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CORRECT FORMATION OF SCIENTIFIC RESEARCH ACTIVITY OF STUDENTS

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Annotation:
The article actualizes the role of scientific and research activity of students as a factor of their professional development; presents the modern situation with the organization of students' scientific and research work in the universities and institutes of the Republic of Uzbekistan and the city of Bukhara; describes contemporary tendencies, forms and methods of development of students' scientific and research activity.

Keywords: modernization, scientific and technical elite, student science rating, scientific and research work, scientific and research activity of students, professional competence, future specialist.

The research activity of students in Uzbekistan is not a new phenomenon.
It is difficult to imagine the process of modernizing modern Uzbek education without such a component as a system of searching and providing conditions in educational institutions for the creative development of future specialists. The formation of the future scientific and technical elite from among the students is the most important socio-economic task and condition for the progressive development of the country. For this purpose, it is necessary to create effective national systems for the search, development and support of gifted youth in the field of science and technology. Those projects implemented in the country's universities that aim to develop such systems of organizing scientific and creative activities that would contribute to the consolidation of gifted youth in the regional infrastructure of scientific and technical activities should be recognized as fruitful.
One of the important components of the system of professional training of future specialists at the university is the organization of their involvement in research activities, which opens up opportunities to stimulate the creative potential of the individual. The tendency towards a steady increase in the scientific and creative component in complex types of professional activity speaks in favor of the fact that the involvement of students in scientific creativity is becoming a mandatory requirement for the quality of training specialists in higher education.

A conceptually significant moment for the correct placement of accents in predicting the place that should be occupied in the activities of the university by introducing students to science is the correlation of this problem with the processes of modernization of the higher education development program. Here, in particular, the connection with its transformations to create a multi-level system of training highly qualified specialists can be indicated as significant.

The implemented approach to the training of specialists in this case assumes the possibility of mastering the HPE, based on the capabilities and abilities of trainees to achieve a certain level of this education (bachelors, masters). The last stage (master's degree) allows you to identify the part of students who, according to their creative data, are able to reach the greatest heights of professional qualification. Under these conditions, the system of students' research work (R&D) can become the basis for identifying, selecting, and asserting oneself in the scientific and professional development of the most capable students. This significantly increases the rating of student science at the university.

Another supporting argument in favor of the trend of increasing importance of students' involvement in scientific activity is the socio-economic reality of an increasingly close merger of science and education, science and production, which increases the requirements for the skills of a specialist to promptly and independently solve theoretical and practical problems arising in professional activity. This makes it necessary to present the educational process at the university as a synthesis of training, education, industrial practice and research activities.

The economic reforms that began in 1991 in Uzbekistan changed the situation in the country. Crisis phenomena in all spheres of life could not but affect the situation of higher education and, in particular, the system of providing scientific and technical creativity of students and young scientists. The economic reforms carried out in the country have adversely affected the state of students' research activities. There has been a general decline in NIDS in universities. Today, after a certain decline, attention to the development of research activities of students has increased again, a favorable situation is emerging for the development of the system and new forms of organization and support of research activities of university students in modern conditions.

To date, both in practice and in the theory of higher school pedagogy, considerable experience has been accumulated in this activity. F.L.Ratner, A.V. Tretyakova, T.I.Torgashina, E.Y.Lapteva were engaged in research activities (NID) in the study of individual issues of improving the independent work of students at the university. The

analysis and possibilities of using foreign experience in our country are revealed in the works of A.I.Galagan.

The incentive for further development and deepening of research aimed at affirming the positions of the organization in the educational process of the university of students' research activities is the increased attention to this aspect on the part of government agencies. The currently developed Federal Program for the Development of Education highlights the direction "State support for research work of students of higher educational institutions and scientific and technical creativity of students".

Taking into account the strategic guidelines of modern higher education at this stage, the requirements for the formation of the creative component of the formation of future specialists for professional activity as a basis for their readiness for innovative activity in the conditions of constantly updated production in all aspects of its functioning are significantly increasing.

An indicator of such preparedness should be considered, first of all, a sufficiently high level of formation of future specialists' skills in research activities, which we consider a condition for improving their professional competence.

The problem of introducing students to scientific creativity, the development of their research abilities is rightly associated today with the quality of their professional preparedness. Therefore, recognizing the role of research work as a school of the future scientist, one should not underestimate the applied significance of this activity as a sphere of in-depth professionalism of the future specialist and the formation of a creative attitude to future work. Today, in the conditions of a market economy society, we place special emphasis on the qualities of competitiveness of a future specialist, which is impossible without the inclusion of a student in creative activity.

This is exactly the function performed at the university by the activity of attracting students to actively participate in research work.

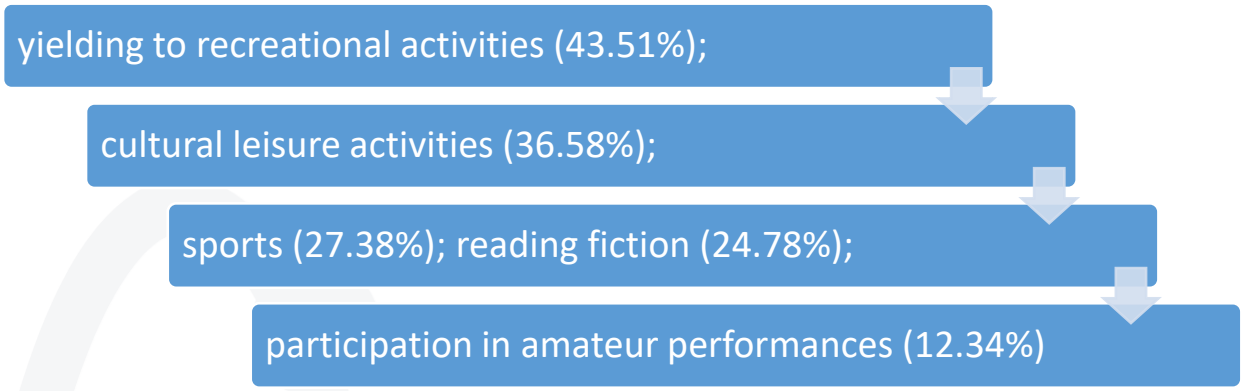
The effectiveness of this work depends, first of all, on the status of student science created within the university itself and the well-functioning system of its functioning in it. In each university there are special structures responsible for the research activities of students; established traditions in support of the most talented young people.

However, the organization of students' research work is not just an "internal" problem of the university; many social institutions cannot but be interested in it: enterprises acting as consumers of personnel produced by universities; research institutes at universities, the Academy of Sciences, youth policy bodies, scientific associations, etc. It is also known that universities today are experiencing great difficulties in developing their scientific and material base and, especially for this reason, need

external contractual relations. The problem of reducing the prestige of scientific activity as a "profession for life" due to its socio-economic insecurity at the state level is considered very painful today. The above mentioned complicates the task of forming motivational and axiological readiness of university students for serious studies in science.

This can be confirmed by the results of surveys conducted among the student youth of a number of universities in Kazan. For example, we identified the formation of students' interest in participating in research activities in the general structure of their preferences in various types of extracurricular activities.

According to the results of the survey, the indicator of interest in research work took only the sixth position (7.9%).



It is not difficult to conclude that research activities in the ranking of extracurricular activities for many students do not have a pronounced personal significance.

As an indicator of the desire for in-depth study of the future profession, mastering its creative aspect, one can consider the style of mastering by students of a professional educational program, which can be either reproductive, aimed only at familiarization with program material in adapted versions of lectures, textbooks, to a certain extent, the Internet); or in-depth, if the search and development of professional information occurs by independent study of special literature, its theoretical elaboration (scientific articles, monographs, primary sources, etc.).

According to the results of the survey, in this case, a significant predominance of reproductive style among students in the development of professional educational programs was revealed (76.52% – 64.5%).

In particular, only 18.18% of students turn to reading monographs and journals; 8.77% turn to primary sources. Few of the students (2.38%) turn to scientific literature in the original language. All this suggests that the theoretical level of professional training of future specialists is not high enough.

In the course of the survey, we also found out the understanding of the role of science by the nature of its transformative power. Thus, it was found that the majority of

students (44.05%) recognize the possibilities of science in the systematization of knowledge in a particular field; 31.6% of respondents consider it the engine of progress;

22.08% perceive science as a method of cognition of reality;

14.72% of respondents agreed with the definition of science as an integral part of social life, and only 11.15% of the surveyed students described science as an area of search and implementation of innovations.

The presented figures for the latter indicator testified that the competence of students in understanding science as a means of radical renewal of social reality, and especially in its applied professional aspect, is unsatisfactory. It is in this direction that it is important to develop student scientific creativity at the university today.

The study of the state of involvement of university students in active research work in quantitative terms also does not allow us to say that there are no problems in this area. According to the results of the questionnaire survey, 40.58% of students confirmed their participation in the research work and 59.31% answered negatively. Hence, it turns out that less than half of students consider themselves involved in research work, whereas today the needs are such that for most graduates it is important to actually pass the school of research and development during the years of study at the university as conditions for their readiness to work in constantly changing conditions in any professional field (in scientific, technological, managerial, personal senses).

The reasons for the unwillingness of students to engage in purposeful research work to a certain extent should be seen in the imperfection of pedagogical guidance of this work both on the part of the university structures responsible for this area, and the teachers themselves, each of whom is professionally responsible for the development of creative abilities of the students they train. We have made some conclusions about this based on the study of students' value judgments about which traditional forms of research and development that have developed in university practice, they are attracted to.

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research and development that have developed in university practice, they are attracted to.

The majority of students give their preference to completing coursework (44.26%); 24.68% consider participation in scientific conferences to be an interesting form of research work. A certain part of students (13.42%) are interested in working in scientific circles and problem groups.

Writing a diploma is considered an attractive type of scientific work by 12.66% of respondents. Unfortunately, a small part of the contingent of students is interested in serious types of NID (participation in the student scientific society, Olympiads, the scientific laboratory of the university).

The figures given for this indicator allow us to conclude that with the existing formulation of stimulating student participation in the NID, we get a picture of the lack of desire among students to carry out serious research projects.

Considering all the above-mentioned indicators of the state of student involvement in research activities within the framework of a fairly representative sample studied by us (924 students from 6 universities of various profiles in Kazan), we can conclude that there are a number of problems of different levels in this area: logistical, psychological, pedagogical, scientific and methodological, hindering effective organization of scientific creativity of students. These problems include the following:

1. In the organization of students' research work, there are signs of unsystematic nature, expressed in the absence of a holistic step-by-step program for involving students in research with clearly defined criteria and indicators of both intermediate and final results of achieving a certain level in the development of the scientific potential of the personality of the future specialist.

- 2. In the organization of research work of students in the conditions of the university, the regional aspect and its conditionality with the needs of the development of the infrastructure of the regional society are not sufficiently visible.

3. The motivational component of the participation of a significant part of the student contingent of universities in research work at the level of awareness of its importance for preparing for a future profession is in an unsatisfactory state.

- 4. In the process of organizing the research work of students at universities, the tendency of the lack of a differentiated approach to the formation of students' readiness for scientific and creative studies is revealed, bearing in mind a whole range of necessary knowledge, skills and abilities in this field.

A comprehensive solution to these problems can create optimal conditions for increasing the scientific component of the professional readiness of the future specialist as a competitively capable person.

In the experience of Russian universities, a certain system of research and development has developed to date, including various forms and methods of its organization. The aspect of students' participation in research activities integrated into the educational process can be considered the most developed and mastered in this system.

This work, as you know, must be carried out by students without fail and is designed to serve the development of students' inclinations and interests in research activities. Performing educational and research works (abstracts, term papers, diploma projects, WRC), students master analytical, staging, searching and synthesizing elements of scientific work, as a result of which they develop general and special scientific skills of conducting and generalizing research results, elements of critical thinking and a complex of creative abilities of the personality of the future specialist.

Another direction of the development of the research competence of future specialists is their participation in research activities during extracurricular time.

It should be noted that here, in the practice of universities, there is also a fund of relevant work technologies that can be called traditional (student scientific conferences, scientific circles and problem groups, "Science Weeks", round tables and discussions, city and regional competitions, etc.).

Our research allows us to identify the following pedagogical conditions for increasing the effectiveness of the process of forming students' research skills:

- stimulating the motivational component of students' mastering research skills;
- the step-by-step nature of the formation of NID skills in future specialists, correlated with the tasks of their professional training at the university;
- activation of the educational potential of educational and extracurricular research activities based on the enrichment of the technological component (development and implementation of non-traditional forms);
- implementation of an individually differentiated approach in the formation of NID skills among university students, taking into account their capabilities and abilities to carry out research work; presentation of samples of high professionalism, possession of research competence and creative skill in the person of the best scientists of the university.

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