>
<tr>
<th>Index</th>
<th>PC1</th>
<th>PC2</th>
</tr>
</thead>
<tbody>
<tr>
<td>The volume of shipped goods of one’s own production, performed works and services by one’s own means by type of economic activity “production and distribution of electricity, gas and water”, million rubles</td>
<td>x1</td>
<td>0.38</td>
</tr>
<tr>
<td>The volume of transport and communication services rendered, million rubles</td>
<td>x2</td>
<td>0.37</td>
</tr>
<tr>
<td>The full accounting value of the fixed assets of industries for the production and distribution of electricity, gas and water</td>
<td>x3</td>
<td>0.37</td>
</tr>
<tr>
<td>Investments in the fixed capital of industries for the production and distribution of electricity, gas and water, million rubles.</td>
<td>x4</td>
<td>0.34</td>
</tr>
<tr>
<td>Coefficient of renewal of fixed assets of industries for the production</td>
<td>x5</td>
<td>0.17</td>
</tr>
</tbody>
</table>
and distribution of electricity, gas and water (as a percentage of the total value of funds)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value 1</th>
<th>Value 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average number of employees of enterprises for the production and distribution of electricity, gas and water, people</td>
<td>x6</td>
<td>0.04</td>
</tr>
<tr>
<td>Average monthly wages of workers in enterprises for the production and distribution of electricity, gas and water, rubles</td>
<td>x7</td>
<td><strong>0.38</strong></td>
</tr>
<tr>
<td>Balanced financial result of enterprises for the production and distribution of electricity, gas and water, million rubles</td>
<td>x8</td>
<td>0.23</td>
</tr>
<tr>
<td>Coefficient of providing own circulating assets of enterprises for the production and distribution of electricity, gas and water, as a percentage</td>
<td>x9</td>
<td>-0.28</td>
</tr>
<tr>
<td>Costs for technological innovation of enterprises producing and distributing electricity, gas and water, million rubles</td>
<td>x10</td>
<td>0.14</td>
</tr>
<tr>
<td>Price index for products of enterprises for the production and distribution of electricity, gas and water, as a percentage of the previous year</td>
<td>x11</td>
<td><strong>-0.36</strong></td>
</tr>
<tr>
<td>The index of tariffs for freight transportation by transport, in total, in percentage to December of the previous year</td>
<td>x12</td>
<td>-0.03</td>
</tr>
<tr>
<td>The index of tariffs for communication services for legal entities, as a percentage to December of the previous year</td>
<td>x13</td>
<td>0.06</td>
</tr>
<tr>
<td>Balanced financial result of transport and communication enterprises, million rubles</td>
<td>x14</td>
<td>0.03</td>
</tr>
<tr>
<td>Profitability of enterprises’ products for the production and distribution of electricity, gas and water, percentage</td>
<td>x15</td>
<td>0.06</td>
</tr>
<tr>
<td>Volume of industrial production (volume of shipped goods of one’s own production, works performed and services provided by one’s own forces), million rubles</td>
<td>y</td>
<td>0.38</td>
</tr>
</tbody>
</table>

The functioning mechanism of the concept of "load" on the main components is that, the higher the value of a particular variable, the greater the impact it has on the main component. Below is a list of indicators that exert the greatest burden on the main component.

3.3. Based on modeling data, the indicators are revealed that have the greatest impact on the main component.

As it is shown by the modeling data, the first principal component unites the biggest changes (influences) in the parameters of the regional industrial complex’s economic growth, represented by the indicator of industrial production’s volume, in the following indicators reflecting the dynamics of the industrial infrastructure sectors’ services:

- volume of shipped goods of one’s own production, works performed and services by one’s own means by type of economic activity "Production and distribution of electricity, gas and water", million rubles (0.38);
- volume of transport and communication services rendered, million rubles (0.37);
the full book value of the industries’ fixed assets for the production and distribution of electricity, gas and water (0.37);
- Investments in the fixed capital of industries for the production and distribution of electricity, gas and water, million rubles. (0.34);
- average monthly salary of enterprises’ workers for the production and distribution of electricity, gas and water, rubles (0.38);
- The price index for the products of enterprises producing and distributing electricity, gas and water, as a percentage of the previous year (-0.36).

In other words, of the 15 variable service factors in the industrial infrastructure sectors that affect the industrial production of the regional industrial complex, the factors listed above were the most significant, with loads ranging from 0.34 to 0.38. At the same time, according to the regression model, the following factors have the least impact on the production volumes of the regional industrial complex:
- Renewal coefficient of industries’ fixed assets for the production and distribution of electricity, gas and water (as a percentage of the total value of funds) (0.17);
- Average number of enterprises’ employees producing and distributing electricity, gas and water, in people (0.04);
- Balanced financial result of enterprises producing and distributing electricity, gas and water, million rubles (0.23);
- Costs for technological innovation of enterprises for the production and distribution of electricity, gas and water, million rubles (0.14);
- The index of tariffs for communication services for legal entities, as a percentage of December of the previous year (0.06);
- Balanced financial result of transport and communication enterprises, million rubles (0.03);
- Profitability of enterprises’ products for the production and distribution of electricity, gas and water, percentage (0.06).

3.4. An economic interpretation of the influence of factors’ potential in the branches of the industrial infrastructure has been carried out.

Based on the results of the simulation, the first principal component can be interpreted as the influence of the production factors’ potential of the industrial infrastructure, which includes volumetric indicators of production, fixed assets, investments in capital, and wages of the industrial infrastructure.

The most negative value in the first component is the price index for the products of enterprises producing and distributing electricity, gas and water, as a percentage of the previous year (-0.36), which is quite natural, as the prices for services and products of the industry and the distribution of electricity, gas and water leads to a reduction in their consumption by the main production of the regional industrial complex and, accordingly, a decrease in the indices of industrial production.

The second principal component is represented by the indicator "balanced financial result of transport and communication enterprises, million rubles", the value of which is sufficient and is 0.54. The economic interpretation of this indicator is that the incomes of enterprises and organizations providing transport and communications services and their financial stability can have both a direct and indirect impact on the industrial production of the regional industrial complex. Due to the fact that these services are primarily of a communication nature, the second principal component can also be interpreted as an information and communication component.
Figure 1. Graphical distribution in the coordinate system of loads for the first and second principal components
In addition, it is advisable to use a graphic representation of the loads on the principal components, as they help to interpret the economic meaning of the principal components and the direction of each of them in the original coordinate system. The load graph shows how each factor contributes to each component. In other words, the higher the load value of a given factor, the more influence it has on the principal component. Thus, in Fig. 1 the load graphs for the first and second principal components are presented.

3.5. The co-ordinates of economic periods in the space of the principal components are obtained and the economic interpretation of the most significant coefficients with respect to the reduced variables is given. The coordinates of the economic periods in the space of the principal components are shown in Table 2 by accounts’ values for the first and second components.

Table 2. The accounts’ value for the principal components’ model for the first and second principal component

<table>
<thead>
<tr>
<th>Years</th>
<th>PC1</th>
<th>PC2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>-3.92</td>
<td>0.93</td>
</tr>
<tr>
<td>2005</td>
<td>-3.16</td>
<td>0.38</td>
</tr>
<tr>
<td>2006</td>
<td>-2.84</td>
<td>0.84</td>
</tr>
<tr>
<td>2007</td>
<td>-1.27</td>
<td>0.67</td>
</tr>
<tr>
<td>2008</td>
<td>0.08</td>
<td>-2.68</td>
</tr>
<tr>
<td>2009</td>
<td>0.23</td>
<td>-3.09</td>
</tr>
<tr>
<td>2010</td>
<td>0.38</td>
<td>-1.04</td>
</tr>
<tr>
<td>2011</td>
<td>1.42</td>
<td>1.58</td>
</tr>
<tr>
<td>2012</td>
<td>1.96</td>
<td>0.81</td>
</tr>
</tbody>
</table>
As the data of the values of the principal components' accounts show in Table 2, for the first principal component throughout the entire period of the study there is a stable growth of parameters in dynamics. However, the data of the accounts of the second principal component demonstrate a significant decline in development parameters in 2008-2010, which was later compensated by a fairly stable growth of parameters in the presence of insignificant fluctuations.

As a result of the calculations, the following regression equation was obtained:

\[ y = 0.15x_1 + 0.14x_2 + 0.16x_3 + 0.14x_4 + 0.05x_5 + (-0.01)x_6 + 0.15x_7 + 0.05x_8 + (-0.13)x_9 + 0.02x_{10} + (-0.13)x_{11} + (-0.02)x_{12} + 0.06x_{13} + 0.06x_{14} + (-0.01)x_{15} + 0.56 \]

As the data show, the most significant coefficients of the presented regression are obtained from the following variables:
- volume of shipped goods of one’s own production, works performed and services by one’s own means by type of economic activity "Production and distribution of electricity, gas and water", million rubles;
- The full accounting value of the industries’ fixed assets for the production and distribution of electricity, gas and water;
- Average monthly wages of enterprises’ workers for the production and distribution of electricity, gas and water, rubles.

3.6. The results of forecasting are presented in the form of comparing the actual and calculated components of the values of the resulting indicator in accordance with the model.

Table. 3. Comparison of actual and calculated main components of the resultant values volume of industrial production in accordance with the model

<table>
<thead>
<tr>
<th>Years</th>
<th>Actual values, million rubles.</th>
<th>Calculated values, million rubles.</th>
<th>Discrepancies between calculated and actual values, in percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>369810.30</td>
<td>400400.00</td>
<td>-7.64%</td>
</tr>
<tr>
<td>2005</td>
<td>499834.10</td>
<td>500900.00</td>
<td>-0.21%</td>
</tr>
<tr>
<td>2006</td>
<td>612355.20</td>
<td>572800.00</td>
<td>6.91%</td>
</tr>
<tr>
<td>2007</td>
<td>758188.30</td>
<td>823400.00</td>
<td>-7.92%</td>
</tr>
<tr>
<td>2008</td>
<td>932882.20</td>
<td>902100.00</td>
<td>3.41%</td>
</tr>
<tr>
<td>2009</td>
<td>867560.00</td>
<td>908200.00</td>
<td>-4.47%</td>
</tr>
<tr>
<td>2010</td>
<td>1070325.20</td>
<td>1021000.00</td>
<td>4.83%</td>
</tr>
<tr>
<td>2011</td>
<td>1345307.10</td>
<td>1302000.00</td>
<td>3.33%</td>
</tr>
<tr>
<td>2012</td>
<td>1409563.70</td>
<td>1359000.00</td>
<td>3.72%</td>
</tr>
<tr>
<td>2013</td>
<td>1524912.90</td>
<td>1568000.00</td>
<td>-2.75%</td>
</tr>
<tr>
<td>2014</td>
<td>1641456.30</td>
<td>1674000.00</td>
<td>-1.94%</td>
</tr>
<tr>
<td>Mean values of discrepancies</td>
<td></td>
<td></td>
<td>-0.25%</td>
</tr>
</tbody>
</table>
Thus, as it is shown by the calculation data presented in Table. 3, the coefficient of determination ($R^2$) = 96.34. On the average, the values of the discrepancies calculated using the regression equation obtained and the real values are 0.25%, which is low and indicates a high level of the statistical significance of the model.

Discussion
The problems of development of industrial infrastructure as a factor of economic growth are investigated in the works of V.B. Kondratiev (2010). Modern trends in the implementation of managerial and institutional measures associated with the formation of the concept of managing the infrastructure development of the country, regions and municipalities are explored in the writings of T.A. Vysotskaya (2003). In the works of S.N. Tretyak (2001) are presented: the processes of state institutions’ formation and development for the regulation and monitoring of industrial infrastructure, the development of toolkit for public-private partnerships, the development of special laws regulating the industrial infrastructure as a type of economic activity and the implementation of measures of state support for small forms of entrepreneurship in industrial infrastructure sectors that are not related to natural monopolies (2001). Studies of competitive relations’ development, the development of measures to improve profitability, the formation of an attractive investment climate, the development and implementation of management tools for industrial infrastructure in the regions are considered in the studies of S.I. Yakovleva (2002). The work of A.L. Pomerantsev (2009) is devoted to the application of various methods of economic and mathematical modeling in conducting research in various sectors of the economy with the aim of assessing the influence of various environmental factors.

Conclusion
The method of assessing the impact of the industrial infrastructure’s services on the parameters of the industrial complex’s economic growth of the region presented in the paper made it possible to prove that for each region it is possible to simulate a specific management model applicable to the region, expressed in an adequate set of factors for the region that have the strongest impact on the parameters of economic growth of the regional industrial complex.

Recommendations
The obtained results allow expanding the methodical base of the service economy, the toolkit for assessing the impact of the industrial infrastructure’s services on the parameters of the economic growth of the regional industrial complex. The results obtained can be useful for graduate and postgraduate students, researchers and doctoral students, as well as specialists of government bodies implementing in practice industrial policy and policies for the development of industrial infrastructure.

References
Case-Technology Functions In College Student Vocational Training

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Abstract

The relevance of the study is caused by the constantly increasing role of vocational education in the economy of most countries of the world. However, worker’s profession and specialty do not simply provide the country's economy with qualified personnel, but they allow for faster professional socialization of young people, promote the career growth of young professionals. And here the main burden belongs to educational organizations of secondary vocational education - colleges and technical schools. And to a large extent here the successful implementation of various professional educational programs depends on the educational technologies chosen by college teachers. In the framework of this study, one of the most effective pedagogical technologies used in the framework of secondary vocational education, case technology is considered, and its functions are presented. The purpose of the paper is to determine the methodological foundations of case technology’s functional application in the context of secondary vocational education. And also is the disclosure of possible difficulties in its implementation in the educational process. The main principles of this study are the principle of integration, the problem-based principle and the principle of variability, with the help of which it is possible to consider the specifics of case technology, its functions, in solving problems of secondary vocational education. The main functions of case technologies are realized, the realization of which in the framework of vocational training in colleges, contributes to the solution of problems of secondary vocational education. Potential difficulties in the implementation of case technology in the educational process are indicated, as well as the potential for coping with possible problematic situations in teaching with the help of case technology. The materials of this study can be used in colleges, as well as other educational organizations of secondary vocational education, as a methodological basis for the application of case technology and the formation of student competencies provided in the federal state educational standards of the Russian Federation.

Keywords: case technology, competence, problem-based training, innovative pedagogical technologies.
Introduction
The relevance of the problems stated in the study is due to a certain deficit of innovative methodical toolkit for teachers of secondary vocational education’s educational institutions, while implementing certain educational curricula. Teachers who apply case technology are often limited to several functions of this pedagogical toolkit and often face the impossibility of overcoming some difficulties when using this pedagogical technology. At the same time, limited use of case-studies’ full potential can be fraught with the incomplete formation of college student competencies, which may result in non-compliance with the requirements of the federal state educational standards of the Russian Federation (Bystritskaya & Yadryshnikov, 2015; Yadryshnikov, 2017; Gulinov et al., 2018).

The use of case technology is based, inter alia, on the problem-based principle, which allows using this technology in teaching any profession and (or) specialty of secondary vocational education (Temina & Andriadi, 2014, Bordovsky & Izvozchikova, 2005).

The principle of integration makes it possible to embed case technology in the educational process, including any information resource (Kraevsky, 2000; Yadryshnikov, 2017).

The principle of variability makes it possible to form an individual educational trajectory of a college student on the formation of competencies corresponding to the specialty of training (Malysheva, 2007; Khutorskoy, 2005 a,b).

Activating the students’ thinking activity, giving them the opportunity to make their own decisions and assess the consequences of decisions, allows using case studies to formulate both professional and general cultural competencies for college students, for example, to set goals, motivate other team members, take responsibility for the result from the accomplishment of a task (Surmin, 2002; Smolyaninova, 2000).

Sources of cases are often the main problem of a practicing teacher at a college. The modern era of information, the rapid exchange of data and the update of data give rise to a rather rapid obsolescence practically of any information resources. The case created by the teacher cannot remain relevant for a long time, which is an additional burden on the teacher because he has to track constantly information on his academic discipline, in order not to lose its relevance (Surmin, 2002; Fedorova, 2009).

However, to date, case technology has not found its systemic application in the system of secondary vocational education, or is considered not as a full-fledged pedagogical technology, but as one of the many pedagogical tools.

The given problems do not allow taking into account the latest achievements of pedagogy and other specialized sciences, and it can create risks of college student competencies forming not in full. Elimination of the problem of non-systemic, episodic application, or non-application, is possible only through constant improvement of the teacher pedagogical skills, systematic self-education and professional development (Yeremin, 2010; Prokhorova, 2010), in the system of secondary vocational education.

The functions of case technology, which are not fully realized in secondary vocational education (although the application of this pedagogical technology began in the XIX century), continue to promote its popularization in educational organizations of all levels of education. However, it is vocational education that has a pronounced practical significance, which makes this technology one of the most effective (Nikitin, 2013).

Methodological Framework
2.1. Glossary
Case technology is a pedagogical technology that is a comprehension of a real life situation, the description of which reflects not only the practical problem, but also actualizes a specific set of knowledge that is to be learned when solving the problem. However, the problem may not have unique solutions.

Competence is a formally defined by regulatory legal acts requirements for personality, professional and other qualities of a graduate of an educational organization.

Problem-based training is a method of teaching, in which the teacher ensures active interaction of students with the teacher and with each other in order to get acquainted with some or other contradictions and to find ways to resolve these contradictions.

Innovative pedagogical technology is a technology focused on the formation of the system creative thinking of students and their ability to generate non-standard ideas when solving educational and vocational and other tasks.

2.2. Literary Review on the Problem of Case Technology Functions in Vocational Training of College Students

In the framework of this study, we have identified the following reasons for introducing case technology into the practice of a college educator:

1. The need to improve the quality of educational services provided and the overall competitiveness of professions.
2. Necessity of FSES implementation and a prospective specialist training.
3. Getting competitive advantages by the student in the labor market.
4. Realization of teachers’ needs in constant professional development.
5. Execution of students’ and their parents’ inquiries, regarding the content of the provided educational service.
6. Motivation of students to receive education.
7. Organization of the educational process as a response to the social demand of society.

A small number of studies are devoted to the problem of considering case-technology, including the professionally-oriented functions of this pedagogical technology. Moreover, there are no fundamental works devoted to the application of case technology in the system of secondary vocational education. Nevertheless, the assessment of case technology, its functions, is reflected in the scientific turnover. For example, Yu.P. Surmin (2002) considers as the main functional feature of the case, “the student comprehension of the proposed real life situation, the description of which reflects not only the practical problem, but also actualizes the complex of knowledge that must be learned.”

Researchers I.K. Masalkova and M.V. Semina (2010) are observing in the case “description of a difficult life situation, whether it is the difficulties of the client or their own ones. In this case, the case is considered as a complex event, integrating a complex of simple events. At the same time, the problem inherent in the basis of the case, as a rule, is hidden, disguised”.

O.A. Ivanova, N.V. Tsegelnaya, O.M. (2011) Dementieva, note that the case-technology makes it possible to increase cognitive interest, improve the understanding of the educational material and promote the development of research, communication skills in the analysis of professional situations and decision-making on their resolution.

Individual training cases can be graded into "dead" and "living" ones. To "dead" cases it is possible to attribute cases, which contain all the information necessary for analysis. To "revive" the case, it is necessary to build it so as to provoke students to search for additional information for analysis. Of course, this is one of the main functional advantages of case technology, relative to others (Surmin, 2002).
Scientists N.V. Shestak, E.V. Chmyhova (2007), are considering cases in the educational activity of the university, which is also a natural thing. Researchers T.S. Panina (2008) also define case technology as a "training technique that uses a description of real economic and social situations." However, considering this technology more deeply, they define it as "a rather complex multidimensional learning technology, which is a specific type of research analytical technology, i.e. includes the operations of the research process, analytical procedures", defining this pedagogical tool as a "synergetic technology", the essence of which is in immersing the group in a situation, forming effects of multiplying knowledge, insight, inspiration, sharing discoveries, and the like. Thus, the above mentioned works mainly considered the functions of case technology, usually associated with the tasks of the research authors.

In this study, professionally-oriented functions of case technology in the system of secondary vocational education are considered. Due to the fact that research on this issue has not become an object of wide scientific study, the data obtained within the framework of this study will undoubtedly contribute to a wider and more effective application of case technology in the system of secondary vocational education. In addition, we are forced to state a certain limitation of case technology’s application, in the part of the academic disciplines of students. The case-technology is very fruitfully used in management, but insignificantly, in the Humanities.

2.3. The Problem of Studying the Functions of Case Technology in College Students’ Vocational Training

The following problem aspects became the condition of the research.

1. The need of the state and society in qualified mid-level cadres, enshrined in federal state educational standards, does not always correspond to pedagogical technologies, which often cannot ensure the formation of the required professional and general cultural competencies.

2. The application of case technology in educational organizations of secondary vocational education has problems, both technical and methodical.

3. The methodic of teaching in educational organizations of secondary vocational education has features.

Thus, the research problem has become the need to disclose the functions of case technology in the professional training of college students. The hypothesis of the research is the assumption that professionally-oriented functions of case studies in educational organizations of secondary vocational education will contribute to a more efficient process of forming students' general cultural and professional competencies.

Results

3.1. Characteristics of the Functions of Case Technology

Modern educational standards, which are an objective reflection of constantly changing social and economic conditions, put more serious problems before the students and even more so before young specialists than before the previous generation. Classical techniques and technologies of teaching are not able fully to ensure the formation of common and even more professional competences (this need is conditioned by the requirements of state educational standards). In this regard, it seems to us, quite interesting to consider the direct functions of case technology, a technology that is actively used in Russia and abroad when teaching economics, management, and business education, but still quite poorly represented, both in general education and professional disciplines in colleges.
If we consider the purpose of cases from a pedagogical standpoint, they fulfill several functions: research, teaching, practical and developing. All of them are in a dynamic unity, although in the didactic and scientific terms they are represented separately. The research function of the case is to obtain new knowledge or a way of activity. In this case, the case becomes a way of obtaining new knowledge - knowledge, which is significant for future professional activity. In this case, the teaching function of the case is reduced to mastering a new research method (case) and techniques for its application. In vocational education, cases are most often used for an analysis of typical practical situations describing real vocational activity. As a result of a single situation’s analysis, students' ability is formed to analyze problems, make decisions and outline them, and often with a lack of information and time, whereby the practical function of the case is realized. In work with cases, the main thing is often not the result (the decision taken), but the way of thinking, the approach and analysis of the situation, what pedagogical theory is used, how norms and rules were interpreted. Thus, it is important to develop a strategy for analyzing the content and structure of the case, learning to select the right information, building a logical sequence of reasoning, and establishing cause and effect relationships. With this approach, the developing function of the case is realized. Based on the data of the literature review, the reflection of vocational experience (conducting research in the State Budget Vocational Educational Institution "Nizhny Novgorod College of Small Business"), we identified a number of vocationally-oriented functions of case technology. In particular, the conducted research has shown the following results: The cases proposed to students (case studies on the law), observation of the students' discussion of the case, the decision-making process, allowed to rank the functions of case technology, according to their effectiveness.

Table 1. Ranking case studies’ functions

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<tr>
<th>№</th>
<th>Function of case technology</th>
<th>Rank</th>
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<tbody>
<tr>
<td>1</td>
<td>Practical</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Research</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Teaching</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Developing</td>
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</table>

Separately, it is possible to specify the culture-study function of case technology that stimulates the moral development of the personality of students, realized through the use of case studies (for example, on the law), plots from fiction or journalism.

3.2. Difficulties in Applying Case Studies in Colleges

When interviewing teachers who practice case technology, in such educational organizations of secondary vocational education as the State Budget Vocational Educational Institution "Nizhny Novgorod College of Small Business" and the State Budget Vocational Educational Institution "Nizhny Novgorod Economic and Legal College" Difficulties of teachers were:

1. **Weak scientific development.** The methods of teaching the academic disciplines, through case studies, occasionally become independent subjects of scientific research. Accordingly, the results of approbation of individual pedagogical techniques in scientific papers, the analysis of these approbations are extremely insignificant. Especially it concerns legal disciplines. It is also
worth mentioning about the systematization of those methodical developments of individual teachers, whose research interests include the techniques of teaching through case-technology.

2. **Methodical surrogates.** In view of the fact that case technology is quite fashionable, its use is not so rare. However, the case-technology is beginning to be perceived by teachers who do not have sufficient methodological culture, very superficially, it is often viewed not as a means of creative learning, but as a method of teacher inactivity. So, if the preparation of a classical lecture takes quite a long time, requires the mobilization of the teacher’s intellectual resources, serious creative rethinking of huge volumes of information, then preparation of some methodical surrogate, which the teacher calls a case, will not make much effort (Matusevich & Korovin, 2010; Tastan et al., 2018).

3. **Emotional load of the teacher.** The presence of disputes and arguments in the case structure mobilizes students and requires the teacher to be emotional enough, in the tone of the problem and the discussion. When discussing cases of legal topics on family topics, maintenance obligations, etc. the discussion can be very acute.

4. **Sources of cases.** Teachers can face significant difficulties in using case technology in the search for stories relevant to the topic of a particular lesson, as well as when choosing the most effective version of the lesson and the presentation of the situation. Teachers working on case studies can use their own developments or cases developed by other authors. In their practice, the authors of this work often use as sources - judicial acts (decisions, verdicts, orders) of the courts, which helps from the legal point of view competently to build each case (Yadryshnikov, 2017).

5. **The obsolescence of the case.** According to experts, with the unconditional availability of a "golden fund" of cases - which exist and can be used by educators for 20-30 years and continue to arouse the interest of students, on average, the case material can be used for 2-3 years, and in recent years there has been a tendency to increase the rate of obsolescence of cases. If we talk about legal disciplines, then, as mentioned above, when using judicial acts as sources, the teacher can use the information from the Internet sites of the courts of the Russian Federation, which publish their impersonal judicial acts. This helps make cases always relevant and topical (Mikhailova, 2005). The number of hours allocated for the study of discipline. The number of hours allocated by the educational standard for the study of disciplines, the teaching of which is conducted by case technology, does not take into account the applied pedagogical technology. Here it is possible to use hours allocated for independent extracurricular work of students, offering them to solve the case at home.

6. **Temporary spending of the teacher to write a case.** Writing a case is a very time consuming process, it is a full-fledged research work, which is sometimes simply incompatible with the practice of a Russian higher school: not only for an ordinary teacher, but for a professor with experience and knowledge and there is simply not enough time for such work.

7. **Rationality and efficiency of time use in the classroom (the teacher must differentiate the cases in complexity and correlate with the time provided for the solution of the case - within the framework of the training session)**

8. **Speech indicators of the teacher** (tempo, diction, intensity, imagery and emotionality) - insufficient possession of pedagogical techniques' elements by the teachers, which are basic for the implementation of the case.
9. *Interrelations of the teacher with students.* (Case technology requires a high level of interpersonal tolerance and empathy between learners and teachers, because it is based on a high level of creative interaction between them). Authoritarian style of teaching hinders using "brainstorming" and communication with students, etc.)

10. *Skills for cooperation and teamwork* (in training sessions this is a very important feature, it manifests itself in the organization of training activities in groups).

11. *Level of mastering the training discussion.* The presence of disputes, discussions and arguments in the structure of the case method requires the teacher to resolve and prevent conflicts, create an atmosphere of cooperation and competition at the same time, ensuring observance of students’ personal rights. Case technology requires a high level of self-regulation and self-discipline.

12. *Resistance of representatives of the teaching staff to the introduction of case-technology.* The implementation of case technology will be effective if it is used by teachers of different academic disciplines. In the works devoted to resistance to innovation, there are social, economic and psychological reasons for resistance singled out (Khutorskoy, 2005 a).

These difficulties in applying case studies are known to the scientific community and are being studied by a number of researchers (Yadryshnikov, 2017), on the basis of which the difficulties were ranked according to their importance (difficulties in overcoming them).

<table>
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<tr>
<th>№</th>
<th>Difficulties in case studies’ using by the teacher</th>
<th>Rank</th>
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<tbody>
<tr>
<td>1</td>
<td>Sources of cases</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Methodical substitutes</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>obsolescence of case</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Weak scientific development</td>
<td>4</td>
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<tr>
<td>5</td>
<td>Time spent by a teacher on writing a case</td>
<td>5</td>
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<tr>
<td>6</td>
<td>Relationship between the teacher and students</td>
<td>6</td>
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<tr>
<td>7</td>
<td>Skills of cooperation and teamwork</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>Level of proficiency in the training debate</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>Number of hours allocated for studying the discipline</td>
<td>9</td>
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<tr>
<td>10</td>
<td>Resistance of representatives of the teaching staff to the introduction of case-technology</td>
<td>10</td>
</tr>
<tr>
<td>11</td>
<td>Rationality and efficiency of time use in class</td>
<td>11</td>
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<tr>
<td>12</td>
<td>Emotional load of the teacher</td>
<td>12</td>
</tr>
<tr>
<td>13</td>
<td>Speech indicators of the teacher</td>
<td>13</td>
</tr>
</tbody>
</table>

Also, as a result of the research, a number of difficulties encountered by students learning through case-studies (through interviewing and observation) were identified. So, the following difficulties were revealed:

1. *Low motivation of students to study.*
2. *Basic knowledge.* Absence or low level of basic knowledge obtained in general education organizations.
3. **Ability to work in a team.** Low level of preparation for teamwork (work in groups).
4. **Passivity in class.** Passive participation in the discussion of problem situations of individual students.
5. **Infatuation with details.** Group discussion of the case can take away from the analysis and evaluation of the significant problems described in it (infatuation with details, concentration of attention on nonessential moments, incorrect treatment of events and, accordingly, false consequences, etc.).
6. **Emphasis on the problem.** Some students have difficulties in identifying problems in their own practical activities, as well as in writing literary presentation of case-self descriptions.
7. **Vision of alternatives.** During the discussion of the case, students often seek to find the only true solution, however, the teacher should encourage students to look for other options, offer to evaluate their strengths and weaknesses, the likelihood of risks (Temina & Andriadi, 2014).

A number of difficulties were noted in earlier studies, which are often encountered in the application of case technology. Analysis of the difficulties of students also allowed conducting a ranking, relatively their significance (difficulties in overcoming them).

### Table 3. Ranking difficulties for students using case studies

<table>
<thead>
<tr>
<th>№</th>
<th>Difficulties of students studying through case-studies</th>
<th>Rank</th>
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<tbody>
<tr>
<td>1.</td>
<td>Basic knowledge</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Passivity in class</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>Low motivation of students to study</td>
<td>3</td>
</tr>
<tr>
<td>4.</td>
<td>Infatuation with details</td>
<td>4</td>
</tr>
<tr>
<td>5.</td>
<td>Ability to work in a team</td>
<td>5</td>
</tr>
<tr>
<td>6.</td>
<td>Vision of alternatives</td>
<td>6</td>
</tr>
<tr>
<td>7.</td>
<td>Accent on the problem</td>
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These difficulties, both for teachers and students, allow us to talk about barriers in the effective use of all functions of case technology, but at the same time, the prospects for further methodical work on the issues of coping with these difficulties.

Thus, the implementation of work to overcome these difficulties is the main function of the implementation of case technology.

### Table 4. Correspondence of emerging difficulties to the functions of case studies

<table>
<thead>
<tr>
<th>Function of case technology</th>
<th>Difficulties of teachers and students in the application of case technology</th>
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<tbody>
<tr>
<td>Practical</td>
<td>Passivity in class</td>
</tr>
<tr>
<td></td>
<td>Infatuation with details</td>
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<tr>
<td></td>
<td>Accent on the problem</td>
</tr>
<tr>
<td>Research</td>
<td>Low motivation of students to study</td>
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<tr>
<td></td>
<td>Vision of alternatives</td>
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<td></td>
<td>Sources of cases</td>
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<td></td>
<td>Methodical substitutes</td>
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Thus, the case-technology is a modern, interactive, dialogue way of organizing the educational process, with undeniable advantages, as well as difficulties in its implementation. Of course, depending on the specific academic discipline, the number of difficulties can both increase and decrease. The solution of the above difficulties, as well as their occurrence, is in most cases part of the structure of the professional activity of the teacher, awareness of these problems is already a worthy step to the effective implementation of case technology.

**Discussions and Conclusion**
As we see in Table 1, the main functions of case technology have not the same value in training, but are important components of the effectiveness of this pedagogical technology. The data given in Tables 2 and 3 shows the full range of possible difficulties that the teacher and student may face when using case studies in the educational process, which are ranked by importance (difficulties of overcoming). Table 4 allows us to talk about the functions of case-technology, which allow us to overcome the above difficulties, both with the help of case studies and with their development (Gladkich, 2005).

The authors of this study have identified the main functions of case technology in the implementation of curricula of secondary vocational education. We analyzed and systematized the potential difficulties of applying case technology, both for college teachers and for the students themselves. In addition, the pedagogical conditions for the effective application of case technology in the structure of secondary vocational education were identified and provided. The main principles of this study are the principle of integration, the problem-based principle and the principle of variability, with the help of which it is possible to consider the specifics of case technology, its functions, in relation to the tasks of secondary vocational education.

**Recommendations**
The application of case technology is more perfect (at a certain stage), from the point of view of the effectiveness of teaching both general and professional disciplines, with respect to, for example, the classical type of study, as a lecture. A college student, considering specific situations with the teacher, in

<table>
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<th>Teaching</th>
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<tr>
<td>Basic knowledge</td>
<td>Obsolescence of the case</td>
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<tr>
<td>Ability to work in a team</td>
<td>Weak scientific development</td>
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<tr>
<td>Time spent by a teacher on writing a case</td>
<td>Interrelationship between the teacher and students</td>
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<td>Level of proficiency in the training debate</td>
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<td>Emotional load of the teacher</td>
<td>Resistance of representatives of the teaching staff to the introduction of case-technology</td>
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<td>Speech indicators of the teacher</td>
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the sphere of his future professional activity, does not just receive academic knowledge, but prepares for
the future profession.
One of the conditions for the realization of the functions of case-technology is the creation of the
following pedagogical conditions:
1. Personality of the teacher, his professional qualities and abilities in interpersonal
communication;
2. The creative abilities of the teacher - the search for sources for the study case and the ability
to create a case with a story from the future professional activities of students;
3. A differentiated approach to each student, taking into account his psychological capabilities;
4. Accounting for the continuity of knowledge obtained both in school and in an average
vocational educational institution - the systematic nature of instruction;
5. Unified conceptual apparatus in all educational organizations, when teaching academic
disciplines;
6. Extracurricular activities of the teacher and students should be inextricably linked with the
lesson;
7. Any topic for a case should carry in itself an educational aspect that forms the general
cultural competencies of students;
8. Logistical support plays a secondary role in the use of case technology, but interactive
learning tools (computer, interactive whiteboard) can help if necessary to demonstrate audio
or video material to training cases. As we noted above, the presented definition of case-
technology is not the only one, however, in general, the essence of the definitions of this
technology is one - training based on real situations.
Case technology, unlike most pedagogical technologies and techniques, teaches the ability to analyze
various volumes of information, build logical chains of cause and effect relationships, draw conclusions,
form the ability of learners to make decisions based on the information received from the teacher and
analyzed information. It can be used in the context of integrative learning (requires knowledge not only
in its specialty, but also in related fields).
Case technology integrates significant achievements in the technology of "creating success." It provides
for activities to enhance students, to stimulate their success, emphasize the achievements of students
(Goncharova, 2005). Collective discussion when solving the case contributes to the formation of communication skills among
students, positively influences their further socialization. Consequently, the accumulated experience in
decision-making, individual thought structures (cognitive schemes) are formed, which allow significantly
reducing the time of decision-making in the future professional activity.
Thus, we can state the high importance of the research conducted, the use of the results of which in
vocational education will not only increase the effectiveness of such education, but also contribute to the
formation of general competencies, bears the educational aspect, is necessary to fulfill the requirements of
the Federal State Educational Standards, the Strategy for the Development of Education in The Russian
Federation for the period until 2025.

References


Yadryshnikov, K.S. (2017). Formation of the legal culture of students through the integration of case technology and audio-visual didactic means (on the example of the television program "Revizorro"). *Bulletin of the Nizhny Novgorod University named after N.I. Lobachevsk.,* 4(48), 213-223.

Yadryshnikov, K.S. (2017). Case-technology as a pedagogical tool forming the ability to analyze and make decisions in students. *Journal of scientific publications of post-graduate students and doctoral students,* 1(127), 34-35.


The Russians' View Of Bashkir Culture As Predominantly Traditionalistic One

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Abstract
The topicality of the research is determined by the fact that peoples and cultures are interacting continuously in the modern world; the character of such interaction consists in tension, misunderstanding and possible intercultural conflict; although globalization sets a trend towards formation of supranational cultural space, the current stage emphasizes problems of cultural localization and cultural communities individualization. The article aims at determining the reasons for the current cultural situation transformations and indication of the topical character of the cultural coexistence and interaction problems. Globalization processes aiming at a certain degree of totality face cultures' strivings to preserve their national, ethnical and religious identity at any rate. This paper studies peculiarities of cross-cultural interactions of Russian and Bashkir people. The scope of the authors' study includes consolidated vies of Bashkiria and Bashkir people created in the Russian culture by artistic and publicist discourse. The main approach is the historical one which allows to examine the issue in its development within the common historical and cultural space, detect the complex of cause-and-effect relations in the process of the “alien” image formation. The article proves that stereotypes and simplified schemes are a significant mechanism of image formation and aim at emphasizing traditionalism of Bashkir culture, contrasting value targets, traditions and customs of the two cultures. The study results allow concluding how the processes of social perception of Bashkir culture work in the Russians' minds and how these images and stereotypes affect cross-cultural interaction processes. The article is of practical value as its results can be used in comparative studies in other regions both in Russia and in the world. The conclusions of the research can be taken into consideration by the authorities when planning the cultural policy in the region. The results can be used both when studying intercultural processes and by culture experts, sociologists, ethnologists and historians when studying social and cultural peculiarities of ethnic groups interaction and analyzing ethnic and cultural issues and processes.

Keywords: cross-cultural interaction, Russians, Bashkirs, image, stereotype.
Introduction
Cross-cultural interaction is the major category of culturology that allows defining the culture as an open and constantly developing process touching on other phenomena with its own specific laws and peculiarities. The key structural elements of cross-cultural interaction include space, time and ethnical composition of interacting subjects that, in their turn, uncover peculiarities of the cultural field formed in a specific region and allow to speak about conceptual spheres interaction (Vasileva, Karpicheva & Tsurkan, 2013).

The typical feature of regional cultures is their existence in a specific geographical area. The cultural space of Southern Ural region is an aggregate of different cultures (Krivoshlykova, 2014) created by several peoples inhabiting the territory of which the most prominent are Russian and Bashkir people. Similar natural living conditions in the area and territorial connections ensured similarity of these peoples' cultures. The same geographical, climatic and sociocultural peculiarities of the people's living in the region have influenced the creation of the unique culture of the Southern Urals (Yamaeva, 2016). One should note that the Southern Urals cross-cultural interactions space is a historical and multi-faceted concept. Cross-cultural interaction between Russian and Bashkir ethnical groups being an integral part of the regional geoculture has an archetypical nature due to the history of joint habitation, nature use and economic activities (Kurban & Krivoshlykova, 2012).

Despite the long history of Russian and Bashkir contacts Russian culture's attention to Bashkir topic is seen only early in the 19th century within the framework of artistic and publicist discourse (Volkova, 2013a). The work uses literature and publicist works as the material for analysis of key images of Bashkiria and Bashkir people formed in Russian's social conscience. It is them that can create a special semiotic space, criteria and parameters whereof have been studied by Y.M. Lotman (2000). He viewed the culture as an aggregate of semiotic systems and was proving "lawfulness of applying the same categories the efficiency whereof was proven in general semiotics to analysis of culture" (Lotman, 2000). The above selection is also due to the literature's (as an art form) capability of faster and sharper response to changes in the culture. Artistic and publicist works that reflected peculiarities of day to day living of Bashkir people were making the image more visible and comprehensible. The Russians' attention was drawn to the description of the way of life, worldview and mental features of Bashkir population, “which determines the topicality of such research” (Pitko, 2015).

Methodological Framework
The following methods were used: historical approach that allows to examine the issue in its development in the frame of general historical and cultural space, detect the complex of cause-and-effect relations in the process of the “alien” image formation. The synergetic approach is used to analyze cultural development and evolution issues as well as those of their interaction. The discourse analysis method allowed to carry out the study of fiction and journalistic works where collective views of the Russians about Bashkiria and the Bashkirs. The interdisciplinary approach is used for holistic comprehension of intercultural interaction issues that are revealed in stereotyping being a complex cultural phenomenon.

Results
Therefore, the stereotypical image created by Russian writers' works represented Bashkir people as adherents of traditional way of life resulting primarily from regulations and religious dogmas most clearly manifested in familial and household ways of Bashkir people. Russians' attempts to make Bashkir
ways of life similar to Russian ones were imperative. The civilizing mission being Russians' autostereotype of its kind included eliminating Bashkir population incompetence in different spheres of life and teaching them rules and regulations of Russian culture.

Another important component of the stereotypical image created by Russian are views of mental peculiarities, character traits and psychology of Bashkir people that most clearly describe social relations, daily culture of Bashkir people as well as their customs and holiday rituals. These stereotypes are fruit of either immediate contacts or observations of Bashkir activities in their natural environments and habitats. These views play an important part in inter-personal interactions as they can motivate one's own behavior and making behavior of another group's representative predictable and expectable. Views of mental peculiarities and psychologies as one of components of Bashkir ethnocultural stereotype correlate with steadily preserved personality types as well as personality traits that are modal for all representative of Bashkir society. These views are based on solidly fixed perception of Bashkir culture as an eastern type one. The modal personality of such society is an introvert immersed into its own inner self.

Discussion
The Russians' view of Bashkir culture was based on the opinion of traditionalism that, at different stages of cross-cultural interaction and in different historical eras, was manifesting itself in Bashkir commitment to Islam, preservation of pantheistic worldview, maintenance of traditional models of family and society relations as well as commitment to age-long customs in day-to-day and holiday culture. One should note that the image of Bashkiria and Bashkir people in the Russians' conscience was based on simplified and schematic images of the ethnical group or stereotypes. Bashkir culture was perceived from Russian ethnocentric positions i.e. via comparison of their own and other ethnical groups due to which the trend towards intra-group favoritism and imperativeness arises (Krivoshlykova, 2014). Traditions and values of Russian culture are viewed as a benchmark and elements of Bashkir culture are viewed as deviation from the benchmark.

Such interactions are partially due to different development models of Russian and Bashkir societies. For example, Russian culture expert, I.G. Yakovenko (2008), sets forth the concepts of "extensive" and "intensive" in the culture that characterize not only the technological sphere and economic relation but also the "human relation to the natural and social universum". Relying on I.G. Yakovenko's (2008) concept, L.A. Yamaeva (2016) emphasizes presence of nomadic mentality elements in Bashkir mentality and Bashkir traditional society's focus on extensive development that was occurring under conditions of excessive resources (abundant land lots and woods, pastures, water pools). She notes that the traditional semi-nomadic economy based on herding, hunting and forestry was, in many aspects, determining Bashkir living strategy.

Contrary to Bashkir society, the Russian one, under resource deficit conditions, focuses on intensive development, activity, usefulness, dynamism, production of pecuniary valuables. Due to the above, the us and them antithesis was based on Russians' viewing themselves as Europeans, carriers of more advanced and progressive ideas and Bashkir society as lagging behind, hidebound and backwater one.
General backwardness of Bashkir people, in Russians' opinion, characterized Bashkir as uneducated, uncultured and even wild people. This opinion dominated the general public until 1920s. The schematic and simplified image of Bashkir people was frequently based on negative views of their way of living, traditions, beliefs while the latter was extremely important and significant for Russian conscience. The Russians embodied power in these relationships as they conquered Bashkir lands, consequently, the culture of this people was
Considered behind the times, “not corresponding” to the imperial one. Such an approach was in many ways conditioned by the mythologization of the Russian Empire power (Postnikova et al., 2017). R. Steiner, when studying otherness indicators in different cultures, noted: "If the other is an alien for an Italian, barbarian for a Frenchman, an enemy for German, a competitor for an Englishman, the other is a godless pagan and evil gentile, i.e. European peoples view the others as a threat to the spirit, culture or substance, while Russians view them as a threat to their religious sentiments..." (Koreneva, 1998).

According to Russian observers, traditionalism was the feature of Bashkir worldview manifesting itself primarily in Bashkir commitment to Islam. In his travel sketches, Along the Urals and Among the Bashkir People, the scientist, S.G. Rybakov (1899), after the expedition of 1894 to the inner Bashkiria, wrote: "Their religious zeal and infinite commitment to their faith represent the entire power of Islam making uneducated, abstruse and dull Bashkir people pay their due to Allah. I must confess that such religiousness is hard to come by among our people given their bad religious education". Bashkir commitment to Islam is Russian authors' works was an important mechanism of breaking into us and them and was viewed negatively quite often.

In his novel, On the Great Summer Trail, A.V. Kozhevnikov (published in 1927) wrote: "In this early morning hour, from all minarets of Bashkiria hands of slaves obedient to Allah were stretching towards the sky. It seemed that muezzins were chained to their minarets as prisoners and pray for aid and mercy" (Kozhevnikov, 1980). To create the image, derogatory comparisons are used which, in progressive conscience of Russians, does not contradict their idea of their own group superiority. Bashkir way of life was viewed as far too conservative and backward interfering with the development.

It is possible to say that throughout the 19th century and until the 1920s, Russian culture had been dominated by sustainable images of Bashkir people as adherents of Islamic traditions. Russians as carriers of advanced ideas considered it a hindrance complicating further sustainable development of Bashkir people.

Adherence to Islamic cultural traditions is most acutely demonstrated by familial traditions and status of Bashkir women. Rightlessness of women due to adherence to Islamic customs was evident in wedding customary practices of Bashkir people: inability to choose a husband independently, marriages agreed upon by newly-weds' parent, early marriages, bride-money payments, polygamy, different prohibitions and restrictions (Krivoshlykova, Gul & Syngizov, 2014).

The fate and image of Bashkir women were evident and contrasted with those of Russian women. During his travels in Orenburg Region in the 1830s, V.I. Dal (1989) wrote about Bashkir polygamy as follows: "...Muslims' polygamy has always been a reason to familial strives that only hidebound Islamic souls may be tolerant to" thus emphasizing intolerance of polygamy in Russian Orthodox families. One must note that status both of Russian and Bashkir women was equally poor, but the fate of the latter was aggravated with rules and regulations of Islam, which in Russians' opinion made their position even worse.

One should note that as of the Soviet period, the above stereotypes are not updated in works of literature and journalistic works. Ideological influence methods of Soviet art and literature aimed at struggle against religion and fostering atheistic worldview.

Pantheism was one of basic characteristics of Bashkir traditionalism on par with Islamic traditions. Throughout the history of cross-cultural contacts, Russians paid special attention to organic combination of Islam and pre-Islam beliefs in Bashkir culture. The syncretic nature of Bashkir worldview manifested itself in predominance of animistic and totemistic views that were reflected not only in ancient
cosmogonic epic works of Bashkir people but also in their very way of life that was reflected in the ethnic conceptual sphere if this people (Volkova, 2013b; Tastan et al., 2018).

Characterizing Bashkir positions, S.G. Rybakov (1890), an ethnographer, wrote: "Ufa Governorate is predominantly alien. Russians are a minority there and it is inhabited mostly with gentile Muslims and partially with pagans..." (Mamin-Sibiryak, 1958).

According to V.S. Yumatov (1989), a historian and publicist focusing on ethnogenesis matters, the very ethnonym "Bashkir" is organically connected with the world of nature: "The Bashkir calls itself the "bashkurt" from which the modern "Bashkir" or "bashkirets" as we Russians call them derives. There are many explanations of the word "bashkurt"... It means an "elder wolf" or a "wolf head"; and some believe that it means a "beekeeper" (Yumatov, 1989) (published in Orenburg Governorate News in 1847).

According to Russian writers, poetization and aesthetization of nature is an integral part of traditional Bashkir culture. One of characteristic features of Bashkir people is an emotional and sensual way of understanding the world and pictorial and imagistic view thereof. The cult of nature, veneration of holy rivers and mountains are reflected in views of Bashkir people who, fearful of natural forces, asked them for protection and guidance. The literature reflected the stereotype of Bashkir pantheism: "... still, the Urals saved the rebels. They covered them with their woods, gave them rest, cold spring water and poultry" (Kozhevnikov, 1980).

Close interaction with their habitat and initially nomadic way of life of Bashkir people contributed to formation of special animal handling skills. The works of such writers as P.P. Bazhov (1976), S.P. Zlobin (1997), A.G. Turkin (1988), A.M. Fedorov (1993), and others emphasized almost inborn horseback riding skills of Bashkir people: "Bashkir people are inborn horsemen. When meeting someone, they first look at the horse and then at the men". "Beautiful bold horses spending half of their lives as free animals, silver stirrups, fur hats, ragged beggar clothes, sun-tanned breasts and Asian faces of the rider in the scorching sun of the steppe — all these things taken together formed a beautiful picture" (Zlobin, 1997). "Five years old, Abraham was already clutching the gelding's mane and learning to ride. On par with other teens, he was boldly riding streets and roads to behind the paddock where silent and meek fields lay" (Turkin, 1988). "Sometimes as fast as wind itself // Bashkir comes riding on horse-back" (Fedorov, 1993).

The stereotypical image of Bashkir people as horse-thieves and thieves became widespread. The phenomenon was wide-spread among Bashkir people in connection with multitudinous cases of cattle and mainly horse thievery which was an indication of extreme boldness, courage and dexterity among Bashkir people. In Russian culture, the horse is considered traditionally not the warrior's attribute but the means of livelihood. Depriving a Russian peasant of its horse equaled leaving it to die of hunger. That is why, the literature is full of negative views of horse-thievery. For example, A.M. Fedorov's (1993) short story, Bashkir Reed Pipe Player, describes how Ignat, a Russian peasant, nicknamed Fist, accuses the locals: "Bashkir are the worst horse-thieves".

Unbreakable ties of Bashkir people with nature contributed to creation of the image of Bashkir people as children of nature in Russian literature and journalistic works: "The area still remains primeval wild, the Bashkir the same naive albeit humbled children of this mountainous land", noted S.G. Rybakov (1899). M.V Avdeev (1868) upheld the above: "The Bashkirets is a wild foster child of steppes, mountains and woods...". In his 1883 novel, Privalovskie Millions, D.N. Mamin-Sibiryak (1958) calls Bashkir people "the children of blooming Bashkiria...". Stereotypical view of Bashkir people as children intensified the idea of necessity of Russian influence, Russians' assistance to Bashkir people who have no adequate powers for independent development at the given stage.
One should note that the spread of thievery stood in connection with poor economic conditions of Bashkir rural residents. Most Bashkir estates were declining due to expropriation of their lands in favor of Russian landlords and manufacturers and forced shift of Bashkir people from traditional forms of economy to agricultural one. Still, the literature teems with views that Bashkir psychological features such as their tendency towards laziness and procrastination were the reasons of catastrophic situation of Bashkir people.

In Russians' opinions, these traits of Bashkir character are viewed via the us and them dichotomy with frequent use of comparisons. The positive or negative nature of such opinions is irrelevant here. Where traits of Bashkir character are perceived negatively, emphasized are opposite (positive) traits of Russians, and vice versa: "Our (Russian) man works every day since spring, tilling, planting or harvesting, the bashkiets only sits drinking fermented milk till he drops or yokes a wagon and takes his entire family to visit someone for several days! ...is it not the Asian luxury?" (Avdeev, 1868) – the character of Mr. M.V. Avdeev’s (1968) work Fermented Milk Drinking Visit (published in 1907) is indignant. In the above abstract, the author uses a binary opposition comparison of Russian and Bashkir people where a negative view of the other is constructed via a positive view of one's own ethничal group and its features. Therefore, Bashkir are viewed as lazy idlers while Russian as hard-working and industrious people.

The same method is used for analysis of positions of Russian and Bashkir people in A.M. Fedorov’s (1993) short story Bashkir Reed Flute Player where the protagonist tells Bashkir people: "You are surely used to hunger. Be it a thick or thin year, you are hungry anyway because you are lazy bones. Had we as much land as you do we would be eating bread and butter everyday" (Fedorov, 1993).

Thus, the above examples demonstrate attributive indicators of perception of Bashkir people who are attributed a characteristic (here, laziness) based on their group membership. It is indicative that Bashkir people's hunger is explained by their inherent qualities such as laziness and not by external circumstances such as thin year. Extreme poverty and hunger turned people into criminals as hunting and fishing were not always able to provide the livelihood of the poorest strata of Bashkir society.

Stories and legends of brave and bold Bashkir hunters emphasizing organic union of Bashkir traditions with nature were of almost an epic nature. "Now I remember my grandpa's tales of a Bashkir man who hunted lynxes and bears. His bravery bordered on foolhardiness. He always went hunting bears entirely alone and armed with a poor gun and a knife. People said that the Katyrgul had killed over fifty bears throughout his life..." (Krasheninnikov, 1993) runs the saga Genesis of Bashkir People by N.A. Krasheninnikov (published in 1902).

The image of Bashkir society has been constructed by drawing Russians' attention to details and elements emphasizing the eastern nature of Bashkir culture. Describing Bashkir way of life, M.V. Avdeev (1868) wrote: "They are Asians, Asians indeed! ...Asian luxury is everywhere!".

Another important component of the image representing the eastern outlook of Bashkir culture are Bashkir guest welcoming traditions. The topic of Bashkir hospitality and cordiality is widely dwelled upon in Russian literature and journalism works. After travelling the "old Bashkiria" in mid-1850s, V.F. Zefirov (1989), an essayist, describes this feature of Bashkir way of living as follows: "...presently, the masters have come and opened the gates without asking who goes there. It is another important feature of Bashkir hospitality... With Russians, you rarely see such simple hospitality and eagerness to serve nowadays, if only somewhere deep in the wilderness" (Kozhevnikov, 1980). Hospitality and cordiality of residents of Bashkiria is a topic of works by N.A. Krasheninnikov (1993) who frequently communicated with Bashkir people personally: "Bashkir people are generally hospitable..." (Koreneva, 1998).
by the above authors emphasize such character traits of Bashkir people as their spiritual generosity and unselfishness of the locals despite their dire straits.

Traits of eastern traditions manifested themselves peculiarly in familial relations of Bashkir people. Another quite widespread stereotype of Bashkir people is their image of people venerating the elder. Respect of the elder fostered in Muslim traditions is another character trait of Bashkir people. V.F. Zefirov (1989), an ethnographer and publicist, wrote about it in his article in Orenburg Governorate News in 1851: "...this custom of their applies not so much to veneration of the guest as to respect of the father. The son would offend his father, had he allowed himself to seat down in presence of another person, especially a stranger. It is a laudable custom worthy of emulation (Zefirov, 1989). Travel sketches by S.P. Zlobin (1997) published in 1928 in the Krasnaya Nov magazine also emphasize respect of their sires by Bashkir people: "Bashkir venerate their fathers generally. They like telling stories about them and drafting their genealogies" (Zlobin, 1997). This Bashkir tradition was praised by Russian authors as a laudable character trait.

Another component of the image representing the eastern outlook of Bashkir culture are Bashkir guest welcoming traditions. The topic of Bashkir hospitality and cordiality is widely dwelled upon in Russian literature and publicist works. K.Y. Vanshenkin's (1986) poem, At Nazar Najmi's Place, dating back to 1950s runs: "But he explained to me that guests // Are their hosts' treasures, and // It's the essence, it's the base of // Eastern hospitality". Stereotypical generosity and Eastern hospitality of Bashkir people are still valid nowadays.

Works of Russian literature provide multitudinous examples of laziness and careless idleness of Bashkir people: "Basically, Bashkir are very direct in expressing their wishes, which is intensified by Bashkir people being extremely fond of performances and leisure..." (Rybakov, 1900). Describing Bashkir way of life, M.V. Avdeev (1968) wrote: "They are Asians, Asians indeed! They have Asian luxury is everywhere!". In Russians' view, the image of Bashkir people was unbreakably linked with holiday culture traditions. Traditional holidays and festivities of Bashkir people such as Sabantui or Kurban Bairam were, according to Russians' observations, accompanied with races, competitions, singing, dancing and frolicking.

**Conclusion**

Therefore, an important component of the stereotypical image of Bashkir people in Russian culture is traditionalism of Bashkir culture manifesting itself primarily in beliefs, traditions, customs, familial and household ways and everyday culture. The characteristic traits of Bashkir traditionalism are commitment to Islamic ethics as well as preservation of pagan beliefs (pantheistic worldview) in Bashkir environment. Studying the peculiarities of Bashkir culture from Russian ethnocentric standpoints, Russians believed that their sojourn in the region is necessary for the purposes of enlightenment. Bashkir ways of life were perceived as precultural, wild or primeval. Russians' objectives in the region were enlightenment of Bashkir people, assisting them in conquering their archaisms, their accepting the "proper" religion (Christianity), sharing with them Russian cultural values believed to be more developed.

Russian culture formed a relatively integral system of stereotypes of Bashkir mental traits with these views based on perception of Bashkir culture via benchmarking it versus the construct of the eastern culture. The key mental traits of Bashkir people most often mentioned by Russians are Bashkir respect of guest (hospitality), veneration of the elder, naivety, aptitude towards idleness and laziness, love of their native land and personal dignity.
The key methods for creating the image of Bashkir people are those of comparison and analogy where Bashkir cultural traits are viewed through the us and them juxtaposition. Descriptions and literary tropes such as metaphors and epithets are used widely to emphasize the eastern outlook of Bashkir culture.

**Recommendations**

The article is of practical value as its results can be used in comparative studies in other regions both in Russia and in the world. The conclusions of the research can be taken into consideration by the authorities when planning the cultural policy in the region. The results can be used both when studying intercultural processes and by culture experts, sociologists, ethnologists and historians when studying social and cultural peculiarities of ethnic groups interaction and analyzing ethnic and cultural issues and processes.

**References**

Pedagogical Consulting Is An Extensive Strategy Of University Educational Process Modernization

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Abstract
The relevance of the study is determined by the trends in the expansion of intensive (basic) and extensive (additional) educational strategies of the university, among which pedagogical consulting is positioned as an extensive strategy of projecting and implementing counseling assistance to teachers and students in resolving problems related to the transformation of educational and cognitive activities and personality professional self-development. In this connection, the main attention in this paper is devoted to the development of the theoretical and methodical approach to the justification of the pedagogical consulting mechanisms established during the research as an extensive strategy for modernizing the educational process of the university. As the leading method of research, the project method is used, which allowed using creative consulting practices to substantiate the structure and content of projecting mechanisms for the pedagogical consulting model (diagnostics, problem-basing, conceptualization, formation) and to determine the established mechanisms' importance in modernizing the educational process of the university. The paper discovers the discourse of pedagogical consulting as an extensive strategy for modernizing the educational process of the university; the integration of pedagogical consulting creative practices (tutoring, moderation, coaching) is established; Based on the results of the study, the structure and content of the mechanisms for projecting the model of pedagogical consulting (diagnostics, problem-basing, conceptualization, formatting) are justified. The importance of the revealed mechanisms is proved with the help of the student's readiness criteria for their implementation in the conditions of the educational process of the university; in the creative activity of consulting projects; in the research work of the university, in the process of educational practice. The materials of the paper can be useful for university teachers, Methodists, students.
Keywords: pedagogical consulting; mechanisms of pedagogical consulting; tutoring; coaching; moderation; modeling; educational strategies; projective method.

Introduction
The relevance of research. Educational activity of the university today is largely determined by strategies for expanding intensive and extensive development paths (Azimov & Shchukin, 2009; Vershlovsky, 2008; Frigozhin, 2003; Talysina, 1975; Hacken, 2005). Without questioning the basic (intensive) strategies (the educational environment of the university, the content of the educational process, information technology, scientific and methodological provision), universities attract additional (extensive) strategies to them: the power of new means of supporting the educational process (computer, internet, robotics); the transformed structure of academic time; research work of students; resources, integrated research centers and production facilities with universities, etc. (Belitskaya, 2012; Block, 2007; Solovyova, 2008; Shane, 2008). In combination, these strategies ensure the effective solution of university tasks in the training of a specialist - an intellectual who can formulate educational and professional problems, develop ways to implement them, critically evaluate the results obtained, who can manage their own intellectual knowledge, competencies and can relate them to the interests of other subjects of the educational process (Anisimov, 2002; Block, 2007; Pevzner, 2006). But the modern picture of the world, which is changing under the influence of global problems, reveals from a new angle the features of this process, which requires non-standard results that are outstripping the results achieved by all subjects of educational activity (Giddens, 2004; The European Employment Strategy, 1997; Christensen & Eyring, 2011). In this regard, an important aspect is the expansion of the educational strategy of the university and their addition by modern effective directions, among which the theoretical and practical importance of pedagogical consulting is defined as an indispensable condition for the success of current and forthcoming educational goals and objectives, the effectiveness of the student's personality and professional formation as a future specialist with expert knowledge and possessing successful organizational and activity-based technologies of pedagogic counseling (Vorovshchikov, 2006; Lukashenya, 2012). Therefore, the interest of university collectives to the problems of pedagogical consulting is natural, which is identified in modern practical activity by inertia with the processes of raising the level of professional skill, advising young teachers and students in solving the organizational and methodical issues of the educational process and implemented at three basic levels:

- The first level: internal methodical studies, consultations of Methodists and specialists of the organizational-methodical department, methodic associations in the areas of activity, methodical council, attestation of specialists;
- The second level: training of specialists at the city level (seminars, conferences, training in information and methodical centers), distance counseling and training based on Internet technologies;
- The third level: training of specialists in higher educational institutions: special education, second higher education, magistracy, postgraduate study, research, defense of candidate and doctoral dissertations (Dudchenko, 2004; Kovaleva, 2010; Lukashenya, 2012; Skolkovo Mentor curriculum, 2007; Sokolova, 2013).

It is determined that due to the lack of theoretical and methodical grounds for design and implementation of pedagogical consulting, the stereotype of its understanding as a system of rendering organizational and methodical assistance at the identified three levels is preserved (Trigwell, Prosser & Waterhouse, 1999). Therefore, it is still difficult to talk about a holistic scientifically grounded
understanding of the process of projecting and implementing pedagogical consulting strategies in the educational process of the university. Priority attention on the part of researchers is paid to the development of a theoretical and methodical approach to the justification of the pedagogical consulting mechanisms established during the research as an extensive strategy for modernizing the educational process of the university. The paper discovers the discourse of pedagogical consulting as an extensive strategy for modernizing the educational process; the integration of creative practices of pedagogical consulting (tutoring, moderation, coaching) is established; based on the results of the study, the structure and content of the mechanisms for projecting the model of pedagogical consulting (diagnostics, problem-basing, conceptualization, formatting) are justified. The importance of the revealed mechanisms is demonstrated with the help of the student readiness criteria for their implementation in the conditions of the educational process of the university: in the creative activity of consulting projects; in the research work of the university, in the process of educational practice. The solution of these directions is the leading idea of the conducted research.

Review of the Literature
In the course of the research, an important contribution was made to the formation and development of pedagogical consulting ideas of research results by well-known specialists P. Block (2007), M. Cope (2007), A.I. Prigozhin (2003), K. Trigwell, M. Prosser & F. Waterhouse (1999), G. Hacken (2005). In these works for the first time the stages of projecting consulting as the management model of any system, including the pedagogical model, were justified in such a sequence: the development of a theoretically grounded concept; definition of implementation procedures; creating a toolkit for each stage; presentation of measurement criteria and methods for determining the results of the idea implementation; clarifying development strategies for the future. Developers of the fractal algorithm of consulting activity in the educational process of the university (Golvi, 2005; Gorshkova & Bukharkova, 2006; Dudchenko, 2004; Clayton, Christensen & Eyring, 2011; Lukashenya, 2012; Pevzner, 2006; Pelmenev & Lukashenya, 2014; Tastan et al., 2018) rightly deduce the logic of consulting modeling to the definition of design, the projecting of actions’ strategy, the planning of real actions at the level of solving problems and conditions for implementation, organization of feedback, evaluation and analysis of results, development of strategies for the development perspective. In all approaches, an identical indicator can be traced - the integrative core of advisory, managerial activity. In this regard, the projecting of the general logic of modeling the mechanisms of student consulting in the educational process of the university concentrates around the idea of self-transforming management activity, which consists in the selection and implementation of critical points of bifurcations (transformations): diagnostics, problem-basing, conceptualization, and formatting. Established approaches were used in the course of research as a conceptual basis for projecting and implementing mechanisms of pedagogical consulting model in the educational process of the university.

It has been determined that to date specialists on consulting in the educational process of the university do not have a defined status, although they have united into a special professional group. The tendencies of formation and development of such groups are traced in the works of modern researchers by analogy with established models of consulting in economic spheres and in the spheres of PR activity (Anisimov, 2002; Kovaleva, 2010; Sokolova, 2013; Solovyova, 2008; Shane, 2008). It is established that, despite the uniqueness of consulting models in various spheres and business sectors, economic, legal, economic, trade and other types of activity, they have common grounds, which allows classifying, study and using their experience in the educational process of the university. In the projecting and implementation of
practice-oriented models of pedagogical consulting, the possibilities of projective, game-technical, problem-based, modular technological methods are presented (Azimov & Shchukina, 2009, Anisimov, 2002; Vorovshchikov, 2006). The possibilities of using these techniques in the process of implementing educational strategies to provide the necessary advisory assistance to teachers and students in independent decision-making on introducing changes in individual practice, in managing the modernized structures of the educational process are being proved. It is established that such rendering of consulting services in the educational process of the university today is an attribute feature of its innovative development (Pelmenev & Lukashenya, 2014). In the course of the research it was proved that despite the active interest in the problem of pedagogical consulting on the part of representatives of science and pedagogical practice, there are many open questions in its study, including those related to the development of the organizational and methodical structure of the consulting service that provides teachers and students with the necessary creative aid (Vershlovsky, 2008; Vorovshchikov, 2006).

Results

Pedagogical consulting: discourse of extensive strategy
Consulting - advising of manufacturers, sellers, buyers, and teachers, students on economic, educational and legal issues (Dictionary of the Russian language of the late twentieth century, 1998). According to the definition given by the European Federation of Consultants Associations on Economic and Management (FEACO, 1004), the consulting is to provide independent advice and assistance on management issues, including identifying and assessing problems and / or opportunities, recommending appropriate measures and assisting in their implementation (FEACO, 1994). Recommendations FEACO allow you to establish a correct understanding of pedagogical consulting as an extensive strategy aimed at the professional activities of experts - experts in the educational process to provide the necessary advice to managers, teachers, and students in solving problems related to educational and personality vocational development. The special importance of this aspect of activity is emphasized: the provision of services is carried out not through one-off consultations, but primarily in the form of consulting projects that implement analysis, development of solutions, implementation of solutions, and evaluation of the results of the problem being solved (FEACO, 1994). Based on the established recommendations of the FEACO in the course of the study, the structure of management services for pedagogical consulting is justified, like the content of an extensive strategy for modernizing the educational process of the university:
- theoretical: development and planning of extensive strategies for the development of the teaching staff; forecasting and development of strategic, tactical and operational goals of the educational process; the development of a model of a specialist - consultant;
- Personnel management: selection of employees, quality control of personnel, training and education of specialists, organization of labor protection and medical care, the psychological climate in the team;
- the current management of the consulting process and its maintenance: ongoing planning and organization of activities, quality control of the services provided, technological support, organization of R & D;
- Marketing and realization of services: training of experts in advertising, selection of permanent consumers of services, expansion of services, stimulation and research of prospects for the development of services;
- Information technologies: use of information and Internet resources in the management of consulting services;
- Project management: solution of a complex of management problems arising in the process of solving emerging non-traditional problems;
- Safety issues of the educational environment: awareness of the problem of security, the organization of preventive security measures;
- Professional development: this type of services is carried out in the form of courses, conferences, seminars, workshops, trainings, which can be carried out both in the classrooms of the university and online. Training sessions are conducted in a form that is as close as possible to practice (moderation, coaching, tutoring). In addition to carrying out the training function, trainings contribute to the development of communicative competencies and interaction between the consultant and the subject of consulting.

Creative practices of pedagogical consulting (tutoring, moderation, coaching)

In the course of the research, in accordance with the goals of projecting and implementation of advisory services, the structure and content of the integration resources of creative consulting practices - coaching, moderation, tutoring, were justified and adapted to the educational process of the university (Block, 2007; Cope, 2007; Anisimov, 2002, Pelmenev & Lukashenya, 2014).

1. Coaching is an effective practice of forming the motivation of the individual to achieve maximum results in training activities with the help of the abilities and skills formed in consulting projects. The methodology and toolkit of coaching are based on interactive communication, discussion: question-answer (Q & A), carried out during a personal meeting, telephone contact, communication on the Internet (Golvi, 2005).

The purpose of coaching: the formation of non-standard expert and managerial competencies of the person focused on the implementation of consulting projects.

Stages of activity
- Organizational stage. Determining the rules of coaching; the creation of micro-groups, the distribution of roles and their functional duties: "Lead Coach" - implement the general course of practice, conducts individual coaching; "Coach experts" - watch the implementation of the overall process; compose criteria for evaluating the ideas put forward; systematize the participants' recommendations on the number of visits to the coaching site; "Generators of the coach" - carry out the development of leading ideas; "Alternative generators of the coach" - search for alternative ideas; "Genius generator of the coach" - performs an individual task, projects an ideal model for organizing a consulting project, using the resources of Internet technologies;
- Formulation of the problem;
- Warm-up: participants' familiarization with the ideal practice of coaching;
- Solution of the problem: generalization of ideas, general discussion, adoption of alternative solutions, classification of proposals on the level of solutions, evaluation of the effectiveness of decisions taken.

It is proved that the positive results of coaching are: a stable manifestation of the individual abilities of students to deal with emergencies promptly and independently; flexibly adapt to the situation of changes, move away from competitive rivalry in the relationship to a collegial partnership.

Moderation
1) the practice of a systematic, structured conducting of a meeting with "transparent" methods in order effectively to prepare, conduct and summarize the results of negotiations (meetings), conferences, seminars; 2) a certain order
of practical actions, with the help of which a team of like-minded people, oriented toward achieving common goals, is created.

The purpose of the moderation is the fullest involvement of all participants in the working meeting (conference, etc.) and in all phases of the working process, ensuring the optimal use of knowledge, ideas, initiative of the members of the group and guaranteeing the success of the common cause through the competent distribution of tasks. The more correctly the goals are set, the more effective the work of the team.

Principles of moderation operation:
- Systematic nature (each individual action logically follows another);
- Structured nature (each section of the work is rationally divided into parts);
- Transparency (manipulation of any kind is excluded);
- Concentration of participants' attention on the main idea of the discussion;
- Raising the level of corporate culture;
- Increasing the motivation of the team.

Moderation conditions are based on its main principles - credibility and trust: participants should be fully informed about the purpose, the grounds and expected results of the work, as well as the benefits that the work will bring.

**Moderation takes place in three stages:**

**Introductory stage.** Participants get acquainted with the moderator, the customer, the leader and participants in moderation, the working conditions become clearer, the topics and purposes of the meeting, the tasks of the moderator, the "rules of the game" are explained (we communicate openly, clearly and concisely with each other, we give an opportunity to speak out; we listen carefully to each other, there are no stupid questions, the contribution of everyone is significant); the duties of the present senior management are disclosed.

**The working stage.** The basis of the moderation. At this stage, the main results are achieved, by all the rules the immediate problem is solved. The content of the working phase is reduced to reworking the topics according to the rules and fixing the results in the action plan. The result of the working phase is an actions' plan with a clear distribution of responsibilities: who, what, whom with, up to what time, why and for what purpose does. The plan of action is of central importance, since there is a great danger of accepting for the result non-binding or ambiguous statements that, in their ability to materialize, correspond to the good wishes for Christmas.

**The final stage**

Fixing results and evaluating teamwork:
- What have we achieved?
- How was fulfilled the joint work?
- What to record as the most important, significant?

The achieved results should be clarified and recorded:
- Who will report on the implementation of the final protocol's each points?
- To whom and to what date are the confirmations of the results sent?

Conclusions on the results of work can be a prospect for the future:
- What to do the next?
- What goals and topics should be presented at the next working meeting?
Tutor (tutor - mentor or academic advisor) - organizes the student's learning process, helps to get the maximum effect of the study, monitors the progress of his studies, advises and supports his interest in learning throughout the course. To assist students in the selection and implementation of their educational trajectories, dean's groups effectively work with groups of academic consultants (tutors). Tutors perform their work (tutoring, mentoring), as a rule, within no more than one or two areas (specialties) and carry out tutoring from the first to the final course.

Pedagogical tutoring functions:
1) Counseling students to prepare necessary information materials on the organization of the educational process, the organization of their presentation at the departments, posters and on the department web page;
2) Preparation, organization and conduct of group and individual consultations of students with the purpose of the most rational drawing up of individual and working curricula for a year;
3) Organization of consultations and control over the development of individual plans of students in the established period and the drawing up of work plans for the academic year;
4) Advising students during the period of making changes to individual curricula;
5) The consultation with teachers and Methodists of the department on the preparation of teaching materials required for training in this area (specialty);
6) Control over the fulfillment of rules for conducting boundary and current monitoring of all disciplines by students and teachers of the departments;
7) Organization and conduct of advisory activities on the calculation of the academic rating of students;
8) Consultative participation in the activities of the educational and methodical commissions of the university, etc.

In the course of the study, the effectiveness of creative practices' use in the process of forming the mechanisms of pedagogical consulting was proved. The effectiveness of the integration interaction of these types of practices was also determined, both in the educational process and in the process of implementing consulting services. The necessity of correction of the integration interaction of coaching, moderation, tutoring at the theoretical - methodical, organizational - structural and content levels is substantiated.

**Structure and content of the mechanisms for projecting the model of pedagogical consulting**

In the course of the study, the structure and content of the priority mechanisms of the pedagogical consulting model are justified: diagnostics, problem-basing, conceptualization, formatting, aimed at achieving the goals of modernization of the university educational process:

1) Diagnostics. Forms a lively, natural interest of consulting participants to the search and formulation of the problem, a high degree of freedom of search in the information environment. Diagnostics of consulting approaches is not only and not so much in expanding the assessment knowledge about the real state of the proposed transformation object, but rather in modeling the ideal image of this object, which can become a target in the forthcoming activity. The formation of an ideal representation, starting with the pedagogical construction of the situation, the emotional experience of dissatisfaction with the current state of the object of counseling, goes on to form the image of a "needy future" that meets the actual needs of the university and the students themselves;

2) Problem-basing. These are: 1) value self-determination in the problem area of the content of advisory services; 2) the search for ways to resolve the contradictions that have developed in the environment and formulation a consulting problem on this basis. In the course of such work, a "field of problems" is formulated. A productive form of their creation, systematization and accumulation of information is the
"pyramid of problems", coaching, moderation, tutoring. The problem-basing algorithm assumes a content-semantic selection of the opinions, judgments, statements received for the next step of activity. The final step is the selection of what one would like to create within the chosen object of consulting. Finding a new problem for one-self becomes the motive for including in consulting activities;

3) Conceptualization. It is based on thinking activity to find the basis for the formation of an ideal idea of the future state of the object (subject matter) of consulting and the methods of its projecting, that is, it is a kind of information system containing information about the purpose, principles, methods, living conditions of this object. In the course of conceptualization, a strategy and principles for the implementation of consulting are being developed; the structure of the projected object is revealed; the characteristics of a new object as a whole and its individual elements are determined; objectives are specified and projecting tasks are formulated, criteria are chosen for assessing the success of consulting activities in the educational process of the university.

Conceptualization refers to methodological steps in the consulting model of activity. Depending on the level of methodological literacy of the participants of this activity, the process of assimilation of laws and logic to construct the object of consulting takes place. The most important methodological step at the stage of conceptualization is the definition of the boundaries and content of the categorical field, relevant and accessible to the participants. Their reliability depends on clear representation of the range of categories, concepts, definitions that will be expressed in the phenomena and processes occurring within the framework of consulting;

4) Formatting. This is a mechanism for limiting (normalizing) the activity of participants in consulting activities through the definition of its boundaries and scales. A well-founded choice of format includes the definition of time, space, the context of consulting, the circle of its participants and other necessary parameters. Their number can vary depending on the consulting situation and objectives of the activity:

- The context of consulting: personality (each with its own position); self-organizing (within a given system); theoretical (on the basis of available scientific approaches); professional (taking into account the general trends of vocational training), etc.;
- "territorial" self-determination, which by definition can be external, internal, interpersonal (inter-subject).

In the course of the regulation of consulting practice, the following parameters have proved to be effective: the social space of consulting (the possibility of covering by the influence of certain groups of the professional community, social or age groups); paradigmatic space of consulting (priorities of technical or humanitarian characteristics); information space is formed, based on the volume of the database of information sources needed to implement the consulting; virtual space is necessary in the course of using computer, simulation and network communication; within the pedagogical system space, pedagogical transformations of alternative quality are possible;

- Programming and planning of the technological process of consulting, determined by the logic "project-forecast-plan". This process includes the formation of ideas about the changing situation, the nature of the prospects for the development of trends, the elimination of "white spots", and the transfer of experience to other conditions. This makes it possible to use the logic of fluctuations (justification of phase, stage, implementation) of consulting practices of coaching, moderation, tutoring;

- Implementation of the consulting model. Work at the final stage. It includes two main procedures (final examination and evaluation), different in technology, but fractal in functional terms. They allow you to determine the correspondence of the product to the original design. Corrections are made; a decision is made about local application of materials and their replication with the purpose of active introduction.
into practice. The evaluation is conducted, as a rule, on the basis of the involvement of independent experts, during the (self) evaluation of the results in accordance with the selected criteria; in the course of reflexing on the success and integrity of consulting as a joint activity, including its objectives, content, forms, ways of implementation, and also in the course of reflexing as a technology built according to certain rules. The reflexive stage involves not only evaluating the material, but also the human result of the project. Metaphorically, it can be designated as consulting lessons.

The effectiveness of the established mechanisms for projecting and implementing the model of pedagogical consulting is justified by experimentally confirmed criteria: - readiness to implement the consulting mechanisms in the conditions of the educational process of the university is shown - (before the experiment - by 1.5, 0% of students, after the experiment - 25.0%); comprehension of the received knowledge is steadily shown - (before experiment - by 1.5% of students, after experiment - 25.0%); application of knowledge and the ability to generate unusual, non-standard ideas in creative practices: coaching (before the experiment - 1.0% of students, after the experiment - 20.0%), moderation (before the experiment - 0.9% of students, after the experiment - 18.9%), tutorship (before the experiment - 7.5% of students, after the experiment - 28.5%); mechanisms of consulting in the teaching practice have - (before the experiment - 1, 0% of students, after the experiment - 28.7%); consulting as a focus on the discovery of a new one, is perceived - (before the experiment - by 8, 0% of students, after the experiment - 28, 0%); the ability to assess their own experience belongs - (before the experiment - to 1, 0% of students, after the experiment - 29, 0%); readiness to correct their mistakes (self-consulting) is shown - (before the experiment - among 1.5% of students, after the experiment - 20, 0%).

The study found that 79% of university professors need to consult their own professional activities, and about 75% of students show an interest in consulting training activities, especially in the implementation of coaching, moderation, tutoring. When justifying the advisability of an occasional involvement of consulting as an external consultancy service for the university administration, the respondents' opinions were divided as follows: "yes" - 45%; "No" - 40%; 13% of respondents find it difficult to answer. Concerning the expediency of creating an intra-service service of a higher educational institution for advising management and ordinary teachers, 81% of teachers reacted positively to this. While clarifying the understanding of the nature of consulting on professional activity by university teachers, it is established that about 30% have never encountered this phenomenon in their life and are not interested in it; 20% have heard about this type of services in the economy and business, but do not represent it in the educational sphere; 50% have a superficial view of the services of consulting in education (services on sites). By the majority of teachers (81%) and students (79%) the services of internal consultants of higher educational institutions on consulting professional educational activities of teachers, specialists, and students are considered relevant and sought after.

Conclusion
The conducted research confirms the theoretical and practical significance of the research of pedagogical consulting problem as an actual direction of projecting and implementing an extensive strategy of modernization of the university educational process. Based on the results of the conducted research, the leading role of creative practices of coaching, moderation, tutorship in the development of student consulting competences in mastering knowledge, their comprehension, application, analysis, synthesis, evaluation in the educational process of the university was proved. The mechanisms of pedagogical consulting established in the course of research (diagnostics, problem-basing, conceptualization, formatting) are proved to be a promising conceptual basis for the model of projecting and implementing...
pedagogical consulting as an extensive educational strategy for modernizing the educational process of the university. In this regard, the paper establishes a theoretical and methodical substantiation of the approach to the mechanisms of pedagogical consulting as a model for projecting and implementing an extensive strategy for modernizing the educational process. The paper discovers the discourse of pedagogical consulting as an extensive strategy for modernizing the educational process; the integration of creative practices of pedagogical consulting is established (tutoring, moderation, coaching); Based on the results of the study, the structure and content of the mechanisms for projecting the model of pedagogical consulting (diagnostics, problem-basing, conceptualization, formatting) are justified. The importance of the revealed mechanisms is proved with the help of the student’s readiness criteria for their implementation in the conditions of the educational process of the university; in the creative activity of consulting projects; in the research work of the university, in the process of educational practice. It is determined that the process of studying the problem of pedagogical consulting does not end with the solution of the tasks of the conducted research. Of particular interest for future researchers is the development of the theoretical and methodical foundations of structure and content: 1) the personality model of a specialist - a consultant; 2) models of pedagogical consulting activity as a new direction in the qualification regulations for vocational training of university students.

References
Anisimov, O.S. (2002). Adoption of managerial decisions. Moscow: RSSA.
Dudchenko, V.S. (2004). Absolute consultant or the secrets of successful counseling. Moscow: "Quattro Print".
Correction Of Student Personality Moral Culture: Universals Of Interdisciplinary Modules


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Abstract
The relevance of the study is determined by the search for the problems solution to overcome the spiritual crisis of the modern student with the help of the value bases of the individual’s moral culture. It is established that the moral culture, reproducing the system of values, value orientations, interests, needs, attitudes and experience of the student creates conditions for their successful self-realization on the basis of a personal stereotype of adopting new cultural relations and norms of behavior. In this connection, the main attention in this paper is devoted to the establishment of a theoretical and methodical approach to the determination of corrective mechanisms of the student moral culture in the educational process of the university, among which the normative and value universals of the interdisciplinary module occupy a priority rating. The paper reveals the current trends in the transformation of the student moral culture; the content of normative-value universals of the interdisciplinary module is established as correctional mechanisms of the moral culture of the individual; based on the results of the study, the structure and content of cognitive, needed-motivational, value-semantic, behavioral-volitional components of the corrective model of the student moral culture are justified and their practical significance in the process of universal interdisciplinary module implementation is proved.

Keywords: moral culture; correction of moral culture; values; norms of values; value orientations; personality behavior; normative-value universals; correctional mechanisms.

Introduction
1.1. The relevance of the research
The importance of studying correctional aspects of university student moral culture is determined by the tendencies in the morality crisis existing in modern post-industrial society, which determines the processes of "erosion" of the personality basic moral norms existing for about two millennia and constituting the core of most moral codes of the past (Volkova, 2010; Dmitrieva, 2012; Krylova, 2000; Lorentz, 1994; Rogers, 1994; Suchkova, 2008; Franz, 2005). According to the polls of specialists (teachers, psychologists, sociologists), a trend has been established that characterizes a new generation of student youth with indifference to manifestations of good and evil, good and bad, replacing these categories with modern slang "cool - not cool", experiencing serious difficulties in answering the question: What does the word morality mean? "(Zeer, 2006; Pavlov, 2010; Popov, Golubeva & Ustin, 2008; Rogers, 1994; Frankl, 2015). These trends, according to research, have become sustainable in the youth environment. But the blurring of the boundaries between good and evil, tolerance to evil and humility in front of it are unacceptable in the civilized human community, since they contribute to his assertion in ever more inhuman forms, lead to irreversible consequences (Averyanova, 2016; Agafonova, 2015; Bryukhova, 2014; Zosimovsky, 1992; Shadrikov, 2009). In this regard, there is a logical need to create in the educational process of the university all the necessary pedagogical conditions for correcting the destructive manifestations of the student moral culture, reviving ethical and moral guidelines in the minds and hearts of young people (Bolshakov, 2000; Franz, 2005; Shadrikov, 2009; Yanovsky, 2009). In this regard, an important aspect is the widening of the boundaries of the university educational process and its filling with the innovative content of the normative and value universals of the interdisciplinary module (Volovikova, 2004; Zeer, 2006; Zosimovsky, 1992; Kazuma, 1992; Shadrikov, 2009). In the course of the study, the theoretical and practical significance of the interdisciplinary module’s universals is substantiated as a variable condition for the success of current and forthcoming educational goals and objectives of the student moral culture formation. It is established that if the moral development of the personality of modern students is the process of assimilation of moral standards by them, their generalization and transformation into internal moral beliefs realized in behavior, then the level of their moral qualities formation reflects a unique fusion of moral characteristics, arranged according to certain rules between the poles of good and evil. It is proved that the poles of good and evil reflect a complex of ethical-constructive and ethical-destructive qualities of personality. Ethically constructive include: honesty, humanism, responsibility, trust, selflessness, self-sacrifice; ethically - destructive: cruelty, cynicism, selfishness, absence of principles. Numerous studies (Volkova, 2010; Leont'ev, 1983; Maslow, 1997; Rogers, 1994; Rubinstein, 1973; Suchkova, 2008; Franz, 2005; Shadrikov, 2009) confirm the ethical constructiveness of the personality moral qualities as the most important aspects and orientations of the personality life path. In all studies, the idea that the moral way of life is the result of a conscious choice and moral self-determination of a person is passed by the red thread, and following the "golden rule of morality" - do to others as you would like to do with you - helps you understand complex situations, to distinguish between good and evil, to make ethically - constructive moral choices. The revealed tendencies determine the necessity to develop scientifically grounded approaches to the correction of the structure and content of values and value orientations of modern student personality moral culture. The theory and practice of social and humanitarian knowledge justifies the development of such approaches as a priority direction of pedagogical research. In this connection, the main attention in this paper is devoted to the establishment of a theoretical and methodical approach to the determination of corrective mechanisms of the student moral culture in the university educational process and to the justification of normative value universalities of the interdisciplinary module as correctional mechanisms of moral culture. The paper reveals the current trends in the transformation of the student moral culture; the
content of normative-value universals of the interdisciplinary module is established as correctional mechanisms of the moral culture of the individual; based on the results of the study, the structure and content of cognitive, needed-motivational, value-semantic, behavioral and volitional components of the corrective model of the student personality moral culture are substantiated and their practical significance in the process of universals’ implementation of the interdisciplinary module is proved.

Review of the Literature
The methodological basis of this research is the ideas and conclusions of well-known specialists on the essence, structure, features of the individual’s moral culture development (Volkova, 2010; Dmitrieva, 2012; Zeer, 2006; Kazuma, 1992; Lorenz, 1994; Maslow, 1997; Rogers, 1994; Rubinshtein, 1973; Frankl, 2015; Shadrikov, 2009). The analysis of the works devoted to the problem of moral culture formation of the modern student in the university educational process makes it possible to differentiate them in the directions of practical-oriented educational and cognitive tasks’ solution in accordance with the normative documents of the Law on Education:

- the first direction is devoted to the study of the concept content of the individual’s "moral culture" as a system for organizing information support for the student in the university educational process (Arkhangel'skiy, 1973; Bryukhova, 2014; Volovikova, 2004; Dmitrieva, 2012);
- the second direction determines the motivation and stimulates the students' positive attitude toward the moral standards of modeling their personalities from the standpoint of the moral ideal (Averyanova, 2016; Agafonova, 2015; Volkova, 2010; Krylova, 2000; Lorentz, 1994; Omarova, 2010);
- the third direction is devoted to the development of the moral qualities of a humanistically oriented person (Pavlov, 2010; Popov, Golubeva & Ustin, 2008; Pustovalov, 2002; Rogers, 1994; Suchkova, 2008; Franz, 2005);
- the fourth direction is devoted to the formation of the student personality experience through inclusion in the activity on moral self-improvement, self-education and rendering assistance to those who need it (Bolshakov, 2000; Maslow, 1997; Rubinshtein, 1973; Frankl, 2015; Shadrikov, 2009; Yanovskiy, 2009).

A number of studies have been established (Arkhangel'skiy, 1973; Bolshakov, 2000; Volkova, 2010; Omarova, 2010; Franz, 2005), devoted to the study of the levels of personality moral culture formation: attitude towards the requirements of morality; attitude towards others; relation to the beauty (to aesthetic values). The possibilities of projective, problem-based, modular technological methods (Agafonova, 2015; Bryukhova, 2014; Yanovskiy, 2009) are presented in the projecting and implementation of practice-oriented trends in the formation of the student moral culture. The possibilities of using these methods in the process of implementing educational standards for the formation of the student’s moral culture in the areas of vocational training are proved (Volkova, 2010). It is established that the appeal to the study of such a wide range of directions in the development of the student moral culture is mainly due to the normative register of requirements for indicators that confirm the university’s competitiveness in the market of educational services. In the course of the research it was proved that despite the active interest in the aspects of moral culture on the part of the representatives of science and educational practice in their study the basic theoretical and methodological issues of projecting the correctional model of student personality moral culture are remain unresolved, including the structure and content of the normative-value universals of the interdisciplinary module as mechanisms for the correction of moral culture.

Results
3.1. Modern trends in the transformation of student personality moral culture

Modern processes of social reality are largely determined by the system of established values of the moral culture of postindustrial society. Unlike the industrial society, in which everything is directed towards the production and consumption of goods, in the postindustrial society, intellect and knowledge are produced and consumed, and the share of creative labor in all spheres of life activity increases. A good example of this is the experience of corporations in highly developed countries (the USA, England, Japan), in which, over the last decades, the following are effectively used as the main management functions: the formation and maintenance of the creative process of innovation production; creation of systems of knowledge and competences building; management of the processes of such knowledge accumulation, realization in the production of goods with a high level of intelligence (Kazuma, 1992). The analysis of information flows in different fields of knowledge testifies their intensity and swiftness of such a level that suppresses not only the thinking mechanisms of a contemporary educated person, but simply does not remain in his memory. In addition to fundamental knowledge within the framework of his specialty, a person must also have the competence constantly to work with information both in the narrow sphere of his activity and in related fields, because the solution of the vast majority of problems is at the junction of subject areas. One cannot underestimate the electronic means of communication, the Internet in particular, which make their own non-standard contribution to the expansion of information flows. In the course of this study, the specification is established for this contribution, determining the dual nature of information on Internet resources. On the one hand, it enriches the personality, develops its intellectual potential, on the other hand, manipulates the consciousness of consumers of information, because the information basically reflects the social order for personal, moral, educational, political, sociocultural or any other types of information flows. The personality of the student under the prevailing conditions falls under the strong pressure of information impact, to counteract with which it needs the formed intellectual potential of moral culture as a set of knowledge, skills, personal experience of using knowledge in practical activities. On the basis of the totality of knowledge and intellectual potential, the readiness for moral and objective analysis of incoming information, knowledge and skills of analysis and synthesis of information from the position of conformity to the interests of the individual, society and production, also the morality and moral values are formed. It has been established that these tendencies have a negative impact on the unstable moral beliefs of the student personality and form a moral crisis, self-estrangement in society, work, study (Lorenz, 1994; Rogers, 1994).

It is proved that the first reason for the moral crisis of the student personality is the unrealized intellectual potential formed in the educational process of the university. Personally perceived harmony of relations with the work collective and society is that the performed professional roles and responsibilities not only coincide with their own life goals, but also be supported by the public need for them. A person in demand by society feels himself to be an accomplished person. Otherwise, the profession and its representatives lose their identity. Self-affirmation in the profession refers to the basic institutional aspirations of a person. The unrealized nature of this striving leads to spiritual instability, anxiety, self-alienation of the individual (Maslow, 1997; Franz, 2005).

The second reason is the transformation of a specialist into a commodity. It is proved that in the real life activity of labor organizations the personality of a specialist is used only as one of the resources of intellectual property, along with patents, know-how, databases that support the production process. A person who is subject to his alienated needs is no longer a person in the spiritual or in the physical sense. It is only a self-created and self-conscious commodity (Rogers, 1994; Rubinstein, 1973; Shadrikov, 2009; Tastan et al., 2018).
The third reason is the evolution of communicative relations, mediated by network technologies. It is established that the very process of transformation of interpersonal communication into network communication contains factors alienating people from each other. The more persevering the relationships between individuals are delineated by information and other super complex computer technologies, the more they become alienated from each other, from moral values (Suchkova, 2008; Franz, 2005; Shadrikov, 2009).

The fourth reason is the growing specialization of labor, which also forms a special understanding of professionalism, bringing it closer to technology in a narrowly defined area. Today, production consortia, organizations, institutions are large industrial associations in which there are independent conveyor lines and narrow specialists who serve them and bear responsibility for their own part of the work. These specialists are deprived of the opportunity to realize the moral value and practical significance of the whole process of activity (Volkova, 2010; Dmitrieva, 2012; Zeer, 2006; Krylov, 2000).

Based on the identified trends in the course of the study, the directions for the way out of the current crisis situation in the educational process of the university are defined:

- The formation of the moral content of values - goals and values - the meanings of one's own vocation;
- The construction of a system of views on the universal of moral culture (values, needs, interests, value orientations) in professional activity;
- Forecasting the results of normative and value universals’ use of the individual’s moral culture in educational activities.

3.2. Normative-value universals of the interdisciplinary module - the basic core of the mechanisms for correction of the individual's moral culture

In this study, the universals of moral culture are considered as a necessary element of the student educational activity and the normative-value content of the directed influence on his personality. Universals of the student personality moral culture in such a relationship serve as a condition for self-identification, a necessary rule of influence on the individual, on the observance of which the success of learning depends. The structure and content of normative-value universals are self-identification of the student's personality, socio-cultural value orientations and values - the dominants of the content of professional activity.

- The structure and content of the student's self-identification values:
  1) Emotions that affect the student activities' incentives and motives formation. In the course of the study, it was confirmed that the motive as a source of action is formed more dynamically and steadily under the influence of factors of consciousness mobilization with emotional factors, among which emotions of interest, joy, surprise, and novelty are of particular importance. In this aspect, the use of the incentive role of rituals, solemn traditions, romantic coloring of activities recommended for motivating and stimulating the student is effective;
  2) The authority of the teacher is a traditional condition for self-identification, but it also carries an innovative burden. The study found that there is a close relationship between the teacher and the choice of value universals by the students of the training group that the interest in the values of moral culture is directly proportional to the authority of the teacher;
  3) Suggestion through identification - presupposes a preliminary stimulation of students’ feelings associated with their status in a particular group. In the scientific literature (Bolshakov, 2000; Volkova, 2010; Franz, 2005; Shadrikov, 2009), there is a grounded trend that states that the personality is not formed by a physical environment, but that the system of norms, values and rules with which it correlates, but not the system of norms, values and rules with which it refers to, and that with which it
identifies itself. If a student is imbued with feelings of such solidarity, he can commit an act, an action that runs counter to his moral ideals, but in accordance with the interests of the group;
4) Overcoming the psychological barrier of alienation - the peculiarities of manifestation are that in the case of socio-psychological tension in the “teacher-student” relationship, the feedback necessary for the effectively directed process of moral formation is violated.
- Socio-cultural value orientations. They refer to the subjective sphere of the individual; they act as the main regulator of its social behavior as:
  1) the leading component of the psychological structure of the personality, in a certain way they correct and integrate all the personality properties: values, interests, needs, motives, desires, goals, ideals, as well as all the psychophysiological processes associated with memory, mind, ability, imagination;
  2) the result of the assimilation of value-normative patterns, standards, universals of personal development that dominate the society - the correlation of society and moral culture with personality; personal significance of cultural values; certainty and focus of various types of spiritual and practical activities;
  3) Forecasting, orientation and coordination of the sociocultural values of the student's behavior in the concrete situation of the moral ideal choice.
In the course of the research, a three-component structure of sociocultural value orientations was established: 1) the cognitive component. It is made up of accumulated and systematized individual knowledge of the various material and spiritual values of society; 2) emotional component, characterizing the degree of emotional experience by the individual of his attitude to the values of moral culture; 3) behavioral component. It contains plans of actions, specific deeds, which are conditioned by a certain morally significant role, predictable for the student's fulfillment.
- Values are the dominants of the content of professional activity.
  They perform the functions of socio-cultural regulators of personality. Unlike norms, they mean the choice of a particular object, state, need, purpose, ideal of activity. In the course of the study, a classification of values - the dominants that make up the structure of the normative - value universals of the student personality moral culture is established:
  - vital (life, health, safety, welfare, peace, vigor, strength, endurance, quality of life, ecological values, practicality, consumption, comfort);
  - social (social status, status, diligence, work, profession, family, patriotism, tolerance, discipline, enterprise, risk appetite, equality, social equality of the sexes, ability to achieve, personal independence, active participation in society, focus on the past and the future, state national and international orientation);
  - Political (freedom of speech, civil liberties, statehood, legality, respect and trust in the government, order, constitution, civil peace);
  - Moral (good, love, friendship, duty, honor, honesty, unselfishness, decency, loyalty, mutual assistance, justice, respect for elders, love for children);
  - Religious (God, divine law, faith, salvation, grace, ritual, Holy Scripture, Koran, church, mosque);
  - Aesthetic (beauty, disgrace, ideal, style, harmony, adherence to tradition or novelty, eclecticism, cultural identity, imitation of the prestigious borrowed fashion).
- The established values - the dominants determine the trends in the correction of the moral culture of the future specialist personality:
  - Openness to the future;
Integration of all methods of mastering the world by man;
The development and inclusion in the learning process of humanitarian ideas about the openness of the world, the integrity and interdependence of man, nature and society;
Appeal to ideological and semantic models;
Free use of various information sources, systems that play no less a role in education than direct educational process;
The personal orientation of the learning process;
Development of a culture of communication;
The psychological orientation of the student to the super-task, in connection with which the educational process is in a state of constant search and change, forming moral guidelines and goals;
Change in the role of the teacher: the transition to joint partnership, collegial actions in new situations of an open, changing world (Rodgers, 1994; Suchkova, 2008).

In the course of the research, it was revealed that these tendencies determine a complex of theoretical, content, technological, scientific, and methodical and criterion transformations of a personal moral culture of a university student.

Theoretical directions:
- rethinking the goals and objectives of the process content of the individual’s moral culture formation through the implementation of didactic tasks;
- implementation of innovative principles for building the content of education in the process of realizing the universals of moral culture in interdisciplinary didactic tasks, developing criteria for selecting the content of tasks;
- The definition of a system of theoretical knowledge that provides the projecting the values of the moral culture of the individual;
- Establishment of interdisciplinary links in the associated fields of vocational training;
- Identification of corporate relations of didactic tasks with the tasks of educational Internet sites.

Content areas:
- Scientific substantiation for selection of normative-value universals of moral culture in the content of tasks and structuring of educational material;
- the allocation in the training content of the main components: an invariant part that represents a description of new and promising technologies for modern production, technical objects enriched by normative value universals of moral culture; professional part uniting professionally and value-oriented knowledge, selected in accordance with groups of professions; specialized, including concepts and theories, corresponding to the specialization of trainees; ideological, uniting universals of social, humanitarian, professional and ecological knowledge, providing the world outlook direction of didactic tasks.

Technological areas:
- The identity of technology with goals, tasks, tasks’ content in the process of forming the moral culture of the individual:
  - Projective nature;
  - Interactivity;
  - Corporate identity;
  - Diagnostics;
  - Reflexivity (critical evaluation of a real social, professional situation).
Scientific - methodical directions:
Formation of an information base for the projecting and implementation of normative - value universals of interdisciplinary modules:
- Construction of conceptual schemes constructs of educational and program documentation, substantiation of interrelation of the content elements of didactic tasks with normative value universalities of moral culture;
- Choice of didactic and methodical means for realization of universals of interdisciplinary modules;
- Drawing up a technological map of didactic tasks (targeting, dosing knowledge for independent work in solving problems, diagnostic methods, corrective work);
- Reliance on the co-creation of teachers and students;
- Interdisciplinary nature of students’ knowledge.
Criterion directions:
- Universal criteria: generality and readiness;
Criteria of effectiveness of normative - value universals of moral culture interdisciplinary modules:
- Readiness for self-transformation (motivational aspect);
- Knowledge of didactic tasks’ content (cognitive aspect);
- Experience in using didactic tasks in standard and non-standard situations (activity aspect);
- The relation to the content and the object of transformation (value-semantic aspect);
- Emotionally - volitional regulation of the process of normative - value universals formation of moral culture.

3.3. Correction model of the student moral culture
In the course of the study, the four-component structure of the correctional model of student personality moral culture formation is grounded:
- The first component is cognitive. It is based on knowledge of the individual’s moral culture, on the understanding of such categories’ contents as good, evil, justice, conscience, duty, the meaning of life, happiness, love; on the formation of ideas about moral norms; on the ability to moral judgments, the ability to assess one’s own act or act of others in terms of morality; on the ability to comprehend the motives of these actions, which in the future is transformed into the moral beliefs of the student. The construction of the cognitive component of a student's moral culture is carried out through moral education aimed at the development of moral consciousness and moral beliefs;
- The second component of the correctional model is the needed-motivational one. It expresses a system of dominant moral needs, motivations of activity and personality behavior. This component determines the orientation of the person – which is altruistic or selfish in the implementation of normative - value universals of the interdisciplinary module. Developing on the solid foundation of the needed-motivational sphere, the student's consciousness gradually turns into a moral essential power, enabling him to participate in the management of his drives, desires, interests, passions. The student's orientation is based on its needs, presupposing further satisfaction and therefore generating desires, drives, aspirations, emotional states that cause the student to be active. The effectiveness of the student activity is largely determined by the level of moral needs’ development (in cognition, work, creativity, self-realization, achievement, recognition, approval, trust, social inclusion, understanding and comprehension of one's own
path). Of particular importance is the need for communication, which facilitates the establishment of diverse relationships, partnerships, cooperation, the ability to work in a team, subordinate their interests to its requirements for achieving a common goal, stimulates the exchange of knowledge, experience, etc.;

- The third component is emotional and sensual. It is oriented towards the moral experience's character formation associated with norms or deviations from norms and ideals: pity, sympathy, trust, gratitude, responsiveness, self-esteem, empathy, shame, etc. In the opinion of the majority of modern researchers (Bolshakov, 2000; Volkova, 2010; Dmitrieva, 2012; Zeer, 2006; Shadrin, 2009) moral sense is the backbone the beginning of human morality. Thanks to it, moral consciousness, knowledge of norms and rules of behavior, habitual actions acquire moral sense. Educational - cognitive interaction, ignoring the emotional sphere, has a weak effect on the person, does not contribute to the formation of internal stimuli and motives for moral actions. Evaluation of the moral sense as the fundamental principle does not mean neglecting the moral consciousness. Developed moral consciousness presupposes knowledge of moral principles, norms and at the same time constant awareness and comprehension of one's moral status in the collective, moral state, sensation, and feeling. On the formation of the student's socio-value moral attitude to life and moral behavior can be said when the moral sense and consciousness are transformed into an internal "controller", not allowing to cross the moral law;

- The fourth component of the moral culture of the individual - behavioral and volitional. It expresses the degree of formation of moral stability and moral behavior. It is proved that in the student's age the moral stability of the individual develops (Leontiev, 1983). In his behavior, the student increasingly focuses on his own views, beliefs that are formed on the basis of acquired knowledge and life experience. Knowledge of the world around him and the norms of morality unite in his mind into a single picture. Thanks to this, moral self-regulation becomes more complete and meaningful. Moral stability occurs when the student himself begins to work on himself under the influence of his own inner motives, realizing the existing shortcomings or seeking to achieve a higher level of moral culture. On the moral culture of man is judged by his behavior and actions. A moral act is a conscious, motivated form of human behavior, in which he manifests himself as a moral person in relation to another person, himself, society and the world as a whole. At the core of the actions are moral motives, actions regulated by the social norms of morality and the person's own conscience.

Criteria for measuring and evaluating the formation of the correctional model’s components of the moral culture of the individual:
1) the existence of fundamental ethical knowledge and ideas, skills of interaction with surrounding people, the ability to use this knowledge in assessing one's own actions and actions of others;
2) A high degree of moral feelings’ development, especially manifested in relations with other people, in the manifestation of charity, respect, desire to help the needy, to take care of them;
3) the ability to establish relationships with others on the basis of trust, mutual assistance, goodwill, respect for the personal dignity of others;
4) Conscious participation in public work, or any other socially approved activity for the benefit of others;
5) Conscious preparation for future professional activity.

The results of the experimental validation of the correctional model are presented in Table 1.

**Table 1.** Dynamics of the formation of students' moral culture components (5-point scale of assessments)
The effectiveness of the established components of moral culture's correctional model is based on experimentally confirmed indicators:

- For knowledge in the field of moral culture - 75% of students give preference; the indicators "before" the experiment do not reach a mark above 3.7 points; "After" the experiment - the mark is steadily estimated at 4.5 points;
- For the need for the manifestation of moral feelings - 72% of students give preference; indicators "before" the experiment do not reach a mark above 3.5 points; "After" the experiment - stable 4 - 5 points;
- For active manifestation of moral qualities - 65% of students give preference; "Before" the experiment, the mark ranges between 2 - 3 points; "After" the experiment - stable 4.5 points;
- For the habits of moral behavior, the orientation for taking responsibility for the perfect act when doing any kind of activity - 60.5% of students give preference; "before" the experiments do not rise above 2.5%; "After" the experiment - stable 3, 5%.

Conclusion

The conducted research confirms the theoretical and practical significance of the study on the problem of correction of the individual's moral culture as an actual direction in overcoming the spiritual crisis of a university student. Based on the results of the conducted research, the leading role of normative - value universals of interdisciplinary modules in the university educational process in moral culture's correction is proved. It is proved that the structure and content of universals of interdisciplinary modules (values of self-identification, value orientations, values - dominants) established during the research are a promising conceptual basis in projecting a correctional model of a student's moral culture. In this connection, the main attention in this paper is devoted to the establishment of the theoretical and methodical approach to the determination of corrective mechanisms of the student's moral culture in the educational process of the university, among which the normative and value universals of the interdisciplinary module occupy the priority rating. The paper reveals the current trends in the transformation of the student's moral culture; the content of normative - value universals of the interdisciplinary module is established as correctional mechanisms of the moral culture of the individual; based on the results of the study, the structure and content of cognitive, needed - motivational, value - semantic, behavioral and volitional components of the corrective model of the student personality moral culture are substantiated and their
practical significance in the process of implementation of universals of the interdisciplinary module is proved. By solving the tasks of the conducted research, the process of studying the problem of student personality moral culture does not end. Of particular interest to researchers are the problems of interaction between the traditional educational space of the university and virtual space as a problem of moral culture.

References


Perception of the family as a factor of emotional well-being of adolescents

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Abstract
Adolescence years are sensitive for the development of valuable attitude towards the family. Acquiring a high ranking position in the structure of terminal values of a senior adolescent, a happy family life is the quintessence in the notion of the parent family. This, in particular, is reflected in the behavioral patterns of resolving life situations and in the flexibility of the family system, which in future will be set up by a today's adolescent. summarizing the results obtained in our study, we may draw a conclusion that the description of not only a real, but also of an ideal family made by senior adolescents include upon the whole characteristics of a semi-functional type of family system. Describing the ideal family, boys and girls do not just rely on interaction patterns familiar to them or seek to compensate for unsatisfactory for them style of relations in the parent family, but also demonstrate quite typical for their age maximalism, orientation towards common interests and a desire to be accepted and get support from those around them. This appears to be one of the needs of the majority of our subjects that have been blocked out and that they strive to meet to their satisfaction. The predominance in the perception of senior adolescents of emotionally distanced, disengaged and at the same time chaotic intra-family relations, can serve as an indicator of a high risk of emotional ill.

Keywords: family, family values, emotional and psychological state, adolescents

Introduction
The thesis that the family is the most important source of development of the child's personality can hardly be challenged by anyone nowadays. The influence of various aspects of family life on the development of personality characteristics of children brought up in the family is widely studied. There is no doubt that at the early stages of ontogenesis the influence of the family (its traditions, values,
relationships, etc.) is more significant. Does this effect remain to be significant for the child, already standing on the threshold of adulthood – an adolescent?

According to a number of sources (Alekseeva, 2012; Burovikhina, 2013; Rice, 2008), adolescence years are sensitive for the development of valuable attitude towards the family: a feeling of "adulthood", aspiration to the future and formation of life plans, the possibility of reflection and the need for identification and self-determination contribute to the expansion of notions about this sphere of life. Acquiring a high ranking position in the structure of terminal values of a senior adolescent, a happy family life is the quintessence in the notion of the parent family. And since the family is a reproducible functional system, it effects the formation of attitudes and regulations, which are then reproduced in future generations. This, in particular, is reflected in the behavioral patterns of resolving life situations and in the flexibility of the family system, which in future will be set up by a today's adolescent (Varga, 2009; Bos, 2014).

**Literature Review**

The perception of the family by an adolescent is determined by the complex of his emotionally colored imaginations about the structure, values, and rules of behavior and relationship of family members (Batyuta, 2014; Knyazeva, 2017; Semenova, 2015). These notions may be based on two mechanisms: translation and compensation. The translation is understood as a transfer of the actual family situation on to their own notions while the compensation – as an incorporation of missing aspects of family life in order to set up a better family (Shubina, 2011). Violation or imbalance of these mechanisms is likely to lead to misalignment of the emotional and psychological perception of the family as a whole and the formation of distorted ideas about the nature and structure of the family.

A number of scientists call family cohesion as well as positive family relations a factor influencing the emotional well-being of an adolescent (Robert, 1997). In particular, the authors showed that the lack of cohesion in a full family (with both parents), tension and conflict relations are a much bigger psycho-traumatic factor than the factor of incomplete family (with one parent). It is in the former case that there is a significant increase in depressive symptoms in adolescents, which indicates the importance of family cohesion in the perception of the family situation by adolescents.

Similar data were obtained in the studies pertaining to the relationship between the factors of the family structure, social support extended by parents to adolescent children and the emotional state of adolescents themselves (Christi, 1997). It was established that higher rates of depressive symptoms were observed in both boys and girls who lived with parents (parent), not focused on social support of their children. In the perception of adolescents, the lack of conscious parental social support is a negative factor affecting their overall emotional state.

Thus, the factor of relations within the family (its cohesion, traditions of social support of family members) steps out as a significant indicator effecting the emotional well-being of the adolescent that is able to increase or lower the development of his depressive conditions.

The perceptions of the family that are emerging in adolescents are not only a reflection of peculiarities of their age-related specificity and interiorization of family relations models, but also an indicator of emotional feelings regarding their future family (Knyazeva, 2017). The same applies, for example, to orientation towards psychotherapeutic function of the family, manifested in the motives of contemporary adolescents for creating a family. The leading stage there is overtaken by the motives of love and spiritual affinity of partners. Such aspiration can be found in the responses of boys as well as girls in senior
adolescent age, especially when referring to the ideal family, which, in the opinion of the latter, is based on maintaining close relations, affection and trust (Burovikhina, 2013; Rice, 2008; Tastan et al., 2018).

Thus, information about the perception by adolescents of the family, allows not only to pinpoint problematic areas in the system of child-parental relations, but also to understand the nature of their impact on the emotional well-being of adolescents, as well as to predict the notion of the desired family an adolescent is aspiring to set up.

Given the above, the purpose of our study was defined to identify the types of family systems, perceived by adolescents as an "ideal" and "real" family.

As a diagnostic instrument we used the questionnaire of D. Olson FACES-III, which allows to assess the perception of the level of family cohesion and family flexibility, and to identify the type of the family system on the basis of the obtained marks. To this end, to evaluate significance of differences between the type of the family identified during the analysis of characteristics of the real and ideal family, the Fisher Criterion was used.

In our study, 66 senior adolescents that were 14-15 year-old students of some secondary schools in the city of Nizhny Novgorod took part.

Results
Let us turn to the data of Table 1, revealing the notions of our subjects about the real and ideal family (see. Table 1).

Table 1. Views of senior adolescents about the real and ideal family within the context of the family system type

<table>
<thead>
<tr>
<th>Type</th>
<th>Real (%)</th>
<th>Ideal (%)</th>
<th>φ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dysfunctional type</td>
<td>12,12</td>
<td>25,76</td>
<td>2,039 (p≤0,05) IF</td>
</tr>
<tr>
<td>Disengaged and rigid</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Disengaged and chaotic</td>
<td>7,58</td>
<td>1,52</td>
<td>1,798 (p≤0,05) RF</td>
</tr>
<tr>
<td>Enmeshed and rigid</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Enmeshed and chaotic</td>
<td>1,52</td>
<td>24,24</td>
<td>4,498 (p≤0,01) IF</td>
</tr>
<tr>
<td>Semi-functional type</td>
<td>65,15</td>
<td>65,15</td>
<td>-</td>
</tr>
<tr>
<td>Disengaged and structured</td>
<td>9,09</td>
<td>0,00</td>
<td>-</td>
</tr>
<tr>
<td>Disengaged and flexible</td>
<td>13,64</td>
<td>3,03</td>
<td>2,338 (p≤0,01) RF</td>
</tr>
<tr>
<td>Enmeshed and structured</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Enmeshed and flexible</td>
<td>-</td>
<td>1,52</td>
<td>-</td>
</tr>
</tbody>
</table>
Separation and rigid  4.55  -  -
Connected and rigid  0.00  1.52  -
Separation and chaotic  24.24  34.85  1.338
Connected and chaotic  13.64  24.24  1.574
Functional type  22.73  9.09  2.183 (p≤0.05) RF
Separated and structured  6.06  1.52  1.453
Separated and flexible  10.61  6.06  0.942
Connected and structured  1.52  -  -
Connected and flexible  4.55  1.52  1.046

Note: IF – significance of differences in favor of the ideal notion of the family; RF – significance of differences in favor of the real notion of the family.

Thus, analyzing the data presented in Table 1, one may state that the majority of adolescents describe both the real and the ideal family primarily through the characteristics inherent to the semi-functional type of family system (such references occur in 65.15% of cases). At the same time, a significant part goes to the description of families with uncertain leadership position, which entails impulsiveness and thoughtlessness in decision-making, as well as a mix up of family roles and distancing in emotional relationship (separated and chaotic family: 24.24% of references to the real family and 34.85% - to the ideal one). It is quite likely that the description of the real family through such characteristics is an evidence of a situation inherent to the Russian reality wherein the husband / father serves a leader’s role only formally, whereas the real responsibility lies with the wife / mother, and communication with children, especially adolescents, may be distinguished as superficial (Alexeeva, 2012; Varga, 2009; Tastan et al., 2018), which adversely affects the emotional state of all family members, including adolescents themselves. In addition, it is known that adolescents' perception of their relations with parents, supervision on their part, as well as the type of a family system effects the level of self-esteem and the degree of risk for deviant behavior in adolescents, their psychological well-being and even somatic health in general. Thus, describing the real and ideal family, the adolescent discovers not only the difficulties he has in establishing close relations with adults, but also demonstrates aspiration to compensate for this shortcoming in the future.

On the other hand, the emergence of this type of family system in the description of the ideal family suggests that senior adolescents are guided by familiar patterns of relationship, and cannot yet imagine that creation of a family involves the adoption of responsibility and distribution of duties between the spouses, and rely primarily on the leading role of close emotional relations and support. This striving of senior adolescent boys and girls for emotional intimacy probably confirms low percentage of their orientation towards a disengaged and flexible type of family, characterized by democratic style of management, distribution of roles and easily changeable rules, but at the same time by disunity of family...
members, their inability to render help and establish close relationships (13.4% for the real family and 3.03% for the ideal one; $\varphi=2.338$ at $p\leq0.01$). We believe that it is specifically here that we find confirmation of the increased significance of psychotherapeutic function for the contemporary family.

However, excessive focus on emotional intimacy is not an indicator of the family harmony, as evidenced by the increased percentage of the occurrence of dysfunctional type of family system among the references made by adolescents regarding the ideal family (12.12% in the notion of the real family and 25.76% in the notion of the ideal one; $\varphi=2.039$ at $p\leq0.05$). At the same time, the desire of senior adolescents to build excessively close relations, including merging, lack of personal space and partners’ independence, as well as mixing of roles and absence of well-pronounced leader (enmeshed and chaotic family: 1.52% of references to the real family and 24.245% - to the ideal one; $\varphi=4.498$ at $p\leq0.01$), plays a significant role. In other words, the desire of unity with family members demonstrated by adolescents virtually excludes from itself personal autonomy, which is very important both for the construction of harmonious close relations and for the psychological well-being of the individual as a whole (Archakova, 2017; Babayeva, 2017; Knyazeva, 2017; Ryff, 1995; Semenova, 2017). It may be emphasized that, according to the opinion of a number of experts, it is the availability of autonomy, as well as positive relations with other people, that are important components of psychological well-being (Argile, 2003; Ryff, 1989), without which it is difficult to imagine an active, creative personality and a happy family life.

Orientation towards merging with the partner, ineptitude in distribution of role-assigned responsibilities and lack of clear understanding about responsibilities associated with the beginning of family life that are specific for the age period we are interested in, find their reflection in the decrease of the share of the functional type among those families that adolescents want to start in future. Only 9.09% of the participants in our study envision the relationship of spouses as bonded and emotionally close (that do not assume merges and breaches of interpersonal boundaries), based on clear intra-family rules, which can also be discussed both by parents and children ($\varphi=2.183$ at $p\leq0.05$).

Conclusion
So, summarizing the results obtained in our study, we may draw a conclusion that the description of not only a real, but also of an ideal family made by senior adolescents include upon the whole characteristics of a semi-functional type of family system. At the same time, describing the ideal family, boys and girls do not just rely on interaction patterns familiar to them or seek to compensate for unsatisfactory for them style of relations in the parent family, but also demonstrate quite typical for their age maximalism, orientation towards common interests and a desire to be accepted and get support from those around them. This appears to be one of the needs of the majority of our subjects that have been blocked out and that they strive to meet to their satisfaction.

Thus, the predominance in the perception of senior adolescents of emotionally distanced, disengaged and at the same time chaotic intra-family relations, noted down even in the notions of the ideal family can serve, in our opinion, as an indicator of a high risk of emotional ill-being of the majority of senior adolescents participating in our study and demonstrates the need that appropriate psychological assistance be rendered to them.

References


Improving The Training Of Personnel Based On The Model Of Interaction Between Educational Organizations And Centers For Assessing Qualifications

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Abstract
The importance of improving the process of training on the basis of creating a model for interaction between educational organizations and independent organizations in assessing the qualifications of employees by type of professional activity is determined by the needs of the real economy. Currently, the issue of greater or less discrepancy between the requirements of employers and the level of training of graduates of educational organizations is being actively discussed all over the world. The purpose of this study was to identify the requirements for the competencies of the future, to summarize the Russian experience in the establishment of the Qualification Assessment Centers, and to develop a model for interaction between educational organizations and the Qualification Assessment Centers. Theoretical and empirical methods, quantitative and qualitative analysis methods, methods of data aggregation, factor and structural-functional analysis, expert evaluation, classification and structuring of information, reference and statistical data, comparison method were used to analyze the existing problem.

As a result of the study, competencies were ranked, which are most often mentioned in the work on forecasting future competencies, and the importance of forming overprofessional, intersectoral, and personal skills is substantiated. In addition, the target audiences of the Centers for Qualification Assessment - individuals and various organizations - are described. Using the Ansoff matrix "Product / Market", an example of an assessment of the perspectives of establishment of qualification assessment centers in one of the regions of the Russian Federation is given. The subjects (organizations) are described, creating a methodological basis for the Centers for Qualification Assessment to conduct an independent assessment of the qualifications of graduates of educational organizations. The article will be useful for national and regional government bodies, educational organizations that train students, employers' associations that are involved in the organization of an independent assessment of the qualifications of personnel.

Keywords: personnel training, educational organizations, qualifications, competences, professional standard
1. Introduction

The urgency of improving the training of personnel is determined by the changing needs of the world economy in skilled personnel (Demcheko et al., 2017; Kirillov et al., 2017; Vinogradova et al., 2016; tasan et al., 2018). It is important to restructure the vocational education system so that it can respond not only to the current challenges of the labor market, but also build on the principles of advanced development. This applies not only to educational organizations of the system of higher and secondary vocational education, but also to programs for additional professional training, retraining and advanced training.

A.V. Khutorskoy notes that competence is a set of interrelated qualities of a person (knowledge, skills, methods of activity), assigned to a certain range of subjects and processes, and necessary for quality productive activities in relation to them. That is, in the opinion of this author, competence is some alienated, pre-determined requirement for educational training, and competence is an accomplished personal quality.

Within the framework of this article, competencies are understood as standards of knowledge, skills, personal qualities of the subject, necessary for high-quality and productive activities, and competence is the possession by each specific subject of a combination of professional and personal competencies.

In the Russian economy in many branches of management at the present time a rather large percentage of employees of organizations do not have a specialized education. According to E.Yu. Abramova (2016), the main reason for this is the discrepancy between the set of competencies of university graduates to the expectations of production organizations. Hence the low percentage of graduates employed in the specialty, as well as the low efficiency of the higher education system and a marked decrease in the effectiveness of public spending in the field of education.

The best international practices show that practices in the face of rapidly changing factors that affect the development of the economy and its individual sectors, the training of a sought after specialist is possible only in the context of integrating the interests of employers and universities and working together to develop the necessary list of competencies and competencies of the specialists (Anufrieva & Tsarev, 2016; Davoudi et al., 2018). This will make it possible to achieve the interests of both universities and employers. So, for higher education institutions - to increase the effectiveness of educational activities and their positions in the ratings through a high proportion of graduates' employment in the received education profile.

Training of personnel and assessment of their competence level should be carried out on a regular basis and in organizations of real sectors of the economy. The international experience of enterprises shows that, on average, they spend at least 20% of their total costs on training and evaluating their staff. In Russia, this indicator is significantly lower and currently amounts to no more than 0.8% for small and medium businesses and 12% for large (Zarubina & Morozova, 2015; Fartash et al., 2018).

At the same time, as in the preparation of future specialists within the framework of educational organizations, and their evaluation, and attestation at the level of individual organizations, there are at least two questions: the compliance with which requirements to evaluate and using what assessment tools it can be done. Also, to increase the objectivity of assessing the skill level of graduates of educational organizations and employees of different enterprises, it is important that this evaluation is carried out by an independent specialized organization.

In different countries this problem is solved in different ways. In Russia, since 2012, a national system of professional qualifications is being formed, based on the development and application of professional standards in the system of training and evaluation of qualified personnel. Currently, it is gradually being
introduced in the Russian regions. So in 2011, 11 subjects of the Russian Federation were selected for the introduction of the national qualifications system at the regional level: Belgorod Region; Krasnoyarsk region; Leningrad region together with St. Petersburg; Nizhny Novgorod Region; Novosibirsk region; Komi Republic; Samara Region; Sverdlovsk region; Khabarovsk region; Chelyabinsk region. In 2017, work was continued on the development of NSCs in the regions selected in 2016 and interaction with regional methodological centers in 12 other regions of the Russian Federation was organized: Altai Territory; Irkutsk region; Kaluga region; Kursk Region; Orenburg region; Altai Republic; Mari El Republic; Rostov region; Smolensk region; Tula region; Tyumen region; Ulyanovsk region.

As of 01.03.2018, already approved 1110 professional standards (Hardware and Software Complex "Professional Standards", 2018). On the basis of professional standards, a description of qualifications is formed, and control and measurement materials and methods of their use for independent evaluation of professional qualifications are developed. The principle of evaluation independence is realized through the creation by employers' associations of Centers for Qualification Assessment, which can be either specialized (for specific types of professional activity or branches) or universal (intersectoral).

The activity on the establishment of the Centers for Evaluation of Qualifications and the organization of interaction between educational organizations with these Centers should be based on the results of scientific research, the purpose of which should be the justification of the directions for improving the training of personnel based on the model of interaction between educational organizations and the Qualification Assessment Centers.

2. Methods and Materials

Methods of factor and structural-functional analysis, complex analysis, expert evaluation, classification and structuring of information, reference and statistical data, the method of comparison, and others were used to carry out research on the directions for improving the training of personnel based on the model of interaction between educational organizations and centers for assessing qualifications.

Using theoretical and empirical methods, it was revealed that one of the ambiguously interpreted in the scientific literature is the definition of the essence of the concepts "competence" and "qualification," approaches to their measurement and evaluation. Therefore, within the framework of this study, the task was to clarify the definitions of these concepts and justify the directions for developing methods for conducting an independent assessment of the qualifications of staff and its application, both in educational organizations and in the Qualification Assessment Centers.

In addition, based on the use of quantitative and qualitative analysis methods, data aggregation methods, a system of interaction between educational organizations and the Centers for Qualification Evaluation were described.

3. Results

Changes in approaches to the training and the formation of competences in modern society

Training in modern society should have a strategic focus, i.e. to form in the students not only those competences that are necessary today, but which should be built on the principles of advanced development, i.e. to take into account forecasts of the development of both the economy as a whole and its individual branches.
From the theoretical point of view, in the opinion of Kibanov et al (2015) "training is the creation of skills for employees to apply the theoretical knowledge gained (in schools, technical colleges, institutes) in a specific production situation."

Thus, it is important to understand what production and service processes exist in one form or another of professional activity, and how they will change in the future.

In conditions of rapid growth and devaluation of information resources, rapid development of technology, there is an increase in the rate of change in the socio-economic environment (Vinogradskaya, 2016). A consequence of this is the emergence of ever new difficulties in compiling further forecasts of future social phenomena and trends, including the training of qualified personnel. It's about the validity, relevance of specific knowledge, and the entire competence model of a professional in the future.

Currently, many studies are under way to develop a forecast for changing the requirements for the competencies of employees in the near and far future (Atlas of New Professions, 2018; Partnership for 21st Century Skills (P21), 2015; Four-Dimensional Education: The Competencies Learners Need to Succeed, 2015, Study of the consulting company BCG "Russia 2025: from talent to talent", 2017, Materials of the HR club of the Moscow School of Management "Skolkovo", 2016).

Based on the comprehensive studies of Bezruchko et al (2018) and the author's own research, competences were ranked, which are most often mentioned in the above works (Fig. 1.)

![Fig. 1. Ranking of competencies in the forecasts of requirements for staff](image-url)

One of the most important trends of our time is the unification of efforts of various organizations and specialists, in the preparation and promotion of new goods and services, for which it is important to form and develop competencies that ensure effective interaction of representatives of different organizations within any temporary projects.
Such competencies, according to the authors of the article, are such as:
- the ability to organize interaction and collaborate with other participants in the interim project to develop new products and services;
- the ability to take responsibility for themselves and solve problems arising during the development of new products and services;
- Learning and openness to new experiences, innovations that can be applied in a specific project to develop new or increase the competitiveness of existing goods and services;
- Creativity, creativity both in developing new products and services, and in promoting them.

At the same time, for the leaders of certain areas of project work, such competencies as systemic thinking (the ability to see the situation as a whole, and not just certain parts of it) are important; the ability to build inter-industry communications, work in conditions of high uncertainty and risk, and of course the management of projects, processes and people.

With the increasing globalization of economies of different countries, migration and mobility, the importance of such competence as multiculturalism, both at the stage of developing new products and services, and at the stage of its implementation to diverse target groups - representatives of different cultures, is growing.

Thus, in assessing the activities of the Centers for Qualification Assessment, there should be an assessment not only of the level of professional competence of employees in accordance with the requirements of professional standards, but also of professional, intersectoral, personal skills of applicants.

**Justification of target audiences of the Centers for Qualifications Assessment**

Developing a model of interaction between educational organizations and the Centers for Qualification Assessment is based primarily on understanding the characteristics of the main groups of consumers of the services of the Qualification Assessment Centers.

Qualification assessment centers can provide services to different target audiences. An analysis of international and Russian experience has shown that the most likely groups of consumers who already use the services of the Qualification Evaluation Centers, or may in the near future are primarily applicants (Table 1)

**Table 1.** The main groups of consumers of services of the Centers for Evaluation of Qualifications (individuals - applicants)

<table>
<thead>
<tr>
<th>№</th>
<th>Main groups</th>
<th>Characteristics of the opportunities provided by the qualification procedure</th>
<th>Expected results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Graduates of the system of pre-university vocational education</td>
<td>Increase the chances of finding employment, taking into account the quality of their training</td>
<td>Individual certificate (certificate) of professional qualification, increase in probability of employment</td>
</tr>
<tr>
<td>2.</td>
<td>Employees of the real sector of the economy</td>
<td>Confirmation by an independent organization of the level of qualifications and professional</td>
<td>Individual certificate of professional qualification, salary increase, horizontal or</td>
</tr>
</tbody>
</table>
3. The unemployed population of the region

- Confirmation of the quality and reliability of all operations performed by the employee; independent evaluation of the working class
- Employment and related material compensation for skilled work.

4. Foreign citizens working in organizations in the territory of a particular country

- Confirmation of the level of professional skills in accordance with national professional standards or the requirements of the sectoral (regional) labor market
- Individual certificate (certificate) of professional qualification, employment in organizations in the territory of a particular country

Thus, according to Table 1, it can be seen that due to the passage of the procedure for an independent evaluation of qualifications, the able-bodied population has the opportunity to improve their competitiveness, as an employee or specialist in a specific type of professional activity. In addition, if the assessment of qualifications was conducted according to national or international requirements (standards), in this case mobility of staff within the country or those countries in which these certificates of professional qualification are recognized is increased.

At the same time, in addition to individuals, there may also be collective users of the services of the Qualification Evaluation Centers - different organizations of their association (Table 2).

### Table 2. The main groups of consumers of services of the Centers for the assessment of qualifications (legal entities - the various organizations of their association)

<table>
<thead>
<tr>
<th>№</th>
<th>Main consumer groups</th>
<th>Characteristics of the opportunities provided by the qualification assessment procedure</th>
<th>Expected results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Organization of specific sectors of the economy</td>
<td>Possibility to get a real assessment of the level of competence, professional suitability of employees of the organization; Possibility to compare the conformity of the organization's personnel with the industry requirements for the relevant qualifications The possibility of increasing the motivation of staff for professional growth Reduction of costs for internal assessment</td>
<td>Highly skilled workers who have certificates (certificates) of compliance with the required levels of work and skill levels. Increase of competitiveness of the enterprises due to growth of personnel potential; Growth of motivation and motivation of the personnel to increase their own level of...</td>
</tr>
<tr>
<td>2. Regional and regional-branch associations and employers' organizations</td>
<td>The ability to specify the parameters of the required competencies in the workplace for a worker, specialist, or manager by participating in the definition of regional characteristics of the training system, test and measurement materials for procedures for independent assessment of qualifications.</td>
<td>Increase the productivity of workers and professionals, increase the profitability of hospitality industry enterprises; Meeting the requirements of international labor markets, products, goods and services; An additional argument for rejecting claims to the manufacturer when presenting lawsuits on the quality of the products or services provided.</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>3. Educational organizations</td>
<td>The ability to use in the current, intermediate and final attestation of students a practical evaluation toolkit Improving the quality of the educational process, as well as the ability to identify and eliminate shortcomings in the organization of the educational and production process in a timely manner.</td>
<td>The best employment of graduates of educational organizations Increase the motivation of students to develop professional competences Growth of attractiveness of educational organizations in connection with successful development of professional career of their graduates</td>
<td></td>
</tr>
<tr>
<td>7. Vocational education management bodies</td>
<td>Providing objective, reliable and transparent procedures for independent evaluation of qualifications of graduates of educational organizations recognized on the regional and national labor markets.</td>
<td>Achieving a dynamic balance between the demand for qualified personnel and the proposal for training these specialists from national and regional vocational education systems; Performance of tasks of normative and legal documents of national and regional level in the field of conformity of quality of training of personnel to the requirements of the labor</td>
<td></td>
</tr>
</tbody>
</table>
market.

Obviously, when introducing professional standards employers have to review the procedure for attestation of employees, the content of their job descriptions and the system of labor remuneration. In some countries and activities, the introduction of professional standards is voluntary, in some compulsory. In the Russian Federation, the non-application of the trade standard threatens with administrative sanctions: for legal entities, up to 200 thousand rubles for each individual violation, for individuals - up to 40 thousand rubles.

Next, we present the results of the analysis of the services of the Qualification Evaluation Centers using the Ansoff matrix "Product / Market" using the example of individual service sectors (Fig. 2).

Table 3. The "Product / Market" matrix for the Qualification Evaluation Centers (by the example of individual service sectors in the Kaliningrad Region of the Russian Federation)

<table>
<thead>
<tr>
<th>Client Service</th>
<th>Graduates of educational organizations</th>
<th>Employees of enterprises</th>
<th>Business Owners</th>
<th>Regional branch professional associations of employers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restaurant service</td>
<td>+</td>
<td>++</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>Scope of accommodation</td>
<td>+++</td>
<td>+++</td>
<td>+++</td>
<td>+</td>
</tr>
<tr>
<td>Tourism, including excursions</td>
<td>++</td>
<td>+</td>
<td>+</td>
<td>++</td>
</tr>
</tbody>
</table>

The notation in table 3:

- Estimated profitability of CSC services:
  - Grows: +++ High
  - Stable: ++ Middle
  - Slows down: + Low

Market tendency

Analyzing the matrix on the example of individual sectors of the service sector in the Kaliningrad region of the Russian Federation, the following conclusions can be drawn: the stability of the restaurant market in the Kaliningrad region and the absence of strict regulatory regulations do not yet determine the Center for Qualifications Assessment necessary for successful business management both from the owner of the business and the branch professional associations; accordingly, the employees also do not see the need for passing the examination at the Qualification
Evaluation Centers, since they do not see a direct correlation between career growth and professional qualifications;
for the hotel business, the establishment and operation of the Centers for Qualification Assessment is necessary, which is determined by the gradual tightening of the control and supervisory functions for this activity by state bodies, as well as the introduction from the year 2020 of mandatory classification in the RF of all accommodation facilities, in which one of the mandatory conditions is compliance with the professional standards of all employees, which further updates the process;
As for the tourism industry, the expansion of the Internet space in the tourism market reduces the need for personnel in the industry as a whole, and as a rule, qualified employees remain as a rule; However, if you analyze the tour activities, then the market here is stable.
In general, it can be concluded that there is a sufficiently wide range of potential users of the services of the Qualification Assessment Centers, but the motivation for applying to the Qualification Assessment Centers is different. In Russia, educational organizations are most interested in this, which is explained by the requirements of the Ministry of Education and Science for the organization.

Development of a model for the interaction of educational organizations with centers for assessing qualifications
The model of interaction between educational organizations and the Centers for Qualification Assessment, as follows from the data in Tables 1 and 2, can not be exhausted only by the educational organizations themselves and by the Central Evaluation of Qualifications. in it should be reflected and other participants of this process of interaction - at least Sectoral associations of employers, large industry employers, regional associations of employers, as well as graduates of educational organizations wishing to undergo an independent assessment of qualifications (Fig. 2).
Fig. 2. The system of interaction between educational organizations and the Centers for Evaluation of Qualifications
According to Fig. 2, it can be seen that in the system of interaction between educational organizations and the Centers for Qualification Assessment, several entities (organizations) can be identified that create the methodological basis for the evaluation centers for qualifications to conduct an independent evaluation of the qualifications of graduates of educational organizations and employees with work experience. Employers and their associations formulate sectoral and regional staffing requirements in the form of qualifications descriptions, and develop procedures and tools used to assess employee qualifications. In this they need the assistance of the scientific and educational community (adaptation of evaluation tools used for the certification of personnel for the purpose of conducting an independent assessment of qualifications).

On the other hand, educational organizations, as a result of the organization of such a system of interaction with the Qualification Assessment Centers, receive a real evaluation tool, which will be used to evaluate graduates in the future. The use of such tools in the educational process allows the operative adaptation of educational programs to the requirements of not only the national but also the regional labor market.

Discussion
The authors of the article have already repeatedly examined the issues of how to improve the training of personnel, and develop a forecast of the requirements for the competencies of graduates of the future (Larionova et al, 2017, Zaitseva et al, 2017).

In general, we cannot disagree with the opinion of P. Bezruchko et al (2018) that it is impossible to carry out a study proving the connection of certain "future competencies" with the results of labor - the future has not yet come, the work is not done, the result is not achieved. In addition, without knowing the objectives and characteristics of a particular workplace, it is not possible to scientifically justify and a set of qualities that contribute to success in this workplace.

At the same time, the study of future competencies and the development of various forecasts contribute to the formation of some benchmarks that the education system must take into account to ensure the competitiveness of its graduates in the future.

In the opinion of the authors of the article, the construction of an effective system of interaction between educational organizations with employers in general, and the Centers for Qualification Assessment in particular, will contribute to the creation of a real tool for the formation and evaluation of professional competencies in the types of professional activity. However, to ensure future graduates of the training system with confidence in the future in matters of employment, it is important to pay attention to the formation of overprofessional, cross-sectoral competencies and also to develop evaluation tools for their evaluation.

Conclusion
Based on the results of the study, the changes in the approaches to the training of personnel and the formation of competences in modern society are substantiated by shifting in the requirements for qualifications in the direction of building communications that ensure effective interaction of representatives of different organizations within any temporary projects. Also important competencies are system thinking, the ability to build inter-industry communications, work in conditions of high uncertainty and risk. In addition, such competence as multiculturalism, including at the stage of sale of goods and services to various target groups - representatives of different cultures, will become more important.
The introduction in various countries of the system of independent assessment of qualifications now is more a process of assessing the suitability of applicants for qualifications to the requirements of professional standards or the requirements of the regional labor market for certain types of professional activity. At the same time, there is practically no evaluation of overprofessional competencies.

At the same time, the effective system of interaction between educational organizations by the Centers for Qualification Assessment will promote greater practical orientation in training personnel for real sectors of the economy, which will result in an improvement in the quality of training and their subsequent employment.

Recommendations
Currently, there are still "gaps" between the requirements of employers for applicants and the level of qualification of graduates of educational organizations of all levels of training. The introduction of practical tools to assess the qualifications of personnel in educational activities will help to improve the quality of training, taking into account not only the national requirements for professional activities, which is reflected in professional standards, but also the regional characteristics of the labor market.

In this regard, the results of the study carried out by the authors of the article can be useful primarily to educational organizations engaged in the implementation of professional educational programs.

References


organization. Moscow. Bustard
opportunities for the management's personnel reserve. Eurasian Journal of Analytical Chemistry,
12(5b), 723-733.
of organizational and technological innovations in the process of managerial and engineering
personnel's training. Eurasian Journal of Analytical Chemistry, 12 (7b), 1573-1580
Materials of the HR club of the Moscow School of Management Skolkovo (2016)
Overprofessional skills according to the Atlas of New Professions (2018) http://atlas100.ru/future/
https://www.imls.gov/assets/1/AssetManager/Bishop%20Pre-Con%202.pdf
Study of the consulting company BCG "Russia 2025: from cadres to talents" (2017). http://image-
src.bcg.com/Images/Russia-Skills_Outline_v1.8_preview_tcm27-177753.pdf
Pavlushin, A.A.(2018). The Impacts of Teacher's Efficacy and Motivation on Student's Academic
Achievement in Science Education among Secondary and High School Students, EURASIA Journal
of Mathematics Science and Technology Education, 14(6), 2353-2366.
The 10 skills you need to thrive in the Fourth Industrial Revolution (2016)
https://www.weforum.org/agenda/2016/01/the-10-skills-you-need-to-thrive-in-the-fourth
industrial-revolution
technology in the field of educational services. International Review of Management and Marketing,
6, 281-287.
Vinogradskaya, N. A. (2016) Formation of research competence and professional skills of students in the
context of improving the quality of economic education. Design and technology, 55 (97), 138-143.
evaluation of educational programs in higher education based on the requirements of employers.
Modern Journal of Language Teaching Methods, 7(2), 167-176
Zarubina, V. S., Morozova, O.Y. (2015) Electronic Multimedia Tutorial as one of the Modern Methods of
Model Of Competences Of Graduates Of High Schools Of Engineering Directions:
Research Of Stakeholders

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Abstract

The structuring and specification of competences in the proposed clusters: corporate, managerial, vocational (professional) and competence of personal effectiveness was conducted for the first time in the article. In the study conducted in the period 2016-2018, 51 representatives of key employers of the Surgut State University took part: experts in the oil and gas industry, business, banking and municipal services. The empirical basis of the methodology was the questionnaire of employers with obtaining expert assessments on the importance of competencies and conducting focus groups identifying problem areas in the training of engineering personnel. Paradoxically, there was a low demand for such competencies by employers as loyalty, initiative and creativity. In the course of the research, it was possible to form a model of the most important competencies with their allocation according to clusters: in corporate competencies - focus on results and orientation on quality and efficiency; in professional competence - the ability to apply theory in practice and the ability to generalize, analyze and perceive information; in personal competence - organization, stress-resistance and orientation to the result; in managerial competencies - the ability to organize and the ability to set clear goals. The scientific novelty lies in the creation of an original model of competencies for graduates of higher educational institutions, which can become the basis for optimizing the educational process in the interests of preparing competitive young people needed for the modern labor market.

Keywords: competitiveness of graduates, employer, competencies, model, labor market
Introduction

At the present time, managers of different levels to the quality of personnel training are regarded as the main resource of innovation development of both a separate organization and the country's economy as a whole. It is becoming urgent to train the staff taking into account the requirements of employers, to train specialists for specific enterprises (to prepare the address). In this regard, universities should quickly adapt to the constantly changing external environment, which requires serious changes in the system of training of higher education in order to improve the competitiveness of its graduates (Ezhov et al., 2016; Tastan et al., 2018).

The quality of the training of young cadres by specified indicators of the state and the labor market has become the subject of research by many scientists. It was reflected in the scientific works of domestic and foreign researchers of various fields, revealing various aspects of improving the quality of students' education, the development of young professionals.

The problems of recruiting organizations with well-trained personnel, the acquisition and development of professional and managerial skills and competences among employees were raised by scientists from many countries (Sonnenfeld et al., 1992; Feng & Boyle, 2014; Tsitskari et al., 2017). Applied character is a study that discloses the demand of employers of industrial enterprises in a number of European countries for the formation and development of competencies among university graduates (Azevedo et al., 2012). The importance of professional qualities and competences in achieving gender equality is noted by V. Francis (2017). Other scientists point to the need to focus on developing the professional and individual competencies of employees who demonstrate leadership skills (Bronkhorst et al., 2015). The problem of creation of favorable conditions for training and labor protection for university students and employees of organizations is studied (Rogach et al., 2016; Davoudi et al., 2018).

A separate place is occupied by the structuring and concretization of competences, which are important for employers and make university graduates competitive and in demand on the labor market (Zaytseva et al., 2017; Larionova et al., 2017; Fartash et al., 2018). Yu.A. Dmitrieva (2010) identified the following competencies as the main elements of competitiveness of the graduate: motivational, qualification, personal, business. O.V. Borisova's (2009) approach is somewhat different. In her opinion, the correspondence between the level of vocational training and personal characteristics of the graduate to the requirements of the workplace and subjective preferences of employers should be considered among the main indicators.

Yu.N. Kasymova (2015) refers to the key indicators of competitiveness of the graduate: professional and personal qualities; ability and willingness to compete; aspiration for promotion and career development; compliance with market conditions in their relationship to the strategic objectives of the enterprise.

The graduate should start the development of the competencies necessary for the employer as soon as possible in order to compete for the desired workplace.

Recently among the requirements of employers to candidates there are such as the need to meet certain professional competencies, as well as personal and corporate competencies. This applies not only to employees of the front office, but also to engineering personnel. Employers began to pay attention to the
ability of competitors to work in a team, the speed of orientation in non-standard situations, the level of
development of emotional intelligence (Chulanova, 2010), social skills, consciousness, ability to comply
with health and safety requirements (Vinichenko et al., 2016). In many organizations, among the
corporate competencies these occupy the most important place. They are especially relevant for technical
staff.

The German Engineering Association (VDV) recommended that "soft skills" be included in about 20% of
engineering curriculum courses. Graduates of polytechnic universities (engineering specialties) should
have not only professional training, but also must be able to work in a team, have good communication
skills. These requirements are also reflected in the "Conceive Design Implement Operate" (CDIO) concept,
which emphasizes that engineering programs should ensure not only mastering theoretical knowledge,
but also the formation of personal and interpersonal competencies and skills in creating objects, processes
and systems (Chuchalin, 2011).

In a number of studies, it is noted that employers in the person of engineering personnel want to see
single-minded workers who have innovative ideas and are able to take the initiative; flexible,
development-oriented; able to resolve conflict situations and have negotiating skills; having skills in
solving problem situations; punctual, able to work in conditions of multitasking, withstand deadlines,
etc. (Bogdan & Chulanova, 2016; Chernyak & Kharlamova, 2015).

One of the ways to improve the quality of training engineering fields can be the participation of
employers in developing requirements, identifying the most important competencies for effective work,
increasing the competitiveness of the organization. To help the graduate to master all the above
competencies as early as possible, it is necessary to include potential employers in the process of training
at all stages: from assistance in developing the basic educational program, direct participation in the
educational process, to the final certification of the graduates' competence.

In this regard, the purpose of the study is to create a basis for assessing the candidate for a job from
among graduates of engineering universities - forming a model of competencies for graduates of
engineering universities in accordance with the demands of the regional labor market on the basis of an
expert poll of key employers of the Surgut State University.

Generation of the data

To achieve the goal, a methodology was developed based on the following survey methods:
questionnaires, expert assessments, focus group, content analysis, logical, comparative analysis,
observation, methods of mathematical statistics, etc. The main empirical research tool is a questionnaire.
In the form of the questionnaire, author's questions were used, which allowed the employers to assess the
importance of competencies broken down into clusters. The most significant competencies were studied
within the framework of the selected clusters.

In the study, the author's team identified the following clusters of competencies: corporate; management;
professional (vocational); competence of personal effectiveness.
Corporate competencies are the personal or vital values of employees who must meet the company's requirements from the general, corporate values. They are the same for all employees of the company. Their presence helps to increase loyalty to the company and adherence to its requirements and norms (Samoukina, 2015). Managerial competencies are developed for employees engaged in management activities and necessary to effectively achieve business goals (Chulanova, 2014). Professional (vocational) competencies represent a set of personal characteristics, as well as the knowledge, skills and skills necessary to work effectively in a specific job position. Competencies of personal effectiveness provide the employee with competitiveness in the labor market and include such as organization, results in orientation, stress resistance, creativity, etc.

The questionnaires were distributed to the respondents in printed form. Each questionnaire was signed by the respondent. All respondents could fill only one questionnaire, answering questions according to the instruction. The questionnaires filled in with violation of the instruction in the final processing were not taken into account.

The study was conducted in the period 2016-2018. The key employers of Surgut (Russia) were involved as experts: 51 representatives. The respondents included specialists from the oil and gas industry, business, banking, and municipal services. Using their questionnaires, during two large-scale Job fairs, a list of graduate competencies, significant for the employer, was formed, which became the basis for the model being formed.

Results

In the course of the study it was possible to establish that corporate competencies are very important for employees of technical specialties. Figure 1 presents the rating of corporate competencies. The lower the rank, the more important the employers' opinion is competence. As the results showed, among the priority competencies are the focus on quality and efficiency (rank 1.7) and focus on the result (rank 1.86). More than 25 employers put the given competencies in the first place, and among the remaining scatter in the ranks was small. Among the less significant competencies employers note loyalty (rank 4,5) and promotion of initiatives (rank 4).
Fig. 1. The most significant corporate competencies

Among professional competencies, respondents note the importance of the ability to apply theory in practice (rank 2) and theoretical training in special fields (rank 2.55). The competence rating of this cluster is shown in Figure 2.
The next cluster of competencies is managerial. As can be seen from Figure 3, the most important respondents consider the ability to organize a process (rank 1.83) and the ability to set clear goals and objectives (rank 1.9).
3. The most significant managerial competencies

Among the personal competencies, employers highlighted the importance of organization (2.5), orientation to the result (2.6), stress resistance (rank 2.7), and development orientation (rank 2.88), (Figure 4).
In general, among the most important competencies of university graduates of engineering directions in demand on the labor market are: focus on results, focus on quality and efficiency, ability to apply theory in practice, ability to generalize, analyze and perceive information, organization, stress-resistance and focus on results, the ability to organize and the ability to set clear goals.

Discussions

In the course of the study it was possible to establish that the employer, employing a graduate of engineering direction, wants to see among the main corporate competencies: the focus on results and the orientation on quality and efficiency.

The lowest score was received by loyalty, which causes certain fears. First of all, these concerns organizations of the fuel and energy complex. Management adheres to a kind of personnel policy - it is not afraid of personnel leaving, hoping to find other specialists for well-paid work. Another factor is the substantially limited supply of jobs of this profile in other organizations.

Attention is drawn to the fact that employers of 22 organizations did not generally note loyalty as a significant competence, and the nomination of initiatives - 19 organizations. Paradoxically, many employers do not need initiative, loyal employees who can adapt to changes, which contradicts the conclusions of a number of domestic researchers (Bogdan & Chulanova, 2016; Chernyak & Kharlamova, 2015). In unison with Russian scientists, Western specialists singled out loyalty as one of the most

![Diagram](image-url)
important competencies. According to Sears, (2003), it is better to develop and strengthen relationships with not always "comfortable" employees of the organization, rather than build with newcomers who came to the place of the laid-off.

This can serve as a prerequisite for reducing the competitiveness of commercial organizations. In the public sector, this negative trend will affect later.

In addition to the proposed list, during the focus group, employees of "Suguneftegas" noted the importance of employees' striving for self-education. The Police Department (MIA) in Surgut added to the list of important competencies: concentration, discipline, the ability to respond quickly in stressful situations, avoid depressions, and prevent emotional burnout. These data correlate the studies of a number of foreign scientists who have identified ways of preserving professional competencies among police officers who have performed their duties under conditions of constant stress (Cohen et al., 2016; Turnbull & Wass, 2015).

Assessment of professional competencies has shown that specialists and engineers are in high demand at the production and in the service sector with a good knowledge of the theory and the ability to apply it in practice. In addition, it is relevant to be able to collect the necessary information and make informed decisions. This indicator indicates that modern technologies are being increasingly introduced in production. It is not entirely clear why management of enterprises is less interested in such competencies as the use of diverse approaches and attention to detail. In the profession of an engineer, a superficial approach to business is very dangerous.

In spite of the fact that graduates of engineering specialties are not purposely prepared for managerial positions, the management of organizations wants to see at them such managerial competencies as system and analytical thinking and set clear goals and objectives. Indeed, in practice, specialists (engineers), especially information technology, and line managers are difficult to find a common language because of the specifics of thinking and different approaches to formulating goals and objectives. The least among specialists (engineers) management wants to see the desire to show themselves, leadership qualities, influence others. To some extent, one can agree with the fact that for the specialists (engineers) the leadership qualities are not the main ones. However, the desire of any employee to prove himself in his profession serves as a locomotive for the development of the entire organization. To the above list of competencies, employers in the focus group have added the ability to delegate authority.

A special place was taken by personal competence, the most important of which is organization, organization for results, stress resistance and development orientation. It is noteworthy that practically all organizations, with the exception of five, noted stress-resistance and organization. In general, this is logical. However, the question is the evaluation of such competence as creativity. After all, creativity provides new approaches to production, the creation of innovative models, adoption of non-standard solutions - all that first of all raise the competitiveness of any organization. You can also add an orientation to the changes. Moreover, this applies to the employees of the technical sphere. Perhaps there is a certain feature in the structures of the fuel-energy complex.

During the discussion of the problems, the focus group identified the following major shortcomings in the training of engineering specialists: lack of practical experience, weak teamwork skills, self-development, and independence in making managerial decisions. Future specialists (engineers) do not know the basics of economics, financial planning, accounting and time management, are not very interested in the development of modern technologies, they do not adequately perceive criticism and do not fulfill their tasks in a timely manner.
Conclusion

The results of the research confirm the importance for employers of having graduates of engineering directions not only "hard skills" but also "soft skills". When forming the model of competencies of the graduate of the university, significant for the employer, it was possible to identify the main priorities of practitioners in improving the efficiency of production and the provision of services. The system approach allowed to form a model of the most important competencies with their allocation according to clusters: in corporate competencies - focus on results and orientation to quality and efficiency; in professional competence - the ability to apply theory in practice and the ability to generalize, analyze and perceive information; in managerial competencies - the ability to organize and the ability to set clear goals; in personal competence - organization, stress-resistance and orientation to the result.

Along with positive assessments, problem areas have been identified. A number of the most important competencies that have a significant impact on the competitiveness of the organization have remained among the outsiders. Of particular concern is the ignoring of such competence by graduates as creativity. In the conditions of acute struggle in the economy, ignoring the competence, which allows generating new ideas, creating innovative models, making non-standard solutions is very dangerous.

As the promising competencies important for the labor market, one can name skills of working in a team, self-development, in the independence of making managerial decisions. In future research, it is planned to consider possible changes in the engineering curricula of engineering directions, the inclusion of disciplines in the training process that will allow the generation of missing soft skills.

Thus, the scientific novelty of the research is to create an original model of competencies for graduates of higher education institutions, which can become the basis for optimizing the educational process in the interests of preparing competitive young people needed for the modern labor market.

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References


Transformation Of Social Status Of Teachers Of Russian Universities

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Abstract
The article examines the nature of the transformation of the social status of the university teachers in the period of social and economic reform of the country and the modernization of higher education. For the first time, a three-stage sociological study was conducted involving 274 teachers and 215 students of Russian State Social University (RSSU) for 7 years (2009-2016). A comprehensive analysis of the results of sociological surveys of teachers and students of RSSU and official statistics allowed revealing the dynamics of the status characteristics of teachers of Russian universities. There was revealed a significant tightening of the requirements set by the university for the teachers, an aggravation of the competition in the professional sphere. This led to cardinal changes in the sphere of labor and employment of the university teachers. The hypothesis was confirmed that changes in the social status of teachers are contradictory. The originality of this work lies in the fact that the essence of the contradiction between the simultaneous growth and decrease in the social status of teachers in different characteristics was gradually revealed: the growth of importance in the system of higher education and the full dependence of the teacher on the administration of universities; the growth and decline of students' respect for teachers; a declarative increase in wages and a real lag in the growth of teachers' remuneration; satisfaction of the university teachers with their labor contrary to the current system of labor incentives.

Keywords: teachers of universities, status characteristics, labor market, employment, working conditions, modernization of higher education.

Introduction
The Russian system of higher education has once again entered a period of transformation (Zaitseva, et al., 2017). The actual problems of reforming the higher school are widely discussed not only by representatives of the educational community, but also by those who, without having a direct relationship to the educational sphere, are genuinely concerned about the fate of Russian universities (Yumatov, et al., 2017; Tastan et al., 2018). Particular attention of the public is drawn to the problems of the faculty's readiness for change, because without active participation and real support of teachers, the tasks of innovative development of universities can not be realized (Zaitseva, et al., 2017; Davoudi et al.,...
There are doubts whether teachers are able to make their significant contribution to improving the university's competitiveness and solving the set tasks.

The position of the university teacher today is characterized by a clear contradiction: on the one hand, university professors strengthen their positions as a socio-professional community responsible for human capital development on the one hand, on the other hand, if the real level and quality of life are assessed, teachers are pushed into relatively low status groups.

The character of the demand for teachers in the international and domestic labor markets is changing. The complexity of the position of the teacher is exacerbated by the destabilization of the situation in the professional labor market, a significant deterioration in the working conditions. The works of a number of Russian researchers (Gokhberg, et al., 2011; 2016; 2017; Gerashchenko, 2017; Popova, 2012) is devoted to the problems of changing qualitative and structural characteristics of the employment of teachers in the conditions of reforming the higher school. The transformation of the conditions and content of the work of university teachers at the present stage attracts the attention of specialists in many countries of the world. A number of experts note the deterioration in the situation of university professors in the US and European labor market (Musselin, 2013, Stocum, 2013), disclose the negative dynamics of the level of remuneration and working conditions for teachers (Ouardighi, et al., 2013; Fartash et al., 2018).

The transformation of the social status of university professors takes place against the backdrop of the dynamic development of the world education system, the use of modern technologies, the solution of the emerging contradiction between the Y and Z generation students who have used modern technologies and innovative models (Landers & Armstrong, 2017), social networks (Zdravkova, 2016), and teachers of the generation X. This is reflected in the scientific writings of scientists around the world. Chinese, Slovak, Russian and American scientists have focused on the use of modern technologies of self-organization in higher education (Zhang, 2017, Wolters, et al., 2017; Demcheko, et al., 2017). Researchers pay much attention to improving pedagogical skills using the gaming of the educational process (Bartel, et al, 2017, Lumsden, et al, 2016, Miguel, et al, 2017), time management (Alvarez, et al., 2017, Durak & Saritepeci, 2017, Currey, 2014). A number of countries are working to ensure the continuous development, the creation and the use of the personnel reserve in educational organizations (Tsitskari, et al., 2017; Vinichenko, et al., 2017). These approaches and technologies to a certain extent allow us to overcome the contradictions of generations, influence the transformation of the social status of university teachers.

The specificity of Russia lies in the fact that the federal leadership tries to use the diverse international and domestic experience in a short time, immediately extending it to the entire education system. This leads to a great overload in the activities of teachers, constant experiments without deep scientific study and development of technology for applying this experience. The administration increasingly concentrates the power of power in its hands and pays less attention to the conditions of work of teachers, their morale and health. The rapid advance does not provide an opportunity to assess the ongoing reforms deeply and systematically. As a result, negative tendencies in the personnel sphere of higher education are growing.

In this regard, the purpose of this study was to identify the nature of the transformation of the social status of university teachers.

**Generation of the data**
The need for a comprehensive analysis of the current situation in the cadre sphere of higher education has led to the active use of a wide range of scientific research methods. In particular, the methods of typological, historical-genetic, comparative micro- and macroeconomic analyses were used. The empirical base is based on the use of statistical data and the results of sociological research. The work actively uses the official statistics provided by the Federal State Statistics Service of Russia (Rosstat), as well as obtained during the monitoring of the educational sphere conducted by the National Research University "Higher School of Economics" (Indicators of Science, 2015, Indicators of Education, 2016: Indicators of Education, 2017). The empirical base of the research is also the results of sociological surveys of the students and the teachers of Russian State Social University (RSSU), conducted during the period from 2009 to 2016:

Stage 1 - 2009-2011 The sociological survey of the teachers of RSSU within the framework of the project "Development of theoretical and practical foundations for motivating and stimulating the teaching staff of higher education in modern conditions" (the Ministry of Education and Science of the Ministry of Education and Science of the Russian Federation "Development of the scientific potential of higher education"), 159 people were interviewed.

Stages 2 - 2012-2015 Sample interviews with the teachers of RSSU on the problems of transformation of working conditions and employment in higher education institutions, in total 37 people were interviewed.

Stage 3 - 2015-2016. Sociological research "Teachers of universities and students in the market of educational services"; in total 215 students (bachelors and undergraduates) of the Faculty of Economics and the Faculty of Communication Management were interviewed. Interrogations of teachers of the RSSU on the problems of the dynamics of the professional labor market, a total of 78 people were interviewed.

Collection, accumulation and generalization of information reflecting the dynamics of working conditions and employment of the university teachers allow us to create a basis for further in-depth analysis of the problems of the development of higher education in modern conditions.

In the article a hypothesis is put forward: the transformation of the social status of the university teachers is controversial, requiring a more careful attitude to the problems and the needs, the working conditions of teachers.

Results
General trends in the transformation of working conditions and employment of the university professors: from the administrative-command system to the market relations

In our opinion, the basic, starting point for analyzing changes in the world of work and employment of the university teachers should be considered the socio-professional and status positions of teachers in Soviet universities. Although the assessments of the heritage of the Soviet higher school are ambiguous, nevertheless there is a relative unity of views when it comes to the quality of professional activity and the level of social security of the faculty. Comparative analysis of the dynamics of the main characteristics of labor and employment of teachers in Soviet and modern Russian universities testifies to significant, far from always positive changes in this area.

Table 1. Change in the main characteristics of labor and employment of university teachers in the late twentieth - early twenty-first centuries.

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<table>
<thead>
<tr>
<th>Main characteristics</th>
<th>Soviet high school</th>
<th>Modern Russian University</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Employment contract (contract)</td>
<td>Competition - a formality, an employment contract is extended almost automatically</td>
<td>Transition to the system of &quot;effective contracts&quot;</td>
</tr>
<tr>
<td>2 Professional mobility and opportunity for part-time work</td>
<td>Low level of mobility, few opportunities for external support</td>
<td>High level of forced mobility, formally unlimited opportunities for part-time (tendency: reduction)</td>
</tr>
<tr>
<td>3 The level of remuneration and the system of non-material incentives</td>
<td>High wages (compared to the average for the economy)</td>
<td>Salary is below the average for the economy (trend: increase)</td>
</tr>
<tr>
<td></td>
<td>The great importance of the factors of non-material incentives</td>
<td>Absence of an effective system of non-material incentives</td>
</tr>
<tr>
<td>4 Unemployment Risk</td>
<td>Absent</td>
<td>High, has increased dramatically in recent years</td>
</tr>
<tr>
<td>5 Relations with students</td>
<td>Authoritarian nature</td>
<td>Not entirely authoritarian, but also not partnership; low status value of teaching activities for students</td>
</tr>
</tbody>
</table>

Large-scale socio-economic transformation, carried out in the Russian society since the 90's. XX century, could not but reflect on the nature and content of labor activities of university teachers. Let us examine in more detail the dynamics of the most significant characteristics of labor and employment of university teachers.

Transition from the employment contract to the system of "effective contracts"

For many decades, Soviet universities have held contests for the replacement of faculty positions. As a result of the competition, a labor contract was concluded with the teacher. This contract was concluded on a competitive basis for a fixed period (most often for several years), but actually prolonged without unnecessary formalities many times. The reason for the non-renewal of the employment contract could be substantial violations of labor discipline.

Modern Russian researchers assess the position of the university teacher in the administrative and command economy as follows: "The position of the professor on the national labor market was defined as follows: high (or sufficient) remuneration plus a large degree of freedom within the framework of the employment contract - in exchange for a very high (unique or highly specific) skill level. While the price of labor seemed sufficient, the universities did not lack young people ready to enter such a path ... "(Contracts in the academic world, 2011).
In the late 90's, XX century, the meaning of the employment contract (contract) has changed. Most Russian universities are switching to individual "effective contracts" for each teacher. Within the framework of these documents, the requirements set forth by the university for the employee are clearly spelled out, on the basis of which formal, rather than formal, competitions should be held to fill vacant positions of the teaching staff.

With all the positive aspects of implementing an effective contract, risks that are associated with an orientation solely toward the achievement of formal quantitative indicators of the professional performance of teachers are obvious (Ilina et al., 2017). It should be recognized that until now officially open competitions for the filling of faculty vacancies in many cases are carried out only formally, but in fact the main mechanism for finding and selecting new teachers is the use of personal contacts of university employees. At the same time, the administration of the universities (with the tacit agreement of trade unions) has practically created a mechanism ensuring the maximum vulnerability of the teacher and its dependence on management. For example, the terms of contracts concluded with even competitive ones that meet all the requirements of the teachers are artificially shortened - most labor contracts are concluded for 1 year.

Professional mobility and opportunity for part time work

The level of professional mobility of teachers in the Soviet university was low. For the teaching community, it was considered the norm to work in the same university throughout the entire career, and often it was the same university where the teacher received a diploma of higher education and defended his thesis. The opportunities for upward and horizontal mobility within the intra-university labor market were also limited.

Relatively low level of mobility persisted in the Russian higher school in the beginning of the XXI century. Analyzing the professional mobility of university teachers at the current stage, the researchers note that almost 65.6% of teachers can be classified as "immobile", i.e. their work experience in this university is the same as the total academic and teaching experience. However, the low level of mobility of teachers is not reflected negatively on the results of their professional activities. For example, "immobile" teachers are not inferior to "mobile" teachers in quality and quantity of publications, and by some indicators are ahead of them (Gorelova, 2016).

The possibility of part time job is now regarded as an integral "bonus" of the teaching profession (Grunina et al., 2013, p.47). As the teachers themselves admit, the availability of a relatively free schedule and, accordingly, the opportunity to combine basic teaching activities with various types of sub-work is one of the most attractive aspects of the profession. But it was not always so. The opportunities for external compatibility in a Soviet university were limited. In particular, part-time work was allowed only in one institution; the part-time worker was required to present a written permission from the main place of employment to work part-time, etc.

Restrictions on the compatibility of teachers of higher education were lifted in the 90's of the XX century. Most noticeably (1.5 times), the number of part-time students in higher education institutions increased in the period from 2000 to 2005. Obviously, the most significant factor that predetermined such a significant dynamic in the professional labor market was the active development of non-state universities. But
starting from 2006, the number of external part-time employees began to decrease and by 2015 decreased by more than \( \frac{1}{4} \). (Indicators of Education, 2016, p.229). According to sociological surveys, in 2010 69% of full-time university teachers had a second job, and in 2014 the proportion of those who worked part-time outside of their university fell to 54% (Monitoring of the Economics of Education, 2015).

The level of remuneration and the system of non-material incentives

The high status positions of the university teacher in the USSR were confirmed by a fairly high level of labor remuneration. The average salary of the university professor was about 300% of the average salary in the economy as a whole, and the beginning young teacher - 110-120% (Future of higher education, 2013).

Since the late 1980's, at the state level, the regulatory and legal support for calculating the salaries of university teachers has changed. In this regard, numerous acts were adopted to introduce new and reduce old cash payments. The real incomes of teachers have significantly decreased.

Thus, the average monthly salary of teachers at their main place of work in 2000-2001. was approximately 75-90 dollars. In Moscow only, the average salary of university teachers in the main place of work in 2000 exceeded $ 100. Only in recent years there has been a positive tendency in the field of teachers' remuneration - by 2018 it is planned to increase the average salary to 200% from the average for the economy. To achieve the goals, according to the Ministry of Education and Science, in 2018, 33.4 billion rubles will be allocated to increase the salaries of university teachers, and in 2019 - 36.9 billion rubles (Salaries to university teachers, 2017).

The peculiarity of the incentive system that was established in the Soviet higher school was the presence of a wide range of intangible components. The most important elements of the system of non-material incentives for teachers were various benefits - for example, reduced working hours, long holidays, additional square meters of living space for the office, etc.

In the late 90's - the beginning of the "zero" motivational system of university teachers began to deform. At present, the former system of social benefits for the teaching staff of universities has been completely destroyed, and a new one has not been created. According to experts, Russia differs from the rest of the countries in that "subjective factors have a special significance for its teachers: a sense of' own influence "in the department, communication in the team, collegiality in decision-making and adequate interaction between the teachers and the leadership of the university. All this increases job satisfaction and reduces the level of experience, that is, leads to the optimal psychological combination "(Communication reduces the degree of stress, 2016). Those. we can talk about a sufficiently high level of satisfaction of university teachers with their labor, which is not formed thanks to, but rather contrary to the current system of labor incentives.

Unemployment risk

With almost full employment, typical for the administrative-command economy, the unemployment risk for highly qualified university teachers, especially those with a degree and rank, was minimized. Until recently, the professional labor market for the teachers was relatively stable, but a few years ago the
situation changed - a massive reduction in the number of universities began. In many respects this approach is connected with the "demographic pit" - a significant decrease in the birth rate in the crisis of the 1990s. The XX century has led to the fact that the number of pupils in general schools declined over 10 years from 22 to 14 million, which means that the number of entrants also decreased (Druzhilov, 2011). The growth of crisis trends in the Russian economy in 2014-2015, has also had some impact on higher education. The reduction in budgetary funding forced the Ministry of Education and Science to toughen the requirements for state universities, pushing them to reduce staff costs.

In recent years, there has been an active process of reducing the number of the universities. According to the Federal Service for Supervision in Education and Science of the Russian Federation (Rosoboradzor of the Russian Federation), only 800 universities and branches have been closed for only 2014-2015. (Fedotov, 2016). In this situation, the risk of job loss becomes real even for highly competitive university teachers.

In the period from 2010 to 2016 the number of the faculty members decreased by more than 62 thousand (almost by one fifth) (Indicators, 2017). There is no exact information on the actual number of teachers who lost their jobs during this period. According to the Union of University Workers of Higher Education, only in 2015 thousands of teachers were reduced or transferred to a lower rate.

The attitude of the university teachers towards the problem of job loss has changed. As evidenced by the results of the sociological survey of teachers of the RSSU conducted in 2009, 45.3% of the interviewed teachers were confident of the stability of their position in the university and believed that they would not lose their jobs. In 2016, absolutely all interviewed teachers noted that the loss of work in modern conditions is quite real. Moreover, more than ¾ of the respondents are sure that they will face serious difficulties in finding work in the professional labor market.

Relations between teachers and students

For the Soviet higher school was characterized by the authoritarian nature of the relationship between the teacher and students. The students called the teacher by name and patronymic, welcomed the teacher by standing up when he entered the classroom, during classes they had to be quiet, do not talk among themselves, do not eat or drink, do not get up and walk around the audience. The student did not have the right to choose subjects and teachers.

Obviously, after abandoning the Soviet model of interaction in the "teacher-student" system, Russian universities did not form a full-fledged Western model. A modern Russian student does not possess the same academic freedoms as the American and European, is not ready for that level of independence and responsibility, as is customary abroad.

As the data of the survey of students of the RSSU show, the relations "seller-consumer" begins to dominate in the sphere of higher education. The overwhelming majority of the students surveyed (9 out of 10) feel themselves to be a consumer in the educational services market, although they are not fully aware of their rights in the educational sphere. Students respond differently to the question: who today becomes the teacher of the university. 4/5 of respondents believe that university teachers are people who
like to teach, and 70% of students are sure that the main thing for teachers is an interest in science. This increases the authority of teachers.

There is also not a very pleasant discovery. 28% of the students surveyed believe that the teacher of the university most often becomes a person who could not succeed in any other areas. Obviously, the status of teaching activities among respondents is contradictory.

The fact that the attitude of students to individual teachers, and in general to the profession is not too respectful, often the teachers themselves are to blame. So, many students note that teachers complain about their hard life (low wages, heavy workload). 18% of the students note that the teachers complain about their problems very often, 54% believe that sometimes. Not surprisingly, 3/5 of the students feel pity for the teachers.

Discussions
The problems of transforming the conditions of professional activity and employment in recent years have attracted the attention of the teaching and teaching community. Separate provisions of the conducted research were reported and actively discussed at various scientific conferences. In particular, the dynamics of the professional labor market and the strategies for adapting the teaching community to new social and economic conditions became the subject of discussion at the XVII International Social Congress (October 30-31, 2017). During the discussion, it was noted that the significant tightening of the university’s requirements for teachers and the intensification of competition in the professional sphere led to cardinal changes in the sphere of labor and employment of university teachers, which negatively affects the quality of professional activity. At present, the university teacher works in a very tense, exhausting schedule, the level of his workload is very high. In fact, the professional activity of the teacher is assessed in three main areas:

- research (publication activity, grants),
- pedagogical (conducting classes, educational and methodical publications, authoring courses development),
- expert (membership in expert communities, business associations, dissertational councils, as well as positions in the ratings).

The professional activity of a high school teacher could always be characterized as a work of high complexity, which combines teaching, scientific, educational and organizational functions. In recent years, one more function has been added to the listed ones: the "commercialization of knowledge". After all, a modern university teacher should have the skills to turn his intellectual capital into real money (moreover, by non-criminal methods).

Conclusion
At the present stage there is a process of accumulation and systematization of theoretical and empirical material on the problems of adaptation of the teachers of Russian universities to new social and economic conditions.
The analysis of the dynamics of the main status characteristics of university teachers allows us to state that the hypothesis was confirmed - the changes are contradictory. Many qualitative changes in the position of teachers are a reflection of general trends in the development of higher education. The increase in the workload, the stricter requirements imposed on the level and quality of scientific and pedagogical activity, the real risk of job loss, all this significantly complicates the daily professional activity of the teacher.

Negative situation in the sphere of labor and employment of teachers of Russian universities is aggravated by the following factors:

- Low level of labor mobility (absolute unavailability to territorial mobility);
- insufficient knowledge of foreign languages;
- lack of competitive skills for the workplace, lack of legal literacy, which does not allow effective protection of their rights in conflict situations;
- stereotype that developed in previous years, that a high professional qualification status (a scientific degree of a candidate or a doctor of sciences) guarantees a demand in the higher education system.

In the course of the study, the essence of the contradiction between the simultaneous growth and decrease in the social status of teachers according to different characteristics was revealed: the growth of importance in the system of higher education and the full dependence of the teacher on the administration of universities; the growth and decline of students' respect for teachers; a declarative increase in wages and a real lag in the growth of teachers' remuneration; Satisfaction of university teachers with their labor contrary to the current system of labor incentives.

Obviously, the formation of an effective system of support for professionally active, competitive teachers, the creation of favorable conditions for the development of the human resources capacity of universities is a necessary condition for the successful development of Russia's higher school at the present stage. All this requires a more attentive attitude to the problems and needs, the working conditions of teachers on the part of management.

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References
Communication reduces the degree of stress of university teachers (2016). National Research University "Higher School of Economics." Retrieved November 14, 2016 from


Prospects For The Development Of The Historical And Reconstructive Movement As A Direction For The Preservation Of Cultural Heritage

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Abstract
Historical and cultural heritage plays a huge role in the development of domestic tourism. Objects of historical and cultural heritage, being an important property of cities, attract tourists, and significantly affect their economic development. One of the current trends in the preservation of cultural heritage in various regions is the development of the historical and revival movement. This movement is constantly growing all over the world, which determines the relevance of this study. The purpose of this article is to determine the features of the historical and reconstructive movement, to assess the prospects for its development on the basis of a generalization of the foreign experience of carrying out measures of historical reconstruction. The leading method in the study of this problem was a comparative analysis of the development of the historical and reconstructive movement. The author's classification of historical reconstruction clubs is proposed in the article depending on the number of its participants, the main types of events in which historical reconstruction clubs take part, this systematization can be used in the formation of tours, the development of a program for promoting a regional tourist product. The study noted that club holidays and historical hikes help the development of historical reconstruction clubs from within. In the opinion of the authors of the article, the main translators in the historical and reconstructive movement are festivals, at which tournaments and balls take place, as a rule, in authentic settlements where participants live for some time in the setting of an era. The analysis of the most important events of historical reconstruction made it possible to conclude that the main trend of almost all festivals is the medieval era, the military-historical movement is represented today in a limited way.

The article may be of interest to specialists of tourism management bodies of various levels, organizations involved in the preservation of cultural heritage, as well as private investors.

Keywords: historical and reconstructive movement, cultural heritage, historical festivals, historical reconstruction clubs, tourism
1. Introduction

Describing the features and prospects for the development of the historical and reconstructive movement, as a direction for preserving the cultural heritage, it is, first of all, worth noting that this phenomenon is relatively young. At present, there are several scientific approaches to understanding the essence of the concept of "historical reconstruction." First of all, two main approaches can be distinguished:

1) Restoration of the external appearance and structure of a historical object, practical and theoretical modeling. This reconstruction is based on the processing of the preserved information and with the help of modern technologies (computer modeling, replication, archaeological experiment).

2) The activities of historical clubs or groups of people, aimed at recreating any historical processes, events, objects, clothes, etc.

In the framework of this study, the second meaning of this concept is used and is considered.

By the definition of Demina A.V. (2012) historical reconstruction in the modern world has two main directions:

1. "Living History" is a format of historical reconstruction, where the main condition is the most complete and authentic recreation of the way of life of people of any locality in a certain historical period. Usually such events take place in the form of festivals timed to, for example, a significant historical date, or in the form of "live" open-air museums that function temporarily or permanently (Reconstruction as a kind of theatrical performance). The task of the participants in this case is to immerse themselves in the best possible time, to live it in accordance with the chronological characteristics.

2. Military historical reconstruction - the movement to revive the cultural and historical traditions of the past as a holistic phenomenon, including the reconstruction of weapons, armor, military suits based on archaeological, historical, weapon scientific works, ancient texts and drawings, in full accordance with the samples of the reconstructed era (Glukharev, 1999). The main way to display this direction are tournaments, as well as the so-called buhurts (mass field battles). Among the most popular epochs of military historical reconstruction, one can single out the period of antiquity, the Middle Ages, New time and world wars.

Considering these directions, it can be noted that each type of historical reconstruction has its own peculiarity. So, for example, creating a "living history", the reenactors should be as close as possible to the era of that time, including costumes (sewing, fabric, ornaments), cooking and household items. This means that electricity and modern means of communication in the conditional Middle Ages are absolutely not permissible. But military-historical reconstruction has a patriotic value and is a historical and cultural source of unusual character, which also allows a new look at the material culture of the past.

To create objects of antiquity, reconstructors need a lot of time and effort, especially to find information that confirms the historical origin of the reconstructed things. Their activities are closely connected with history and are research. First of all, the reenactors analyze the information from various sources and compare it. So, for example, if an archaeological find has a correspondence with visual data and written sources, then a clear picture of a particular object opens. Information from the same source is not very
reliable. The next important scientific stage is expressed in experimental archeology, when the reenactors in practice use historical things for their intended purpose and see a lot of interesting details that reveal errors and shortcomings in the analysis of objects.

2. Methods and Materials
During the analysis of the prospects for the development of the historical and reconstructive movement as a direction for preserving the cultural heritage, desk research methods such as analysis of scientific and methodological literature on the topic, generalization and classification of scientific research and the existing foreign and Russian experience in the field of historical and reconstructive movement were used.

The leading approach in the study of this problem was a comparative analysis of the development of the historical and reconstructive movement.

The application of these methods made it possible to identify the features and prospects for the development of the historical and reconstructive movement as a way of preserving the cultural heritage: to systematize the amalgamations of amateurs and participants in the historical and reconstructive movement (historical reconstruction clubs) and the activities of the reconstruction movement, to identify the main problems and prospects for the foreign historical and reconstructive movement.

3. Results
The role of historical reconstruction clubs in the development of historical and reenactment movement
For reenactors, not only reliable copies of ancient objects are important, the main value is to determine the spiritual culture of the people for a certain period of time, their values and life. To achieve this goal, the re-enactors use the method of historical modeling. In the opinion of A. Fischov. (2010) historical modeling is the creation of a set of techniques and activities that allow to restore a complete picture of life (model) that is not contrary to known facts, both as an individual and as a society in a certain locality and epoch. This model is realized and represented on demonstration performances, historical campaigns and historical festivals, and also carries scientific-cognitive and cultural value.

Lovers and participants of the historical and reconstructive movement often unite and create a kind of organization - clubs of historical reconstruction. In other words, by the definition of Donskaya V.K. (2014), the club for historical reconstruction is a primary public organization created by an initiative group of people who are keen on historical reconstruction.
Apart from individual clubs created by lovers of historical reconstruction, there are also official organizations that create a single community and ensure the interaction of individual clubs, scientific institutions and administrative centers. Within the framework of these unified communities, the development of common norms, interaction strategies, planning of events and support of any projects. These organizations can carry a regional character, that is, when the community includes groups of people interested in the historical reconstruction of one or more of the nearest regions. Also, associations can include clubs that are engaged in the reconstruction of any one era.
Clubs of historical reconstruction can be officially registered and not registered. If the organization is small, it does not seek to formalize its legal status, most often it is caused by the reluctance of paperwork. Such organizations do not have the right to engage in public activities. But most clubs understand the need for legal registration, since this gives them the right to enter into formal relations with scientific
institutions, administrative centers, other organizations, enter into contractual relations on certain conditions, receive grants and rewards for their services.

Also, there are several types of clubs for historical reconstruction, depending on the number of its participants (Donskaya, 2014). Based on different approaches to the classification of historical reconstruction clubs, depending on the number of its participants, Table 1 was compiled.

Table 1. Classification of clubs of historical reconstruction depending on the number of its participants

<table>
<thead>
<tr>
<th>Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reconstructors-singles</strong></td>
<td>Experienced participants of the movement, who can work independently with sources of different nature, and also implement their projects independently, have developed craft and creative skills.</td>
</tr>
<tr>
<td><strong>Couples</strong></td>
<td>In the environment of historical reconstruction, a very high percentage is of the formation of family unions, including between young people from different cities. Such pairs are not always part of any organization and therefore constitute a self-sufficient cell.</td>
</tr>
<tr>
<td><strong>Small groups</strong></td>
<td>This is most often unregistered groups of close friends of up to 6-8 people. They are united primarily by social relations within the group. Such societies are combined for simplicity of registration for events. Such organizations are often closed to beginners and consist of experienced reenactors who left other associations.</td>
</tr>
<tr>
<td><strong>Club of historical reconstruction or military history club</strong></td>
<td>Such clubs consist of 8-30 people. Often their activities are strictly regulated, subject to the statute and formally organized through the registration of state registration. Inside the club there is often a hierarchy that is based on the order of subordination and the positions of the era chosen by the reenactors. The hierarchical system allows newcomers to receive training, to use information or data obtained by senior participants, and also motivates them to develop further.</td>
</tr>
</tbody>
</table>

According to the Table 1, it can be conclude that there is a large graduation of clubs in terms of the number of its participants, that is, the organization of historical reconstruction can include from one to thirty members. The activities of clubs are also varied, for example, some clubs can only deal with one time period, or even one ethnic group of a given epoch, while other clubs can encompass several eras and simultaneously reconstruct both domestic and military life.

Based on the study, the main types of activities were identified, in which the historical reconstruction clubs participate (table 2).

Table 2. Activities of the revival movement

<table>
<thead>
<tr>
<th>№</th>
<th>Event title</th>
<th>Description</th>
</tr>
</thead>
</table>

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<table>
<thead>
<tr>
<th></th>
<th>Club Holidays</th>
<th>Club holidays are often closed, where only club members and their families can take part. Celebration takes place according to the old traditions of the reconstructed era and people.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Historical treks</td>
<td>Events of this kind take place in the wild, where the reenactors live in the nature in historical costumes and conduct military battles, trying to recreate the life of the ancient people. Many call it a historical experiment, which carries scientific research value, however, there are reenactors who hold such events for the sake of recreation and pleasure.</td>
</tr>
<tr>
<td>3</td>
<td>Festivals of historical reconstruction</td>
<td>Festivals of historical reconstruction are usually spent on budgetary funds of the city administration or on the means of sponsors. The duration of the festival is usually 3-5 days. The program of the festival includes: tournaments, demonstration battles, military competitions, ancient games, dances, feasts in the entourage, fair, master classes on the manufacture of antiquities. The largest festivals can gather up to hundreds of participants from different regions and countries.</td>
</tr>
<tr>
<td>4</td>
<td>Contests of historical reconstruction</td>
<td>At the historical reconstruction competitions, the works of historical objects and clothing are provided and protected, where the participants prove to the experts from the jury the historical authenticity of their work. Within the framework of the reconstruction movement, such a way of presenting and defending one's work as a passport for historical reconstruction has developed. It includes copies (photocopies, citations) of the sources on which the reconstructor based, and photographs of objects included in the reconstructed complex. The reference to the source and the photograph should be on each item included in the reconstructed complex. The passport issued by the above mentioned rules is considered sufficient protection of the costume presented for the contest (Melnikova N.P., 2011).</td>
</tr>
</tbody>
</table>

Considering the activities of the reconstruction movement presented in Table 2, it can be concluded that such events as club holidays and historical hikes help the development of historical reconstruction clubs from within. But festivals and competitions of historical reconstruction bear an international character, which is developed not only by historical and reconstructive movement and cultural-historical values of different peoples, but also positively influences the tourist component of the region where these events take place.

*Festivals of historical and reconstructive movement as a direction of preservation of cultural heritage*

In the opinion of many authors, the development of the historical and reconstructive movement is one of the directions for the preservation of cultural heritage in various regions. This movement is constantly growing all over the world, and as a result, the potential of this movement is growing with it.

It is worth noting that the main translators in the historical and reconstructive movement are festivals, at which tournaments and balls take place, usually in authentic settlements where participants live for some
time in the atmosphere of an era. Often, such settlements and festivals coexist together in one time and space, complementing each other.

Based on the results of the study of D.V. Morozova (2008), two main groups of festivals can be distinguished (table 3).

**Table 3. Festivals of the historical-reenactment movement**

<table>
<thead>
<tr>
<th>Historical Festivals</th>
<th>1st group</th>
<th>2nd group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st group</td>
<td>Non-profit festivals, which are organized for participants, i.e. are &quot;closed&quot; in nature. The main feature of such a festival is a small number, or a complete absence of spectators.</td>
<td>Commercial &quot;open&quot; festivals, which are focused on the audience and provide an entertainment program, including staging battles, demonstrations and other events designed to attract the attention of viewers. To maintain the popularity of such events, both among spectators and among participants, one must take into account the interests of both.</td>
</tr>
</tbody>
</table>

Having considered the groups of festivals presented in Table 3, it is worth pointing out that non-profit festivals in the tourism sphere are almost impossible to use. But commercial festivals are absolutely opposite and actively participate in the development of event and cultural-educational tourism.

To the group of "open festivals" in the opinion of Morozov D.V. (2008), four types of festivals can be distinguished (table 4).

**Table 4. Open events of festival type**

<table>
<thead>
<tr>
<th>№</th>
<th>Type of festival</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Festivals of medieval culture</td>
<td>These festivals are held in castles, cities, and also in the places of major medieval battles. Most often are of a commercial nature.</td>
</tr>
<tr>
<td>2</td>
<td>Festivals of ancient music and dances</td>
<td>Within the framework of this festival master classes, balls and concerts are held.</td>
</tr>
<tr>
<td>3</td>
<td>Tournament of historical fencing</td>
<td>This direction of reconstruction is almost a sport, very entertaining and attractive for the audience.</td>
</tr>
<tr>
<td>4</td>
<td>Demonstration performances</td>
<td>These events are focused exclusively on the audience and provide for a certain theatricalization of actions. Most often used by reenactors to attract new members to their ranks.</td>
</tr>
</tbody>
</table>
Having considered the "open" events of the festival type in Table 4, it is worth pointing out that these events are most suitable for use in the tourism sector and are usually of a multi-mathematical nature, allowing for the participation of the re-enactors of different eras. For example, festivals of ancient music and dances are very specific and interesting primarily to specialists involved in the reconstruction of various ancient dances and music, and tournaments and demonstration performances are spectacular events and attract a large number of spectators.

The following types of festivals can be classified as "closed" festivals (table 5).

**Table 5. Closed events of the festival type**

<table>
<thead>
<tr>
<th>№</th>
<th>Type of festival</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Active historical tourism</td>
<td>This event provides near and distant hikes, both water and land, using equipment of a particular era. For example, reenactors are conducting horseback riding, rafting along rivers, and sea trips.</td>
</tr>
<tr>
<td>2</td>
<td>Living History</td>
<td>It can take the form of permanent experimental settlements of different eras, visiting cities of masters, as well as various closed festivals of living history.</td>
</tr>
<tr>
<td>3</td>
<td>Live museums in the open air</td>
<td>Regularly use historical reconstruction in their work, as well as are sites for a variety of military historical festivals.</td>
</tr>
</tbody>
</table>

Having considered the "closed" events of the festival type in Table 5, it is worth pointing out that these types of events are experimental historical in nature, but they can also act as "open" festivals, positively influencing the development of tourism and the exchange of experience of historical reenactors.

Festivals of historical reconstruction are very popular among tourists, since they have the form of a show, which certainly stimulates interest in them and increases the popularity of their venues.

*Prospects for using historical reconstruction as a way of preserving cultural heritage*

The prospects for using the historical as a direction for preserving the cultural heritage are quite diverse, but for their implementation it requires the interest of the state and private structures, financing of the most active and serious clubs, and the development of their own projects.

According to E.V. Ivanitskiy and I.V. Borisenko (2011), the most attractive and widespread complexes of the festival and reconstruction are museums of "living history" and festivals of historical reconstruction. In the first case – this is a year-round accessibility, availability to non-specialized consumers and a purely cognitive focus. In the second one, there are large streams of participants, an extensive program of events, but, as a rule, limited seasonality and little orientation to non-participating persons. Proceeding from this, it will be more cost-effective, from a commercial point of view, to have a project containing elements of both directions, that is, a year-round stationary facility that can become a venue for large-scale festivals and has a developed infrastructure for receiving, hosting and animation as participants in events, both
and ordinary consumers. Moreover, it is capable of enabling ordinary consumers to become participants themselves, thus opening a channel for popularizing historical reconstruction and selling the necessary inventory on the territory of the complex itself.

As it is noted by Gravari-Barbas M. (2018), the tourism system (tourism entities, places and businesses, and the tourists themselves) contribute to the creation of a new heritage system (heritage sites, practices and actors) that operates in accordance with its own needs and expectations.

Below is a summary of the largest historical festivals in the world (table 6).

**Table 6. The largest historical festivals in the world**

<table>
<thead>
<tr>
<th>№</th>
<th>The name of the event, the period and time of the event</th>
<th>Location, description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>World Championship in the historical medieval battle &quot;Battle of the Nations&quot; (June, 3 days)</td>
<td>Czech Republic. The largest festival of the world of medieval reconstruction and historical fencing is also a sporting event, where duels of medieval knights are held. Every year, participants from 35 countries come to the &quot;Battle of Nations&quot;. The competition program includes several nominations: &quot;Duel&quot; (1 on 1), &quot;Group battles&quot; (5 by 5), &quot;Mass battles&quot; (21 to 21), &quot;Duel&quot; for women and &quot;All against all&quot; (100 on 100). The event is necessarily held in the medieval atmosphere, where you can see the ancient music and street theater, master classes in crafts and arms handling, a fair of authentic historical goods. Good authenticity of clothes and equipment, as well as a high historical aesthetics - an obligatory requirement for participation in the festival &quot;Battle of the Nations&quot;.</td>
</tr>
<tr>
<td>2</td>
<td>Viking Festival Up Helly Aa (January, 1 day)</td>
<td>Scotland. This event takes place in the town of Lerwick and is one of the most spectacular costumed torchlight processions in the world, the main event of which is the burning of a full-scale Viking rook. This event is dedicated to the 9th century event, when the Shetlands were conquered by Vikings, who previously raided the islands, but eventually decided to colonize them. Residents of the city begin preparations for the holiday in almost a year, besides, only residents of Scotland can take part in the celebration, but anyone can watch. On this day, detachments of townspeople in armor are lit by torches and moving to the sea by columns, on the shore of which the solemn burning of the boat takes place. After this begins a real bacchanalia of the Vikings - with feasting, duels, songs and dances.</td>
</tr>
<tr>
<td>3</td>
<td>Renaissance Festival in Tortosa (July, 4</td>
<td>Spain. The Renaissance Festival in Tortosa is an important historical holiday of Spain, which attracts participants from 70 countries. It recreates the Renaissance and the atmosphere of the 16th century. At the beginning of the holiday, magnificent processions of &quot;aristocrats&quot; and &quot;troubadours&quot; pass to the square of</td>
</tr>
</tbody>
</table>
days) the city cathedral, and also for four days one can observe street performances, live music, dances, show of flag-bearers, ball of aristocrats. For the duration of the festival, all the restaurants in the city completely change their menu for dishes and drinks prepared according to historical recipes. Houses and streets appear in medieval style, the facades and balconies are decorated with ribbons, garlands, flags. Visitors of the city are offered various medieval entertainments - from tournaments of knights to camel riding.

4 European Medieval Festival in Horsens (August, 2 days) Denmark. The main purpose of this event is to disseminate knowledge about an important event in the history of Horsens (1350-1536). Not only Danes, but also representatives from European countries take part in the international festival. In the European medieval festival all aspects of the life of the medieval society are recreated - the art of craft, music, theatrical performances and everyday life. Participants of the festival represent medieval residents in various roles: noblemen, beggars, virgins, knights, fortunetellers, monks, craftsmen and artisans. The taverns serve medieval cuisine, and the streets are a huge market of ancient goods.

5 Medieval Fair in Copenhagen (May, 4 days) Denmark. Medieval Fair in Copenhagen is one of the largest and most massive events of historical themes in Scandinavia. Annually 1500 people participate in the festival, and the number of guests reaches 30,000 people. Immersion in the old ages takes place in the authentic entourage of the handicraft fair, accompanied by early music concerts, street artists, historical seminars, master classes and lectures. The most spectacular part of the event is traditionally the show battles of "knights", organized by clubs of historical reconstruction from different countries. Experienced instructors conduct master classes for guests on the design of knight's armor, as well as on handling cold steel and bow. Young spectators take part in the production of medieval theater and learn the games of the little Vikings.

Considering one of the most ambitious and famous events of the historical reconstruction of the whole world in Table 6, it is possible to identify the main problems and prospects of the foreign historical and reconstructive movement. All events have their own peculiarity and uniqueness. For example, the festival "Battle of the Nations" specializes in historical medieval battles, which have been an independent sport since the early 2000s. Participants specializing in martial arts of the Middle Ages are experienced and successful athletes of this direction from 30 different countries. This is the main direction of the festival "Battle of the Nation", but it also covers the re-creation of the life of the Middle Ages.

Despite the one-day celebration, the Up Helly Aa Vikings Festival is distinguished for its unique uniqueness and is one of the most spectacular festivals in Europe. Nothing attracts tourists from different countries like the spectacular burning of a Viking rook in full size. However, unlike the festival "Battle of the Nations", the fire festival attracts tourists only as spectators, since participation in it can only be taken by local residents of Shetland Islands.
But the Renaissance Festival in Tortosa is part of the group "Euro XVI", which includes the most significant events for historical high-level dramatizations. Achieving such a level depends to a full extent on the active participation of citizens in the organization of the festival. Organizers every year improve the program by adding new shows, which provides intensity and quality.

The movement of creative reconstruction and living history can be observed very well at the European Medieval Festival in Horsens and at the medieval fair in Copenhagen. A good organization and a wide variety of programs is the basis for attracting foreign guests.

Thus, according to Table 6 on the most important measures of historical reconstruction, it can be concluded that the main trend of almost all festivals is the era of the Middle Ages, namely the recreation of life, crafts and life of people of this era. The military-historical movement certainly exists, especially the most famous and well-developed festival "Battle of the Nations", but it is not very widely observed. Also, in Table 6 it is very clearly visible that festivals mostly take place at the height of seasonality, however such festivals can attract tourists and in non-seasonal times.

4. Discussion

This study is a continuation of previous studies by the authors (Zaitseva et al., 2017; Yumatov et al., 2017; Semenova et al., 2017; Veretekhina et al., 2017; Fartash et al., 2018; Tastan et al., 2018; Davoudi et al., 2018) on problems and prospects of tourism development. Within the framework of this article, the goal to determine the features of the historical and reconstructive movement, assess the prospects for its development on the basis of a generalization of the foreign experience of carrying out the events of historical reconstruction was set.

Unlike previously published works on the organization of cultural and educational and event tourism (Arcodia Whitford, 2006; Bowdin, 2006; Getz, 2005; Hall, 200; Jago, Richards, Palmer 2012; Gibson, Connell; 2005; Ismagilova, Safiullin & Gafurov, 2015, Clayton, 2016) and works on the methods of reconstruction (Fischev, 2010; Sanders, 2008; Powell, 2009). The authors of the article consider historical events as the basis for the development of event and cultural-cognitive tourism in this or that region, which help to attract the attention of thousands of people around the world, and in turn, contributing to the economic development of the regions.

5. Conclusion

Summarizing the study of the prospects for the development of the historical and reconstructive movement, as a way of preserving the cultural heritage, it can be concluded that there are two basic approaches to this movement: scientific reconstruction and demonstrative reconstruction. Representatives of scientific reconstruction have deep knowledge and skills, these are master craftsmen, archaeologists-experimenters, historians and people of science. At festivals they usually hold different master classes and conduct trade. Representatives of the indicative reconstruction, on the contrary, do not aspire to a deep and detailed study and have only superficial knowledge. They use the developments and ready-made products of representatives of scientific reconstruction. It is representatives of the second movement that fit well into the show format of historical festivals, demonstrating their costumes and tournament skills.
References:
Glukharev, I.V. (1999) The movement of military historical reconstruction as a socio-cultural phenomenon. The dissertation author's abstract on competition of a scientific degree of the candidate of cultural urological sciences. Moscow; State Academy of Slavic Culture
Ivanitsky, E.V., Borisenko, I.V. (2011) Historical reconstruction as a way of the development of commercial tourism in the region. Small and medium-sized cities in Russia as a problem field geoboarding. Ekaterinburg: Publishing house UFU by the name of the first President of Russia B.N. Yeltsin, 31-36.


Semenova, L.V., Zaitseva, N.A., Korneevets, V.S., Dragileva, I.I. Ensuring the competitiveness of the tourist product of the Kaliningrad region as part of the strategy cross-border cooperation. *Eurasian Journal of Analytical Chemistry*, 12(7b), 1555–1562


On Mathematical-Methodical Training Of Future Mathematics Teacher In The Conditions Of Content Updating Of School Education

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Abstract
The article is devoted to the system of special mathematical-methodical training of future mathematics teachers in a pedagogical university. Herewith the main components are the correlation of special mathematical-methodical disciplines and the professional-pedagogical direction of training, as well as the quality of educational-methodological support of the teaching process (curricula, programs, tutorials and textbooks), the forms and methods of its organization in a pedagogical university.

Keywords: mathematics, methods, the content of education, teacher training, professionally-oriented instruction, profession.

The current stage of the operation of various types of organizations of secondary education, including international ones, sets new challenges for school mathematical education and establishes higher requirements for professionally-oriented training of mathematics teacher and his/hers methodical skills. In Kazakhstan pedagogical staff and mathematics teachers in particular are being trained in universities and pedagogical higher institutions. Training in the latter is more widespread though. However, during the training of mathematics teachers not all higher institutions take into account the balance of special mathematical and methodical preparations, therefore teaching of mathematical disciplines is weakly correlated with its methodology.

In our opinion, initially the content of mathematical education in pedagogical higher institutions should focus on the implementation of the principle of continuity and professional orientation of mathematics study course, i.e. it should represent successively connected branches of mathematics, including integration with the methodological disciplines, which will significantly improve the quality of the special methodical preparation of the future mathematics teachers.

Therefore, from our point of view, there is the need for inclusion in the curricula of a greater number of hours for in-depth study of school mathematics, integrated math courses (algebra and number theory, mathematical analysis and the theory of functions, geometry, etc.) with sections of elementary mathematics, as well as the basis of probability theory, numerical systems, mathematics history, elements of mathematical statistics and the cycle of teaching-methodical disciplines providing training for mathematics teachers. On one hand it would fill the gaps of school and university mathematics courses, and on the other would strengthen special mathematical preparation of future teachers in the conditions of differentiation of types of education organizations as well as training profile differentiation. Unfortunately, the reform of the content of school education in 1970-1986 excluded a number of subjects –
arithmetic and trigonometry, having included their content in the mathematics of primary classes, algebra, geometry, algebra and the beginnings of analysis in the upper grades. Until now, i.e. till 2016-2017 school year, it was not possible to provide a systematic presentation of the issues of elementary mathematics at a high scientific-methodical level in the course of training of future mathematics teachers at Kazakh national pedagogical university, because there was no course of elementary mathematics in the curriculum. At the same time existing mathematical disciplines in the curriculum were poorly correlated with the content of school mathematics education. Whereas the programs of mathematical and professional cycles of disciplines in the curricula of junior courses of higher pedagogical institutions should be aimed at implementing the principle of continuity of mathematical education, so that students have the opportunity to correlate and generalize their basic knowledge in school mathematics at a higher quality level. Such courses as "Fundamentals of the school course of mathematics", "Fundamentals of mathematical analysis" and others, studied in the first year, were to become a link between the school and the university, fill the gaps in the knowledge of students, consolidate and systematize the available information from various sections of mathematics, orient students to the future profession. That is why we needed to restore in the curriculum of our university, approved by the republican educational-methodical council, a number of disciplines (from 1st to 4th year), including elementary math, which in a block integrated development would ensure the learning by future math teachers of a course of in-depth school mathematics. As a mechanism for constructing such a course, we proposed the main content lines of the school course of mathematics - a set of numbers and operations on them; expressions and their transformations; functions, their properties and graphics; equations and inequalities and their systems; geometric figures and quantities; elements of mathematical analysis; elements of mathematical statistics and the foundations of probability theory. To be a good teacher of mathematics and skillfully teach students to solve tasks, the student himself must be able to solve mathematical (school) tasks of different levels of complexity, master different methods and ways of solving them, organize collective and individual activities of students in solving tasks, etc. In this regard, along with the theoretical training, the teacher of the university should have a possibility to form students' (future mathematics teachers) strong skills in solving school tasks. We tried to solve this problem by offering new courses: "Workshop on solving school mathematical tasks", "Methods for solving non-standard problems in mathematics", for which 2-3 credits were allocated. For educational-methodical support of these courses under our authorship a training manual entitled "Methodical foundations for teaching the solution of school mathematics tasks" was prepared and published (Almaty: Mektep, 2016. – 250 p.). Upon our proposal the curriculum in educational math has been supplemented by such subjects and courses as “Scientific bases of school mathematics”, “Fundamentals of mathematical analysis”, “Methods for solving non-standard problems in mathematics”, “Profile and level differentiation of teaching mathematics”, “Modern problems of mathematics education at school and in higher institution” and others. All that we have undertaken in our university allowed not only to fill the gaps in the knowledge of students, but also to contribute to the consolidation and systematization of the existing knowledge of students from school and university sections of mathematics with their orientation to the future profession of the teacher of mathematics. Our many years of experience in the pedagogical university shows that the teaching of mathematical disciplines must necessarily be correlated with the methods of teaching mathematics, i.e. for the
professional preparation of the future teacher of mathematics a balance of special mathematical and methodical preparations is necessary.

In modern conditions a full-fledged education of the future mathematics teacher is impossible without well-established methodical training, while the very teaching of mathematics in the school requires the formation of methodical thinking in students. In addition at the present stage, in connection with the emergence of new types of educational organizations, it becomes evident that there is a need to revise certain sections of the content of mathematical education. At the same time, it is important to further improve the purpose, methods, forms and means of teaching mathematics, which represent a methodical system and provide a deep and lasting assimilation of knowledge and skills.

In this regard, professional-pedagogical directed mathematics education should begin with the first study courses at the university, and then be studied in depth in teaching methodical disciplines such as "Theory and methodology of teaching mathematics", "Practical work on the methodology of teaching mathematics", "Methodical bases of the differentiated mathematics training at school".

It is known that the lesson, as an organizational form of education, is constantly being improved, reflecting the main trends in the development of the educational process, optimally realizing the threefold function of education - educational, learning and developmental. At the same time, the peculiarities of the lesson, including in mathematics, are determined by the purpose of each single lesson and questions about whether the organizational moment and the questioning are always necessary, whether the homework is necessary, how best to organize collective or group work, how to take into account the individual characteristics and interests of students, how to connect the lesson with previous and subsequent lessons, and should be consistent with its content, and meet the objectives. It is impossible to effectively teach mathematics, influence the development of the personality of the student, not knowing at least the simplest methods of controlling these processes (their evaluation or measurement). These issues are given special attention in the courses we have offered: "Organization of teaching mathematics. Modern lesson", "History of mathematics" and others.

Methodical training of the mathematics teacher is carried out by us on courses of a technique of teaching mathematics, in the practical work on tasks solving, on special courses on choice, special seminars on methods of teaching mathematics, during pedagogical practice, at preparation of degree work on a method of teaching mathematics. This approach helps future school mathematics teachers absorb all the knowledge they have received in the university, both in the field of school and university mathematics, as well as in pedagogy, psychology, methods and methodology of teaching other disciplines, which will eventually ensure the student’s mastering of main types of pedagogical activities, which will be carried out in his/her further practical work.

Thus, the questions of methodical preparation of future teachers should be constantly in the field of view of trainers of special mathematical disciplines. After all, it is known that the methodical training is designed to ensure that students have the ability not to consider individual facts of the subject, but to acquire skills in examining the subject as a whole, i.e. in its methodical and logical connection.

One of the possible variants of constructing the course of the methodology of mathematical teaching is suggested by us in the textbook for students of higher pedagogical institutes "Theory and methods of teaching mathematics: didactic-methodical aspect" (Almaty: Mektep, 2013-2014, in Kazakh, Russian and English languages). Such an approach has found practical application in Kazakh national pedagogical university after Abay, and it gave necessary positive results in special mathematical and methodical training of our graduates.
In conclusion, we note that in Kazakhstan, based on the previous program, we have written and introduced textbooks on mathematics, algebra, algebra and the beginnings of analysis (grades 5-11) into the educational process of the organizations of general secondary education. They continue to be used by pupils not only of our republic, but also of the Kazakh diasporas abroad. The continuation of this work was the publication under our authorship and the introduction in the academic process from 2016-2017 academic year of new textbooks for grades 5 and 7 of general schools, developed with the updated content of mathematical education.

References

Distance Learning In Educational Space Of Tyumen Industrial University

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Abstract
The article is devoted to the actual problem of modern education, i.e. distance learning, as one of the types of training in university, by the example of Tyumen industrial University. This training allows you to get a diploma of higher education on the job and without unnecessary material costs. The main objective of the article is substantiation and confirmation that distance learning is a promising form of education. The article reveals the content of the concept of “learning technology”. The basic principles of functioning of the Institute of additional and distance education as an important element for the making of a mobile, improved educational environment in Tyumen industrial University are being highlighted. Analyzing the results of the survey and public opinion poll of students and teachers, the author concludes that the introduction of distance learning in education increases the overall level of the educational process, enhances the motivation and cognitive activity of students, constantly keeps teachers in a condition of a creative search in the application of new effective educational technologies. Distance learning is a powerful tool of the development of the entire educational and pedagogical complex of the Tyumen industrial University.

Keywords: distance learning, “learning technology”, Tyumen Industrial University, Institute of additional and distance education, tutor.

Introduction
Many Russian universities are developing distance learning to become more competitive in the market of educational services. The distance-learning model of education is in great demand in Russia, because it is a connecting-link between the Russian and world educational spaces. Although research has shown that domestic science does not have enough developments in this area. Sometimes there are works that focus on the prohibition of expansion of distance learning. Many scientific papers present distance education as one-sided, not finding any connection with the modern educational requests. Despite the fact that the use of distance learning is widespread in the leading universities of developed countries.

Supporters of distance learning are K.G.Barbakova, V.P.Tikhomirov, M.P.Karpenko, B.A.Sazonov, E.S.Polat, who believe the undeniable advantage of this training is the opportunity to get an education anywhere, regardless of the location of the student, taking into account, for example, the size of Russia (Polat et al., 2009). Among these students there are many working people and the only opportunity to get an education is distance learning (Mehrishvili, 2012). This training attracts by a significant reducing training costs, transport costs for travel to the training site, the convenient distribution of teaching load by the request of the student, the use of e-courses and training platforms (Karpenko et al., 2008).

On the other hand, opponents of distance learning argue that the quality of education on this technology cannot be compared even with extramural form of study. In their opinion, this technology allows only to get the diploma without any investments of forces, without acquisition of knowledge (Ilyashenko, 2017).
The lack of direct emotional communication between the teacher and the student, high-quality methods of distance learning, the average quality of e-courses reduce the level of interest of the student in learning.

In the realities of the modern information age, taking into account the needs of Russian universities, the globalization of the processes taking place in the world, the need to develop distance learning models of higher education is arising (Lavrov, 2004).

By the nature of those who need in distance learning, all students can be divided into two groups. The first group includes those who want to get the first (second) or additional higher education to achieve success in their professional activities or Vice versa in connection with dismissal; by the reason of advanced training, the desire to get an education in a domestic or foreign University, located far from the student; the desire to constantly improve the intellectual level, etc. The second group may include students with low financial resources, by reason of service in the army, presence of physical possibilities, etc. In connection with these requirements of the society on the basis of educational institutions special distance-learning centers are being formed (Zubok, Chuprova, 2012).

2. Methodology

Theoretical and methodological basis of our research are:

- conceptual theses of scientists (Ch.Vedemeer, D.Glison, D.Kigan, M.Mur);
- conclusions on the interaction and interrelationship of the needs of society and the development of education of E. Durkheim;
- theoretical bases of distance learning at different levels of education (A.A.Andreev, A.A.Akhayan, A.V.Gustyr, M.P.Karpenko, O.A.Lavrov, D.Kigan, J.Daniel, etc.);
- research in the field of educational needs of individuals (R.Merton, D.L.Konstantinovskiy, L.L.Mehrishvili, L.N.Kogan, etc.);
- classical writings on education as a social institution, which forms the core values and guidelines of personality (E.Durkheim, M.Weber, N.Smelzer);
- the main trends of modernization of Russian higher education (S.L.Katanandov, V.Yu.Pashkus, N.F.Naumova);
- principles of formation of innovative mechanisms for the development of education (B.A.Sazonov);
- normative legal documents in the field of higher education in Russia;
- analysis of documents and websites.

Considering distance learning, as an important notion for our research is the notion of “learning technology”. (Table 1. The content of the notion of “learning technology”).
Table 1

The content of the notion of “learning technology”

<table>
<thead>
<tr>
<th>Authors</th>
<th>Content</th>
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<tbody>
<tr>
<td>F. Yanushkevich</td>
<td>A system of guidelines that, in the course of using modern methods and means of training, must ensure the training of a specialist for possible the shortest time at the optimum cost of forces and means (Yanushkevich, 1986).</td>
</tr>
<tr>
<td>E. N. Korotkov</td>
<td>On the one hand, learning technology is a systematic, holistic knowledge of the ways of designing and organizing the entire learning process based on a detailed sequence of accurately defined didactic goals. On the other hand, the learning technology is a scientifically organized, deployed in time learning process in which the whole system of interrelations between the goals, content, methods, means, forms of learning, the system of monitoring, evaluation and correction of educational and teaching activities is being designed and implemented (Korotkov, 1976)</td>
</tr>
<tr>
<td>N. V. Maslova</td>
<td>Learning technology is defined through a system in which there are such components as the conception and purpose of education, methodics, all authors of the learning process starting from student to administration; educational building, teaching materials and tools starting from textbooks and manuals to technical means of education, as well as funding (Maslova, 2002)</td>
</tr>
<tr>
<td>F. A. Fradkin</td>
<td>A systematic, conceptual, normative, objectified, invariant description of the teacher’s and student’s activities aimed at achieving educational goals (Fradkin, 1994)</td>
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</table>

Summarizing the different interpretations of this notion, we came to the conclusion that the technology of learning is a systemic notion, that means the amount of theoretical knowledge that is needed to implement educational process and the educational process, which includes all its subjects. Distance learning is a learning technology, as it has a conceptual framework, the content part (goals, objectives,
content of training), the organizational part (forms and methods of training and management) (Zubakova, 2010). Distance learning is an important element of making mobile, improved educational environment not only at the Tyumen industrial University, but also in other educational institutions.

3. Results

Currently, on the basis of Tyumen industrial University the Institute of additional and distance education operates (hereinafter – IADE) (figure 1).

![IADE logo](image)

**Figure 1**

IADE conducts distance training on a wide range of educational programs. Teachers of 27 departments are involved in the work, each of these departments has its own tutor-organizer. The chain of interaction in general we can represent like this: the student of IADE – tutor-coordinator of IADE – tutor-organizer of Department – tutor-lecturer of Department.

Specialist of IADE performs important administrative work, i.e. coordinates the training process, performing the role of a tutor-coordinator, becomes the main guide of the learner in the electronic environment of Tyumen industrial University. Tutor-organizer is a key link in the interaction of the Institute of distance education with departments. It monitors the performance by teachers of their basic functions to provide timely educational services to students. In addition, tutor-organizer of the graduating Department participates in the process of transfer of students to the basic University to pass the state final certification and defence of final qualifying works.

The tutor helps to form an individual path of student studying extramural with the use of distance technologies. Flexibility of e – learning system is the main distinguishing feature of distance learning, it is convenient for students and complex for the organizers of educational activity.

Distance learning in Tyumen industrial University is implemented within the framework of basic higher education, as well as in the framework of additional higher education, in the system of vocational training (Ibatova, 2017).
Tyumen industrial University determines the quantity of academic load with the use of distance learning, which greatly expands the opportunities for the implementation of distance educational programs and e-learning.

The development of distance education is greatly influenced by the existing electronic educational environment. It is in it that people who have chosen this form are trained, that the necessary electronic training materials are introduced there, that is, the quality of software products is one of the main factors of the process we study. The training in IADE takes place in the system of support of educational process EDUCON (figure 2).

Figure 2

On the basis of Tyumen industrial University in IADE there are 15 distance programs of bachelor degree, 6 master programs, more than 100 programs of professional training and advanced training. The use of distance Internet technologies is quite popular, that is evidenced by the frequency of appeals to the Catalog of distance programs of the University.

Having conducted an expert survey of 5 heads of various departments of the Tyumen industrial University branch, we came to the conclusion that all experts were unanimous in the opinion that the development of distance learning will increase the rating of the University in a fierce competitive environment in the market of educational services. However, they noted objective factors impeding the development of distance learning system in universities: it is primarily the high cost of technical support (5 experts), lack of qualified personnel able to implement distance learning programs (4 experts), a qualitatively low level of existing programs (4 experts), lack of computerization of universities (3 experts) and yet the low demand for such educational practices among young people (5 experts).

In 2016-2017 to determine the educational needs of young people in the field of distance learning, we conducted a questionnaire survey in the Tyumen industrial University (branch in the city of Surgut). A total of 120 students and 22 teachers were interviewed. The qualitative composition of teachers is as follows: the average age of 42 years, more than half – 72% - female teachers; 3 doctors of Sciences and 16 candidates of Sciences; average length of work in university is 10 years.
When asked the question “How do you treat to the introduction of distance education technologies?” more than half expressed support (60%), 25% demonstrated a neutral position, 9% of respondents did not support distance learning and 6% did not decide on the answer.

The results obtained when answering the question “What specialty would you prefer to study in distance form?” are demonstrative. Data analysis demonstrates interest in management (34%), Humanities (24%), at the same time distant studying the technical fields agree only 10%.

More than half of respondents consider distance learning to be a means of improving learning performance (52%) and a means of obtaining real knowledge (60%).

As the results of the survey show, traditional forms of teaching are more common in the teaching practice of teachers. So, 74% the most often perform traditional academic lectures and 80% the seminars based on discussion of the reports, presentations, essays. Innovative teaching methods, which are included in the usual “arsenal” of teaching practice, include role-playing, business games, brainstorming, trainings, master classes (43%), seminar-research (34 %). Problematic lecture, lecture-conference, seminar-conference, were pointed out by teachers very rarely.

Electronic presentations are the primary means of teaching, usually used by teachers in the classroom. Thus, the share of those who show electronic slides, charts, graphs during the presentation of studying material amounted to 87%, which demonstrates the transition from the usual printed manuals to multifunctional capabilities of computer programs.

Answers to questions concerning distance learning in university showed that the vast majority of teachers (74%) believe that distance learning is a modern innovative learning technology, which has a high degree of importance for today’s student, at the same time they consider that the popularity and the state of being relevant of distance learning in society will grow.

At the same time, 85% of teachers, that is, the vast majority, note the relationship between the development of distance learning and improving the competitiveness of the University in the market of educational services.

Answers to the question “Are you personally ready for teaching with the use of distance learning technologies?” allow to make a conclusion that University teachers are ready to mastering distance learning technologies. 70% of respondents answered this question positively, having noted that they have been using these technologies for a long time; 30% considered that it is possible, but requires additional training, advanced training and retraining in this direction.

4. Conclusions

In General, summing up the results of the survey of experts, teachers and students, it is possible draw some conclusions:

- distance learning has not yet taken such place that can bring it into the category of a prestigious form of education, nowadays giving way to intramural form of study, which still occupies a very high position,
and extramural form of study, which is traditionally actively being used in Russia by a large category of citizens;

- the higher the quality of distance learning will be, the more prestigious and popular it will become in the Russian educational system; high-quality, high-tech e-learning environment is the key to the quality of achieved education (Gorshkov, Sheregi, 2008);

- despite the fact that the labor market is most in demand graduates who studied intramural, in the future the education received in a distance form, will allow employers to actively hire graduates who have got quality distance education;

- in the current competitive market conditions, the opportunity to teach as many students as possible, regardless of their country of residence, will be of great importance (Boguslavskiy, 2012). Due to this, it is possible and must expand the educational environment, which is fully consistent with the strategy of modernization of Russian education;

- distance learning has a unique characteristic, which is the main advantage of this form – it is its accessibility. It is this characteristic that, in our opinion, will allow to compete more successfully in the future with traditional intramural and extramural forms of education in Russian universities.

Thus, the status of distance learning in the Tyumen industrial University can be characterized as follows: the number of educational technologies used for distance education, which are based on the extensive use of Internet and electronic educational environment is increasing; an online Institute that offers distance learning programs works actively; a mobile distance learning through the use of smartphones, tablet computers, etc. is being widely developed; the use of distance learning technologies expands the horizons of distance education, the purpose of which is not only getting education diploma, but also the implementation of the principle of “life long learning”.

It can be concluded that the demand for distance learning services will only grow, in this regard, its institutionalization will be strengthened.

Acknowledgements

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References


A Correlation Study on Achievement of English Learners

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Abstract
This present study was conducted to re-examine motivation and attitude of language learners and its correlation to their learning achievement. Low English language proficiency among Malaysian students has drawn researchers’ attention to conduct the study within higher learning institution. This cross-sectional study was carried out involving 329 participants those were required to respond for self-administered questionnaire and taking four language skills test which was developed by researchers with the assistant of experience language lecturers. Descriptive and inference analysis were adopted to answer the research objectives. The finding has demonstrated that participants of the study have higher integrative motivation (8.07) and moderate level attitudes towards the learning of English language (6.81). However correlation test has shown a there is a low correlation ($r = 0.111$) between students’ motivation and English language achievement tests. Whereby there is a moderately low correlation ($r = 0.224$) between students’ attitude and English language achievement tests. In future investigations it might be possible to study other types of motivation such as intrinsic and extrinsic motivation in order to determine the success for language learners.

Keywords: motivation, attitude, achievement, proficiency, success

Introduction

Many Malaysian students have poor command of English even after graduation (Engku Suhaimi, E.A., Zailani, J., Alia Nabila, A., 2012). Poor English proficiency may affect employment prospect since English is undoubtedly widely used in IT Communication and in commerce and industry not only internationally but also locally (The Star, Sept. 11/2013). Following this statement, The Federation of Malaysian Manufacturers (FMM) requested that English be made a must-pass subject by 2018 (The Star, Sept. 11/2013).

Low English language proficiency among Malaysian students is a never ending issue. Marlyn, Siti Hanim and Mohamad Subakir (2012) indicate that through their study a majority of the students’ proficiency levels in English were below the entry level of the university’s requirement. Education Minister II Datuk Seri Idris Jusoh claims that many English language teachers are “incapable” or “unfit” to teach the subject in schools when the results for the English Language Cambridge Placement Test sat by them showed that 70% out of the 60,000 performed poorly (The Star, Sept. 11/2013). Therefore this research is carried out to observe students’ English language achievement in terms of their four basics English skills (listening, speaking, reading and writing) at one of the universities in Terengganu.

Many researchers have shown that students’ attitudes towards the learning of English language are negative and less interest (Zanily Abidin, Mohammad and Alzware, 2012 & Lasagarbaster, 2007). Ghazvini and Khajehpour (2011) state that motivation has been shown by educators and researchers as one of the key factors that influence the success of learning in foreign or second language. Attitudes are
related strongly to motivation (Petrides, 2006) and right attitudes will make everything fall in place such as learning will be easy and enjoyable (Abu-Melhim, 2009).

Literature Review

English Learning in Malaysia

The history of English in Malaysia began when the British came to colonize the country and now English is taught as one of the compulsory subjects at all levels of education in Malaysian from the primary to the tertiary level (Foo & Richards, 2004). Earlier, English education in Malaysian schools was based on KBSR for primary schools and KBSM for secondary schools. The purpose of English language in KSSR curriculum in Malaysia was to furnish the primary and secondary school students with the knowledge of English language and its four basic skills (listening, speaking, reading and writing) including grammar and daily communication skills or social life skills. Now the Ministry of Education have changed the system to the assessment system which is called PBS or known as “Pentaksiran Berasaskan Sekolah” (School based assessment). The program is still new and it is being implemented now. Stated below is the English for Science and Technology syllabus since this study involved Science & Technology students.

“Lay the foundation in the use of English in the fields of science and technology not only for the present but also for the future studies at the tertiary level. This programme does not aim to teach the subject matter of science, rather, it is designed to help students develop an ability to grasp basic concepts and ideas in science and to understand methods of scientific thoughts and enquiry in English common to all kinds of scientific and technical discourse. The knowledge gained will not only enhance personal learning but also enable learners to think critically of issues in science and technology” (Curriculum Development Center 2001) as cited in (Foo & Richards, 2004 p. 238)

2.2 Students’ Motivation and Attitude towards the Learning of English Language

Gardner and Lambert (1972) look at motivation into two categories which are Integrative motivation that reflects the learners’ willingness or desire to be as though a representative member of the target language community. In this situation, the learners have high level of interest, motivation and attitude to learn the target language because the learners aim to have for a better communication with the related group. Learners with instrumental motivation on the other hand will learn the target language because they have a desire to gain social recognition or economic advantages (Gardner & Lambert, 1972). According to Johnson (2001) instrumental motivational learners have a strong willingness to master the target language because of pragmatic and utilitarian benefits such as a high paid, good career and management power.

Researchers (such as Gardner & Lambert, 1972; Bobkina, Dominquez & Fernandez, 2007) claim that normally students would rather choose instrumental reasons more often than integrative motivation for language learning. Learners who possess integrative motivation in language learning prefer to become a resident in a new community and use English in its social interactions. Integrative motivation promotes the learners to master proficiency in English language. Learners who possess instrumental motivation is more utilitarian in the learning of English language as they learn the language because of requirement for
schools and universities, job application and high income. Naser (2010) found strong correlations among integrative orientation and other psychological variables.

Attitude is defined as a mental state that includes belief and feelings that lead to the success of language learning (Latchanna & Dagnew, 2009). An attitude depends on the individual and it becomes parts of one’s behaviour and it can impact the outcomes of learning process. Both attitude and behaviour have strong relationship between students’ performance in the learning of English language. Positive behaviour brings positive performance in students’ education and language learning as it influences students’ outcomes (Lane, Robertson, & Graham-Bailey, 2006) (as cited in Lane et al., 2008). It is like an intrinsic motivation where the students have self-motivation to improve their English and feel the pleasure and satisfaction to learn the language. According to Ghazvini and Khajehpour (2011) the interest of learners differ from one learner to another due to influence by immediate context such as the subject of the language and the teaching environment that takes place.

Some might think that teaching and learning of English is hard because the subject is dull and dry. Thus, having a positive or negative attitude towards the learning of the language will determine the level of achievement that the students will obtain (Unal & Sari, 2013). According to Hogg and Vaughan (2005, p.150 – 151):

“positive attitude is a decision of acceptance or reaction that agrees the attitude we met or it is the attitude that reveals the advantages of the subject to take up its value whereas, negative attitude reveals the disadvantages of the subject to dismiss it and to weaken its strong attitude.”

2.3 Students’ English Language Achievement

English proficiency will be based on the fluency and master of four basic skills which are listening, reading, speaking and writing. These four skills are connected to each other, and all of them are equally important as students use these four skills in their lessons. Listening and reading are considered as receptive skills because someone will receive the information whereas speaking and writing are categorized as productive skills due to the fact that these skills need to be produced. Students need to be adequately equipped with proficiency in English since 70% of the students registered when entering the university do not met the minimum level of English proficiency to cope with their academic survival (Marlyna, Siti Hamin & Mohamad Subakir, 2012).

2.3.1. Listening

Known as receptive skill, listening is the first steps to learn the target language before a student is able to speak and in order to understand the message delivered, the listening process uses various tasks and background knowledge to activate the schemata (Majzub & Abu, 2010). According to Brown (1978) listening skills was not that popular until the existence of Communicative Language Teaching (CTL) methodology that put listening as part of the important activities for effective oral communication. Core listening skills for Communicative Language Teaching (CLT) methodology are listening for details, listening for main idea, forecasting, listening for specific information and making inference. Listening tasks should be properly plan, monitor and examine.
Bekleyen’s (2009) study shows even L2 English teachers also face anxiety in listening because of the lack of exposure and practice in listening. Some of the teachers find it difficult to understand certain vocabularies and hardly recognize different pronunciations. To overcome this problem, English learners could listen to different kinds of listening materials such as various dialects of native speakers and allow extra listening practice to improve their listening skill. According to Newman (2010) students’ listening comprehension are poorer when it was measured using an open-ended verbal response format. News and current media are authentic tools for listening lessons and they are relevant to cope with the challenging communication skills needed by English language learners. Proper guidance in listening will lead to the successful of language learning (Goh, 2008). The ability to comprehend listening effectively will help to improve English language achievement (Feyton 1991). Therefore, it is really important for the students to do a lot of listening practices in order to improve their English language.

2.3.2. Speaking

There are several factors that lead to students’ difficulties in speaking. A high percentage of students’ difficulties in speaking is mainly relied on their mother tongue (Turkish), lack of confidence, afraid of making mistakes when speaking English, poor pronunciation and cannot find the correct word at the time of speaking (Fatma, 2014). Most of the students find it difficult to speak in English fluently because lack of words and contents knowledge, limited exposure towards English language after class and insufficient materials used in the classroom. They are having trouble with poor pronunciation of some vowels, consonants and intonation. Lack of practice in speaking English is another reason why the students are left behind since many teachers and educators do not really encourage the students to use the target language in their day to day interaction even though in English class (Fatma, 2014).

Teachers should encourage their students to speak out in English not only in classroom but also after class. Positive reinforcements and having clear goals and instructions will help to make the passive students become active and involve in classroom discussion. Students should be involved in variety of speaking activities in English and frequent practice that related to oral communication such as role play, public speaking, debate, group discussion need to be done because these activities will help raise their self-confidence and increase their proficiency. The more they practice speaking in English, the higher they rate their ability to communicate in English and vice versa (Littlewood, 2004). According to Lee and Ng (2010) to promote students’ participation in the English language discussion, teachers’ classroom-based strategy and pedagogical factors are major determinant to capture their interest and involvement.

2.3.3 Reading

Students face reading difficulties through the challenges of reaching grade-level of expectation when extracting and constructing meaning from written text (Snow et al., 1998); wider range of challenges in word reading and reading comprehension, the weakness to decode morphologically complex words accurately and problem to extract meaning from text (Kieffer, 2014). In academic reading, students face difficulty to extract and synthesize the information from various academic sources and acquire academic vocabulary which is hard to remember. They also face difficulty to synthesize information in order to avoid plagiarism in academic writing and to extract key points out of the passage (Phakiti and Li, 2011).
Better English language achievement can be obtained by the students if they are taught on how to smartly use the reading skills. New approach need to be done in order to help students to identify their learning styles and strategies together with the ability to use the effective reading strategies. Traditional language teaching should be revised for better improvement (Kök, 2010). Motivation to read in English is a gateway to develop a high level of English language proficiency especially for those who are having limited opportunities to use the English language. Reading materials, reading abilities, and students’ attitudes are major influence on motivation to read in English.

2.3.4 Writing

The beauty of language can be captured and appreciated through good quality of writing and it stays there forever and can be reproduced generation after generation. Awang (2007) states that through writing, a collection of memories can be retold in glorious colour. Nevertheless, many students fear of writing and to them writing is the most difficult component in English, particularly problematic for those who speak English as a Second Language (ESL) (Gimenez, 2008). Writing is the most difficult components in the teaching and learning of English. The skills involve are grammar, wider vocabulary knowledge, spelling, sentence production, creativity, quality and originality.

Writing is very important in English Language syllabus and it has been taught in schools and universities. It consists of everything in one set of English Language skills including the good knowledge of grammar, vocabulary and creativity. High levels of academic writing are one of the requirements of higher education and it is important in demonstrating scholarship and promoting student progression (Salamonson, Koch, Weaver, Everett & Jackson, 2010). However, it is a prevailing belief that academic writing problems consist of language usage, syntax, structure and organization.

Muhammad Shahid, Muhammad Uzair and Wahid (2012) affirm that students’ difficulties in writing include lack of vocabulary, a poor in grammar structure, incorrect use of punctuation marks, wrong spelling, disorganize paragraph and sentence structure, and illogical sequence that lead to learners’ academic and career failures. According to Phakiti and Li (2011, p.240) “students face a wider variety of academic writing difficulties including composing an extensive text, plagiarisms, understand the nature of academic writing, lack of own voice in writing, differences between L1 and L2 writing styles, writing coherence, synthesizing ideas for writing, linking theory to practice.” Motivation to write in English requires patience, encouragement, proper guidelines and strategies. Encouragement to read in English among students need to be emphasized because the more they read, the better they will write.

2.4 The Influence of Motivation and Attitude in the Learning of English Language towards Their English Language Achievement.

Motivation and attitude give major movement to instigate English learning and later the dynamic force to maintain the long and wearisome learning process since these two elements are sets of beliefs that can influence efficiency to language learning (Oroujlou & Vahedi, 2011). As mentioned by Yvonne and Gurnam (2013), motivation, attitudes and anxiety are necessary for second language learning nevertheless, students’ perception, belief, feelings and behaviors are also depend on the uniqueness of the language learning process. Millington (2011) argue that songs can be used as a valuable teaching and
learning tools because they are enjoyable; help to improve students listening skills and pronunciation; and useful for teaching vocabulary and sentence structures.

Oroujlo and Vahedi (2011) state that in order to maintain high motivation and attitude levels of students towards the learning of English language, educators should handle the teaching techniques that can immerse students’ attention and interest to learn the language even more. The following six strategies are recommended by them 1) create a friendly atmosphere in the classroom 2) Encourage students to personalize the classroom environment 3) create situations in which students will feel a sense of accomplishment 4) Encourage students to set their own short-term goals 5) Provide pair and group activities to develop students’ confident and finally connect Language Learning to students’ interest outside of class. Revell and Norman (1999), state that the classroom learning environment and activities should satisfy all kinds of learners’ needs from those who are visual, or auditory or kinesthetic. These will help to enhance their motivation towards the learning of English language and automatically will improve their academic achievement.

2.5 Framework of the Study

![Diagram of Framework of the Study]

This framework is designed to investigate the relationship between students’ motivation and attitude towards English their language achievement. The independent variables consist of students’ motivation and students’ attitude in the learning of English language and the dependent variable is students’ English language achievement.

3. Objectives of the Study

1. To investigate students’ motivation and attitude toward the learning of English language
2. To investigate students’ English language achievement (listening, speaking, reading and writing).

3. To determine the relationship between students’ motivation and attitude toward their English language achievement.

4. Research Methodology

4.1 Research Design

The study employed a quantitative approach using descriptive-correlational design in order to investigate the relationship between students’ motivation and attitude in the learning of English language toward their English language achievement. Students’ motivation and attitude in the framework of this study were categorized as independent variables, whereas English language achievement was represented as the dependent variable. The independent variables were the factors that may influence the dependent variable.

Based on this quantitative method, the data for students’ motivation and attitudes were obtained through questionnaires that had been distributed to students and the data for English language achievement was based on the test scores that the students obtained from listening, speaking, reading and writing tests in their final semester examination.

4.2 Population and Sampling

The study was carried out at UiTM Dungun Terengganu involving Diploma students that came from different faculties in UiTM Dungun which are the Faculty of Social Science and Science & Technology. Total number of population is estimated around 1200 students came from different backgrounds of the family, different states in Malaysia and their proficiency and achievement in English differ from each other. Based on the table of sampling by Sekaran (2007), 329 samples were randomly selected through stratified random sampling technique.

4.3 Research Instruments

4.3.1 Questionnaire

Students’ motivation and attitude questionnaire was adapted from Bobkina’s study (2013) and it intends to measure the level of motivation in three motivational constructs established in the works by Gardner (1985) and Cooper & Fishman (1977). The three motivational constructs were instrumental motivation, integrative motivation and personal motivation. Table 1 shows the components of each variable or dimension in the questionnaire.

Table 1. Components of each variable / dimension in the questionnaire

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<th>Part</th>
<th>Variable / Dimension</th>
<th>No. of Item</th>
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In comparison to previous research, the original rating used was ranging from 1 to 5, however the rating was changed from 1 to 10 as to give a greater freedom and choices for students to rate their motivation and attitude in the learning of English language and more importantly for the scale to assume an interval measurement for data analysis purposes.

Students’ attitudes towards learning English questionnaire also came from the same source that looks into the matters of using English in the social and educational contexts or the culture of English speaking countries. Similar to motivation, the rating was changed from 1 to 10 instead of 1 to 5 from the original questionnaire. For this section of questionnaires, some modification, refinement, and improvement for several wording constructions and phrases were made. In order to make the questionnaire suitable and the participants comprehend the item better, the actual questionnaire for part C item no. 13 and 14, the word “Spanish” in the questionnaire has been changed to “Malay” since Malay is the mother tongue of the respondents and it is the National language in Malaysia.

Original item no. 13: If I were on a holiday at an English speaking country, I would try to speak Spanish if possible.

Modification for item no. 13: If I were on a holiday at an English speaking country, I would try to speak Malay if possible.

Original item no. 14: In fact, I prefer our English teacher to explain things in Spanish.

Modification for item no. 14: In fact, I prefer our English teacher to explain things in Malay.

4.3.2 English Language Achievement Tests

The English language achievement test was based on students’ scores obtained in the final semester examination. The English language achievement scores were obtained based on the components of listening, speaking, reading and writing. All the questions were prepared by eight English lectures in a team including the researcher and the questions were given to senior and experts lecturers to confirm their validity.
Table 2. Components of English language tests

<table>
<thead>
<tr>
<th>Test</th>
<th>Full Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening</td>
<td>15</td>
</tr>
<tr>
<td>Speaking</td>
<td>15</td>
</tr>
<tr>
<td>Reading</td>
<td>20</td>
</tr>
<tr>
<td>writing</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total Scores</strong></td>
<td><strong>70</strong></td>
</tr>
</tbody>
</table>

*Total test score is 70

Table 2 shows that the score for listening test was 15, speaking test was 15; reading test was 20; and writing test was 20. The total raw scores for the English language achievement are 70.

The listening test consisted of 15 questions where each of the items carried one mark. The subjects listened to the CD player and answered all the related questions based on what they had listened. The questions for listening test were divided into three dimensions which were listening to the news items, listening to the article and listening to the conversation. The questions for listening test consisted of multiple choices questions and fill in the blanks.

The speaking test was in a group discussion which consisted of four students in a group at one time. The students were given a situation that they have to discuss based on the argumentative discussion and these involved two tasks. The first task or Task A, every student was given two minutes to express their opinions and ideas regarding the related topic and points that had been given to them. When Task A had finished, and all the students had the opportunity to speak, they were given two minutes to prepare points that they want to voice out in Task B which was the second task. In Task B, every student was given another two minutes to express their agreement or opposition towards their friends’ opinions and ideas in earlier discussion which was in Task A.

The reading test consisted of 2 short articles for the participants to read and understand the contents and they were tested on the reading comprehension questions. Reading comprehension questions were based on WH questions, True/False questions and Multiple Choice questions. The mark on each item was based on the criteria of the question itself.

The writing test consisted of one essay question and the students wrote approximately 250 words in one hour. The writing test was graded based on the contents (8 marks), language (8 marks) and organization (4 marks) of the essay. Eight lecturers including the researcher were involved in these four English skills...
test (listening, speaking, reading and writing) and all of them had been given proper instructions on how
to handle and mark the test accordingly in a workshop and meetings. The lecturers or the examiners
including the researcher were given rubrics on how to mark the tests for all those four skills tests.

4.3.3 Validity and Reliability of the Instrumentation

Validity is to determine whether the research truly measures what it was intended to measure or in other
words how truthful the research results are [Joppe (2000) as cited in Golafshani (2003)]. The reliability of a
measure is established by testing both consistency and stability. Consistency indicates how well the
items measuring a concept that hang up together as a set. Cronbach’s (1951) coefficient alpha is the most
frequently used procedure for estimating reliability for questionnaire and it is one type of internal
consistency reliability. Under most condition, reliability coefficients range from 0 to 1.00 and the closer
Cronbach’s Alpha to 1.00, the higher the internal consistency reliability (Helms et al., 2006).

4.3.3.1 Validity and Reliability of Instruments for Questionnaires

The content validity for the instrument of motivation and attitude was given to three experience lecturers
who are experts in psychology and they have over five years of experiences teaching the university
students. The suggestions of the experience lecturers were taken into consideration and minor changes
were made on the instrument. The instrument of motivation and attitude were administered to a group of
30 students from different programs and they are not the subjects for actual study. However, the subjects
shared similar characteristics in terms of their level of English proficiency, knowledge background and
learning environment. The questionnaires for motivation and attitude towards learning English were
tested their reliability through Cronbach’s Alpha reliability analysis. The results are shown in Table 3.

<p>| Table 3. Cronbach’s Alpha for Students’ Motivation and Attitudes towards Learning English |
|-----------------------------|-----------------------------|</p>
<table>
<thead>
<tr>
<th>No. of item</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>11</td>
</tr>
<tr>
<td>Attitudes</td>
<td>4</td>
</tr>
</tbody>
</table>

The Cronbach’s Alpha for students’ motivation is 0.898 and attitude is 0.737. Based on the results
presented, all constructs are highly reliable as all values display alpha coefficient surpasses the value of
0.60 suggested by (Hair et al., 2006). Therefore, this questionnaire can be considered having an accepted
level of reliability.

4.3.3.2 Validity and Reliability of Instruments for English Language Tests
The questions for English language test (listening, speaking, reading and writing) were prepared by eight experienced English lecturers including the researcher. They are experts in the English language and they have over five years’ experience in teaching English to university students. All the questions were validated by the expert lecturers before the questions were released to the respondents. Since the questions were set by professionals or experts and based on table of specifications from previous semester, it can be considered as valid and reliable for the purpose of the research.

4.4 Data Collection Procedure

Before the study was conducted, a permission letter was written to the office of administration asking for their approval. Once the permission letter was approved, the questionnaires were delivered randomly by hand to students through their English lecturers that taught different groups including the researcher. Every lecturer that involved has been clearly explained on the purpose of the study and how to monitor the questionnaires. In the classroom, the instruments were administered after the participants had been informed on how to answer the questions. It took approximately twenty to thirty minutes for the task to be completed and collected back by the lecturers. The lectures took back the questionnaires and returned them to the researcher.

380 copies of instruments were distributed however, only 329 copies returned. The missing instruments were because some of the participants were absent and they were regarded as missing. All the questionnaires that were answered by the participants were kept confidential.

Eight English lecturers were involved in the process of conducting the test for listening, speaking, reading and writing since the researcher cannot handle and manage 329 students alone. All the English lecturers that involved were clearly explained regarding the terms and procedures of the test. They were given the rubrics and guidelines on how to give marks to the respondents on their listening, speaking, reading and writing test so that the grades would be fair and justice. There would be two examiners to check the students’ grades during the marking process in order to ensure the inter-rater reliability. The moderations of the marks were carried out by the researcher and the other lecturers to enhance the validity and reliability of the results.

4.5 Data Analysis Procedures and Measurement

This study utilized the IBM Statistical Package for Social Science (SPSS) 20 to analyze the said data. The data about respondents’ demographic in Section A which is under Population and Sample, the data was analyzed by using descriptive analysis that shows the number of respondents according to the various characteristics. This section interpreted the information of respondents like gender; type of programs; and social economics status (SES). The purpose was to obtain the number of responses associated with different values of variable and it was presented in tabular form of frequency table.

Table 4. Data analysis procedures and measurement

<table>
<thead>
<tr>
<th>No.</th>
<th>Research Objectives</th>
<th>Analysis</th>
</tr>
</thead>
</table>

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Table 4 gives details procedures on how the data were analyzed. For research objective 1, the data collected were analyzed by using descriptive analysis which refers to the statistic of the frequencies, mean and standard deviation that provide descriptive information. This analysis gives the mean value and the comparison on the mean value among the data can be obtained as well as to determine the descriptive analysis of mean range.

Research objective 2, the data collected were analyzed by using Independent Samples t-test which is most commonly used in determining if there exists a difference in means between two independent groups or related groups.

Research objective 3, data were analyzed using Pearson Correlation which is one of the most common forms of data analysis that underlies many other analyses and capable of supporting conclusion after primary analyses have been completed. A correlation coefficient has a value ranging from -1 to 1. Value that are closer to the absolute value of 1 indicate that there is a strong relationship between the variables being correlated whereas values closer to 0 indicate that there is little or no linear relationship.

5. Findings

5.1 Demography of Participants

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Distribution</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Social Science</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Major Programme</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Business Management</td>
<td>75</td>
<td>22.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hotel and Tourism</td>
<td>87</td>
<td>26.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public Administration</td>
<td>50</td>
<td>15.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accountancy</td>
<td>26</td>
<td>7.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>238</td>
<td>72.3</td>
<td></td>
</tr>
</tbody>
</table>

Table 5. Demography of respondents
Table 5 indicates that participants in this study came from six different programs, Business Management (BM), Hotel and Tourism Management (HM), Public Administration (AM), Electrical Engineering (EE), Computer science (CS) and Accountancy (A). Based on these programs, two programs, CS and EE were Science & Technology; meanwhile, the other four programs were Social Science based programs. The distribution of the samples according to gender found 114 of the participant (34.7%) are male and 215 (65.3%) are female. Meanwhile the frequency and percentage of students according to their social economics status (SES) displayed 142 of the participants (43.2%) came from low SES family where the monthly income is RM1999 & below; 102 (31%) of the participants came from medium SES family with the monthly income of RM2000 – RM3999; 54 (16.4%) of the participants came from high SES family with the monthly income of RM4000 – RM7999; and 31 (9.4%) of the participants came from very high SES family with the monthly income of RM8000 & above.

5.2 Research Objective 1

To investigate students’ motivation and attitude toward the learning of English language.

5.2.1 Motivation

Table 6. Descriptive statistics for students’ instrumental motivation in the learning of English Language

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>N</th>
<th>Mean</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Electrical Engineering</td>
<td>61</td>
<td>18.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Computer Science</td>
<td>30</td>
<td>9.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>91</td>
<td>27.6</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>114</td>
<td>34.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>215</td>
<td>65.3</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Low SES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM1999 &amp; Below</td>
<td>142</td>
<td>43.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medium SES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM2000 - RM3999</td>
<td>102</td>
<td>31.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High SES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM4000 - RM7999</td>
<td>54</td>
<td>16.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Very High SES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM8000 &amp; Above</td>
<td>31</td>
<td>9.4</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>329</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
1. I learn English because I need it for my studies

<table>
<thead>
<tr>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>329</td>
</tr>
<tr>
<td>7.67</td>
</tr>
<tr>
<td>2.06</td>
</tr>
</tbody>
</table>

2. I learn English for my professional career

<table>
<thead>
<tr>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>329</td>
</tr>
<tr>
<td>8.07</td>
</tr>
<tr>
<td>1.76</td>
</tr>
</tbody>
</table>

3. I learn English because it makes me more competitive person

<table>
<thead>
<tr>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>329</td>
</tr>
<tr>
<td>7.88</td>
</tr>
<tr>
<td>1.74</td>
</tr>
</tbody>
</table>

4. I learn English because it helps me to get a well-paid job

<table>
<thead>
<tr>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>329</td>
</tr>
<tr>
<td>7.98</td>
</tr>
<tr>
<td>1.90</td>
</tr>
</tbody>
</table>

*scale 1 to 10

Overall

<table>
<thead>
<tr>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>329</td>
</tr>
<tr>
<td>7.90</td>
</tr>
<tr>
<td>1.63</td>
</tr>
</tbody>
</table>

Table 6 of the instrumental motivation illustrates that students are more motivated to learn English for their professional career 8.07 (SD = 1.76) followed by learning English helps them to get well-paid job 7.98 (SD = 1.90); English makes them become a more competitive person 7.88 (SD = 1.74) and they need English for their studies 7.67 (SD = 2.06). The overall mean for instrumental motivation for learning English is 7.90 (SD = 1.63). This indicates that students involve in this study have a moderately high level of instrumental motivation for the learning of English language.

Table 7. Descriptive statistics for students’ integrative motivation in the learning of English language.

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>N</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I learn English because it makes easier to contact with English speaking people</td>
<td>329</td>
<td>8.28</td>
<td>1.63</td>
</tr>
<tr>
<td>2.</td>
<td>I learn English because it allows me to participate in cultural activities</td>
<td>329</td>
<td>7.86</td>
<td>1.81</td>
</tr>
<tr>
<td>3.</td>
<td>I learn English because I need it to travel abroad</td>
<td>329</td>
<td>8.06</td>
<td>1.86</td>
</tr>
</tbody>
</table>

*scale 1 to 10

Overall

<table>
<thead>
<tr>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>329</td>
</tr>
<tr>
<td>8.07</td>
</tr>
<tr>
<td>1.63</td>
</tr>
</tbody>
</table>

Table 7 of integrative motivation for learning English illustrates that students are more motivated to learn English because it makes easier for them to contact with English speaking people 8.28 (SD = 1.63); they need the language for the purpose of travelling abroad 8.06 (SD = 1.86); and participation of cultural activities 7.86 (SD = 1.81). The overall mean for integrative motivation reasons for learning English is 8.07 (SD = 1.63) which simply depicts that students have a high level of integrative motivation for the learning of English language.
Table 8. Descriptive statistics for students’ personal motivation in the learning of English language

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>N</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I learn English because I would like to live in an English speaking country</td>
<td>329</td>
<td>7.47</td>
<td>4.41</td>
</tr>
<tr>
<td>2.</td>
<td>I learn English because I would like learning new things</td>
<td>329</td>
<td>8.12</td>
<td>1.66</td>
</tr>
<tr>
<td>3.</td>
<td>I learn English because I like learning foreign languages</td>
<td>329</td>
<td>7.88</td>
<td>1.77</td>
</tr>
<tr>
<td>4.</td>
<td>I learn English because learning is a rewarding process</td>
<td>329</td>
<td>7.74</td>
<td>1.72</td>
</tr>
<tr>
<td></td>
<td>*scale 1 to 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Overall</td>
<td>329</td>
<td>7.80</td>
<td>1.81</td>
</tr>
</tbody>
</table>

Table 8 illustrates students’ interest in learning English based on personal motivation reasons. The results in descriptive statistics for personal motivation reasons for learning English indicates that students are more motivated to learn English because they would like to learn new things 8.12 (SD = 1.66); they like learning foreign languages 7.88 (SD = 1.77); learning is a rewarding process 7.74 (SD = 1.72); and they want to live in English speaking country 7.47 (SD = 4.41). The overall mean score for personal motivation is 7.80 (SD =1.81). This indicates that students in this study have a moderately high level of personal motivation.

Table 9. Descriptive statistics for students’ overall motivation in the learning of English language

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>N</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Instrumental motivation</td>
<td>329</td>
<td>7.90</td>
<td>1.63</td>
</tr>
<tr>
<td>2.</td>
<td>Integrative motivation</td>
<td>329</td>
<td>8.07</td>
<td>1.63</td>
</tr>
<tr>
<td>3.</td>
<td>Personal motivation</td>
<td>329</td>
<td>7.80</td>
<td>1.81</td>
</tr>
<tr>
<td></td>
<td>Overall Motivation</td>
<td>329</td>
<td>7.91</td>
<td>1.52</td>
</tr>
</tbody>
</table>

Scale: 1 – 10

Table 9 shows all the three motivational constructs towards learning English and indicates that students are more motivated to learn English through integrative motivation reasons as this element of motivation...
received the highest mean score of 8.07 (SD = 1.63) as compared to 7.90 (SD = 1.63) for instrumental motivation reasons and 7.80 (SD = 1.81) for personal motivation reasons. The overall mean score for motivation in learning English is 7.91 (SD = 1.52). This simply means that students who are involved in this study have a moderately high motivation level towards the learning of English language.

5.2.2 **Attitude**

Table 10. Descriptive statistics for students’ attitude in the learning of English language

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>N</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I like to speak English in the language classroom as much as possible.</td>
<td>329</td>
<td>7.02</td>
<td>1.77</td>
</tr>
<tr>
<td>2</td>
<td><em>I believe in luck or intelligence as far as I don't put too much effort to learn English</em></td>
<td>329</td>
<td>6.01</td>
<td>1.72</td>
</tr>
<tr>
<td>3</td>
<td>If I didn’t have a chance to study English at the University, I would try to follow practicing the language somehow.</td>
<td>329</td>
<td>7.09</td>
<td>1.85</td>
</tr>
<tr>
<td>4</td>
<td><em>If I were on holiday at an English speaking country, I would try to speak Malay if possible.</em></td>
<td>329</td>
<td>6.14</td>
<td>1.61</td>
</tr>
<tr>
<td>5</td>
<td>When I hear an English song on the radio or watch a movie, I try to understand what it says.</td>
<td>329</td>
<td>8.21</td>
<td>1.64</td>
</tr>
<tr>
<td>6</td>
<td><em>In fact, I am more interested in learning the other foreign language (not English)</em></td>
<td>329</td>
<td>6.04</td>
<td>1.10</td>
</tr>
<tr>
<td>7</td>
<td><em>In fact, I prefer our English teacher to explain things in Malay</em></td>
<td>329</td>
<td>6.02</td>
<td>1.80</td>
</tr>
<tr>
<td>8</td>
<td><em>When I finish my studies at the university, I will not continue with English classes</em></td>
<td>329</td>
<td>6.70</td>
<td>2.08</td>
</tr>
<tr>
<td>9</td>
<td>I am interested to speak English very well.</td>
<td>329</td>
<td>8.07</td>
<td>1.80</td>
</tr>
<tr>
<td></td>
<td>*Negative items</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Overall</td>
<td>329</td>
<td>6.81</td>
<td>1.71</td>
</tr>
</tbody>
</table>

Table 10 depicts that the two highest mean scores for students’ attitude towards the learning of English language are they have high interest in listening to the English song or watch a movie and make an effort to understand the language 8.21 (SD = 1.64); and they have a desire to speak English very well 8.07 (SD = 1.80). The two lowest mean scores for students’ attitude are they prefer their English teacher to explain
things in Malay 6.02 (SD = 1.80); and they believe in luck or intelligence as far as they don’t put too much effort to learn English 6.01 (SD = 1.72). The overall mean scores for students’ attitudes towards the learning of English language is 6.81 (SD = 0.91) which implies the moderate level of students’ attitudes towards the learning of English language.

5.3 Research Objective 2

To investigate students’ English language achievement (listening, speaking, reading and writing).

Table 11. Descriptive statistics for students’ English language achievement in listening, speaking, reading and writing test.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening (Max = 15)</td>
<td>329</td>
<td>9.75</td>
<td>2.51</td>
<td>65</td>
</tr>
<tr>
<td>Speaking (Max =15)</td>
<td>329</td>
<td>10.36</td>
<td>1.58</td>
<td>69.10</td>
</tr>
<tr>
<td>Reading (Max = 20)</td>
<td>329</td>
<td>11.37</td>
<td>2.42</td>
<td>56.85</td>
</tr>
<tr>
<td>Writing (Max =20)</td>
<td>329</td>
<td>11.44</td>
<td>2.54</td>
<td>57.2</td>
</tr>
</tbody>
</table>

*Total test score is 70

The table 11 shows that the mean score obtained by listening test is 9.75 with a SD = 2.51 [max score = 15], the mean for speaking test is 10.36 with a SD = 1.58 [max score = 15], the mean for reading comprehension test is 11.37 with a SD = 2.42 [max score = 20] and the mean score for writing test is 11.44 with a SD = 2.54 [max score = 20]. In terms of percentage listening test score is 65%, speaking test score is 69.10%, reading comprehension test score is 56.85% and writing test score is 57.2%. This indicates that the students obtained highest score in speaking as followed by listening, writing and reading.

Table 12.  Descriptive statistics for students’ overall in English language achievement.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students’ overall achievement in English</td>
<td>329</td>
<td>42.92</td>
<td>6.71</td>
</tr>
</tbody>
</table>

*Total test score is 70
Table 12 shows the overall mean score obtained by the students in the English language achievement is 42.92 (SD = 6.71). This indicates that the students in this study have an approximate score of 61.3% (42.92/70 x 100) which is a moderate low score in the test.

5.4 Research Objective 3

To determine the relationship between students’ motivation and attitude toward their English language achievement.

Table 13. Pearson Correlation of students’ motivation and attitudes in the learning of English language (N = 329)

<table>
<thead>
<tr>
<th></th>
<th>Motivation</th>
<th>Attitude</th>
<th>English language achievement</th>
</tr>
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<tbody>
<tr>
<td>Motivation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.617**</td>
<td>.111*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.045</td>
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<tr>
<td>N</td>
<td>329</td>
<td>329</td>
<td>329</td>
</tr>
<tr>
<td>Attitude</td>
<td>.617**</td>
<td>1</td>
<td>.224**</td>
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<tr>
<td>Pearson Correlation</td>
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<td>Sig. (2-tailed)</td>
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<tr>
<td>English language achievement</td>
<td>.111*</td>
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<td>Pearson Correlation</td>
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<td>N</td>
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</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).

Table 13 shows that there is a moderately high correlation (r = 0.617) between students’ motivation and attitude towards the learning of English language. This correlation is significant (p < 0.05) at the 0.05 level. This simply means that 38.1% (r² = 0.381) of students’ attitude can be explained by their motivation score and vice-versa.
Therefore this is a low correlation ($r = 0.111$) between students’ motivation and English language achievement tests. However, the correlation is significant ($p = 0.045$) at the 0.05 level. Although the correlation is significant but with a low correlation coefficient, this might be due to the large sample size ($N = 329$)

The table also illustrates that there is a moderately low correlation ($r = 0.224$) between students’ attitude and English language achievement tests. However, the correlation is significant ($p = 0.000$) at the 0.05 level. Although the correlation is significant but with a low correlation coefficient, this might be due to the large sample size ($N = 329$).

6. Discussion of Findings

This section outlines the discussion of the findings of this study in relation with the research objectives outlined. These findings were integrated with literature review in the related areas of study concerned.

6.1 Students’ Motivation and Attitude toward the Learning of English Language

From the research, it was found that students are more motivated to learn English through integrative motivation as this element of motivation received the highest mean score as compared to instrumental motivation and personal motivation reasons. Integrative motivation indicates that students are more motivated to learn English because by mastering the language it would be easier for them to contact and communicate with English speaking people. However, the finding of the current study do not support the previous researches (Gardner & Lambert, 1972; Bobkina, Dominquez & Fernandez, 2007) that claimed normally students would rather choose instrumental reasons more often than integrative motivation for language learning. Nevertheless, the findings of this study were quite close to Naser’s (2010) where strong correlations were found among integrative orientation than other psychological variables.

The findings also reveal that there is a moderately high correlation between students’ motivation and students’ attitude towards the learning of English language. This simply means that attitudes are strongly related to motivation where people with positive attitude could be motivated learners towards the learning of English language. This finding of the current study is consistent with those of Petrides (2006) who found motivated students with positive attitudes toward the learning of English language enjoy being in the classroom and they feel that the language they are learning is useful to them in their life will perform better than those who are less motivated. The study also reveals that students from high SES have higher level of motivation and attitude towards the learning of English language as compared to the counterparts from the lower SES. This shows that the richer the students come from, the more motivated they are to learn English.

6.2 Student’s Achievement in the Learning of English language

The findings reveal that the students in this study have an approximate score of 61.3% (42.92/70 x 100) which is a moderate low score in the test even though their motivation towards the learning of English language is quite high. Majority of the students obtained higher score in speaking (69.10%) as followed by listening (65%), writing (57.2%) and reading (56.8%). The score for English language achievement for writing and reading are considered moderately low. Results from the study show that students are having difficulties from these two components of skills especially writing.
Few comments have been written on the test papers of the respondents during the marking by the lectures who are involved in the study. In writing, marks are given based on three categories which are content, language and organization and language seems to be the most difficult parts for the students. Some of the comments written are L1 (Malay) interference; lack of vocabulary to express the contents and ideas from their minds; spelling error; wrong grammatical structure and the interference of SMS language such as the students write ‘i’ instead of “I” and ‘gonna’ instead of ‘going to’. The current study found that males students perform better than female students in the English language achievement tests even though there is no significant difference between them and these findings regarding gender and writing difficulties have similarities with the study of Farooq, Uzair-Ul-Hassan & Wahid (2012) that found female students face more problems in writing than their male counterparts and students in Pakistan also face difficulties in vocabularies, spelling errors, grammar and L1 interference which is Urdu.

Reading and writing are two complementary skills and develop simultaneously. Students face reading difficulties through the challenges in reaching grade-level expectation for extracting and constructing meaning from written text (Snow et al., 1998); wider range of challenges in word reading and reading comprehension, the weakness to decode morphologically complex words accurately and problem to extract meaning from text (Kieffer, 2014). All these problems face by students in this study due to their vocabulary weaknesses and lack of reading practice in English language.

Listening comprehension test was measured using a multiple-choice response format and an open-ended verbal response format. Based on the lecturers’ feedbacks who are involved, the most common weaknesses in students’ listening comprehension performance are the word-finding difficulties and the expressive language difficulties. The students encounter more problems when answering an open-ended verbal response questions due to their lack of vocabulary knowledge, spelling errors, wrong grammatical structure such as subject-verb agreement (‘two house’ instead of ‘two houses’) and the difficulties to understand the construct of English language in audio. The errors made by the students are due to lack of listening skills and carelessness when they wrote the answer most probably because they cannot devote their minds in two situation at one time, which are listening and writing. This finding of the current study are similar to (Newman, 2010) who found students’ listening comprehension are poorer when it was measured using an open-ended verbal response format.

The most common difficulties faces by students in their speaking test are the interference with L1. They tend to add the words ‘lah’ or ‘kan’ at the end of the conversation and lack of confidence to express their ideas in English right in front of the examiners and friends. Vocabulary weaknesses are part of the problems facing by them as these become the barrier for them to deliver all the contents that they have in their minds. These findings is in agreement with Fatma’s (2014) findings which showed a high percentage of students’ difficulties in speaking is mainly relied on their mother tongue (Turkish), lack of confidence, afraid of making mistakes when speaking English, poor pronunciation and cannot find the correct word at the time of speaking.

The mean score of English language achievement for Science & Technology students is slightly higher than Social Science students in their English language achievement test. Nevertheless there is no significant difference in students’ English language achievement between Social Science students and Science & Technology students.
Contrary to the expectation, Science & Technology students overcome Social Science students in English language achievement test even though there is no significant difference between them. This is due to the fact that Science & Technology students are selected to enter the programme based on their excellent academic performance. From the research, it was determined that there is a significant difference between students’ social economics status (SES) and English Language achievement tests and in all aspects of basic English skills namely listening, speaking, reading and writing. This study produced results which corroborate the findings of a great deal of the previous work in this field.

6.3 The Relationship between Students’ Motivation and Attitude towards the English Language Achievement

The findings from this study revealed that students who are involved in this study have a moderately high level of motivation and they have a moderate level of attitude towards the learning of English language. However, there is a low correlation between students’ motivation towards the learning of English language and their English language achievement tests. The students have a moderate level of learning attitude towards English language and the study depicts that there is a moderately low correlation between students’ attitude and English language achievement tests. These indicate that as a whole, both Social Science students and Science & Technology students are highly motivated to be competent in the language. They realized the importance of English for their future career, self-development and the need for the country to ensure the survival of nation in the competitive world. However, high motivation and positive attitude only are not enough to obtain an excellent English language achievement among students as the two findings below further support the idea of the statement.

7. Conclusion

This study has discussed on students’ motivation and attitude towards the learning of English language; students’ English language achievement (listening, speaking, reading and writing); and the relationship between students’ motivation and attitude towards their English language achievement. The research found that students are being more motivated to learn English through integrative motivation as compared to instrumental motivation and personal motivation. Students who are involved in this study have a moderate level of learning attitude and they like to learn English through songs.

The English language achievement indicates that students score higher marks in speaking followed by listening, writing and reading. There is no significant difference between male students and female students toward their English language achievement and same goes to Science Social and Science & Technology students. However, the findings reveal that students from high SES obtained higher scores in their English language achievement and all of the components (listening, speaking, reading and writing).

8. Recommendation

Besides motivation and attitude, there must be other factors that contribute to the successful of English language achievement since the results of these two elements do not have a very strong relationship with the dependent variable. Thus, future research should be conducted to investigate more factors that have the relationship with students’ English language achievement such as family background, parenting style...
and involvement, single parents, poverty, classroom management, school activities, reading habits, vocabulary enlargement, speaking and listening activities, writing clinic etc. According to Yvonne and Gurnam (2013) motivation, attitudes and anxiety are necessary for second language learning nevertheless, students’ perception, belief, feelings and behaviors are also depend on the uniqueness of the language learning process.

Motivation in this study is focus more on the adaptation of Gardner & Lambert (1972) under the three level of motivation such as instrumental motivation, integrative motivation. Personal motivation or also known as developmental motivation is adapted from Cooper and Fisherman (1977). In future investigations it might be possible to study other types of motivation such as intrinsic and extrinsic motivation in order to determine the success for language learners.

Findings for research objective 2 reveal that the students have a moderate level of learning attitude. Two items that show the highest mean scores for students’ attitude towards the learning of English are (i) they have high interest in listening to the English song or watch a movie and make an effort to understand the language; and (ii) they have a desire to speak English very well. Therefore this finding gives lecturers ideas to make their teaching style more interesting to the students by inserting some of the English songs in their lesson plan. According to Millington (2011) songs can be used as a valuable teaching and learning tools because they are enjoyable; help to improve students listening skills and pronunciation; and useful for teaching vocabulary and sentence structures.

9. References


Strategy for Enhancing Skills of English for Forensic Medicine

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Abstract
There are relatively few studies on the language of forensic medicine. This paper intends to fill this gap and to shed light on the relationship between legal medicine and forensic medicine. Furthermore, building on previous research, we use a corpus-based approach to identify and to investigate frequent terms. Thus, we determine the features of the forensic medicine language to build an innovative strategy for teaching and learning English for Forensic Medicine. Our aim is to analyze the interdisciplinary character of this language and to enhance our students’ language skills through a responsive framework that meets their needs. More precisely, we address the process of developing language learners into reflective practitioners in this digital era and how to implement task-based learning in medicolegal communication. The paper concludes that our strategy has a two-fold outcome: to create an engaging environment for our students and to help them grasp concepts which reveal the intersection between sciences and practices within the domain of forensic medicine.

Keywords: special language; forensic medicine; interdisciplinarity; English for Forensic Medicine

Introduction
Nowadays LSP (the field of Languages for Specific Purposes) has a dual character: it has become independent, as a discipline in itself with its own research agenda, methodology, and applications and multi-disciplinary as a catalyst of other related disciplines in discourse and genre analysis, corpus-based research, multi-modal discourse analysis, critical discourse analysis, communication studies, ethnography of communication, socio-cognitive research on teaching and learning of specialised languages, and, at the same time, a number of other academic and professional disciplines that it tends to serve (Bathia et al., 2011: 1).

Depecker (2015:38) makes a distinction between “special” and “specialized”: “special” means that a word or a group of words belongs to a technical or scientific domain while “specialized” means the process of an ordinary word or group of words that makes it become a term. Moreover, he points out that one of the main principles of terminology science is the definition of a “term” - a “term” is a linguistic unit delimited by the concept it conveys, therefore, a term has a linguistic side and a conceptual side, the idea to which the sign refers (ibidem: 37).

Forensic Medicine versus Legal Medicine

Traditional approach to terminological definitions imposes constraints that are not realistic, because linguistic meaning is based on prototypes. Both terms and their definitions belong to language, so that there is no way to escape from the limitations language imposes on definitions (Hacken, 2015: 4). While searching for relevant studies which concern the language of forensic medicine, we noticed that investigations of this language are very few and bilingual dictionaries for this area are almost non-existent. Since most of the studies that we came across promoted the terms “legal medicine” and “forensic medicine”, we consider that before delving into the language of legal medicine, it would be helpful to have a general definition of these terms. Generally speaking, consultation of the explanatory
dictionary is determined by insufficient knowledge or incognizance of the meaning or meanings of a word. The process of consulting the dictionary is the first stage of lexical learning, a concept that introduces a relative freedom of knowledge: the passive knowledge which consists of understanding (lexicographic definition), the interpretation (concrete and correct labeling of an extra-linguistic reality), and the active knowledge, which is reflected in the proper use of the unit in various linguistic contexts (Cioliăneanu, 2011). After looking up the terms, we noticed that the Medical Dictionary for the Health Professions and Nursing provides an entry only for “forensic medicine” with two brief definitions, which are not sufficient to define the area of study to a wide audience; instead, it specifies that “legal medicine” is synonymous with “forensic medicine”:

- “The relation and application of medical facts to legal matters.”
- “The law in its bearing on the practice of medicine.” Synonym(s): “legal medicine”

Likewise, Merriam Webster dictionary provides only one entry for “forensic medicine” with a definition that specifies the synonymy between “legal medicine” and “forensic medicine”: “a science that deals with the relation and application of medical facts to legal problems - called also “legal medicine””. To a non-specialist, the information provided by the dictionaries may seem confusing. Capper states in a comprehensive study that the consequences of confusion may be catastrophic and it is thus important that we share the same vocabulary. He exemplifies that there is a big difference between a papule and a pustule and confusion of a “cut” with a “laceration” will send the average forensic pathologist into fits of apoplexy. Also, lawyers usually interact with the medical profession and if lawyers understand something different from a word than does a doctor, then the entire object of the exercise is somewhat defeated (Capper, 2001: 256-259).

Various authors provide a list of desirable qualities of specialized discourse, and consider them to be the most significant requirements that special languages should meet: simplicity and clarity; objectivity; abstractness; generalization; density of information; brevity or laconism; emotional neutrality; unambiguousness; impersonality; logical consistency; use of defined technical terms, symbols and figures (Gotti, 2011).

Analyzing these requirements, we have been tempted to address the question: Are “legal” and “forensic” medicine considered to be synonymous? Many authors highlight their synonymy but Roy Beran argues that the two are different components of the application of medical knowledge upon the legal system. He demonstrates that legal medicine has greater relevance to civil and tort laws, impacting upon patient care, whereas forensic medicine relates to criminal law and damage to, or by, patients (Beran, 2010). In line with Beran’s arguments, Cyril Wecht points out that forensic science is a broader term when compared to legal medicine, in other words the forensic science encompasses legal medicine. Hence, he considers legal medicine to be the field of study and accumulation of materials that deals with the application of medical knowledge to the administration of justice (Wecht, 2005: 245-251).

The author conducts his study through the lens of history, pinpointing the fact that medicine and law have been related from the earliest times, since the functions of the physician and the jurist were united in the priest, the intermediary between God and man. There are ancient documents which justify the fact that Ecclesiastical courts and canon law were concerned with issues not only related to religious matters but
also to medicine (e.g. impotence, divorce, sterility, pregnancy, abortion, period of gestation, and sexual deviations).

Wecht discusses the oldest written records starting with the Code of Hammurabi (which dates back to the year 2200 B.C., includes legislation pertaining to the practice of medicine, describes thoroughly the topic of medical malpractice and mentions for the first time the concept of civil and criminal liability for improper and negligent medical care), and continues his comprehensive study with the presentation of evidence that priests in Egypt made determinations regarding the cause of death and whether it was natural or not, while in ancient Greece, although there was a knowledge of poisons and laws against abortions, autopsies were not performed, since a dead body was regarded as sacred. Later on, the great advances in medicine determined the drafting of more elaborate legal codes. The author outlines the fact that there is no clear evidence that medical knowledge was officially used to establish proof in courts of law, but it is known that Hippocrates and others tackled many medico-legal issues (Wecht, 2005: 245-251).

Since the word “forensic” derives from the Latin “forensis” which means “forum” – the meeting place where civic and legal matters were discussed by people with public responsibility, we agree with Rajesh Bardale’s view that forensic medicine deals with the application of medical knowledge in the administration of law and justice (Bardale, 2011).

**Development of the Forensic Medicine Language**

Undoubtedly the language of forensic medicine is a product of the magnificent history of medicine and its application in the administration of law. Nowadays, the forensic medicine area has been evolving in accordance with recent scientific developments and advancement of technological equipment. Around the world, from a chronological point of view, there are three historical stages which impacted the language of forensic medicine. Additionally, we include the fourth stage which determined the appearance of new concepts that reflect the effect of technology upon the language of forensic medicine:

- The first stage which lasted several thousands of years until the 16th century; during this period, legal medicine was not separate from pathological anatomy and surgery, with no specialized treatments or experts.

- The second stage began in the 17th century and was driven by systematic studies, scientific developments, appearance of experts and legislators; this stage was initiated in Italy and had further European proliferation.

- The third stage or the modern period began in the 20th century with the discovery of the blood groups in 1901 and the DNA profile (genetic fingerprint) in 1985.

- The fourth stage which we call the high-technology stage due to the use of ultraviolet and infrared light, electron microscopes, lasers, advanced analytical chemical techniques, and computerized databanks as common practice nowadays to analyze and research evidence. Therefore, a wide range of relevant terms make key concepts within forensic science although...
they originate from various areas such as law, chemistry, biology, anthropology, forensic computing, etc.

Corpus Building and Investigation Methods

Lexical approaches to English for science and technology are largely related to language teaching and learning. Computational research of the linguistic corpus offers the opportunity to investigate the “technical” vocabulary beyond the idea of singular word-term in any field of science. Making an inventory of terms for the language of legal medicine is the most important aspect of our analysis in the sense that it is based on quantitatively and qualitatively representative texts that are part of a corpus which encompasses two books, articles that deal with forensic science issues and job descriptions within this domain. The key to using corpus data is to find the balance between the use of corpus data and the use of one’s intuition (McEnery et al., 2006: 7). Researchers appraise corpus linguistics as a whole system of methods and principles of how to apply corpora in language studies and teaching/learning (ibidem), while a specialist corpus is considered “an approach or a methodology for studying language use.” (Bowker & Pearson, 2002). The applications of corpus technologies to LSP range from the identification of high frequency lexis in a specific domain, collocation, colligation and semantic prosody, grammar and discourse, to the contrastive analysis of lexical items in different domains or the contrastive analysis of genres (text-types) in different sublanguages (Albi et al., 2014).

We also used the Simple Concordance Program (SPC) developed by Alan Reed to analyze the texts and the information retrieved from the textual corpus. The basic activity was to extract the terms from the corpus and display them in context, as well as to provide a reference of the place where a certain term appears in text. Terms designate concepts which constitute a system or a conceptual network which makes up part of the knowledge that an individual must master to understand and produce specialized texts within a specific knowledge field (Santos & Costa, 2015:158). Therefore, in the next section we analyze the terms (units of significance) to see to what extent the meaning of forensic medicine is present/absent, whether it is a single specialized meaning of forensic medicine or it is obtained by adding new semantic units that allow the definition of an already existing meaning of medicine or law. Moreover, we analyzed the terminological syntagms and assessed to what extent they meet the linguistic criteria for the formation and the functioning of complex lexical units as they appear in the literature. The data revealed that the specialized lexicon could be more accurately defined as a set of linguistic prefabrications or “multi-lexical units /collocations with a value of formula” (Mudraya, 2006). Thus, the technical vocabulary of forensic medicine includes collocations and words specific to one or more related domains (anatomy, law, biology), with a high frequency of use, specific meaning and specific patterns of co-occurrence.

Results

Features of the forensic medicine language

The interdisciplinarity of a specialist language is known as the presence of a specialized term in a minimum or in more than two domains (Bidu-Vrânceanu, 2007). Other authors consider interdisciplinarity as a result of the migration of scientific terms from one domain to another, a migration determined by the current state of research, which is characterized by a pronounced interdomain
mobility and a collaboration of specialists from different branches of science (Toma, 2006). The interdisciplinary of the language of forensic medicine is based on certain situations at the ontological level, when the specialists from different fields study the same reality, the same referent, each from the perspective of their own discipline and the methods specific to that discipline. The language of forensic medicine reveals several interesting aspects related to the interdisciplinary relations with other specialized languages, as well as the dynamics and diversity of these relations, because it applies the principles and methodology of medical sciences in the legal field, thus revealing its accentuated interdisciplinary character, which is situated at the border between biological sciences and social-juridical sciences. After analyzing the corpus, we have found both through inventory and descriptive descriptions of the terms from our inventory that the terms of forensic medicine are either common with the medicine science, the social-juridical sciences or with the common language, and the dimension of forensic medicine is added by a unification of objects and concepts from the respective areas, leading to a rethinking of the concept or object, in accordance with the principles and rules of the forensic science. Sometimes the difference between the definition of terms used in forensic medicine and the definition of the same terms employed in other areas lies in the end use of the results. For example, Smith & Bluth give a relevant example: in clinical toxicology, the end user is a physician who is using the results to treat and care for a patient, whereas in forensic toxicology, the end user can be a physician, or a nonmedical professional such as a lawyer, a human resources employee, or probation officer who is using the results to determine a cause of death, employment eligibility, or compliance with terms of parole (Smith & Bluth, 2016: 753-759).

From a logical-semantic point of view, the medicolegal denomination acts as an informative unit, and the conceptual units are largely updated by syntagms based on legal terms and on the basis of anatomical terms of Greek-Latin origin which are key terms in all types of composition such as: head injuries, scalp injuries, injury to skull, injury to meninges, injury to brain, injury to spine and spinal cord, injury to chest, injury to abdomen, firearm injuries, injuries caused by rifled firearms, explosion and blast bomb injuries, mechanical injury, abrasion, contusion, lacerated wounds, incised wound, chop wound, stab wounds, fractures, brain death, death certificate, apparent death, modes of death, manner of death, sudden death, postmortem lividity, decomposition, skeletonization, mummification, autopsy, autopsy examination, laboratory investigation, fetal autopsy, exhumation, postmortem artefacts, DNA profiling, DNA evidence, forensic osteology (skull, mandible, femur, tibia, fibula, humerus, radius, ulna, sternum, scapula, clavicle, hipbone, sacrum), etc.

Also, the name and descriptions of professions that we identified in the corpus reflect both the interdisciplinarity of forensic medicine and the impact of technology on the creation of new professions that require digital and interdisciplinary competencies: Coroner, Forensic Crime Scene Officer, Forensic Lab Technician, Forensic Scientist, Forensic Latent Print Analyst, Autopsy Technician, Forensic Analyst, Crime Scene Technician, Forensic Identification Specialist, Forensic Chemist, Forensic Evidence Specialist, Forensic DNA Analyst, Forensic Autopsy Technician, Forensic Anthropologist, Forensic Logistics Specialist, Laboratory Technician, Coroner Investigator Trainee, Administrative Laboratory Assistant, Medical Death Investigator, Chemist, Supervising Criminalist, Forensic Screens Technologist, Digital Forensics Technician, Medicolegal Death Investigator, Microbiologist, Deputy Coroner, Forensics Analyst, Court Clinician, Senior Forensic Investigative Analyst, Technical Investigator, Fire and Evidence Technician, Latent Fingerprint Examiner, Forensic Extraction Technologist, Laboratory Technician Food

Strategy for teaching and learning English for Forensic Medicine

The Languages for Specific Purposes (LSP) /English for Specific Purposes (ESP) refer to the specialized discourse and their study includes aspects of communication in fields such as science, medicine, law, environment, etc. The approach is speech-oriented, having as a determining factor the degree of specialization of the text, the relation between the participants in the act of communication, the degree of expertise of the participants, and the aims pursued.

Nowadays, medicolegal experts have entered the era of medical English, in other words they have chosen a single language for international communication. The same phenomenon occurred in the medical field since medical terms derived from classical Greek or Latin roots are often, partly or wholly, composed of words borrowed from ordinary English (Wulff, 2004). The terminology of forensic science is the standardized means of communication within the medicolegal field. The importance of fluency in this terminology which applies to many professionals (e.g. doctors, microbiologists, chemists, lawyers, etc.) cannot be overstated.

Students will have to cope with three different communicative situations in their future professions: a) expert addressing other specialists, debating issues within his area of expertise, with a frequent use of specialized terminology whose meaning is taken for granted; b) experts addressing non-specialists, mainly for educational purposes, in order to explain notions regarding their discipline. Whenever specialized vocabulary occurs for the first time, its meaning is illustrated; this is the typical case of academic textbooks and instruction manuals; c) expert addressing the general public, aiming at providing technical information to a wider audience through everyday language, exemplifying specialized concepts through examples taken from the layman’s everyday experience (Gotti, 2011). Language learning tasks, then, may be directed towards addressing the ‘everyday culture’ of non-professional medical discourse versus the ‘professional culture’ of peer directed medical discourse (Lu & Corbett, 2012: 55). According to Van Den Branden (2006: 6-9) “classroom tasks should facilitate meaningful interaction and offer the learner ample opportunity to process meaningful input and produce meaningful output in order to reach relevant and obtainable goals. In other words, tasks invite the learner to act primarily as a language user, and not as a language learner.”

Individual motivation and social motivation are today the decisive factor in succeeding to learn a foreign language; the methods employed by the instructor in his or her class or the methods used by students individually at home have their origins in the components of motivation. Therefore, when teaching and learning English for Forensic Medicine we consider the following methods based on the interdisciplinarity of forensic medicine language:

- Help students analyze words by dividing them into component parts. The teacher explains to them that some terms of forensic science come from medicine science and are constructed of small pieces that make
each word unique, with one major difference: the pieces can be mingled and used in lots of combinations to make other words as well. The best route is to present the elements of terms highlighting their roots, suffixes and prefixes like in the following examples:

EPIGASTRIC = prefix EPI (above) + root GASTR (stomach) + suffix IC (pertaining to)

INQUEST – IN (in) + QUEST (to seek) = is a legal inquiry or investigation to ascertain the circumstances and cause of death.

Compound suffixes are formed by a combination of basic term components as exemplified by (Willis, 2008: 18): the root tom (to cut) combined with the simple suffix -y (a process of) forms the compound suffix -tomy (incision); the compound suffix -ectomy (excision or removal) is formed by a combination of the prefix ec- (out) with the root tom (to cut) and the simple suffix -y (a process of).

- Bring materials and movies that relate the medical terms to the structure and function of the body. The use of movies in teaching (e.g. the American movie “Bullitt” starring Steve McQueen) has proved to be a great resource in motivating students to become involved in communication scenarios. Our major focus has been to explain terms in the medicolegal context and how to assess the medical causes of death, especially because medicolegal terms explained in their proper context will be easier to remember.

- Instruct students to become aware of spelling and pronunciation problems as some medical terms are pronounced alike but are spelled differently, which accounts for their different meaning. For example, “ilium” and “ileum” have identical pronunciation, but the first term, “ilium”, means a part of the hip bone, whereas “ileum” is a part of the small intestine (Chabner, 2014).

- To be pedagogically prepared, teachers need to acquire skills and experience in the types of technologies most likely to be found or that create learning opportunities that suit a particular type of activity from the area of forensic medicine (Howell, 2012). Language education is permanently reinvented by the multitude of digital resources. The description of language, particularly spoken language, has been enriched by the availability of collections of searchable, digitised texts: most pedagogical dictionaries and grammar books now make a virtue of being corpus-based, and many are available online, accessible by both computer and mobile phone (Lu & Corbett, 2012: 55).

- Acting as proactive instructors, we have always encouraged students to embrace mobile learning after testing the free apps for Forensic Medicine from Google Store. Mobile learning has become popular and many researchers explained how mobile learning could support various kinds of learning. Among them, we mention Pereira and Rodrigues who presented the “evolution of the learning models” where mobile learning is considered the most recent model, because it reduces the limitations of the previous models (Pereira & Rodrigues, 2013). Another significant researcher is Siemens whose theory of “connectivism” is described as “including technology and connection making as learning activities begins to move learning theories into a digital age.” (Siemens, 2005). Embracing this theory of connectivism we highly recommend the use of the Forensic Medicine: Medico App 1 apk. This app (see Fig.1) is listed in the Education category of play store and has been developed by http://medicoapps.org. Forensic Medicine: Medico Apps can be downloaded and installed on Android devices supporting 10 api and above.
We have demonstrated its efficacy as it has improved students’ specialist vocabulary through customization of learning, and provision of discipline-specific materials and tasks. In a recent study, Morandi asserts that smartphones positively influence the process of German language learning, based on a survey which reveals that a large number of participants (89.29 %) believe that mobile phones (smartphones) were effective to a great extent in the development of their German language skills, while out of 28 participants of this study, 3 (10.71%) think that smartphones were effective to some extent (Morandi, 2017: 268).

Conclusions

The interdisciplinarity of the forensic medicine language is characterized by semantic identity and equivalence between the uses of a term in different terminologies. We noticed that there is a conceptual or referential content motivation that ensures the conceptual transfer. Teachers need to recognize that English language teaching is inherently value-laden and to add another thick layer to the object of their critical reflection – technology (Chapelle, 2003: 8-9). The principles underpinning the teaching and learning strategy in the achievement of the proposed objectives for the acquisition and enhancement of English for Forensic Medicine are the following:

- Methodological design of the lessons according to the specific needs of the students;
- Choosing key themes from forensic science and using technology – movies, mobile apps to stimulate and engage students in role-play activities which are meticulously prepared and tailored for the medicolegal work;
- Careful selection of specialized texts as a support for the development of the vocabulary in the field of forensic medicine and revealing the specific of the oral and written communication style that characterize this area;
- Monitoring and explaining grammar aspects whenever necessary for the use of fluent speech and correct writing and understanding;
- Developing the spirit of rationality and creativity, critical and decision-making through active, interacting and situational debates, conversations and activities that require the intense activation of
functional interactions between thinking and language to continuously strengthen the structures and functionality of the language of forensic medicine;

- Assignment of individual work tasks that require higher cognitive processes as intelligence, memory, logic, to establish self-learning strategies;

- Simulating linguistic behavior in situations similar to real ones (conversations with a coroner, inquiries on a given theme, debates, etc.);

References


Motivation Of Physical Culture And Sports Teachers At University: Main Dysfuctions And Efficiency Improvement Factors

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Abstract
A relevant issue is raised about the motivation of physical culture teachers at higher educational institutions in the conditions of Russian higher education entry into the so-called "rating race". The purpose of the study was to study the features of physical culture and sports teacher motivation at a university, to identify the main dysfunctions of motivational policies and the factors of its effectiveness improvement. A formal interview with 42 teachers of physical culture and sports was conducted at non-core universities to achieve this goal. All of them had at least two years of work experience. In order to validate this toolkit, the team of authors conducted a focus group examination of 28 teachers from the Department of Physical Culture and Sports.

In the course of the study, they revealed that modern high school focuses on research activity stimulation and publication activity increase. The current trend makes a negative impact on the motivation of physical culture teachers at universities due to the specifics of their professional activities and their social-psychological state. The study showed that motivation policy for this category of teachers should take into account not only the publication activity, but also be aimed at professional merit development in the field of physical culture and sports. Teachers note the key role of physical culture and sport department head for the elimination of the internal motivational policy dysfunctions of a university and their professional status increase.

Key words: stimulation, motivation, a teacher of physical culture, internal factors of motivation, external factors of motivation
1. Introduction

Actual trends and challenges of modern reality initiate the change of conceptual notions about the role, the goals and the content of education in the modern world [Frolova, Rogach, 2017]. Modern trends and challenges to social development cause a significant increase of research on the quality assurance of educational services at a university. A special attention is paid to a teacher's work motivation effectiveness increase [Bedney, Karwowski, 2006]. The researchers note a low prestige of a teaching profession among students and faculty, which is generated by low wages and considerable bureaucratic work [Shereli, Kirillov, 2017]. The studies also illustrate a high level of correlation between a teacher's motivation and the level of his professional development [Velez, 2007], the degree of his involvement in active, creative work [Crane, 2016].

A special relevance of teaching staff motivational policy study at a university is determined by the existence of this professional group in a special risk zone, where high levels of stress and emotional stress become destabilizing factors [Pilie, Elias, 2004].

According to experts, it is expedient to distinguish an internal and an external motivation of university teachers. Internal motivation is associated with the importance and personal perception of labor content [Katz, Shahar, 2015]. It includes a teacher's interest in the field of his professional activity, the opportunity to influence the development of students positively, the possibility of creative search [Grudzinsky, 2010], the desire to deepen his knowledge in the professional field [Ofoegbu, 2004]. The studies in the theory of self-determination show that the feelings of autonomy, competence and kinship are the most effective motivating factor [Angeline, 2014].

The data obtained in the course of research on the professional activity of high school teachers in developed countries testify to the need of training program development in the context of a university motivational policy. A particular attention should be paid to the setting of realistic goals, the provision of favorable conditions for a teacher's professional success and the reduction of stressful reactions [Kelley et all, 2002].

In its turn, an external motivation reflects mainly economic motives: high earnings [Bennell, Akyeampong, 2007] and a system of fair career advancement [Chen et all, 2006]; the opportunity to establish useful relations; good working conditions with colleagues; the prestige of work at a university; good relations with colleagues; leadership style [Ming, 2012]}, a long vacation; the ability to combine work with other activities [O'Neil, 1995].

In scientific research, a special attention is paid to a leader's role, whose activities determine the boundaries of motivation system and the degree of its effectiveness. The "protective" function of a university department / research unit head [Benoit, Graham, 2005], within which he develops barriers between teachers and a possible negative impact of an educational institution general policy. The protection of staff within and outside a university [Creswell, Brown, 1992], the promotion of his interests [Bland et all, 2005] is among the most effective elements of motivational policy. The style of leadership is one of teacher's internal motivation determinants and its such characteristics as autonomy and the ability to participate in decision-making [Bryman, 2007]. The presence or absence of collegiality, a sense of
community among staff plays [Ambrose et all, 2005] a significant role for an effective motivation development among university employees. At the same time, an extreme control of teacher activities, the strengthening of the accountability policy on the part of management is considered by most workers as the factor of their motivation reduction to achieve high rates [Finnigan, Gross, 2007].

Current trends concerning the revision of strategic guidelines in the field of education and Russia participation in the so-called "rating race", whose goal is to strengthen academic competitiveness and bring the most successful educational institutions to the top of global university rankings [Altbach, Salmi, 2011] offer the country universities to have new indicators of their effectiveness. In particular, the indicators of the publication activity among university teachers and the increase of their research work citations in the international arena come to the forefront, which implies the change in pedagogical activity orientation from traditional teaching to research one [Rogach et all, 2017]. The result of the current policy in the field of higher education is that universities face the problem of new incentive and motivation development for teachers. Most universities switched to an "effective contract" and offered teachers the system of stimulating surcharges to wages for scientometric indicator increase. At the same time, the motivational component of teaching work remained largely unaccounted for.

The problem of teacher stimulation and motivation is especially acute at the university departments of physical culture and sports [Moreira et all, 2002]. Many people who have chosen physical culture as a professional activity mostly have a positive experience in sports [Fernāte, 2013; Edmonds, Lee, 2002; Stroot, 1996; Younger et all, 2004], they are less focused on research activities in general and are more focused on the development of physical qualities among students during classes.

The specifics of physical culture and sports teacher work at a university reduces the effectiveness of traditional mechanisms for university pedagogical staff motivation. This group of workers has to combine three functional roles under new conditions: a teacher, a scientist and an athlete, where the first two have certain common determinants, whereas teacher's sports achievements do not have value in the motivational policy as a rule. The achievement of scientometric indicators is difficult for the teachers of physical culture and sports, and sports values [Mayorga-Vega, Viciana, 2014], career and self-improvement factors [McCaughtry et all, 2004], recognition and the evaluation of sportsmanship [Hastie et all, 2014], love of sport, the desire to find new experience [Peachey et all, 2017] come to the forefront.

2. Methodology

The purpose of the study was to study the features of physical culture and sports teacher motivation at a university, to identify the main dysfunctions of motivational policies and the factors improving its effectiveness. The main emphasis was made on the analysis of internal and external elements of physical culture teacher work motivation. The main hypothesis was the statement that the motivation system of physical culture teachers has low efficiency, which is related to the functional weakness of a university motivation policy internal aspects, as well as to significant imbalances in the structure of incentive payments.
In the framework of this goal achievement, a formal interview was conducted with 42 teachers of physical culture and sports at non-core universities. All teachers had at least two years of experience. In order to validate this toolkit, the team of authors conducted a focus group examination among 28 teachers of physical culture and sports department.

The questionnaire of the focus group study scenario included 2 main units: the assessment of the personnel incentive policy implemented by a university; the description of the main limitations and the conditions for physical culture and sports teacher motivation at a university.

3. Results

The results of the interviews illustrate the lack of unambiguous knowledge about the dominant factors of the university leadership motivational policy among the teachers of physical culture. As a priority element of a university motivational policy, the respondents noted a number of aspects, both internal (recognition of colleagues, a favorable moral and psychological climate, collegiality, the possibility of combining teaching with coaching and refereeing), and external motivation (wages, vacation). The ambivalence of their opinion can be related to the fact that there is a vulnerability of physical culture and sports teacher position among teachers in comparison with other categories of scientific and pedagogical personnel. In particular, respondents note the limitations in the development of career trajectories. 30 teachers (71.4%) noted that it is impossible for them to develop a career at a university. Respondents noted 3 main reasons: - the profile of their education (17 people); - the lack of scientometric indicators, including academic degree (13 people); - the reluctance and weak motivation for career growth (9 people).

For most of the respondents, administrative positions are not of particular value due to a high bureaucratic burden. In the course of the interview, 90.5% of respondents (38 people) noted a high level of difficulty to achieve scientific career development strategies, which was confirmed in the process of focus group study.

It was noted that modern university focuses on research and development stimulation, and publication activity increase. However, most teachers of Physical culture and sports department are not ready and do not see any sense to increase their scientometric indicators in the course of their pedagogical tasks. Oleg K., 32 years old, art. the senior teacher of the department: "There are people at the department with a degree and let them engage in publication activities".

One of the fundamental features of a university teacher profession is the combination of training and research work for the development of a specialized knowledge system [Bogdan, Mogilevkin, 2004]. At the same time, a number of teachers pointed out during the focus group study that there should be a division within the department: - the teachers who conduct classes with students, apply the methods of sports education of youth, develop the physical qualities of students; - the teachers who conduct research in this field, develop theoretical and methodological bases for physical education class development, study the degree of physical quality development, depending on the use of one or another method of class conduct. However, in the course of the study, the relationship between the presence of a scientific degree or a rank among respondents and their opinion about the division of activities within the department was not revealed (p > 0.05).
During the interview, the respondents indicated that the main (4 most significant) motivational factors for them are the following ones: 
- wages (100%); 
- number of vacation days (71%); 
- constant self-development, including the introduction of modern exercise systems (fitness, cross-fit, yoga, etc.) (55%); 
- the opportunity to do what you like in a team of like-minded people (36%). The teachers of physical culture did not note the following factors as motivating ones: 
- a career development at a university; 
- recognition; 
- status; 
- self-assertion.

It was also noted that the following factors can be stimulating ones for the teachers of physical culture and sports department:

- a one-time payment for a prize-winning place taking in Moscow by a university team in any sport;
- a one-time payment for a prize-winning place taking on any kind of sports at the All-Russian student games;
- a monthly payment for a student training who performs at competitions in a personal championship and bringing points to a university in the overall ranking of the competition.

The study showed that the teachers of physical culture and sports note the injustice of a number of indicators referring, directly related to their professional activity, into the list of individual plan works within the field "educational work". At that it is noted that the achievement of scientific indicators is included not only in the list of individual plan works for the direction of "scientific work", but also in the list of achievements for which an additional monthly or one-time incentive payment is envisaged.

In general, the opinions of the respondents coincided with the statement that the purpose of their teaching activities is not so much to get high sports results, but to teach students and instill the desire for them to engage in their body and health, and to have an active lifestyle.

Most teachers experience a sense of injustice in respect of their remuneration in comparison with the payment of colleagues from neighboring departments (81%), because of the incentive allowance institution for the achievement of only scientometric indicators.

Natalia U., 52, Candidate of Science: "Other departments are constantly engaged in research activities, it is their practice in fact. And this is a very specific activity for our department. Not every good athlete and teacher can conduct scientific work and present its results on paper. But at the same time he will perform his basic functions concerning a physical training of students perfectly".

Teachers noted the material component as the main stimulus of his professional activity, while stressing that the payment of their labor should be based on the characteristics of their activities, and should take into account primarily the sports achievements of students as the indicators for the purpose of incentive payment provision. Konstantin A., 41, a teacher, a master of sports: "The development of sports at a university is a contribution to its image and it is necessary to pay for it".

The following limitations were noted as the main limitations of physical culture and sports teacher professional activity: material and technical support (the quality of halls, inventory condition, the
condition of stadiums and locker rooms); the attitude of a university administration; the decrease of department teacher authority.

It was revealed that the teachers of physical culture at a university, regardless of status and position, noted a certain psychological discomfort due to the lack of the department authority among students and profile faculties. Michael A., 28 years old. "Students do not attend classes because they believe that they will not be expelled from the university because of poor progress in physical education". Elena N., 50 years old. "There is an opinion that all can pass the standards and that physical education is only for appearance". In this regard, a number of respondents spoke in favor of a physical culture section selection introduction in the practice of higher education institutions. A student can be expelled if he misses it, even with positive grades in profile disciplines. According to the teachers of physical education, this will motivate teachers to introduce new areas of physical education into lessons, conduct training in various kinds of sports, develop their professional skills and will allow to increase the authority of the department.

Respondents noted that the university administration is not interested in the allocation of funds for sports at a university, as there is not even enough money to apply for the participation in all competitions held by the Moscow regional branch of All-Russian public organization "Russian Student Athletic Union". Anna Ya., 35 years old, senior teacher, candidate for the master of sports: "There is no sense of wasting your nerves and your time for some activities on sports among students, if no one even praises you for this".

Table 1. The relationship between the level of teacher professional merit support and the degree of their orientation on the achievement of high rates of vocational work (N = 42)

<table>
<thead>
<tr>
<th>Orientation on high performance indicator achievement</th>
<th>Assessments of satisfaction with the level of professional merit support among physical education teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>the sum of the answers &quot;satisfied&quot; and &quot;rather satisfied&quot;</td>
<td>I don’t know</td>
</tr>
<tr>
<td>the sum of the answers &quot;not satisfied&quot; and &quot;rather dissatisfied&quot;</td>
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</table>

4Professional merits of physical culture and sports teachers include not only personal indicators (the presence of the title of master / candidate for master of sports, etc.), but also extracurricular achievements, including the preparation of students for the participation in all-Russian, international competitions, and Olympiads; the organization of activities for the promotion of a healthy and athletic way of life; the participation in programs, the meetings of committees and commissions to address the issues of sports training for young people and the promotion of healthy lifestyle positive experience; the degree of a teacher recognition in national and regional media, etc. During the focus group discussion, they revealed that the most significant form is the preparation of students for the participation in all-Russian and international competitions.
In the course of the study, a stable dependence ($p<0.05$, $\chi^2 = 12.872$) was found between the level of teacher professional merit support (including the preparation of students for the participation in external competitions and Olympiads) and the degree of their orientation on high performance achievement in professional work activity. The results of the focus group study allow us to conclude that those teachers who had a negative experience with the management of the department and/or the faculty on these issues (there were no funds allocated for the participation of students in competitions, the ignoring of requests for organizational and financial measures to support student sports training, etc.) experienced the sense of frustration, anxiety and discontent [Rogach et al, 2017]. According to the received data it is possible to make the following assumption: the absence of teacher "success" indicators in the motivational policy of a university, which go beyond the framework of traditional educational activity, and also the indicators that really reflected the specificity of professional achievements in the field of physical culture and sports, leads to the activity decrease of career-oriented teachers.

Also, during the focus group survey, the respondents stressed that today students consider the discipline "physical culture" at a university as a "subordinate discipline" while emphasizing the importance of their profession. Also, respondents explained the choice of their profession by their interest in working with young people and the desire to promote sports among people. Pavel K., 30 years old, a teacher "I heard the following from a student: why attend classes, if you are not expelled for physical education, and it will be passed in the end. It makes me sad".

In the course of the study, they established a stable relationship between a teachers' assessment of the university internal policy motivational component and the level of their professional self-identification. Under the latter, respondents understand the existence of a desire for professional self-improvement, the instilling of sports values and the attitudes towards a sportive lifestyle in students. According to the respondent opinion (73.8%), the position of the department head plays a key role for employee motivation development.

Table 2. The relationship between the assessment of satisfaction with the activities of the department leadership and the level of professional self-identification among teachers (N = 42)

<table>
<thead>
<tr>
<th>Orientation towards the achievement of professionally significant performance indicators</th>
<th>Estimates of satisfaction with the activities of the department head</th>
</tr>
</thead>
<tbody>
<tr>
<td>the sum of the answers &quot;satisfied&quot; and &quot;rather satisfied&quot;</td>
<td>I don’t know</td>
</tr>
<tr>
<td>high</td>
<td>9</td>
</tr>
<tr>
<td>average</td>
<td>2</td>
</tr>
<tr>
<td>low</td>
<td>1</td>
</tr>
</tbody>
</table>
According to the data received, the respondents' positions are centered in "satisfied" - "high" and "unsatisfied" - "low" poles, which indicates a significant manager's role for employee stable motivation creation to achieve high professional results (p < 0.05, X² = 9.767). In the course of the group study, the respondents noted the qualities of the leader who have the greatest "weight" to ensure a high level of their motivation: fairness in encouraging and load distribution, the focusing on the interests of employees, the protection of department interests and its authority maintaining. The respondents noted that they see the main problem of specific directions non-inclusion to stimulating and motivating factors of university staff work reflecting their professional activity in the "weak" position of the department management.

4. Discussion and conclusion

The obtained results correlate with other ongoing studies in other countries [Lapeniene, Bruneckiene, 2010; Salifu, 2014; Fernāte, 2013]. It was also revealed that the ongoing research on the teacher motivation and stimulation at higher education institutions in general [Bedney, Karwowski, 2006; Velez, 2007; Crane, 2016], regardless of their activity direction, allowed to develop the study basics of physical education teacher motivation and stimulation specifics at universities.

It should be noted that in the current conditions of constant search for all possible ways to earn more money the teachers of physical culture do not seek to improve their scientific indicators, even with additional payments for publication activity. One of the problematic aspects of the internal component of physical culture teacher motivation at a university is the applied nature of the discipline and, on the one hand, its compulsion for students, on the other hand, a frivolous attitude on the part of students towards this discipline, as non-core one.

Thus, the hypothesis was confirmed that the ongoing stimulating policy of a university is assessed by the teachers of Physical culture and sports department as not effective due to the fact that it does not take into account the specifics of work organization at the department of Physical Culture and Sports and does not provide for one-time payments for the achievement of high indices in sports activities among university students.

Taking into account the revealed dysfunctions of the motivation system, a special attention should be given to the search and the selection of an applicant for the post of physical culture and sports department head. This is related to the specifics of this unit activities, the centering of physical education teacher functionality area increase beyond the traditional indicators of educator professional achievements. A department head role is not limited to the planning of load and teaching staff publication activity support. It is advisable to revise the approach to the evaluation of their work activity, to designate a different vector of the university administrative apparatus motivational policy. Extracurricular achievements should be taken into account in the focus of attention of personnel work.
motivational component, including the preparation of students for the participation in all-Russian, international competitions and Olympiads, the organization of activities for the promotion of a healthy and an athletic way of life; the participation in programs, the meetings of committees and the commissions to address the issues of youth sports training, etc.

The study showed the need to integrate the elements of the internal and external components of an institution motivation policy. Both economic (wages, a system of personalized payments, etc.), as well as social-psychological motives (the possibility of professional development and self-realization, occupation with your beloved business) are important for the teachers of physical culture.

The most significant factors increasing the motivation of physical culture teachers include: the specification of incentive payments that take into account the performance of sports activities; the development of mechanisms updating the internal aspects of staff motivation (professional development, the interest in their professional activities, a creative search).

References:


Sheregi F. E., Kirillov A. V. (2017). The work of the teacher: creativity or "survival". Sociologicheskie issledovaniya. № 11. p. 87-98. DOI: 10.7868/S0132162517110101


Creating A Positive Climate: A Didactic Resource For English Language Assessment

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Abstract
In the article the author offers educational technology didactic business game as a method of knowledge control in order to relieve the psychological discomfort of students. Unbalanced students, inadequate behavior in testing classes is an urgent problem at the universities. The author describes the solution of this problem through the correct choice of the testing lessons organization form, namely, the exam in the form of didactic business games.

Keywords: didactic business game, form of lesson, control.

Introduction
The most important problem facing university teachers when working with first-year students is psychological discomfort, imbalance in the exam, and especially at the entrance testing at the beginning of the semester. Freshmen are yesterday's school-leavers. Not all students can mobilize and demonstrate their knowledge at the exam. Usually nervous state and panic fear prevent them from successfully passing the testing. Sometimes teachers observe strong excitement even if the person is confident in their own abilities, because many students have formed a wrong attitude to the exam, test. It is the teachers who bear the main responsibility, in the preparation of the future student, the formation of skills to take the exam, the ability to demonstrate their knowledge. Students should already enter the university with the skills they have developed.

In connection with the new requirements and the abolition of pedagogical universities, any engineer in the Russian Federation can work in a university, in education there is a tendency of universality of teachers, an engineer is invited from enterprises. One teacher conducts several subjects simultaneously, especially it is characteristic for technical universities. Therefore, the correct choice of methods of teaching disciplines in order to relieve the psychological discomfort of students when passing the exam and also better assimilation of educational material remains an actual problem for today.

2. Methodology
In order to solve the problem, we used theoretical (analysis, generalization) and empirical (pedagogical experiment, testing, pedagogical observation, study of psychological, pedagogical and methodological literature) methods.

3. Results
The problem of control of educational achievements is always very urgent, especially in humanitarian subjects at a technical university, where there is a boundary between theoretical knowledge and practical skills and abilities of students. Students can know the rules of grammar successfully, but they do not have the practical skills of speaking.
What is control? "Control" means the identification, measurement and evaluation of knowledge, skills of trainees. Control includes evaluation as a process and an evaluation as a result of verification (Belkin, 2005).

Therefore, we can argue that knowledge control is the identification of the correspondence between the formed amount of knowledge of students to the requirements of a standard or a program, as well as the determination of the level of knowledge and skills.

"Methods of control are the methods of the teacher and students' activity, during which the assimilation of the educational material and the acquisition of the required knowledge, skills and skills by the students are revealed" (Starikova et al, 2018).

From their pedagogical experience, the teachers of the branch of Tyumen Industrial University believe that one of the effective methods of control in order to relieve the psychological discomfort of students is - is a "business game". In this type of game, a structure is revealed, the main elements characterizing the game as a form of learning and playing activity simultaneously (Smirnova, 2018).

The process of the game is subordinated to the decision of the didactic task, which is always connected with a certain theme of the curriculum, or in the case when the didactic goal is to repeat, consolidate, check previously acquired knowledge; we call this game a controlling game.

Teachers also use didactic games as a game technique in the learning process. With their help, we are able to deepen and consolidate the knowledge gained by the students, develop the skills they have acquired. The teacher must play the role of both the organizer and the leader. If the game is already familiar to the children, then they remember only the rules.

The place of the didactic game in the structure of the lesson and the combination of the elements of the game and the doctrine largely depend on the correct understanding by the teacher of the functions of the didactic games and their classifications. Games are classified according to the didactic tasks of the lesson.

Such educational technology as a didactic game at a control event is widely used in our lessons, where students model a real life and professional situation.

The most common and widespread in the technical sciences is the term "business game", although there is no consensus on terminology among specialists.

When conducting classes under a didactic business game, we will understand the process in which the two parties involved take an active position and are fighting for the realization of their interests. Each of the parties has its own goals and objectives and must use some kind of own strategy, which can lead to a win or loss.

We prefer this form, because the value of the game is determined by the fact that in the process of solving certain problems, not only knowledge is activated, but also collective forms of communication are developing, that is, communicative competence develops. The educational business game is a practical lesson modeling various aspects of the professional activity of trainees, contributing to the improvement of their foreign language speech, as well as a more complete mastery of a foreign language as a means of professional communication and the subject of study (Trubitsina, 2018). Therefore, the didactic business game thus provides and stimulates the learning function as it promotes the development of speech skills, the formation of cognitive and professional motives and interests, skills of social interaction and communication. But the didactic business game does not exclude the educational function, which is that it is in business games that discipline, mutual assistance, activity in various activities, self-reliance, ability to defend one's point of view, show initiative, which is important in the first year, during the period adaptation of students to the learning process.
Didactic business game has the game elements and individual, inherent only in this kind of games, namely:

1. control of game time;
2. simulation in the game close to the real conditions of professional activity of the trainees (imitating);
3. mandatory joint activities of the participants in the game, performing the roles provided in the game;
4. a phased development, as a result of which the fulfillment of the tasks of the previous stage affects the course of the subsequent one;
5. rules governing the course of the game;
6. system for assessing the course and results of the game, previously developed and used in this game;
7. element of the competition (Popkov, 2017).

The technology of the business game consists of the following stages:

1. Preparation. The preparation of a business game begins with the development of a scenario - the objective content of the situation and the object. Then a plan is drawn up for the game, a sequence of actions is described - this is the task of the teacher.

The instructor should have a general description of the game procedure and clearly represent the characteristics of the actors, this can be a block diagram or a route map for students.

2. The stage of explanation.

At this stage there is input into the game, the orientation of the participants, the definition of the mode of work, the formulation of the main goal of the lesson, and it is also necessary to justify the students in posing the problem and choosing the situation. Pre-prepared packages of necessary materials, instructions, rules are issued. If necessary, students ask the teacher for help with additional explanations. The teacher should set the students to the fact that one should not passively pass the game, violate the rules and ethics of behavior. Students must pre-represent real processes-prototypes of simulated reality, and also know their roles and functions that can be displayed in the route map.

3. The game.

The carrying out process is the process of controlling knowledge. At this stage, students play out the situation proposed by him, performing certain roles, demonstrating their knowledge and skills.

4. Stage of analysis and generalization.

At the end of the game, the teacher, together with the students, conducts a generalization, i.e. students exchange opinions, which, in their opinion, turned out, and what else is worth working on. In conclusion, the teacher ascertains the achieved results, marks mistakes, formulates the final result of the lesson.
analysis draws attention to the correspondence of the simulation used with the corresponding area of the real situation (Ibatova, 2017).

Here are some examples of working with students.

The plan for the didactic business game "At the Airport"

Stage 1. The teacher introduces the terms of the game.

The audience space is organized in the form of offices "CHECK IN ", "CUSTOMS", "PASSPORT CONTROL", "BAGGAGE CLAIM ", "WAITING ROOM", " INFORMATION SERVICE ", "CURRENCE EXCHANGE" and others.

In each department there is an inspector with a card (variants of questions to passengers, variants of answers).

CARD 1.

<table>
<thead>
<tr>
<th>Customs officer</th>
<th>Passenger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome to [Canada]. May I see your passport?</td>
<td>Sure. Here it is. / Here you are.</td>
</tr>
<tr>
<td>Where are you coming from?</td>
<td>I’m coming from [France].</td>
</tr>
<tr>
<td>What is the purpose of your visit?</td>
<td>I’m here on business / visiting relatives / as an exchange student / as a tourist.</td>
</tr>
<tr>
<td>How long are you planning to stay?</td>
<td>I’ll be staying for three weeks / for 1 month / until tomorrow / until next Tuesday.</td>
</tr>
<tr>
<td>Where will you be staying?</td>
<td>I’ll be staying at a hotel / at my aunt’s house / at a dormitory.</td>
</tr>
<tr>
<td>Have you ever been to [Canada] before?</td>
<td>No, this is my first time. / Yes, I often go here on business.</td>
</tr>
<tr>
<td>Do you have anything to declare?</td>
<td>No, nothing. / Yes, I’ve got something.</td>
</tr>
<tr>
<td>You declare here that you haven’t got weapons / drugs / icons / antiques / military equipment / prohibited or restricted articles / manuscripts / numismatics. Do you confirm your written statement?</td>
<td>I fully confirm my statement.</td>
</tr>
<tr>
<td>Enjoy your stay.</td>
<td>Thank you.</td>
</tr>
</tbody>
</table>
CARD 2.

Excuse me, where can I check-in? (Where’s the check-in desk, please?)
(Is this the right check-in for Tokyo?)

You can check-in here / over there.

Can I see your ticket, please?  
Would you like an aisle seat or a window seat?

How many pieces of luggage do you have?  
Is that your luggage?  
Did you pack your bags / case yourself?

I’m flying to [Sapporo]. Do I need to clear customs in [Tokyo]?  

Yes, you do. (No, you can clear customs in Sapporo.) (Have a good flight.)  
Is that K3? I think you’re on my seat.  
I’m not sure. I don’t know. (Yes, it is – I’m sorry.)

CARD 3

CUSTOMS DECLARATION

Full name ________________________________________________________
Citizenship _______________________________________________________
Arriving from _____________________________________________________
Country of destination _____________________________________________
Purpose of visit (business, private, tourism, etc.) _________________________

My luggage (including hand luggage) submitted for Customs inspection consists of ___________________________ pieces.

With me and in my luggage I have:

1. Weapons of all descriptions and ammunition ______________________________

2. Narcotics and appliances for the use there of ____________________________

3. Antiques and objects of art (paintings, drawings, icons, sculptures, etc.) _____________________________________________________________

4. Russian roubles, Russian State Loan bonds. Russian lottery tickets _____________________________________________________________

5. Currency other than Russian roubles (bank notes, exchequer bills, coins), payment voucher (cheques, bills, letters of credit, etc.), securities (shares, bonds, etc.) in foreign currencies, precious metals (gold, silver, platinum, metals of platinum group) in any form or condition, crude and processed natural precious stones (diamonds, brilliants, rubies, emeralds, sapphires and pearls), jewelry and other articles made of precious metals and precious stones, and scrap thereof, as well as property papers:

6. Russian roubles, other currency, payment vouchers, valuables and any objects belonging to other persons _____________________________________________________________

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount/quality in figures/in words</th>
<th>For official use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pounds sterling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>US Dollars</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Euro</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I am aware that, in addition to the objects listed in the Customs Declaration, I must submit for inspection: printed matter, manuscripts, films, video and sound recordings, postage stamps, pictorial matter, etc., as well as items not for personal use.

I also declare that my luggage sent separately consists of ____________ pieces.
Students, communicating in English, play roles, register, pass passport control, fill in the customs declaration, hand over the luggage, receive a boarding pass and are identified with the gate. Analysts evaluate the dialogues, reveal inaccuracies.

Tasks for enhancing vocabulary and knowledge of students:

1. Fill in the declaration.
2. Register.
3. Get a boarding pass.
4. Find out your way out for the flight.

The plan for the didactic business game "Job Hunting"

According to the rules of the game, all students who are currently unemployed. They come to the enterprise, the firm to get a job. The representative of the enterprise informs that for today there are vacancies for the following jobs.

Students will have to pass an interview for these positions. Questions, answers to which the employer wishes to hear, are distributed to all applicants.

The answers are given within 7-10 minutes. For one job can claim 2-3 people. Assessment of knowledge is made by representatives of the employer (the jury). The distribution of roles in a business game is carried out by the students themselves under the guidance of the teacher. The business game "Job interview" is conducted independently, the teacher directs the game.

An important point of the lesson is the desire of students to show their knowledge and skills to apply them in practice. To do this, members of the jury (representatives of the employer) and the teacher prepare questions, production situations.

After all applicants for the proposed jobs are listened to, the employer's representative sums up the results, offering jobs to the most distinguished students.

Other variants of games: "Advertising or the action spent by the enterprises"; "Court" and others.

4. Conclusions

Carrying out a qualitative analysis of the results of the introduction of such technology as didactic business games in foreign language lessons in higher education, one can say that students have a decrease in the manifestation of their insecurity and their abilities. With this form of lesson organization, knowledge control is perceived as a test of knowledge simply. Teachers and students of the branch of Tyumen Industrial University note an increased interest in learning and using knowledge and skills in a foreign language in professional activities, which was expressed in a positive emotional attitude to this
activity, increasing the level of activity when learning a foreign language. Modeling the game situation, students forget about the control measure, which enables them to correctly use the language system for communication, enter into communication, support, complete it without difficulties to build their own strategic line of communication.

Therefore, these results give grounds to argue that the problem of overcoming psychological discomfort in test events, testing can be solved, teachers need to choose the correct method of control, one of such methods is didactic business game.

Acknowledgements

The results of the success and effectiveness of these lessons were presented at the festival of teachers of Russia, which was held in the city of Yelabuga on August 7-10, 2017. The teacher of the Department of Natural Sciences and Humanities at the branch of the Institute of Information Technologies in the city of Surgut, Ibatova Aygul Zufarovna, conducted master classes on the method of conducting didactic business games in education, which was well received and appreciated by the teachers.

References

Pedagogical Technologies Of Students’ Motivation To A Healthy Way Of Life In Higher Education Establishments (Short Survey)

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Aleksandr Gennadevich Ilyin  
Elabuga Institute (branch) of Kazan (Volga Region) Federal University, Russia

Abstract
The article deals with the concepts of socialization in sport and motivation of students to sport and sports life. Based on the analysis of sociological research data, the author focuses on the peculiarities of attitudes toward the sport of university students. It is noted that the specificity of the motives for playing sports depends both on the level of qualification of athletes, and on their social belonging, especially at an early stage of sports socialization. Students have very little time for sport; however, sports lifestyle is currently gaining in popularity. In the future, the generation of students who are keen on sports will be very successful. To do this, it is necessary to motivate modern students to participate in sports and a healthy lifestyle.

Keywords: sport, sports sociology, athlete motivation, student.

1. Introduction
The relevance of the research topic is determined by the importance of improving the health of young people, because the state's labor and intellectual potential depends on its formation.

The modern educational process with its technologies, the amount of information, the construction, the specifics and the conditions for conducting classes often lead to a significant intellectual load, neuropsychic and psychological stresses, non-observance of the regime and qualitative composition of nutrition, inadequate motor activity, health disorders and a decline in the quality of education.

One of the main reasons for this situation scientists consider the absence of motivation of a positive attitude towards their health. Analysis of the results of studies of the health level of university students shows that only 41% of students have the level of this indicator, which is necessary for modern production requirements, 10% of students have a high level, 31% are within the norm.

The reason for this condition, according to experts, is that in the hierarchy of needs underlying the student's behavior, health is far from in the first place. This is due to the low culture of society, determines the lack of an installation for the priority of health in the system of human values. Accordingly, the formation of health - this is primarily a problem that must be addressed in education motivation of health, because this motivation is self-affirming factor of personal behavior.

The aim of the study - to analyze the features of the formation of motivation for a healthy lifestyle of student youth. In modern science, motivation as a psychic phenomenon is treated differently: in one case it is a set of factors that determine behavior; in the other it is the integrity of motives; in the third, it is an impulse that induces the activity of the personality and determines its direction.

2. Methodology
In order to solve the problem, we used theoretical (analysis, generalization) and empirical (pedagogical experiment, testing, pedagogical observation, study of psychological, pedagogical and methodological literature) methods.
3. Results
Preservation and strengthening of students' health in a higher educational institution presupposes the implementation of a system of measures that ensure the harmonious mental, physical, spiritual development of the student's personality, the prevention of diseases, and activities aimed at preserving and strengthening his health.

This process begins with:

- recognizing the importance of timely strengthening and maintaining your health;
- the need for adherence to healthy lifestyle;
- understanding the appropriateness of health-saving actions;
- attitude towards your health as a value of life.

Thus, the observations of V.A. Baronenko show that the importance of self-preservation motivation is often lost in student youth. A weakened sense of responsibility for one's behavior is a pledge, for example, of sexually transmitted diseases, of being drawn into drug addiction or drunkenness [1, 45]. It seems to young people that the resource of their personal health is inexhaustible.

This is due to the fact that recommendations for maintaining and strengthening health are introduced in an instructive, categorical form and do not cause students positive emotions; teachers occasionally adhere to these rules in professional life; the mass media, the Internet network in an attractive form, cultivate an unhealthy lifestyle. In this regard, the formation of motivation to preserve and strengthen the health of students requires considerable effort. [3, 54] Since the effectiveness of such attempts is projected into the future and not every student is able to solve this task on his own, a purposeful system of upbringing and instruction is needed, oriented to shape the installation for health. To do this, the educator needs to consider how to change the students' beliefs, since it is on the basis of them that the settings are being formed. It is not enough to create an installation (readiness) for health savings, it needs to be realized, because it determines the healthy behavior of a person in the future.

There are additional difficulties when working with first-year students. The lack of data on a full medical examination leads to a delay in attending swimming classes. And at the end of the examination, a change in the state of health can take place, which leads to the fact that the student can not attend swimming classes at all. Students underestimate such an important element as warm-up on land. Warm-up, stretching joints, muscles automatically allows students to avoid unpleasant sensations, by court, stretching while performing exercises in the water. [2, 123]. For successful teaching students are divided into three categories by skill and ability to swim, respectively:

I category - those who have an unsportsmanlike way of swimming (green)

II category - those who are able to swim close to sporting ways (blue)

III category - those who have sports methods (red)
Each category has its own purpose and objectives are determined by the work programs. Such a categorization is intended to improve the quality of the learning process, but there are shortcomings in the acquisition of training groups.

Such groups should be composed taking into account typical students’ characteristics: age, level of physical development, the level of swimming preparedness, which determines the degree of proficiency in swimming skills. That’s why we get non-uniform groups by quantity and level of preparedness in all categories. That is, a system of unified whole. The teacher does not have the opportunity to work under a single program, the potential of the group [4,213]. In such cases, it is necessary to constantly change the methodology of the exercise, the amount of exercise, the choice of exercises, forms and methods of teaching. But this is a subjective factor, which depends not only on the schedule of students, physical condition, and the skills and habits acquired earlier. The main objectives of the first and second categories determine the achievement and maintenance of the desired level of mobile activity, health and disease prevention. The tasks of the third category are the demonstration of a high individual accessible result, which can be achieved only by a large number of activities.

The solution for this is in the form of attending an off-schedule training session of a special section on swimming and improving one's skills. Students of this category are given the task of acting as part of a team of universities at city and other level competitions [5, 68].

4. Conclusions

Thus, attracting young people to a healthy lifestyle should begin with the formation of their motivation for health. Care for health, its strengthening should become a value motive, forms, regulating and controlling the way of life of a person. It should be noted that sometimes students make their choice in the benefits of swimming without taking into account their own morphological, physiological, psychological characteristics, coordination abilities, body structure, nervous system in the future it can lead to a loss of motivation to engage in the chosen sport. [7,312]. When students do not take pleasure in their studies, they form a stable indifferent or negative attitude toward employment. Formal attendance without active personal participation negates all the efforts of the teacher, since the student generally ceases to be engaged and receives a debt on discipline. Sometimes students overestimate their abilities, as it actually leads to the necessary change in specialization for the next year of training [8,45].

References


Monitoring Of Quality Of Students’ Training In Technical Universities As A Pedagogical System

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Abstract
The article gives a definition of “monitoring of quality of students’ training in technical universities”, which is grounded on the competency-based approach. New requirements to quality of training of students in technical universities in the conditions of transition to education on the basis of Federal state educational standards highlighted the problem of providing of assessing the quality of education from the position of formation of professional competence of future specialist’s. Development of monitoring of quality of students’ training in technical universities belongs to the category of problems that have important scientific and practical value. Speaking about the quality of training students in a technical University the article highlights the internal and external factors that determine it. To improve the competitiveness of future professionals, the author offers to consider monitoring as a pedagogical system which includes functional-target (goal and objectives, functions of monitoring, standards of quality of students’ training in technical university), subjectival (subjects that are being involved in assessment activities), processual activity, the instrumental-methodical and efficient components.

Keywords: monitoring, the quality of teaching, students of technical university, professional competence, competency-based approach, Federal state educational standard.

Introduction
Successful socio-economic transformations in Russian society are inextricably linked with the modernization of the higher educational system. For objective evaluation of personal and professional qualities of graduates of universities the Federal state educational standards were introduced. Quality management training and its monitoring is based on monitoring in conditions of the transition from knowledge-based to competence-based model of higher education.

Reforming of the organization of higher education in Russia is determined by the current requirements of development of society, it is a mechanism of reproduction of the entire system of education and science. The attitude to education as one of the important ways and means of development of intellectual, educated person, is of particular interest in the modern conditions of changing of the Russian society. In accordance with the Concept of modernization of Russian education, the main purpose of vocational education is to train a skilled employee of an appropriate level and specialization, who is competitive at the job market, responsible, fluent in his profession and oriented in related areas of activity, capable of effective work in his degree’s field at the level of world standards, ready to constant professional growth, social and professional mobility.

Various aspects of the quality of students’ training in technical universities were scientific research interests of many researchers. For example, V.I. Baidenko, V. I. Zvonnikova, V. L. Isakov, E. E. Mozhaev, A. L., Savel’ev, A. I. Subetto, and others.

Recently there have been a large number of dissertations, that examine various approaches to solving the problem of monitoring of quality of students’ training in technical universities, focused on the cognitive component (G.V.Gutnik, V.L.Isakov, V.G.Kazanovich, N.R.Kruglova, M.V.Martynenko, N.Sh.Nikitina,
The scientific interests of researchers relate in the field of learning outcomes, key concepts of which are “quality” and “quality of training (education)”. (Table 1. The concepts of “quality” and “quality of training (education)”.

### Table 1

The concepts of “quality” and “quality of training”

<table>
<thead>
<tr>
<th>“Quality”</th>
<th>Big encyclopaedic dictionary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The totality of properties, characteristics of products, goods, services, works and labour, contributing to their ability to meet the needs and demands of people, correspond to assignment and the specified requirements</td>
</tr>
<tr>
<td></td>
<td>Philosophical dictionary</td>
</tr>
<tr>
<td></td>
<td>Quality is essential definiteness of a subject in virtue of which it is this subject , instead of other subject and differs from other subjects</td>
</tr>
<tr>
<td></td>
<td>Relative concept</td>
</tr>
<tr>
<td></td>
<td>Quality is a means whereby the accordance of final product to standard, the degree of compliance the existing characteristics with the requirements is identified. The quality can be judged when the product or service meet the requirements of the relevant standards or specifications (Ibatova, 2017)</td>
</tr>
<tr>
<td></td>
<td>N.A. Seleznyova A. I. Subetto</td>
</tr>
<tr>
<td></td>
<td>Quality is the utility, value of objects and processes, their suitability or adaptability to meet specific goals, norms, doctrines, ideals, i.e. the compliance or the adequacy to the requirements, needs and norms</td>
</tr>
<tr>
<td></td>
<td>P. Yakobsson</td>
</tr>
<tr>
<td></td>
<td>The definition of quality, in his opinion, also depends on what and who is assessed, what criteria or indicators are distinguished, which prospects are indicated, for what purpose.</td>
</tr>
</tbody>
</table>

<p>| “The quality of teaching (education)”         | The Solution of Interstate Council The Eurasian economic on May, 21, 2010 N483 “About the Agreement and cooperation of States-members of The Eurasian economic community in the field of certification and/or accreditation of educational organizations/institutions |
|                                                | The quality of education is compliance of education (received or being received) to needs and interests of the individual, society, state. |</p>
<table>
<thead>
<tr>
<th>Author</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>O. A. Granichina</td>
<td>The quality of education at the present stage is considered as the basis of providing and improving the quality of life of the population, including the material level of life as well as spiritual, moral, social quality of life, which ensures the opening of the spiritual and moral potential of personality, the realization of creativity, conscious fulfilment of public, professional duty, the realization responsibility for human health, quality of environment, quality of cultural life, etc.</td>
</tr>
<tr>
<td>N.A. Seleznyova</td>
<td>The quality of higher education in a wide sense represents a balanced relevance of higher education (as a result, process, educational system) to diverse needs, goals, requirements, norms (Selezneva, 2008)</td>
</tr>
<tr>
<td>V. Gryzlova</td>
<td>The quality of education is a synthetic indicator that expresses the aggregate demonstration of many factors.</td>
</tr>
<tr>
<td>E.M. Korotkov</td>
<td>Quality of education is a complex of characteristics of professional consciousness that determine the ability of the specialist to carry out professional activities successfully in accordance with the requirements of the economy at the present stage of development (Korotkov, 2007)</td>
</tr>
<tr>
<td>Yu.N. Dresher</td>
<td>By the quality of education should be meant the compliance of specialist’s level of training to requirements of the professional environment in which he must work, the mastery of such set of properties, which determines its ability to satisfy the demands of society in the sphere of training of specialists with the necessary qualities and qualifications (Drescher, 2011)</td>
</tr>
</tbody>
</table>

Quick update of technologies and technique requires modern specialists not only having the amount of knowledge and skills, but also the ability to quickly acquire new knowledge, to adapt to changes in the workplace and in society, to work in team, to have formed professional competencies, advanced professional qualities necessary to perform a particular job, to have a high working capacity.

Understanding of pedagogical experience and scientific literature shows that different aspects of monitoring the quality of teaching are relatively new and insufficiently developed. Although the monitoring is aimed at tracking the formation of students professional competence in the conditions of transition to Federal state educational standard, allowing to receive prompt, reliable and systematized information about the successful establishing of future engineer.

2. Methodology
Theoretical and methodological basis of our research are:

- pedagogical views and developments of native educators on the development of higher vocational education (G.A.Bordovskiy, B.S.Gershunskiy, V.G.Kinelev, A.A.Kirsanov);

- research in the field of formation of professional competence (A.S.Belkin, A.A.Bodalev, A.A.Derkach, E.F.Zeer, I.A.Zimnyaya, I.F.Isaev, E.A.Klimov, N.V.Kuz’mina, V.V.Laptev, A.K.Markova, A.I.Mishchenko, E.F.Nasyrova, F.D.Rasskazov, V.A.Slastyonin, A.P.Tryapitsina, A.V.Khutorskoy, M.A.Choshanov, V.D.Shadrikov);

- provisions and theoretical foundations of quality and monitoring of the quality of education (V.I.Andreev, V.I.Baidenko, V.L.Isakov, N.Sh.Nikitin, etc.);

- theory of the competence-based approach in education (V.I.Baidenko, E.F.Zeer, I.A.Zimnyaya, V.S.Lazarev, Yu.G.Tatur, A.V.Khutorskoy);

- the conception of simulation and construction of pedagogical process (Yu.K.Babanskiy, V.S.Bebrukov, Yu.K.Chernova, P.A.Yutsyavichene);

- principles of applying rating control (V.Ya.Zinchenko, R.Ya.Kasimov);

- scientific papers on the methodology of pedagogical research (V.I.Zagvyazinskiy, V.V.Kraevskiy, M.A.Choshanov, P.A.Yutsyavichene).

To talk about the quality of students’ training in a technical University it is initially necessary to identify the factors determining it (Table 2. The factors that determine the quality of education).

Table 2

The factors that determine the quality of education

<table>
<thead>
<tr>
<th>Internal factors</th>
<th>External factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-University training of the</td>
<td>The level of training of the student</td>
</tr>
<tr>
<td>entran</td>
<td></td>
</tr>
<tr>
<td>Pre-University training of the</td>
<td>The quality of the learning</td>
</tr>
<tr>
<td>ensart</td>
<td>process</td>
</tr>
<tr>
<td>The quality of the educational</td>
<td></td>
</tr>
<tr>
<td>institution</td>
<td></td>
</tr>
<tr>
<td>• Management.</td>
<td>• Organization and</td>
</tr>
<tr>
<td>• Training.</td>
<td>implementation of</td>
</tr>
<tr>
<td>• Resource providing of</td>
<td>learning technologies.</td>
</tr>
<tr>
<td></td>
<td>• Quality of control of</td>
</tr>
</tbody>
</table>
the learning process | learning process. | • Living conditions
---|---|---
- Quality control of learning outcomes.

Internal factors affect the result of training and external factors ensure the quality of training of future engineers.

The analysis of the results of scientific research and practice, which was held by us, has shown that research in the field of monitoring the quality of students’ training are being refracted in the competence-based approach.

Methodological analysis allowed to define the essence (the totality of the links, relations, sides, which are peculiar to competence), and to determine the place of the competence-based approach in the system of methodological knowledge of pedagogical science and practice.

The competence-based approach is focused on the formation of competencies. The implementation of this approach provides a higher level of motivation of students, gives them more distinct view about the content of future professional activity and improves the quality of independent work of students.

Today competence-based approach is widely discussed by scientists (I.A.Zimnyaya, V.V.Laptev, A.P.Tryapitsina, A.V.Khutorskoy, V.D.Shadrikov, B.D.El’konin). Competence-based paradigm does not deny the previous, “knowledge-based” one, and is being formed on its basis.

During the implementation of the competence-based approach to defining requirements to the outcomes of education the main question is how to highlight and meaningfully define significant competences? It is very important to avoid a narrow pragmatism and not to lead higher professional education to “bringing” on a limited number of particular skills. Education must be developmental, i.e., one that provides complete and extensive orientation in various conditions of life-sustaining activity, and not producing only a standard sequence of actions or transmitting knowledge in non-activity-based form (Khutorskoy, 2002).

Having analyzed psychological and pedagogical literature, by the quality of students’ training in technical University we mean the level of formation of competencies, that indicate the possibility to meet the present-day requirements of the chosen profession. This formulating of the notion is not accidental, because students in technical universities are being trained according to Federal state educational standards that are focused on competence-based approach and forthcoming professional activity.

3. Results

The problem of evaluation of quality of students’ training in technical universities is natural because it is continuously necessary to track the dynamics of formation of competences.

Monitoring (in eng. “monitoring” means controlling, verification) is implementation of systematic accounting and control of manifestation of one or another process, for actualization of activity, aimed at achieving a particular goal (Tul’kibaeva, 2003).
We consider that monitoring is the process of observing the object, evaluation of its state, controlling the nature of ongoing changes and preventing unwanted tendencies in development. Monitoring is being applied to specific objects and processes, in order to solve specific tasks. Monitoring is a continuous process, organized at a particular period that allows to record the status of ongoing processes, to carry out their forecast and correction, and on the basis of achieved information to take management decisions (Likhachev, 1998).

During formation of professional competence at the University pedagogical monitoring performs several interrelated functions:

- roughly-informational function is determination of efficiency of investigated process, providing feedback;
- organizational-activity function is implementation of pedagogical monitoring in the work of educational institution, selection of methods and techniques individually for each student, identifying the nature of the interaction between the subjects of the process of formation of mathematical competence, motivation to self-awareness, increasing levels of mathematical competence of students;
- system-formative function is system tracking the status of the investigated process in order to choose goals, tasks and means of their solution more optimal;
- correctional function is correction of the competence formation.

V. A. Slastenin, I. F. Isaev distinguish general characteristics of pedagogical monitoring, for example: inclusion of the object of the monitoring assessment in the pedagogical system as its constituent element; the presence of goals of pedagogical assessment of the state of educational process; pedagogical prognosis and correction of further development of the observed object; the systematic character and continuity of the pedagogical monitoring, the scientific validity of its carrying out; the use of the results of pedagogical monitoring for effective management of educational systems (Slastenin, 2004).

We share the opinion of V.M.Monakhov, A.V.Rusina, A.I.Sevruk, and by pedagogical monitoring of the process under study we mean the continuous, scientifically based, diagnostic-prognostic, planning-activity tracking status and changing of indicators of students’ mathematical competence in order to obtain authentic and complete information on the realized process for most optimal choosing of means, methods and forms of work, for the possibility of correction and achieving the most effective results (Monakhov, 2000).

The main purpose of pedagogical monitoring is a comprehensive characterization of the competence of students, in order to properly assess the level and causes of digression, raised by the influence of internal and external factors.

Monitoring acts as a kind of mechanism of managing, regulator of the formation of competence; promotes to identify negative and positive factors affecting its quality. Monitoring is closely associated with the diagnostics (Ilyashenko, 2017). By the main mean of diagnostic of training becomes testing in its variety of forms. The advantage is clear: the subjectivity is eliminated, the indicator of diagnosis is
expressed in objective and comparable data. For objective diagnostic, we consider it is necessary to follow some rules: to precisely define the criteria database of the research; to develop a unified system of studies; to develop the strategy and tactics of diagnostics, through which it will be possible to test totally the learning outcomes; to make a selection of the most suitable instrumentation for monitoring; to prepare high-quality test materials; to conduct regular monitoring of knowledge and skills; to conduct testing, that is closely related to research of training achievements; to conduct surveys.

During the implementation of pedagogical monitoring in the course of formation of students’ competence the following requirements must be met:

- the consistency and regularity of conducting monitoring at all stages of the process;
- objectivity, which excludes the premeditated, subjective and incorrect value judgments;
- comprehensiveness, which is consisted in monitoring that must cover all stages of the process under study, provide checking of all components of professional competence;
- taking into account the individual characteristics, which requires adequate monitoring techniques (Ilyashenko, 2010).

To improve the efficiency of formation of professional competence it is needed to take into account the results of self-monitoring. L.V. Mardahaev defines self-monitoring as “the study of the ways of presenting oneself in different situations and the regulation of behavior in order to make the desired impression”. Students, using various questionnaires and tests, determine the level of their professional competence and can regulate their behavior.

The reasons for the introduction of the monitoring and self-monitoring are the following: the need to objectively evaluate students, making positive motivation, formation of professionally important qualities and skills, etc.

The application of monitoring and self-monitoring in the formation of students’ professional competence in technical University provides not only getting objective information on the efficiency of the ongoing process, entering of adjustments if it is needed, but also its actualization (Komarov, 2005).

To understand the components of monitoring the quality, let us consider the system (a holistic set of interrelated elements), structure of the essence of this monitoring. Let’s imagine monitoring the quality of training as a pedagogical system through components: functional-target, subjective, processual and activity, instrumental and methodical, efficient (Table 3. Components of monitoring the quality of students’ training in technical University).

<table>
<thead>
<tr>
<th>Components</th>
<th>Brief characteristic</th>
</tr>
</thead>
</table>

Table 3

Components of monitoring the quality of students’ training in technical University
| Functional-target | The purpose of the monitoring lies in getting authentic information about the success of the development of professional competence, determining how the quality of training meets the Federal state educational standards, established qualification requirements. Monitoring tasks: 
1. assessment of the level of formation of students’ competences; 
2. diagnosis of changes occurring in the course of formation of competences; 
3. forecasting. 
Quality norms in the form of competencies (general cultural, general professional, professional) are specified in the standard. Functions of monitoring: 
1. communicative and informational; 
2. analytical and evaluative; 
3. motivational-stimulating; 
4. predictive. 
The basis of the organization and constructing a system of monitoring the quality of teaching are fundamental principles: consistency, informativity, adaptability, objectivity, continuity, cyclicity, openness, humanization. |
| Subjective | The subjects of monitoring of quality of students’ training in technical universities are administration of the University, which coordinate unit (performs Supervisory and evaluation activity), teachers, students, customer |
| Processual and activity | Includes the issues of phasing of monitoring: 
1. preparatory; 
2. diagnostic; |
3. analytical-reflective;
4. tentatively-prognostic

All stages of monitoring are closely interrelated, each previous stage makes conditions for realization of the further stage

| Instrumental and methodical | Testing and assessment materials (methods, means, technologies of evaluation of the quality of education).
The criteria for the evaluation of the quality of education:
1. readiness for professional activity;
2. students’ satisfaction with quality of education |

| Efficient | Reflects the achieved level of training in accordance with the requirements of the standard, individual, society and the state |

Monitoring is holistic, completed process of valuation activity.

4. Conclusions

The concept of quality of students’ training in technical universities is insufficiently developed in the psychological-pedagogical literature. The quality of students’ training in technical universities has been considered by us as the level of formation of competences, which reflect the possibility to meet the modern requirements of the chosen profession. The definition is given on the basis of turning to the competence-based approach. Therefore, the monitoring of quality of students’ training in technical University is understood by us also as a pedagogical system of the regular collection, storing, processing information about the state and development of professional competence of students, assessment of level of formation of its constituent competencies. One of the main qualities of monitoring is periodicity, openness, systematicity, adaptability.

Components of monitoring will be: functional-target (goal and objectives, functions of monitoring, standards of quality of students’ training in technical university), subjectival (subjects that are being involved in assessment activities), processual activity, the instrumental-methodical and efficient components.

Introduction into educational process the elements of the monitoring leads to improving the efficiency of professional becoming of students from technical University.

Acknowledgements
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References


Selezneva, N. A. The quality of higher education as an object of systematic study: textbook manual for universities / N. A. Selezneva; Research center of problems of quality of preparation of specialists of the Moscow state Institute of steel and alloys (technological University); 7th edition, revised and updated.- M.: Research center of problems of quality of specialists’ training, 2008. – 95 p.
Personal Metadiscourse: A Comparative Study of Pakistani English with the British and American Varieties

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Abstract
Personal metadiscourse makes direct reference to the writer or reader of current text by means of pronouns and nouns. The pronominal forms act as visibility markers in the text and/or an attempt to evoke reader’s involvement in textual interaction. This research aims to paint a comprehensive picture of the patterns of personal metadiscourse used in written texts by Pakistani learners and native speakers of English. The data used for this research consists of argumentative essays written by Pakistani advanced learners of English and compared with the essays written by British and American university students. The data has been taken from the International Corpus of Learner English. The data was analyzed to get the frequency of personal metadiscourse across the corpora. The concordance lines of personal pronouns were also studied to analyze the functions of personal metadiscourse in Pakistani corpus. The results of the study reveal considerable difference across these corpora. Pakistani learners use more than twice as much personal metadiscourse as the American university students, in turn the American university students’ use twice as much personal metadiscourse as British university students. The analysis of this research shows that British students’ texts are fact-oriented, Pakistani learner’s texts are more expressive and explicit. On the other hand, the AmE learners are more concerned with their imagined reader.

Key words: Metadiscourse, writer visibility, personal metadiscourse, explicitness.

Introduction

The concept of metadiscourse was first introduced by Zelling S. Harris in 1959. He used the word metadiscourse to describe text elements which comment about the main information of text but themselves provide no essential information. In the mid of 1980s, the term metadiscourse was adopted in discourse studies by some scholars. William (as cited in Hui and Na, 2008) was among those who used the word metadiscourse quite early on. He defines metadiscourse “as a stylistic variable” (p. 226) and claimed that it was an important level of structure in the description of writers’ style.

Review of Literature

According to Hui and Na (2008), metadiscourse is abstract in nature, talking about metadiscourse involves a discussion of discourse features, they are basically linguistic markers which are apparently not necessary related to the topic but show the extent of writer awareness of the needs of audience in order to communicate. So, the metadiscourse is recognized as “an important means of facilitating communication, supporting a writer’s position and building a relationship with the audience” (Hui and Na, P.2).
Different scholars have interpreted discourse and metadiscourse in various ways. Discourse refers to the “pragmatic use of language (including nonverbal signs such as paralanguage and gestures in discourse) in extended texts or episodes of communication, (whereas) Metadiscourse refers to the pragmatic use of language to comment reflexively on discourse itself”. (Craig, 2005, p.1)

Some Scholars believe that discourse and metadiscourse are mutually interchangeable terms. Iranian scholars Abdi, Rizi & Tavakoli (2009) believe that discourse and metadiscourse are interlinked. In their research they have followed a model that combines the concept of cooperative principle and metadiscourse marking in an attempt to map discourse and metadiscourse under same infrastructure. They have successfully proved that these terms are directly related and their research findings support the conclusion that there could be a unified base between both discursive and metadiscursive markers. Taylor (2000) also believed that metalanguage and metadiscursive properties of language, that is called second order language (metadiscourse), are not supplemental and inessential, but without them first-order language (discourse) could not exist.

However Chef and Steffnson (as cited in Abdi, Rizi & Tavakoli, 2009) negate this concept. They distinguish between the concepts of discourse and metadiscourse by categorizing them into two levels: “explicit goal of producing written text and implicit goal of reaching an audience” (p. 144). On the first level, discourse expands propositional content about a topic, on the other level metadiscourse comments on the text and directly comments to the imagined reader. Crismore (1983) also defines metadiscourse as a level of discourse which marks the author’s intrusion into the ongoing discourse and is used to direct rather than inform the reader.

Metadiscourse is an interesting field of inquiry which plays an important role in organizing and producing persuasive writings, based on norms and expectations of people involved. It incorporates the idea that writing and speaking involve not only the communication of ideas, but are also considered as social acts. They induce the learners, readers, speakers and listeners to interact with each other to affect the ways in which ideas are presented and understood. (Rasekh, 2010)

Adel (2006) describes metadiscourse in terms of ‘personal’ or ‘impersonal’ types. Metadiscursive expressions may include explicit linguistic references to the current writer and/or their imagined reader. In personal metadiscourse, the main focus is how learners and readers relate to the world of discourse (or text), and how they relate to each other within that world. Impersonal metadiscourse, on the other hand, does not make explicit reference to the discourse participants. It avoids explicit self-presentation in a text by different ways.

Personal metadiscourse makes direct reference to the writer and/or reader of the current text by means of pronouns (primarily I, we, you) or nouns (such as “writer” and “reader”). It is important to stress that in personal metadiscourse, the current discourse participants are explicitly referred to as qua discourse participants. The aim of Adel’s (2006) study was to find out the patterns of personal metadiscourse in written texts by Swedish learners and native speakers of English. The results of this study reveal great differences across the corpora. The main pattern was that “the Swedish learners use more than twice as much personal metadiscourse as the American university students. The American university students when in turn, use twice as much personal metadiscourse as the British university students” (p. 93). Compared to the British university students, the Swedish learners use five times as many expressions of personal metadiscourse as American university students. (Adel, 2006)
In the same way, Hyland (2002) worked on the first personal pronouns, but his research aims to detect authorial identity in academic writings. He explored the concept of identity in L2 writings by investigating the use of personal pronouns in 64 Hong Kong undergraduates’ theses, comparing with large corpus of research articles, and interviews of students and their supervisors. The study depicts considerable use of an authorial reference by students and clear preferences to avoid these forms in the contexts which involve making arguments or claims. He concluded that the personal identity implied in the use of ‘I’ is problematic for L2 learners. His work is directly related to the present study as he examined the use of personal pronouns and the present study is also going to compare the argumentative essays of Pakistani advanced learners with the essays written by the British and American university students.

Toumi (2009) reviewed the early models of metadiscourse presented by different researchers and highlighted the major shortcomings in those studies. He introduced a model of reflexive metadiscourse based on the works of Mäuranen (1992) and Adel (2006). His study aims to identify similarities and differences in the use of reflexive metadiscourse between the two cultural groups, the two types of sciences and across the research articles sections.

This research aims to find out the functions of personal metadiscourse and compare the data of Pakistani English with that of American and British English. We have included two taxonomies of the functions of metadiscourse given by Vassileva (1998) and Kou (1998) for the analysis of essays. Vassileva’s (1998) study is concerned with exploring the functions of personal pronoun ‘I’. She claims that ‘I’ performs ten functions whereas Kou (1998) found twelve functions for first person plural ‘we’. Vassileva’s study is based on research articles in linguistics in English, German, French, Russian and Bulgarian, whereas Kuo’s study is based on English-language scientific journal articles in Computer Science, Electronic Engineering and Physics. Kuo’s main concern is epistemology and transmission of knowledge in discourse but Vassileva is more concerned with textual structure.

Our study is based on the findings of Vassileva (1998) and Kou (1998). Adel’s (2006) study is also concerned with the implementation of Vassileva and Kou’s model. So her study, along with the two previously mentioned researches, serves for us as a basis to ground our research. The objective of this research is to find out the extent of Pakistani learners’ awareness of personal metadiscourse functions and how they structure their text. We also aim to find out how Pakistani learners involve their readers and themselves in their text and how they evaluate their own writings.

Methodology

Three different portions of ICLE i.e. Pakistan, America and British, have been used in this study. One feature (personal pronoun) of personal metadiscourse is selected for study. Three units, I-unit, We-unit and You-unit, have been identified in the text. Different contexts of these units are analyzed and further arranged into different categories according to their functions. This categorization is based on the taxonomies of Vassileva (1998) and Kou (1998).

Adel (2006) used the same method to study and compare the use of metadiscourse in the essays of British, American and Swedish post graduate students. The present study compares its findings with those of
Adel’s. For that purpose, I have compared the discourse functions found in the British and American learners’ essays, as discussed by Adel, with the functions found in Pakistani learners’ essays.

Data collection

The essays chosen for our study are available in electronic format. The size of all the three corpora is given in Table 3.

TABLE 1: Sizes of the Corpora

<table>
<thead>
<tr>
<th>Corpus</th>
<th>Variety</th>
<th>No. of words</th>
<th>No. of essays</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pakistani learner</td>
<td>L2 English (L1 Punjabi)</td>
<td>202,261</td>
<td>304</td>
</tr>
<tr>
<td>AmE</td>
<td>American English</td>
<td>150,000</td>
<td>175</td>
</tr>
<tr>
<td>BrE</td>
<td>British English</td>
<td>95,500</td>
<td>118</td>
</tr>
</tbody>
</table>

The Pakistani learner’s material consists of approximately 304 essays comprising of 202,261 words. The essays are full length with an average size of about 650 words per essay. The writers are all advanced learners of English. The native-speaker corpus consists of around 247,000 words altogether and comprises of 290 essays written by American and British university students.

Instrumentation

We have analyzed the data by using AntConc 3.2.1 software to find frequencies of the use of personal metadiscourse. We have also used this programme to investigate the functions of metadiscourse in Pakistani corpus by studying concordance lines of the data.

Results

The findings of our research are as follows.

TABEL 2: Total frequency of personal metadiscourse

<table>
<thead>
<tr>
<th>Variety</th>
<th>Corpus size in words</th>
<th>Raw frequency</th>
<th>Frequency per 100,000 words</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.E</td>
<td>202,261</td>
<td>480</td>
<td>230</td>
</tr>
<tr>
<td>AmE</td>
<td>149,767</td>
<td>167</td>
<td>111</td>
</tr>
<tr>
<td>BrE</td>
<td>95,5085</td>
<td>52</td>
<td>54</td>
</tr>
</tbody>
</table>
This frequency table shows that Pakistani learners use twice as much personal metadiscourse as the American learners; in turn the American learners use twice as much personal metadiscourse as the British learners do. Compared to British learners, the Pakistani learners use four times as many expressions of personal metadiscourse. The results are shown graphically in Figure 1. The three bars in the figure show considerable difference in the use of personal metadiscourse across American, British and Pakistani corpora.

Figure 1: The frequency of metadiscourse across the corpora

<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>We</th>
<th>You</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Frequency</td>
<td>f/100,000</td>
<td>Total Frequency</td>
</tr>
<tr>
<td>P.E</td>
<td>121</td>
<td>60</td>
<td>211</td>
</tr>
<tr>
<td>AmE</td>
<td>72</td>
<td>48</td>
<td>38</td>
</tr>
</tbody>
</table>

TABEL3: Frequency of ‘I’, ‘we’ and you in metadiscursive units
Out of three pronominal forms, first person ‘I’ displays the greatest difference across the corpora with highest frequency (f.60). Frequency of Pakistani learners is the highest as compared to AmE and BrE learners in case of “I” unit.

Personal metadiscourse involving ‘we’ presents quite different picture. Proportionally, differences are much larger than I-unit. The frequency of ‘we’ unit as shown in table (f.104) presents slight difference between AmE and BrE. But PE marks a greater difference in the use of we-unit.

According to the above mentioned frequency ranking, Pakistani learners use ‘you’ unit more frequently than the British and American learners. You- unit is used more frequently in AmE but rarely in BrE data.

Table 4: Frequency of subject, object and possessive forms of the three personal persons studied in metadiscursive expressions

<table>
<thead>
<tr>
<th>Personal Pronoun</th>
<th>P.E</th>
<th>AmE</th>
<th>BrE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Frequecy</td>
<td>f/100,000</td>
<td>Total Frequecy</td>
</tr>
<tr>
<td>I</td>
<td>121(310)</td>
<td>60</td>
<td>72(649)</td>
</tr>
<tr>
<td>Me</td>
<td>(70)</td>
<td>1</td>
<td>7(77)</td>
</tr>
<tr>
<td>My</td>
<td>(191)</td>
<td>19</td>
<td>10(209)</td>
</tr>
<tr>
<td>We</td>
<td>211(1416)</td>
<td>104</td>
<td>38(426)</td>
</tr>
<tr>
<td>Us</td>
<td>(361)</td>
<td>14</td>
<td>10(90)</td>
</tr>
<tr>
<td>Our</td>
<td>(1073)</td>
<td>3</td>
<td>1(325)</td>
</tr>
<tr>
<td>You</td>
<td>67(267)</td>
<td>33</td>
<td>57(317)</td>
</tr>
<tr>
<td>You (obj.)</td>
<td>(114)</td>
<td>1</td>
<td>11(57)</td>
</tr>
<tr>
<td>Your</td>
<td>(109)</td>
<td>7</td>
<td>4(82)</td>
</tr>
</tbody>
</table>
When we measured the frequencies of personal metadiscourse, the objective and possessive forms of the pronouns of writer and reader visibility were also taken into account. But the aim of this study is limited only to subjective form of personal metadiscourse, because subjective forms of personal pronouns are more in numbers in our corpora and they play very important role in structuring the text.

Frequency of ‘our’ is very limited across the three corpora. Frequency of you is ‘zero’ in British corpus. British writers have avoided the use of second person pronoun ‘you’ (possessive and objective forms) whereas the American and Pakistani learners show similar frequency of non-subject forms of this unit.

So, the frequency table confirms that Pakistani learners are at the top with the highest frequency of subject form usage; American learners come midway while British learners make least use of subject forms.

Discussion

This research identifies the units which perform metadiscourse functions as well as the units which do not perform metadiscursive functions. As mentioned earlier, Pakistani learners have overused personal metadiscourse. In the British sub-corpus, explicit writer visibility is very rare with low frequency (f. 21). It shows that British writers avoid giving explicit expressions. These observations are strengthened by the results shown in table 5.

Table 5: Discourse functions of ‘I’ in PE

<table>
<thead>
<tr>
<th>Aims/procedure/data Analysis</th>
<th>Self-reference</th>
<th>Personal experience</th>
<th>Personal view Point</th>
<th>Focusing</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>18</td>
<td>14</td>
<td>151</td>
<td>6</td>
<td>9</td>
</tr>
</tbody>
</table>

In Pakistani learners’ corpus, expression of personal views by using terms such as ‘I think, believe, feel, hope, and fear’ etc. is frequent. Only 18 occurrences of self-reference were found in the Pakistani component of corpus. 28 occurrences have been used to describe personal aims, procedures and analysis. Vassileva (1998, 170) introduced the term ‘focusing’ in which” she includes cases of employing the ‘I’ perspective in order to narrow down goals, purposes and expectations concerning the outcomes”. She claims that “the aim of focusing is to concentrate the readers’ attention on the specifics of what is to follow” (p. 170). In Pakistani learners’ corpus, we found a few instances where learner had used personal metadiscourse to conclude the topic.

Table 6: Discourse functions of ‘we’ in PE
Personal metadiscourse involving ‘we’ presents a different situation. In Pakistani corpus ‘we’ units are greatly used in the context of showing results and findings, contexts like ‘we found that, we are showing results’ etc. The inclusive ‘we’ is used by the learners to express their desires and wishes. First person pronoun ‘we’ is used to refer to the writer(s) and reader(s) who directly participate in the text.

Similarly, in AmE corpus inclusive authorial ‘we’ is used. The use of ‘we’ includes both the writer and the reader, and emphasizes cooperation. The writer is showing willingness to guide the reader through discourse. This willingness creates a bond between them. In British corpus, the single authors used the plural form for their own discourse actions. Quirk et al. (1985) explain that the motivation for using such type of ‘we’ may be interpreted as a desire to avoid ‘I’ which may be felt to be somewhat egoistical.

Appealing to the imagined reader through the use of ‘we-units seems to be more important to the Pakistani learner than to the British and American university students.

Table 7: Discourse functions of ‘you’ in PE

<table>
<thead>
<tr>
<th>Referring to intended reader (directive)</th>
<th>Referring to current writer (expressive)</th>
<th>Referring to member of a category defined in the context</th>
<th>Generic you</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>12</td>
<td>14</td>
<td>26</td>
</tr>
</tbody>
</table>

The directive ‘you’ refers to the imagined reader exclusively, we found 14 occurrences in the learner corpus where directive ‘you’ was used explicitly. There are twelve instances where writers addressed themselves. The writers actually referred to themselves as experiencing the real world. All these instances refer to the members of group that was defined in the context. In case of generic ‘you’ it was unclear whether the referents were writer, the reader only, the reader and the writer or the reader, writer and other people.
There are a number of potential referents for ‘you’, and it is often difficult to distinguish between indefinite and definite reference (Adel, 2006). Very few occurrences of ‘you’ in the British and American learners’ corpus exclusively refer to the imagined reader, but many examples of generic and indefinite ‘you’ are used which could have been replaced with ‘we, us, our’ and ‘one’. Pakistani learners use ‘you’ unit more than the British and American learners. The limited use of ‘you’ discourse shows that British learners are fact oriented.

When data was analyzed to find out the functions of personal metadiscourse, the Pakistani learners displayed a high degree of metalinguistic awareness. Pakistani learners comment explicitly on their text. Their focus on personal viewpoint shows that Pakistani learners frequently refer to themselves as writers. It has been expressed clearly in learners’ essays. In British argumentative essays, learners are highly invisible in their discourse, which suggest that their writing norms favor a strictly impersonal style with few or no instance of mock interaction between the writer and the reader. When American writers use personal metadiscourse, their main concern is the relationship between the writer and the reader rather than the structure of text or the use of language. There is a clear difference between Pakistani learners’ corpus and two native speaker corpora in their use of personal metadiscourse. The British students’ texts are fact oriented whereas Pakistani learner’s texts are more expressive and explicit. On the other hand, American writers are more concerned with their imagined reader i.e. the audience.

Conclusion

On the basis of these findings, we conclude that three groups of learners differ both quantitatively and qualitatively in their use of personal metadiscourse. The main findings of our study are that the Pakistani learners’ essays contain more personal metadiscourse than the native-speaker groups. Metadiscourse involving ‘you’ is rare in the BrE essays, but quite frequent in the Pakistani learners and AmE essays. Metadiscourse involving ‘we’, on the other hand, shows different results. The Pakistani learners often take the imagined reader into greater account. The British texts show the opposite tendency, being largely impersonal and monologist. There are hardly any instances of direct reader address. The AmE learners tend to make their texts dialogic and show concern for reader, but this feature is less present in American learners’ writings than Pakistani learners’ texts. Although the writer presence is more visible in American corpus than in the British data, they still do not come close to the extreme degree to which the learner makes explicit appearances in Pakistani texts.

Functions of personal metadiscourse show that Pakistani learners use more personal expressions and they refer to themselves as writers and comment on their own text explicitly whereas British learners are highly invisible in their direct expressions. On the other hand, American writers neither explicitly comment on their own text nor are they totally invisible in the use of direct expression.

References


Methodology of teaching Russian language and literature

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Abstract
The method of teaching Russian language begins to teach language to students in primary school. The first method of teaching Russian language is practicing technique. Psychological and pedagogical laws of the learning process are like the needs of the society. At the beginning of these needs are communication tools. The communication tools define the ways of teaching Russian to students according to their language characteristics. The method of teaching Russian language consists of the literary parts of the language skills of students, the concepts of grammar, the change of language system over time (assimilation) and other parts of language science. Methodology; pedagogy, psychology and philosophy at the intersection of disciplines. These disciplines have a common interest.

Keywords: Teaching, Learning, Language, Methodology.

Introduction
Language is one of the most interesting tools in people's hands for communication. To use the language well you need to research the language features and details (Egorova, 2008). The methodology is designed to examine the student's language conception and analytical skills. The methodology is designed to examine learner's sense of language and analytical skills. (Lvov, 2007). Linguistic analysis ensures that the difference between languages levels is followed (Galay, 2012). Methodology also works on the knowledge and skill levels of the learners. The method finds the student’s reasons for success and mistakes. There are 4 main rules in teaching methodology. The first is “why”, the second is “what should I teach”, third is “how to teach”, and fourth is “why not use another way”.

Methodology, pedagogy and Philosophy are the social sciences. These sciences research the direction of the person. The methodology and these two sciences, researches language bases, aims and tasks of language teaching. Russian language methodology works with philosophy, psychology, pedagogy, and linguistics methodology. It is very well defined in Babaytsevan’s “Russkiy pity” book. Language science works directly with other branches of science.

Methodology and philosophy are directly related. Language and thought science are directly related. Society and individual sciences are directly related. These results help to improve the methodology (Barabanova, 2014). According to another idea, the method of teaching Russian language includes students' language skills, grammar, assimilation and Russian literature (Litnevskaya, 2006). Language Methodology; a discipline at the intersection of other disciplines, namely pedagogy, psychology and philosophy. These disciplines are of common interest (Barabanova, 2014).

In 1844, Buslaev wrote his famous work “On the Teaching of Russian Language”. In this work, for the first time in the history of Russian pedagogy, there is a methodology based system (Barabanova, 2014).
Buslaev says “it is necessary to distinguish between the teaching method and the learning method”. Buslaev study primarily on the ability of students to use the information correctly in their own speech. Buslaev has made groups as “knowledge and skills, teachings and exercises”. Secondly, Buslaev says that the learning ability of the learners is the role of language learning.

It divides it into two forms of teaching: The student finds the truth with the help of the teacher (heuristic method) or the current knowledge about language is learned (dogmatic method). Usually the first method is preferred from these teaching styles. Alferovan’s book “Rodnoy pity v sredney škole, Opt method” published in 1911 and “Russian language” textbooks written by Shcherba in 1952 contributed to the development of teaching methods. These books describe the language systems that need to be developed by means of speaking, listening, reading and writing. Thus, it bases its methodological system. Shcherba thinks that the best methods for teaching Russian language are to read grammar, to read literary examples, and to do systematic exercises. Throughout his life Shcherba worked to raise the quality of Soviet universities, to prepare textbooks of Russian and foreign languages, and to make school programs. The work of Shcherba and his students has been a major work in the preparation of the Russian dictionary books (Larin, 1977).

2. Method

The literature was searched based on the printed academic studies about the methods of teaching Russian language and literature in the research. Scientific researches on language learning methodology, articles, master thesis, and printed scientific books are examined.

3. Literature review

Russian language as the national language of Russian people is the foundation of the formation and improvement of speech. Language is not just a mean of the accurate speaking, but also an instrument of thinking. The development of language conduces to the thinking development, and vice versa. While analysing it originates the decomposition of objects per elements, the synthesis is study about objects integrally and interactively. The study of the language and speech phenomenon is affected by universal methods of analysis and synthesis. Analysis of the phonetic composition of a word, parts of speech, parsing suggested by the decomposition of objects per elements. Russian language is one of the richest languages in the world, it is generally accepted fact.

K.G. Paustovsky wrote: “The true love of country is impossible without the love of their language”. In the “Tentative programme ....” one of the Russian language study goals is education the citizen and patriot, formation ideas of Russian language as the spiritual, moral and cultural values. The selection of materials for lessons, audio-visual materials, the types of tasks students are motivated by the desire to reveal the treasure of Russian vocabulary and phraseology, to improve the ability to express all peculiarities of Russian language by its linguistic means “all tones and shades”, to arouse admiration for Russian language among students, too proud of its diversity, to express thoughts and feelings in Russian well.

The principle of connecting with the study of Russian language literature.
The practice of teaching Russian language uses works of fiction. Students learn to create variety of speech types of language models: description, argument, narration. This principle is achieved by an individual approach to students, based on their competence and skills.

An example of such differentiated approach to students based on their competence is the fairly traditional task of writing lists of "easy to misspell" words from dictation. Then the students are asked to study:

1) To determine which parts of speech these words are from,

2) Create a sentence including that word in it,

3) Create other words from that word, with the more, the better.

These tasks are very helpful for improvement by vigilance, when students peer into alphabetic structure of words, they memorize them. In these tasks are observed three levels of difficulty; first, the mechanical copying, next, the analysis - to determine which part of speech it originated from, and the most creative level - a synthesis - the creation of new words in a sentence.

In school, students form basic skills. No one can remember all the possible cases of the use of words, the rules of compatibility, the stylistic characteristics of the vocabulary and idiomatic composition, etc. That's why more time needs to spent in the formation and improvement of linguistic intuition, which is given at birth, but different people have it at different levels.

Gogol wrote: "In front of you is a mess - the Russian language! Enjoyment is calling you, the pleasure to dive into all its immensity and catch the wonderful laws of it ...”

To maintain keeping students interested in Russian lessons instead of being bored during them, the answer is obvious.

- Develop the natural tendency of children to play games.
- Differentiate tasks by their difficulties.
- Create lessons that have a high / positive achievement environment, which we are now talking so much. One of the major subjects that prepare students for professional career of a primary school teacher is Russian language. Methods of teaching Russian language are the process of learning the language, and its practical use. This science helps to teach the Russian language as a means of communication, as well as to take into account different social needs of society. Methodology of the Russian language will help students understand the laws governing the formation of students' skills in the field of language, learning systems of scientific concepts of grammar and other sections of the science of language. Series of linguistic sciences such as phonetics and phonology, lexicology and phraseology, word formation, grammar, style framework and spelling are essential foundations of teaching methods of the Russian language. Literary reading method is based on the theory of literature. This method allows students to develop theoretical and practical knowledge in the process of teaching Russian language helps to understand basic concepts, improve professional skills, also it allows students to research and
operate instructional literature independently by themselves. Reading and writing teaching method, that is, the elementary reading and writing skills. The task of the subject "literary reading" in the primary school is intended to develop a skills of quick, accurate and expressive reading, and encourage them to create a special attitude toward literature as for an art of words.

The method of grammar and spelling.

It includes teaching writing and calligraphy, the formation of elementary grammar concepts and spelling skills. Students first realize language, as a subject of study, analysis and synthesis. They learn how to properly construct sentences, as well as improve proper writing skills, which are different from the oral speech by its graphical form, vocabulary and syntax. The method of language development should further enrich children's vocabulary; develop their oral and written abilities. Methods of teaching Russian language come up from the experience of foreign countries (Nuans, 2017). The one who noticed and developed these methods was a famous linguist and professor academic Lev Vladimirovich Shcherbo. Learning of reading, writing and speaking are essential aspects for the formation of specific language skills, and abilities.

Russian language teaching methods cannot be separated from age-related psychology, and educational psychology. Reading technique is also based on the theory of literature. The next part of the main methods of teaching Russian language is pedagogy.

Modern methods of teaching literature are based on the valuable experience of teachers, language and literature of the past. History of methodical thinking is inextricably linked to the development of Russian society and Russian literature, with the names of famous scientists and artists, writers and teachers, who were the first authors of textbooks, manuals, and articles about the theory and history of literature. There is no single universal method of teaching language (Dolgova, 2008). Experience has shown the necessity of combining different techniques depending on the purpose and the conditions of learning. Preference is given to student oriented technologies that stimulate creativity and increase motivation to learn language. The scope of language and literature is to help students interested in gaining maximum fluency in communication. The content of language learning focuses on the formation and development of all components of communicative competence: language skills bases on linguistic knowledge. The most important component of communicative activity is linguistic competence, based on a certain amount of knowledge, construction of the grammatically correct sentences, and understanding the nuances of speech. The most convenient and appropriate form of education is a lesson. This is - a practical learning. An important condition of a good lesson is an implementation of some special goal which has been set before. Teaching Russian pursues the implementation of educational, training and developmental goals.

Solution of educational problems contributes to a literary education and improving communication culture. Educational purpose is to create a positive attitude of students towards the culture of the Russian people and the people who speak that language.

Functions of the Russian language lessons are the formation and development of motivational and emotional spheres of personality, values, cognitive processes, observation, memory, thinking, language, imagination and intelligence. Thus, Russian language teaching relies not only on educational interests of students, but also on the need to communication.
Choosing the right vocabulary, well-constructed sentences, and commutative functions motivates students, and facilitate communication. Russian language as the national language of the Russian people – It is the basis for the formation and improvement of speech. Principle of systems can identify links between sections of the science about the language (Sietrich, 2008). In linguistics, an ordered set of elements that act as a unit. Principle of systems is of great importance for the practice of teaching Russian. It allows you to show the logical connections between the individual components of the Russian language:

- Phonetics.
- Schedule.
- Spelling.
- Lexicology.
- Phraseology.
- Morphology.
- Syntax. Punctuation.
- Speech.
- Language.
- Types of speech.
- Styles of speech.

**The principle of communication in the development of language and thought.**

Language - is not just a means of expressions, but also a tool of thought. It contributes to the development of speech and the development of thinking, and vice versa. An analysis of the sound structure of words, parts of speech, of sentences is made by breaking them into their component elements, and research of their relationships.

**The principle of combined education.**

Russian language - one of the richest languages in the world, it is generally accepted fact. K.G.Paustovsky wrote: "The true love of country is impossible without the love of its language."

In the "model program ..." one of the goals of Russian language is to educate the citizen and patriot, the formation of ideas of the Russian language as the spiritual, moral and cultural values.

Selection of materials for lessons, illustrative speech materials, are motivated by the desire to reveal the treasury of Russian vocabulary and phraseology, improve the ability to express "all tones and shades" by means of the Russian language, encourage students to admire the Russian language, to become proud of its diversity, and to express thoughts and feelings by a good Russian speech. Russian language is unusually rich. Where in the world do you find such a wealth and diversity of speech units, for example the verb to swim can have 12 different forms and conjunctions.

**Principle of connection with the Russian language literature.**
In the practice of teaching Russian language the main text of the works of fiction are used. Students learn to create a variety of texts according to language model and types of the speech (description, argument, narration), using the best of Russian literature.

**Principle of creating a successful environment at the lesson.**

This principle is achieved by an individual approach to students, according to their competence and skills. The main provisions of the principle contained in my scientific development "Development of motivation for learning the lessons of Russian language and literature." An example of such a differentiated approach to students, according to their competence is fairly traditional task of writing lists of «mistakable » words by diction.

Then the students are asked to:

1) To determine which parts of speech are these words

2) To create sentences

3) Make a few conjugated words as much as possible.

These tasks are very useful for improving the spelling, when students look carefully into literal composition of words, they memorize them. At school, student form the basic language skills. No one can remember all the possible uses of words, rules of their compatibility, the stylistic features of vocabulary and idiomatic composition, etc. Therefore, students must emphasize attention on the formation and improvement of linguistic intuition, which is given at birth to everyone but at varying degrees. Famous writer Gogol wrote: "Here is a mass – Russian language! Enjoying a deep calling you, the pleasure to dive into all its immensity and catch the wonderful laws of it ..." How to make students to enjoy Russian lessons and not to become bored by it? The answer is obvious. Develop the natural children tendency to game.

Differentiate tasks according to the degree of difficulty. To create motivational environment which will benefit students desire to study.

3. Conclusion

The method of the study, is an important component of the overall methodological - ray system - a way of interaction between teacher and students, it is a set of techniques of their joint activities. In theory and practice of teaching Russian language there is no uniform classification of less odds of training. Some scientists use a classification of didactic, which is based on features of cognitive activity of students. Lerner identifies five methods: Explain substantive-illustrative, reproductive, a method of problem-decomposition, partial search (heuristic) and researcher. Lerner identifies five methods: Explain substantive-illustrative, reproductive, a method of problem-decomposition, partial search (heuristic) and researcher. The classification of teaching methods are put first, sources of knowledge, and secondly, a way of organizing joint activities of local teachers and students. According to the sources of knowledge are the following methods: verbal (source - the living layers of the teacher): lecture, discussion, explanation, and analysis of language (the language of the observation) parsing; visual: experiment,
observation, practice: the different types of exercises, laboratory job. By way of organizing the joint activity of the teacher and students are allocated methods: discussion, explanation, independent work. Professor LP Fedorenko allocates following teaching methods:

- Practical methods of language learning - an explanation directly naturel words, the preparation of oral and written messages composed the-making, preparation of plans, abstracts, summaries, correct grammatical and stylistic errors in the speech of students training to work with reference books.

- Methods of theoretical study of language - the message, conversation, reading in the book of rules;

Techniques theoretical and practical study of language-exercise: analysis of linguistic material, the study of grammar-parsing, modify it, exposition, grammatical design, composition, spelling and punctuation critiques, copying, dictation, the study style - a stylistic analysis, “editing”.

4. References

Alferova, A.D. (1911). Rodnoy yazik v sredney škole. Opt metodiki