THE FORMATION OF RESEARCH ABILITIES IN STUDENTS QUALIFIED IN INTERNATIONAL RELATIONS ON THE EXAMPLE OF ACTIVE FORMS AND METHODS OF SCIENTIFIC ACTIVITY*

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Abstract: The topicality of the studied problem is conditioned by the long-standing need for change of student of international relations qualification's performing activity from traditional to task and research one of creative character, which encourages recognition and increase of innovative ideas and experience on the international stage. Therefore, the main aim of the study lies in substantiation and empirical test, based on the practice of university, of the complex of active forms and methods of student's scientific activity in the formation of research abilities in students of international relations qualification. The leading approach to the study of this problem is an experiment, which provides test on efficiency of innovations within the formation of research abilities in students of international relations qualification. It is determined that structured composition of criteria, values and level characteristics encourage the formation of future international relations expert's scientific research activity; the development of experimental program.

Keywords: international relations expert, active forms and methods, composition, criterion, diagnostic method.

According to FSES of Higher Education, among other professional international relations expert's competences there were pointed out not only theoretical knowledge of international relations, foreign languages but also practical scientific activity and strong analytical skills1. State's requirement for thoughtful international relations expert, who is responsible for national security, was proved with recent V.V. Putin's speech at the Meeting of ambassadors and permanent representatives of the Russian Federation in the Ministry of Foreign Affairs of the Russian

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Federation. There were discussed key tasks of Russian diplomacy, which denoted further steps towards realization of Moscow foreign policy course, development of international humanitarian connections, scientific projects carried out together with groups of young scientists. In addition to this, university internship proves that future international relations experts' research abilities are weak, regardless many existing practical developments and profound researches devoted to this issue. Therefore, nowadays the developments of student's research abilities oriented to scientific research activity is crucial task of international relations expert's professional training. With the view to define the fundamental notion "research abilities of the student qualified in international relations", the original academic concept is used, which is aimed by the need for development of mechanism of search activity and research skills gained with scientific projects and scientific forecast of international activity. Nowadays, there are theoretical conditions for study of person's research abilities, their diagnostics and development in adolescent period (I.P. Volkov, V.N. Druzhynin, V.T. Lisovskii, A.M. Matiushkin, E.L. Melnikova, V.I. Chuprov, O.K. Tihomirov etc.). In spite of considerable number of works devoted to this topic, we concluded that the problem of research abilities of students qualified in international relations has not been analyzed yet. Therefore, the analysis of this problem within professional training of the student qualified in international relations is not only actual, but also should become the subject of psychology and pedagogical reflection.

The aforementioned allowed us to distinguish in the work number of contractions, approval of which should encourage efficient formation of research abilities in students qualified in international relations:

- on the social-pedagogic level – between Federal State Standard (FSES of Higher Education) requirement for the student's formation of skills of analysis of current international life and permanent development of knowledge in all international relations, strong research abilities and their insufficient development in psychology and pedagogic literature;

- on scientific-theoretical level – between need for change of student of international relations qualification's performing activity from traditional to task and research one of creative character and insufficient theoretical basis of this process in scientific literature;

- on didactic-methodical level – between the need for modern international relations expert to be capable of recognition and increase of innovative ideas and experience in the sphere of international relations and
insufficient methodological development of this issue within professional training at universities.

With account of the issue at hand and determined contradictions, research aims are – to substantiate and experimentally test in university practice the complex of active forms and methods of student's scientific activity, which encourage efficient development of his/her research abilities.

The hypothesis of this study lies in that finding new meaning of the leading for this study category "research abilities of the student qualified in international relations", developing new composition, criteria and levels of the formed research abilities, developing diagnostic and technological complex for the improvement of their level, we will get dynamics in development of students' research abilities level and prove the efficiency of the suggested active forms and methods of scientific research activity.

According to the aim and hypothesis of the study, the following article tasks were determined:

- to define new meaning of the leading for this study notion "research abilities of the student qualified in international relations";
- to develop composition, criteria and levels of students' research abilities;
- to build diagnostic and technological complex, which causes the determination of dynamics in development of students' research abilities;
- to demonstrate the dynamics in development of students' research abilities level.

The scientific novelty of the article lies in that there for the first time:

- is widen notional and categorial pedagogic apparatus of higher education due to specifying and widening the notion "research abilities of the student qualified in international relations";
- are determined composition, criteria and level characteristics of future international relations expert's formed research abilities (cognitive, analytical, search, communicative);
- is developed the experimental program, including complex of active forms and methods, which effectively form student's research abilities.

Literature review
Questions of the formation of research abilities were studied in works of national\(^2\) and foreign\(^3\) scholars. There are also enough articles, theses and monographs devoted to young students' capacity for scientific research activity\(^4\).

If term "ability" means "mastered by subject action supported by gained knowledge", then research abilities mean certain system of intellectual and practical knowledge, which are being gained in the process of solution to research task\(^5\). In spite of the existing number of researches, which cover the problem of research abilities development, there are many problems without solution concerning notions of "ability" and "skill", their combination and relatedness. A.S. Voronin thinks "skill is higher level of mastering technological exercises, operation actions, than abilities". This is no accident, since skill (skil) means "certain action, which becomes automatic owing to regular exercises"\(^6\). In addition to this, several scholars (A.Z. Punı, P.A. Rudik) argue against that term "skill" is related to automatic actions, since automatism usually presupposes no thinking.

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\(^3\) B. Arch, Education and Creativity. *Creativity Research Journal*, 2016, vol. 2, no. 4, p. 100-111


reasonability, meaningfulness, and human control. Some scholars equate these notions, someone differentiates their meaning explaining the sequence and stages of their formation. This scientific controversy is not of an essential character, because all points of view concerning relatedness of notions "ability" and "skill" can exist. However, if we pay attention to the meaning of words "capable man", "capable worker", "capable expert", "capable diplomat", they presuppose certain employer's expectations: resourcefulness, quick, quality and proper task performance, which are of theoretical and practical bases including fundamental (theoretical) knowledge and practical skills. Here the illogical character of division of abilities and skills is observed and clear chain and sequence of research skills formation are shown: "knowledge – ability – skill – abilities of higher level – research abilities". Therefore, in this study we adhere to L.A. Karpenko's psychological approach to the understanding of the formation of students' research skills, which presuppose the unity of intellectual practical knowledge and skills that a person masters when solving problematic research tasks and forming abilities of higher level – research abilities.

**Materials and methods**

In order to solve research tasks, the following research methods were used: theoretical (analysis of psychology and pedagogic and methodological literature, synthesis, generalization; applied (observation, questionnaire, test, diagnostics, experiment, methods of mathematical statistics and exposure of average value).

The research with development of theoretical-methodological and applied bases has been carried out for 3 years from 2015 till 2018 based on FSES of Higher Education in MGIMO University including 50 students of the first year of studying of the Faculty of International Relations, (students of Experimental group). Control group consisted of 50 students of the Faculty of International Journalism.

The research was carried out in three stages:
- at the first, ascertaining, stage psychology and pedagogic literature was analyzed, the research methodology, basic approaches and methods were determined, list of components and criteria of students' research abilities and their formed levels were defined;
- at the second, forming, stage the developed complex of active forms and methods of scientific activity, which encourage more efficient formation of students' research skills and searching behavior, was tested;
- at the third, final, stage the conclusions were drawn and profound analysis of the received dynamics of students' formed research abilities was carried out, the efficiency of the complex of active forms and methods of scientific activity was proved.

Results and discussion

During the development of composition of research abilities authors took as a basis N.G. Komlev's definition of term "component" as "constituent, element of anything". In this dictionary a criterion is defined as "significant, distinctive feature, based on which the assessment, definition or classification of anything is accomplished". While determining composition of formed research abilities and their criteria, we base on the need for the assessment of its separate elements, which are certainly studied in the complex, and which characterize general connections for prolific scientific work.

Stages of Experimental Research of the Formation of Research Abilities in Students Qualified in International Relations by Implementation of Technological Complex

- determination of initial level of students' research abilities formation using methods of tests, questionnaires, pedagogic observation, mathematical manipulation of research results.
- development and implementation of active forms and methods, which encourage successful formation of students' research abilities.
- determination of the final level and dynamics of students' research abilities formation.

Ascertaining stage

Taking as a basis analysis of developed psychology and pedagogic literature, which reflects the sense and meaning of international relations expert's research abilities and skills, we concluded that basic structural components of the analyzed international relations expert's feature are: cognitive (knowledge of analytical ways and methods of creative activity); analytical (capacity for analysis); searching (searching skill; ability to find information); communicative (communications skill for discussion). In order to determine the initial formed level of analytical ways and methods of students' creative activity, we resorted to original questionnaire "Do you

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8 D.Y. Raygorodskai, Practical diagnostics of basic professional individual traits, Neva, Saint Petersburg, 2016.
know that...?", which showed how well students are aware of analytical ways and methods of scientific research activity. Students got the following questions: 1. Define the notion "systemic analysis". A student should explain what the systematization of the received information in international relations, chronology of international topics, facts and factology mean; 2. What do you understand by the notion "comparative analysis"? A student should have named known to him/her comparative methods, which allow comparison of phenomena and objects of international life; 3. What are inductive and deductive methods, in your opinion? A respondent should have explained the way the statement is built in; 4. Do you know what expert questionnaire or focus group method mean? A student should have explained who and on what grounds was involved in judgment of any phenomenon; 5. What is, in your opinion, modelling method? A student should have explained what object features could transmit on model and what its characteristics were. There were 30 similar questions. The key to determine the level of students' knowledge of analytical ways and methods is the following: if a student answered 20-30 questions, he/she got high level. There were 22% of such students in experimental group (EG) and 31% in control group (CG). If a student answered 5-19 questions, then he/she got moderate level. There were 41% in EG and 48% in CG. Students, who answered 1-4 questions, got low level. There were 37% in EG and 21% in CG of students with low level.

The next component is the ability of analytical activity. It was studied with the help of A.A. Karelin's methodology "Study of student's analytical ability". EG and CG students were divided into pairs of experiment subject and experimenter. Students exchanged their roles between each other. Everyone got a paper with 15 rows of numbers placed in a certain sequence. Students should have defined the pattern of each row. Then they should have continued the row with 2 more numbers. They had 10 minutes to accomplish the task. For data manipulation the Key in shape of Numerical Table 1 was used.

Number of right answers determines level of analytical abilities: high level – 11-15 rows completed (29% in EG and 31% in CG); 10-13 rows – moderate level (34% in EG and 37% in CG); 6-12 rows – low level (37% in EG and 32% in CG). The level of next feature to determine was searching ability. It is known that the ability to find the needed professional information is the most important feature of high-qualified expert, which contributes to student’s self-directed work.
Table 1: Numerical table for row pattern determination

<table>
<thead>
<tr>
<th>Row number</th>
<th>Next numbers in row</th>
<th>Row number</th>
<th>Next numbers in row</th>
<th>Row number</th>
<th>Next numbers in row</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20; 22</td>
<td>5</td>
<td>13; 5</td>
<td>9</td>
<td>2; 6</td>
</tr>
<tr>
<td>2</td>
<td>42; 54</td>
<td>6</td>
<td>1, 6; 1/16</td>
<td>10</td>
<td>382; 428</td>
</tr>
<tr>
<td>3</td>
<td>224; 456</td>
<td>7</td>
<td>84; 100</td>
<td>11</td>
<td>40; 33</td>
</tr>
<tr>
<td>4</td>
<td>19; 22</td>
<td>8</td>
<td>8; 6</td>
<td>12</td>
<td>17; 14</td>
</tr>
</tbody>
</table>

Systems, which help student search for needed information, are called search systems. Familiar to a student, common search engines are library catalogues, reference works, encyclopedias etc. Search engines, which allow search among electronic documentary base, are more actual nowadays. It is well known that information search consists of 4 stages, therefore, we aimed to find out whether a student knows the sense and sequence of searching activity and is aware of these stages. With this view, we used Fitzgerald Carlin's Methodology (F. Carlin) "Search request", which consists of 25 questions. Answers to these questions show whether a student is able and ready to search on a certain level⁹. Examples of questions: What types of search do you know (full-text search, metadata search and image search)? Can you clearly shape an information request? Define set of existing database and electronic sources. In your opinion, in what way should the needed information be properly extracted from the database? How, to your mind, can the efficiency of search result be right evaluated? There were more 20 questions. The key to Methodology: if a student gives right answers to 15-25 questions, he/she gets high level of searching ability; right answers to 5-14 questions correspond to moderate level; answers to 1-4 questions correspond to low level. Among students of both groups, 34% in EG and 38% in CG got high level; 42% in EG and 40% in CG got moderate level; 24% in EG and 22% in CG were of low level. The last (4th) component, which is quite important for developing research abilities, is communications skill. It is necessary for holding discussions, asking questions, talking to partners in common project etc. In order to determine primary level of communications skills in EG and CG, we resorted to "The Methodology of Determining Communications and Organizational Capacities" developed by V.V. Siniavskii and B.A. Fedorishin. Students familiarized themselves with instructions: look through questions (40), give an answer "Yes" or "No". Task time – 10-15 min. Examples of questions: Do you intend to get to

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⁹ D.Y. Raygorodraskaia, Practical diagnostics of basic professional individual traits, Neva, Saint Petersburg, 2016.
know people and get acquainted with different people? How many friends do you have, who you regularly talk to? Is it more interesting for you to spend time with books rather than with friends? Is it easy for you to get acquainted with people? etc. Owing to V.V. Siniakovskii and. Siniakovskii and B.A. methodology, we explored that students from EG and CG have certain level of communications skill. After counting all the answers "Yes" and "No", we concluded that more than a half of respondents have communications skill of high level: 56.4 % in EG and 58.7% in CG; 32% in EG and 38% in CG have moderate level; 11.6% in EG and 3.3% in CG demonstrated low level. It is necessary to mention again that when determine the composition of formed research abilities and criteria, we were guided by the necessary assessment of its elements, which we study in complex and that form one professional competence of a student qualified in international relations – research abilities.

Table 2: Average values of formation level of EG and CG students' research ability components at the ascertaining stage (2016-2017)

<table>
<thead>
<tr>
<th>Levels</th>
<th>Experimental group 50 students out of 100%</th>
<th>Control group 50 students out of 100%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cognitive</td>
<td>Analytical</td>
</tr>
<tr>
<td>h/l</td>
<td>22</td>
<td>29</td>
</tr>
<tr>
<td>m/l</td>
<td>41</td>
<td>34</td>
</tr>
<tr>
<td>l/l</td>
<td>37</td>
<td>37</td>
</tr>
</tbody>
</table>

After we had collected all data concerning composition, we determined average value of students' research ability level (Table 2). The following values were introduced: $x_i^k$ – values, where average value is calculated; $\overline{X}$ – mean, where line means averaging individuals; $f$ – frequency (presupposes individual repetition of every studied feature). Total formula of generalized mean:

$$\overline{X} = \sqrt{\sum \frac{x_i^k \cdot f_i}{\sum f_i}}$$

(1)
where
\[ k = 1 \text{ – arithmetic mean of cognitive component;} \]
\[ k = -1 \text{ – harmonic mean of analytical component;} \]
\[ k = 0 \text{ – geometric mean of searching component;} \]
\[ k = -2 \text{ – quadratic mean of communicative component.} \]

### Table 3: The formation levels of EG and CG students' research abilities at the ascertaining stage (2016-2017 a.y.)

<table>
<thead>
<tr>
<th>Levels</th>
<th>EG first year students</th>
<th>CG first year students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>number 50 people</td>
<td>number 50 people</td>
</tr>
<tr>
<td></td>
<td>Ascertaining stage</td>
<td>Ascertaining stage</td>
</tr>
<tr>
<td>high</td>
<td>35.4</td>
<td>39.6</td>
</tr>
<tr>
<td>moderate</td>
<td>37.2</td>
<td>40.7</td>
</tr>
<tr>
<td>low</td>
<td>27.4</td>
<td>19.7</td>
</tr>
</tbody>
</table>

The formed levels of EG students' research ability composition:
High level: \((22+29+34+56.4): 4 = 35.4\%\)
Moderate level: \((41+34+42+32): 4 = 37.2\%\)
Low level: \((37+37+24+11.6): 4 = 27.4\%\)

The formed levels of CG students' research ability composition:
High level: \((31+31+38+58.7): 4 = 39.6\%\)
Moderate level: \((48+37+40+38): 4 = 40.7\%\)
Low level: \((21+32+22+3.3): 4 = 19.7\%\)

Mean determination of all research ability components allowed us to denote their general levels (Table 3).
Results of ascertaining stage (Table 3) show that the basic level of students' research abilities is similar: 35.4% of high level in EG and 39.6% in CG with difference of 4.2%. Moderate level in both groups is almost equal: 37.2% and 40.7% with difference of 3.5%. However, it is to mention that low level of EG research abilities is considerably higher. It is to mention that the represented results of research abilities in EG and CG are considerably lower than reference value of 100%.

For illustrative purposes, authors demonstrated results on Figure 1.
Results of formed EG and CG students' research abilities show need to arrange special psychology and pedagogic conditions, which ensure implementation of active scientific forms and methods in academic process. It can change initial results and provide dynamics of future international relations expert's traits (Figure 2).

**Forming stage**

1. At the second, forming, stage the technological complex was developed and implemented in academic process, what contributes to efficient formation of research abilities; there was focus on teaching and administrative staff at the university; there was analyzed teachers' work, who employ methods and methodologies in their professional activity to form research abilities in students. At this stage, students of Control group were excluded, so that their knowledge and research ability levels could be compared to students of Experimental group's abilities, who were put in specially arranged psychology and pedagogic conditions. Positive potential in research ability formation is represented by active technologies, which ensure development of cognitive, analytical, searching and communicative components. In order to shape cognitive component as the basis of research abilities, we used active form of elective course (36 hours), which not only broadens and improves basic professional knowledge, but also builds individual educational way for
every student and satisfies various cognitive interests, which fall beyond
the program material. The elective course "How to arrange and carry out
a research" presupposed learning the complex of applied lessons.
Throughout the course, students studied analytical ways and methods,
forms and tools of scientific activity (systemic analysis as system building
with certain relations between elements, understanding hierarchy of
elements, their main functions, mechanisms and factors). Within the
elective course there were suggested cases, in the process of which
students analyzed and generalized suggested material, articles on
international life and world events according to their topicality, certain
topics, or chronologically. On "Research methodology" class students
studied main methodological notions of research (problem, contradiction,
object, subject, aim, tasks, hypothesis) and its accomplishment step by
step. The next component of research abilities – student's capacity for
analytical activity – was formed and improved with concrete cases on the
following topics: "Analytics of world events", "Leading specialists and
observers' analytics and opinions on significant world events",
"Geopolitics – news and analytics of global politics" etc. Together with
teacher, in groups and individually students learnt how to evaluate
material, denote its topicality, problem set by author, its main goals and
tasks, to draw adequate conclusions. In order to make the formation of
students' analytical abilities more intensive, it was proposed to not only
write reports on articles from journals of international character, but also
try to prepare by themselves a scientific article. The prepared scientific
articles and reviews under teacher-tutors' authority were represented at
annual (starting from 2013) student conferences and published in annual
collections (series: "Youth and society: development strategies in
conditions of socio-economic changes"). Review articles prepared by
students of the Faculty of International Relations were generalized,
analyzed and evaluated by jury during presentations and then students
were awarded with diploma of different classes (I, II, III). It encouraged
students' analytical and research activities. When choosing scientific
article, students searched and shaped topics by themselves that
encouraged creative activity and freedom of action ("Cattle breeding under
conditions of EU and US selection policy on the example of Belgorod
region", "The role of innovation center "Skolovo" in common BRICS
projects in IT technologies" etc.) By analogy with Russian project
"Cyberleninka", we set up own website as MGIMO educational portal,
which is available for students and teachers, in order to not only look
through students' scientific articles, but also to write report on them. More
than a half of EG students wrote reports on articles (more than 27 people, 54%). Then, we started developing and improving searching component. An efficient method for developing student's searching skills has become method of projects on international topic, which allowed them to not only come up with idea but also implement it in practice. Method of projects, which appeared in the 1920's owing to American scholars, was aimed at participants' active and reasonable activity, who got motivated to gain new knowledge by themselves. Having come from idea of free upbringing, method of projects became an important component in the students' research ability formation, which stimulated interest to international problems and presupposed practical implementation of gained knowledge. Kilpatrick understood by the notion "project" "an activity necessary for the goal". Reasonability of this method lies in its pragmatism directed towards result, which students later analyzed, realized, changed and forecasted its great efficiency. That is the method of projects constituted on practice clearly targeted search and selection of relevant international documents and facts from different sources of information. The realization of projects with the help of searching was one of the main information processes. Aims determined by students, opportunities and character of project realization depended on needed information, its importance, availability, and abilities to select needed information. In addition to this, search means played an important role – internet technologies and software tools, which are available to students and allow searching of needed information at any time, practically in any place on any request. There was a research project on international topic, which got high grade from participants and jury (I Class Diploma) called "Development of Russian and American relationships and national economics modernization on the example of collaborative Arctic development preserving indigenous people's social life, flora and fauna". A group of students (4-5 people) with IR qualification worked on projects. It shaped in them the ability to work in team, listen to and understand each other, the ability to build partnership and respectful relationships. Aim of the project: to draw students' attention to actual international problems of preserving indigenous people's social life, flora and fauna in

Arctic in the framework of Russian-American relationships (you can find detailed information about research projects in collection of student works).

As previously mentioned, one of the most important research ability components is *communications skill*, which a student needs, in order to hold discussion, get in touch with people, maintain the connection and give good impression. A student with communications skills is able to advocate own interests by means of selected facts and arguments, because success/failure of communication is assessed with how close a student approaches the aim. The previous (ascertaining) stage, when the primary level of EG and CG students' communications skills was evaluated with the help of V.V. Siniakovskii and B.A. Fedorishin's methodology, showed that more than a half of students have certain communications level (29 out of 50 students in EG and 30 out of 50 students in CG). Nevertheless, this result is far from perfect, therefore, we set a task to brush up on communications skill and increase number of EG students having this skill. Practice proves that the most reasonable method in the work with students is *training*, which represent direct work with an individual. Because during training, skills, which are important for achievement of goals, are formed\textsuperscript{12}. We have chosen method of training, since it is quite intensive, short-term, highly motivational for development of lacking skills. We adjusted and changed training "Understand me" (18 hours) on developing communications skills, which is founded by renowned practical psychologist A.A. KALAGANOVA. What is more, we complemented this training with different learning techniques: visual informational lecture in the form of message; situation building and its analysis; gaming method; exercise of questioning; information exchange as a way of knowing each other; interaction, tactile in particular (exercises "Train", "Know by handshake"), which develops mutual trust; work on speech of different intonations for successful discussion; imitation, brainteasers. The goal of training was represented with three subgoals: *educational*, as a desire to exercise will to overcome barriers in communication and to exercise an interest to communication with people as an essential human ability and achievement; *didactic*, as solidification of knowledge and vision of communication as an information exchange, mutual understanding and communication mechanisms; developing, as an efficient communication

progression. The goal goes along with the following tasks: to show students great opportunities in connection establishment in different situations; to improve skills of understanding other people, who have different opinion, outlook, vision and status; to acquire listening skills. Training was followed by multimedia presentations "People and communication", "Non-verbal signals", "Say with one word"; original movies on professional communication of international journalists "High-level diplomacy" by Leonid Mlechin, "An Alphabet of international communication" by Y.M. Rybakov, "Intercultural communication under globalization" by A.A. Ahtamzian, "Intercultural communication and international cultural exchange" by N.M. Bogoliubova; cards with notions and definitions of emotional state for exercises, and also pencils, pens, Whatman paper, ball, flip chart with color markers, interactive board. Course of training: (EG students are divided into 4 groups of 10-12 people). Training included stages (organizational moment; cognitive activity actualization in the form of quiz; main part – warm-up and exercises; movies and their analysis; test "Do you like conversations?"; analysis of communicative situations "Contacts", "Business lunch with a stranger", graphical dictation; kinesics – non-verbal gestures, mimicry, postures; closing – material solidification, conclusions, goodbye ritual with handshake and saying "It was nice to talk to you", "I will be glad to see you again", "I hope you felt comfortable talking to me").

Summary of the forming stage was accomplished with content analysis of materials and documents (tests, scientific articles, project preparation and presentation, training materials, drawings, notes, graphs), which allowed us to determine the increase of students' research ability level. Tasks of the forming stage were completed and goal was achieved owing to the designed complex of active techniques and technologies: elective course "How to arrange and carry out a research" aimed at learning the complex of applied lessons. Throughout the course, students studied analytical ways and methods, forms and tools of scientific activity (systemic analysis as system building with certain relations between elements, understanding hierarchy of elements, their main functions, mechanisms and factors). Cases: "Analytics of world events", "Leading specialists and observers' analytics and opinions on significant world events", "Geopolitics – news and analytics of global politics" etc.; practical seminar "Research methodology", where students studied main methodological notions of research (problem, contradiction, object, subject, aim, tasks, hypothesis) and its accomplishment step by step; involvement in writing reviews and reports on articles in journals on
international topic; writing scientific articles together with tutor ("Cattle breeding under conditions of EU and US selection policy on the example of Belgorod region"); projects ("Cattle breeding under conditions of EU and US selection policy on the example of Belgorod region", "Scandinavian national interests in Arctic regarding rational development of natural resources", "The role of innovation center "Skolovo" in common BRICS projects in IT technologies" etc.); training "Understand me" (18 hours) on developing communications skills. The implementation of innovative techniques and technologies, effective forms and methods formed EG students' research abilities of rather high level: as far as cognitive component of research abilities is concerned, students have become more aware of analytical ways and methods of creative activity, started using methods of analysis, synthesis, generalization, showed the capacity for international material analysis, proved that they can search and find the needed material for writing a scientific article, project preparation or reviewing the collected material. In addition to this, students from Experimental group demonstrated cohesive work in team, abilities to hold discussion, ask questions and answer them. Therefore, task of the next final stage lied in another diagnostics by means of the same diagnostic methods and methodologies, which were used in the ascertaining stage, in order to prove that the formed research ability level is true; to provide the dynamics analysis of developing students' research abilities compared to ascertaining stage and confirm the efficiency of active scientific forms and methods implemented in academic process.

Final stage

In order to determine the final level of cognitive component, analytical ways and methods of students' creative activity, we, as at the ascertaining stage, resorted to original questionnaire "Do you know that...?", which showed how well students have become aware of analytical ways and methods of scientific research activity. Students got the same 30 questions as at the ascertaining stage with the same Key, which allowed us to denote the levels of formed cognitive component. Now there are more than 67% of students in experimental group (EG), who demonstrated high level, and only 44% in control group (CG). If comparing results, number of students has increased from 22% to 67% adding to this group 45% or 34 students out of 50. Number of EG students with moderate level has decreased, because many of them went to high-level category and now it amounts to 30%. CG students with moderate level are 49%, increasing only by 1%. There were only 3% in EG and 7% in CG of students with low cognitive component level. It means that there were less EG students with low cognitive level than in control group. The next
analytical component was also studied with the help of A.A. Karelina's methodology "Study of student's analytical ability" by means of arithmetic task. Now analytical ability level had the following results: EG students demonstrated high level – 53%, increasing number of students by 24% and 36% in CG showed a little increase by 5%; moderate level was also increased in EG – 42%. CG students remained on the same level and amounted to 37%; low level in EG has considerably decreased from 37% to only 5%. Number of CG students with low level has also decreased to 27%. The next feature to be determined was searching ability.

With this view, we also used Eric Fishman's methodology "Search request" (translated by T.A. Reitman), which consists of 25 questions. Answers to these questions show whether a student is able and ready to search on a certain level. The Key to this methodology is the same as at the ascertaining stage. Now among students of both groups, high level was demonstrated by 64% in EG increased by 30% and 42% in CG increased by only 4%; moderate level was demonstrated by 30% in EG and 45% in CG. Now only 6% in EG and 13% in CG showed low level. The last (4th) component, which is quite important for developing research abilities, is communicative component. It is necessary for holding discussions, asking questions, talking to partners in common project etc. In order to determine primary level of communications skills in EG and CG, we resorted to "The Methodology of Determining Communications and Organizational Capacities" developed by V.V. Siniavskii and B.A. Fedorishin. Students answered many questions as previous time. We assessed communications level according to number of answers "Yes" or "No".

Table 4: Average values of formation level of EG and CG students' research ability components at the final stage (2017-2018)

<table>
<thead>
<tr>
<th>Levels</th>
<th>Experimental group of 50 students out of 100%</th>
<th>Control group of 50 students out of 100%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cognitive</td>
<td>Analytical</td>
</tr>
<tr>
<td>h/l</td>
<td>67</td>
<td>53</td>
</tr>
<tr>
<td>m/l</td>
<td>30</td>
<td>42</td>
</tr>
<tr>
<td>l/l</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>
After counting all the answers "Yes" and "No" at the final stage, we concluded that EG students raised their level to 75%, that is 17% greater, and CG students – to 62%, that is 2% greater; moderate level is possessed by 23% in EG and 30% in CG; only 2% in EG and 8% in CG demonstrated low level. It is necessary to mention again that when determine the composition of formed research abilities and criteria, we were guided by the necessary assessment of its elements, which we study in complex and that form one professional competence of a student qualified in international relations – research abilities. After we had collected all final data, we determined average value of students' research ability level (Table 4).

The following values were introduced, as at the ascertaining stage:

\[ x_i \] – values, where average value is calculated; \( \bar{x} \) – mean, where line means averaging individuals; \( f \) – frequency (presupposes individual repetition of every studied feature).

Total formula of generalized mean:

\[
\bar{x} = \sqrt{\frac{\sum x_i^k \cdot f_i}{\sum f_i}}
\]  \hspace{1cm} (2)

where

The formed levels of EG students' research ability composition:
High level: \((67+53+64+75): 4 = 65\%\)
Moderate level: \((30+42+30+23): 4 = 31.0\%\)
Low level: \((3+5+6+2): 4 = 4.0\%\)

The formed levels of CG students' research ability composition:
High level: \((44+36+42+62): 4 = 46.0\%\)
Moderate level: \((49+37+45+30): 4 = 40.2\%\)
Low level: \((7+27+13+8): 4 = 13.8 \%\)

We will determine final EG and CG students' research ability levels (Table 5).

**Table 5: The formation levels of EG and CG students' research abilities at the final stage (2017-2018 a.y.)**

<table>
<thead>
<tr>
<th>Levels</th>
<th>EG second year students</th>
<th>KG second year students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>number: 50 people</td>
<td>number: 50 people</td>
</tr>
<tr>
<td>Ascertainning stage</td>
<td>2017-2018</td>
<td>Ascertainning stage</td>
</tr>
</tbody>
</table>
If comparing data, we get the following: high level of EG students' research abilities is higher by 19%; moderate level is higher in CG, because the majority of EG students went to the high-level category; low level of EG students is lower by 9.8% than of CG students. It is to mention that the represented results of research abilities in EG have considerably approached to reference value of 100% than in CG. For illustrative purposes, the received data is shown on Figure 3. Results of the final stage (Table 5) show that results of EG and CG students' research ability levels are different in favor of EG students. Received results prove that when we put EG students, unlike CG students, in specially arranged psychology and pedagogic conditions with the complex of efficient scientific forms and methods, we got increasing research ability level. Data about EG and CG students' research abilities demonstrate how efficient the suggested complex of active forms and methods is (Figure 4).
This work allowed us to accomplish the tasks set in the article and prove hypotheses about that finding new meaning of the leading for this study category "research abilities of the student qualified in international relations", developing new composition, criteria and levels of the formed research abilities, developing diagnostic and technological complex for the improvement of their level, we will get dynamics in development of students' research abilities level and prove the efficiency of the suggested active forms and methods of scientific research activity. The author supposes that the demonstrated universal program (of ascertaining, forming, final stages), including complex of diagnostic methodologies and efficient forms and methods, can serve as an example for similar researches on formation of research abilities in students, but with different qualification and professional cases.

There was explored a considerable potential impact of the developed technological complex on the students' research ability formation – cognitive (knowledge of analytical ways and methods of creative activity; analytical (capacity for analysis); searching (searching skill; ability to find information); communicative (communications skill for discussion). With this view, several diagnostic methodologies were used: original methodology "Do you know that...?", A.A. Karelin's methodology "Study of student's analytical ability"; Eric Fishman's methodology "Search request" (translated by T.A. Reitman); the Methodology of Determining Communications and Organizational Capacities" developed by V.V. Siniavskii and B.A. Fedorishin.

The technological complex of active scientific forms and methods was developed: elective course "How to arrange and carry out a research" aimed at learning the complex of applied lessons. Throughout the course, students studied analytical ways and methods, forms and tools of scientific activity (systemic analysis as system building with certain relations between elements, understanding hierarchy of elements, their main functions, mechanisms and factors). Cases: "Analytics of world events", "Leading specialists and observers' analytics and opinions on significant world events", "Geopolitics – news and analytics of global politics" etc.; practical seminar "Research methodology", where students studied main methodological notions of research (problem, contradiction, object, subject, aim, tasks, hypothesis) and its accomplishment step by step; involvement in writing reviews and reports on articles in journals on international topic; writing scientific articles together with tutor ("Cattle breeding under conditions of EU and US selection policy on the example of Belgorod region"); projects ("Cattle breeding under conditions of EU
and US selection policy on the example of Belgorod region”, "Scandinavian national interests in Arctic regarding rational development of natural resources”, "The role of innovation center "Skolovo" in common BRICS projects in IT technologies" etc.); training "Understand me" (18 hours) on developing communications skills.

Having compared data of ascertaining and final stages, we got high level of EG students' research abilities, which is higher by 19%; moderate level is higher in CG, because the majority of EG students went to the high-level category; low level of EG students is lower by 9.8% than of CG students. It is to mention that the represented results of research abilities in EG have considerably approached to reference value of 100% than in CG. Conclusion: tasks set in this article are accomplished, goal is achieved, and hypothesis is proved.