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**FORMATION OF SEARCH BEHAVIOR OF STUDENTS OF
INTERNATIONAL PROFILE USING INNOVATIVE METHODS**

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Abstract

The author puts the research question - what are theoretical and technological foundations that determine the effectiveness of students' formation of international profile of search behavior? – and the answer is given with the usage of theoretical and applied scientific literature, the concepts of domestic and foreign scientists. The essence of issue the author sees in the verification of hypothesis about correlation of introduction in the process of professional training of student of international profile of effective forms and methods and the increase in the level of search behavior. As a result of the analysis of the scientific literature, the author defined the content of the concept "exploratory behavior of a student of international profile" and identified structural components. Having determined the content of the concept, the author turned to the applied part of the study, including the ascertaining, forming, final stages. The final stage set the task of re-application of diagnostic techniques in order to reveal the level of student search behavior and confirmation of the effectiveness of the implemented techniques and technologies. Having analyzed the findings of the final stage, the author concluded that the students of the EG, included in specially organized psychological and pedagogical conditions, showed better results than the students of the CG, significantly increasing their own level of search behavior and its basic qualities - volitional efforts, cognitive activity and purposefulness, presupposing the ability of international student to focus on professional knowledge, to be interested in international issues.

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Keywords: Cognitive activity, effective forms, student of international profile.



1. Introduction

The relevance of the study is that today science and research activity is not the only criterion for the well-being of society and improving the quality of people's lives, but it is also an important factor in national security and state stability. Science becomes a decisive factor in the progress of society and in the field of scientific research and innovative technologies (Egorychev, Mardahaev, Rybakova, Fomina, & Sizikova, 2014). Today science has become the main productive force of the university community. Under the influence of the science of higher education, the personal beginning, the role of student youth has grown in all scientific fields. Higher education has become a social institution that largely determines the level of economic, scientific and technological changes in society (Bereza, Galkina, Kvitkobskaya, Prokhorova, & Volenko, 2016). It was the university that was able to carry out the process of development of sciences consistently and over the centuries, translating the accumulated scientific baggage to succeeding generations. Integration functions of universities were the production of new knowledge, the introduction of innovative technologies, forms and methods of education, cognitive activity, stimulating the preparation of innovative thinking specialists into real practice. The state order for a thinking specialist in the international sphere, which is responsible for the national security of the country, is confirmed by the words of the president at the "Meeting of Ambassadors and Permanent Representatives of the Russian Federation in the Ministry of Foreign Affairs of Russia", where the key tasks of Moscow's foreign policy, development of international humanitarian relations, scientific projects carried out jointly with teams of young scientists from other countries.

2. Problem Statement

In the new requirements of federal state educational standard of student of international profile, along with professional competencies (mastery of the fundamentals of international relations, foreign languages) are also noted - the propensity to research, search activity, and the possession of stable analytical skills. The above facts make it urgent to form search behavior of students of the international profile, nonsituative activity, when student solves more complex tasks than he is required to do. An increase in the level of the search activity of an international student can solve many international, geopolitical, social and economic problems of society. A considerable potential has been accumulated in science for the development of fundamental and applied aspects of the problem of the formation of students of an international profile of search behavior. However, at the present time this question is not sufficiently investigated in the scientific literature, which generates the main contradiction - between the public-state order for the objectively necessary level of the students' search activity of the international profile and the inability of the traditional system of professional training of students to ensure the achievement of given level, the lack of scientific and technological provision. The apparent contradiction led to formulation of the research question.

3. Research Questions

What are theoretical and technological foundations that determine the effectiveness of the formation of students of the international profile of search behavior. The research question consisted in verifying the hypothesis of correlating the introduction of the international profile of innovative research forms and

methods into the process of professional training of the student and raising the level of his search behavior. The research question determined the purpose of scientific research.

4. Purpose of the Study

The purpose of the study was to substantiate theoretically and to test experimentally the effectiveness of the implemented innovative research forms and methods in the formation of students' search behavior. To test the hypothesis put forward, methods of scientific research were determined.

The tasks of scientific research:

- to clarify the essence and content of the concept of "exploratory behavior of student of international profile";
- to determine the structural and component composition and the criteria for the students' search behavior of an international profile;
- to test innovative research forms and methods, to increase the level of students' search behavior (ascertaining, forming, final stages).

5. Research Methods

Research methods are: theoretical (analysis and synthesis of psychological and educational literature, systematization and comparative analysis of the results) and applied methods (observation, questioning, testing, experimental work, mathematical methods for processing experimental data). Theoretical methods of analysis and synthesis used in the study made it possible to solve the first task - to clarify the essence and content of the concept of "exploratory behavior of student of international profile". As part of the refinement of the concept of "exploratory behavior of student of international profile", we rely on the concept of search activity, whose essence lies in the fact that the search activity of a person not only contributes to an increase in the level of intellectual knowledge, but also largely determines the resistance of the organism to harmful influences on various forms of human behavior. Passive reaction of the person to the need to engage in the search for necessary knowledge, activity, vigor, scientists consider as a person's refusal to find an acceptable situation, unwillingness to find a positive solution to the problem, makes the person's position sufficiently vulnerable (Milovanova, Kharitonova, Fomina, & Dyker, 2017). Based on the definition of the term "behavior" as a special kind of human interaction with the environment, mediated by external and internal activity (Almukhanova, 2007), we resorted to the "concept of behavioral modeling", where behavior is viewed as a set of actions united by a single style, committed by a person according to one's own views, beliefs, "knowledge" (Jeremy, Schweitzer, & Nurmohamed, 2016). Analysis of the scientific literature showed that the students' search behavior is primarily the prerogative of youth, its marker, when the life trunk routes, the aspiration to self-expression, the realization of individual meanings of life. Student youth today is at the mercy of huge amounts of information and knowledge the flows of which are continuous and immense (Voevoda, Belogurov, Kostikiva, Romanenko, & Silantyeva, 2017). Inadequate preparedness of the individual for the search, perception and processing of the information obtained are the causes of the uncertainty factor. But it is the search behavior in conditions of uncertainty that can lead to active behavior and the effectiveness of the individual. This phenomenon was deeply substantiated by Arshavsky and Rotenberg (2015), who note that "the condition of uncertainty, when

a person does not have the opportunity to predict the results of his activity with absolute certainty, makes him initiative, energetic, and sometimes "warlike" in his search." That is, to be militant in the search for the necessary scientific knowledge and the search for truth means a constant readiness of the individual to cope up with difficulties, manifestation of will, irreconcilability to failure. Indeed, a student in the course of exploratory behavior, in conditions of uncertainty in achieving the final result, can not state whether his searches will be successful or unsuccessful. But he has the ability to assess each step, every intermediate result, while he goes to the ultimate goal, and therefore to adjust his own behavior, to change the forms and methods of search activity. These characteristics of the search behavior distinguish him from the panicky behavior of the person, which is also fixed in conditions of uncertainty, but with an increased level of emotionality, excitability that does not allow him to correct his mistakes, to learn lessons and to move on. Student age is a special socio-demographic group, active, sensitive to innovation. The role of convictions, interests, motives determines the needs of students to develop their knowledge and professional competencies that contribute to effective adaptation in a rapidly changing world. This circumstance reinforces the need for students to develop an international profile of search behavior, development of creative talents (Golenkova, Kosharnaya, & Kosharny, 2018). Relying on the materials of domestic and foreign scientists we came to understanding that the exploratory behavior of a student of international profile is the behavior of a person in conditions of uncertainty, stimulating his activity, effectiveness in the international sphere, the ability to be concentrated in professional knowledge, to be interested in international issues that allowed to proceed to the solution of the second task of the study - to determine the structural and component composition and the criteria for the exploratory behavior of the international student. We related to them: the education of will, cognitive activity in the international sphere, the aspiration of the individual to get knowledge. The volitional component occupies an important place in the search behavior, because will, as the highest mental function, allows a person to own his own behavior and mental processes. The development of the will is carried out throughout the life of the person, but in the student age the role of willful regulation, orientation to the active construction of the "architecture of one's own destiny" increases (Shishlova & Kuritsyn, 2017). The following element of search behavior is closely related with self-control: cognitive activity in the international sphere as a student's ability to create socially significant products for the transformation, improvement of quality of international relations. The main motivator of the mechanism of cognition is interest, enthusiasm, therefore it is inseparable from the following element of search behavior: the individual's aspiration for knowledge, which presupposes the ability of an international student to focus on professional knowledge, to be interested in international issues. It is known that each person is born with inclinations to various activities and each person is naturally curious and is full of the desire to learn something new. And if these inclinations are "groped" and developed in the student's age, they will inevitably develop into persistent search behavior. In order to start solving the problem of the formation of student behavior in student's youth it was important to establish an understanding of how students already possess a certain level of qualities of search behavior - will, cognitive activity, individual aspiration to get knowledge. The listed questions were the third task of the research - to test in practice innovative research forms and methods for increasing the level of search behavior of students in the determining, forming and final stages.

The tasks of the ascertaining stage of experimental work included: selection of experimental and control groups from 1st year students of MGIMO faculties - International Journalism and International Economic Relations; selection of diagnostic techniques to identify the initial level of qualities of search behavior from both groups. To determine the level of strong-willed qualities, we resorted to the "Method of independent investigation of volitional qualities" developed by Ilyin (2014).

The methodology contains 3 sections (Perseverance, Self-control and Resistance, Courage and Decisiveness), in each of which there are 15 question-statements, which allow using the answers "Always", "Sometimes", "Never" in order to diagnose the levels of strong-willed qualities of the students of experimental group (EG) and control group (CG). The limited volume of the article does not allow us to state all 45 questions, but we will give just a few: "Is it difficult for you to keep your promises?"; "Having established the regime of the day, do you easily violate it, etc. The key was the position established by the Methodology: positions number 1, 6, 8, 11, 17 were assigned to the high level, high degree of volitional qualities; the average level was 10, 13, 14, 15, 19; low level positions were: 2, 3, 4, 5, 7, 9. As a result, a high level of formed willed qualities amounted to only 20% of EG and 23% of CG; the average level in EG was 31% and in CG it was 42%; in EG low level was 49% and in CG it was only 35%. Then we started to diagnose the student's cognitive activity in the international sphere as a manifestation of activity towards international politics, the student's ability to create significant products to transform the sphere of international relations. With this purpose we compiled an author's Questionnaire-test, which included more than 20 questions, the answers to which in a short essay indicated high, medium or low activity: Describe the international project "Ecological Culture. Peace and Consent-2018, "Indicate the goal and objectives of the international project" Arctic and offshore projects: prospects, innovations and development of regions"; "Define Russia's strategy in developing the Arctic in cooperation with foreign partners," "Do you participate in the game" UN Model? ", "Assess your activity in the participation of international conferences"- more than 2 times a year, once a year, do not participate), etc. The key to identifying the levels of cognitive activity of the student was the analysis of written answers - essays. If the student answered positively from 15 up to 20 questions, he had a high level of activity (32% EG and 38% CG); from 5 to 14 - the average level was 44% in EG and 46% in CG; from 1 to 4 low level was 24% in EG and 16% in CG. The next component that underwent diagnostics was the individual's aspiration for knowledge based on interest and attraction to international issues. To solve this problem we used the method which is entitled "assess the level of development of one's own purposefulness" written by Averdova (2011). Affirmatively or negatively the students answered 40 questions (1. Responding to the invitation to take part in an international conference, I always clearly know what I want to achieve, 2. My interests are stable and I know exactly what I need to strive for. 3. I do not quite clearly represent what to look for when studying for an internationalist 4. I rarely think about how knowledge can be applied in the international sphere, etc.), after which scores were calculated. Each positive response was rated at 1 point, negative - 0 points. Having counted the scores we came to the conclusion: in EG high level of aspiration amounted to 18% and in CG - 23%; in EG an average level was 27% and in CG it was 33%; in EG low level was 55% and in CG it was 44%. We put the results into a table (Table 1).

Table 01. Formed students' levels of structural elements of search behavior in EG and CG at the staggering stage (2016-2017) from 100%.

Levels	Volition		Activity		Aspiration	
	EG	CG	EG	CG	EG	CG
High	20	23	32	38	18	23
Average	31	42	44	46	27	33
Low	49	35	24	16	55	44

To identify the average component of the levels of formation of search behavior we resorted to the formula of the average value where:

x_i - values for the average calculation;

\bar{x} - average, where the bar indicates that there is averaging of individual values;

f - frequency (repeatability of individual characteristic values).

Different averages are derived from the general formula of the power mean:

$$\bar{x} = \sqrt[k]{\frac{\sum x_i^k \cdot f_i}{\sum f_i}} \text{ at}$$

$k = 1$ is the arithmetic mean of the volitional element;

$k = -1$ - the average harmonic active element;

$k = 0$ - the average geometric aspiring element;

Levels of the main elements of the search behavior of the students of the Experimental group: High level: $(20 + 32 + 18) : 3 = 23.4\%$; Average level: $(31 + 44 + 27) : 3 = 34.0\%$; Low level: $(49 + 24 + 55) : 3 = 42.6\%$. Levels of the main elements of the students' search behavior of the Control group: High level: $(23 + 38 + 23) : 3 = 28.0\%$; Average level: $(42 + 46 + 33) : 3 = 40.4\%$; Low level: $(35 + 16 + 44) : 3 = 31.6\%$. The levels identified are shown in Fig 1.

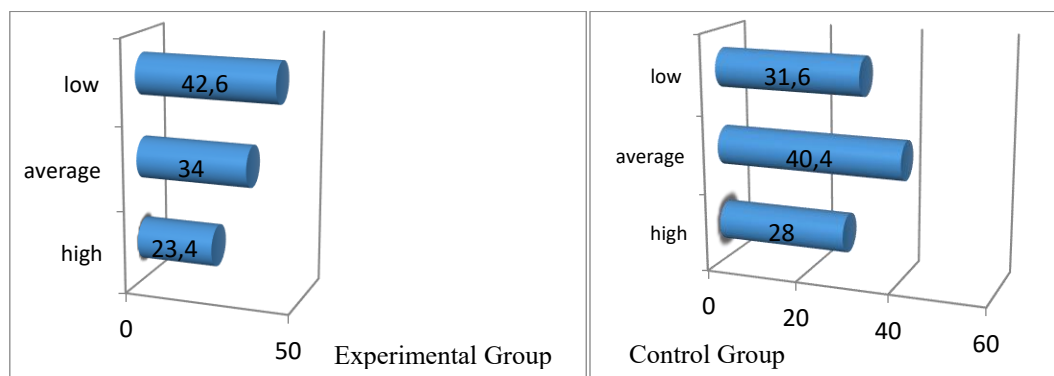


Figure 01. Formed levels of search behavior of students of EG and CG in the ascertaining stage (2016-2017) from 100%.

Having analyzed the obtained data of the current stage of experimental work, we came to conclusion that the results are quite similar in all parameters and elements that make up the level of the search behavior of both the experimental and control groups, and the results are far from ideal indicators approaching 100%.

To change the indicators we proceeded to the forming stage of the experimental work, the tasks of which were as follows: to change the psychological, pedagogical and didactic conditions by introducing

innovative technologies and methods that could change the level of student search behavior in the educational process of the experimental group. Note that at this stage the students of the control group were excluded from the process in order to compare the obtained data of both groups at the final stage and confirm the effectiveness of the proposed technologies. Within the framework of the conducted classes at the course "Fundamentals of Scientific and Research Activities", a project technology was used, the effectiveness of which is determined by the activity type, developing and problematic principles in its basis. The project method, originated in the last century, developed by American scientists (John Dewey, Patrick Kilpatrick), suggests active and expedient activities of participants motivated to accumulate existing and acquire new knowledge. Appearing from the idea of free education, the design method has become an important component in the formation of research skills of students, stimulating interest in international problems, providing practical application of the knowledge gained in practice. The international projects selected by the students contributed not only to deepening and integration of existing actual knowledge, but also to the acquisition of new ones, the expansion of search activity, research logistics, for the use of rational methods and for optimization of search management (Hagmann & Lebedeva, 2016). It is important to note that the students selected the international theme of the project activity independently, following their own interests, hobbies in the theory of international relations, forthcoming promising scientific research (coursework, diploma, thesis). Projects in the field of international economic relations were carried out in several stages and set specific goals - attracting students' attention to pressing international economic problems; inclusion of students in actual practical activities; the analysis and the search for ways to resolve issues in the international economic sector. Goals determined the tasks: development of social-personal and project competencies; replenishment of knowledge, skills and professional competencies through obtaining additional information in the field of international relations; formation of teamwork skills, volitional efforts, cognitive activity, aspiration to knowledge. The prepared projects were defended in the framework of annual scientific and practical conferences, the materials of which were published in annual collections (series "Youth and Society: Development Strategies in the Conditions of Social and Economic Transformations"). Here are some of the projects: "Livestock development in the context of the EU and US policy on the example of the Belgorod region", "National interests of the Scandinavian countries in the Arctic in the field of rational development of natural resources", "The role of the Skolkovo Innovation Center in the joint projects of the BRICS countries development of IT technologies", etc. By the analogy of the Russian project "Kiberleninka", it was created its own educational portal website accessible in the form of MGIMO to students and teachers with the goal of not only acquainting themselves with the placed scientific articles of students, but also, if desired, writing a review on them, than more than half of the students of the Experimental group (more than 53 people out of 75, which contains 75.7%). Another form of research activity in improving student search activity was a scientific article as a logically completed study of a selected international problem by means of scientific method. Review of scientific articles prepared by the students of the Faculty of International Relations were summarized, analyzed, evaluated by the jury and further awarded with diploma degrees (I, II, III) during the conference presentations, which stimulated the analytical and research activities of students for the future. Along with the effective forms of research and development, the students conducted trainings: on development of strong-willed qualities "Technique of Will Development" (exercises - "Purpose-Effort", "Feel the Will-Strong Muscle", "Will and

Communication," "Your Desktop" etc.); on "Achievement of the goal" (exercises - "Board and imagination", "I will manage", "Modeling the goal"); training on the development of communicative qualities that ensure effective work in the team with E.N. Makhmutova (Makhmutova, Andreeva, & Dmitrenko, 2018). The implemented formative stage solved the tasks which were set, demonstrated the high efficiency of the implemented forms and methods, innovative technologies in the matter of quantitative and qualitative increase in the level of student search behavior. This thesis was proved by the final stage of the research, whose tasks were to apply them again using the same diagnostic techniques that were involved at the initial stage, ensuring high reliability of the results obtained. Note that at this stage we returned the students of the CG in the experiment, which along with the students of the EG were subjected to the diagnosis of levels of search behavior. To determine the level of strong-willed qualities, we resorted again to the "Method of independent investigation of volitional qualities" developed by Ilyin, who created questions that demonstrate the level of strong-willed qualities. Now the students of the EG, which we attributed to the high level, replenished the number and amounted to 41%, improving the result by 21% and 33% of the CG, adding only 10% to the total; the average level was 48% of EG, increasing the number by 10% and 45% of CG, replenishing the group only by 3% of students. Now the number of low-level students was only 11%, improving the result by 38% compared with the initial stage. The low level of students was 22%, reducing the number of weak students by only 13%. The same analysis was conducted on the formation of 2 other qualities, elements of search behavior. We also identified the level of cognitive activity, using the author's test (20 questions on international topics), which showed the effectiveness of applied techniques and technologies. As a result, a high level of activity was 62% EG and 43% CG; an average level of 30% EG and 39% CG. Low level was significantly reduced in the EG due to the "overflow" of students in the group of high and middle levels - 8% EG and 18% CG. The next component that has been diagnosed is the individual's aspiration for knowledge, based on interest in international issues. To solve this problem, we used the Methodology "Assess the level of development of one's own purposefulness". Having calculated all the scores, we came to the conclusion: now the high level of aspiration was 57% of EG and 31% of CG; the average level was 40% EG and 49% CG; the low level decreased and amounted to: 3% EG and 20% CG.

To identify the average component of the levels of the formation of search behavior, we resorted to the formula of the average value, having received the levels of the basic elements of the search behavior of the students of the Experimental group: High level: $(41 + 62 + 57) : 3 = 53.4\%$; Average level: $(48 + 30 + 40) : 3 = 39.3\%$; Low level: $(11 + 8 + 3) : 3 = 7.3\%$. Levels of the main elements of the search behavior of the students of the Control group: High level: $(33 + 43 + 31) : 3 = 35.6\%$; Average level: $(45 + 39 + 49) : 3 = 44.4\%$; Low level: $(22 + 18 + 20) : 3 = 20.0\%$. We put the results into diagram 2.

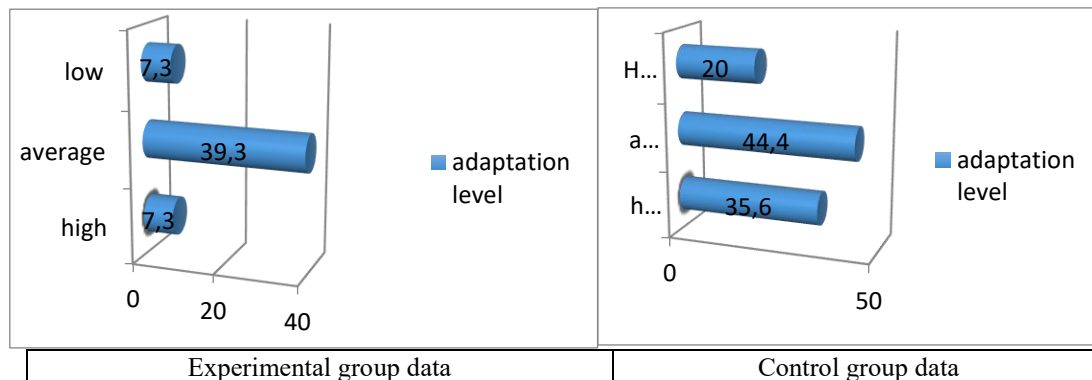


Figure 02. Formed levels of search behavior of students of EG and CG at the staggering stage (2016-2017) of 100%

Having analyzed the obtained data of the final stage of the experimental research, we came to conclusion that the results have significant difference. The students of the EG, included in specially organized psychological and pedagogical conditions, showed better results than the students of the CG, significantly increasing the level of search behavior and its basic qualities - strong-willed efforts, cognitive activity and purposefulness, presupposing the ability of an international student to focus on professional knowledge, to issues of the international sphere.

6. Findings

Having formulated the aim of the research in the article - to substantiate and verify in practice the effectiveness of the proposed effective forms and methods for increasing students' level of search behavior - we turned to analysis of scientific literature, relying on the well-known domestic concepts and foreign scientists. Analysis of scientific literature showed that the students' search behavior is primarily the prerogative of youth, its marker, when the life trunk routes, the aspiration to self-expression, the search for and the realization of individual meanings of life. The research question consisted in verifying the hypothesis of correlating the introduction of the international profile of innovative research forms and methods into the process of professional training of the student and improving the level of his search behavior. It can be concluded that the implemented technological complex demonstrated its own efficiency and productivity, significantly changing level of search behavior of students of the international profile in the direction of increase. The high reliability of the study is determined by a complex of selected verified diagnostic methods and techniques, which led to the conclusion that the research goal has been achieved, the tasks have been solved.

7. Conclusion

Today University science is a significant productive force, determining the level of economic, scientific and technological changes in society. The university was able to carry out the process of development of different sciences, transferring scientific baggage to subsequent students. The science of higher education has increased the role of student search behavior and activity in all scientific fields, capable of solving many international, geopolitical, social and economic problems of the country. The decision in this article of tasks and the achievement of the goal of research does not pretend to be a comprehensive

statement of the problem. Beyond the article there are scientific issues that require urgent resolution, since from all countries the country that is ahead of others in the field of technology, scientific product and mental activity will always be advanced and prosperous.

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