

Substantiation of the model of formation of students' motivation for scientific activity in the conditions of a university of a physical education

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Abstract

Objective of the study was to theoretically substantiate and develop a model for the formation of motivation for research activities of students of physical education universities, to determine its prospects and operating conditions.

Methods and structure of the study. The logic of the study is based on activity-based (direction of the content of funds depending on priority professional tasks) and systemic approaches. The following was carried out: literature analysis, pedagogical observations, questionnaires, etc., which made it possible to theoretically substantiate and develop a model for the formation of student motivation for research activities.

Results and conclusions. A model for the formation of motivation for scientific activity of students of physical education universities has been theoretically substantiated and developed; the structure, purpose, objectives, operating conditions and prospects for its implementation in higher education institutions have been determined. The role of the student scientific association based on self-government is revealed and a step-by-step algorithm for attracting students to research activities is presented.

Keywords: *students, research activities, problems, motivation, model, prospects.*

Introduction. A large number of works by Russian scientists, especially in recent years, are devoted to various aspects of organizing students' research work, in particular, the formation of motivation for it [1, 2, 3, 5, etc.]. However, it should be noted that the effectiveness of this work is still low. The results of the authors' research indicate that students' competence in understanding science as a means of radically updating social reality, and, in particular, in its applied, professional aspect, is unsatisfactory, and many traditional forms of research work that have developed in university practice are not captivating [4, 6].

All this is confirmed by our pedagogical observations. It can be noted that this is influenced by various factors: insufficient technical equipment, high fees for scientific publications, organization of scientific work at the university, activity of teachers, lack of time

for students, their motivation, etc. In universities, research work with students is mainly considered not as a process, but as a result, expressed in qualifying papers defended with "excellent" marks and published articles.

However, attention should be paid specifically to the process of scientific activity: preparation for competitions, conferences, communications with the supervisor, informing students about current projects, and most importantly, the formation of motivation, interest, and involvement of students in research and development activities (RA).

The above constituted the problem field of the research presented in this article.

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Methods and structure of the study. The logic of the study is based on activity-based (direction of the content of funds depending on priority professional tasks) and systemic approaches. The following was carried out: literature analysis, pedagogical observations, questionnaires, etc., which made it possible to theoretically substantiate and develop a model for the formation of students' motivation for research activities. The search experiment made it possible to determine the prospects and conditions for its functioning.

Results of the study and discussion. To achieve the stated goal of the study, a survey was conducted among undergraduate and graduate students of full-time and part-time studies at the Institute of Physical Culture and Sports of the Herzen State Pedagogical University of Russia.

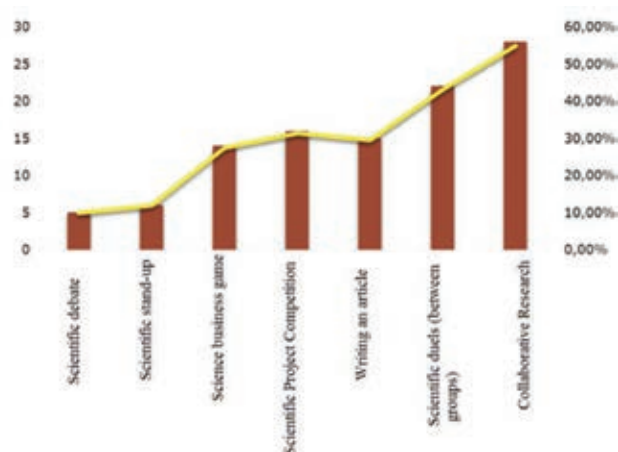
The survey revealed that 49% of students consider scientific activity to be an important component of the professional training of a physical education specialist, 34% of students find it difficult to answer this question, and 17% consider scientific activity to be unimportant. When asked about the possibility of engaging in research activities at the institute, 38% of respondents responded that they did not rule it out. However, 41% of students found it difficult to answer, and 21% of respondents do not plan to engage in this activity. It should be noted that the attitude of students towards research and development activities is quite positive, but their activity and involvement is low. Also, during the survey, the reasons for the decrease in motivation for research activities at the university were identified and ranked based on the respondents' answers. As it turned out, the low assessment of most students about research activities is determined by the fact that there are few scientific events, they are not interesting and there is no motivation to participate in them. Determining ways to increase motivation for scientific activity, a list of scientific events was determined and a survey was conducted in which of them students would like to take part (Fig. 1).

As a result of the survey, it was determined that collaborative work in groups is the most attractive for students. In this regard, it should be noted that the various events presented in the list will also be of interest to students.

The survey made it possible to determine the factors of students' interest in other types and forms of research activities proposed by them. First of all, stu-

dents believe that science should be modern, which means it is necessary to offer participation in interactive and online projects (28%). Off-site conferences and communication with other universities will certainly increase motivation (17%). Master's students in their responses note that the form of defending their final qualifying work should be changed (not many students write it within 2 years); perhaps it will be a long-term group project with some reporting and practical significance, as 16% of respondents answered. Also, 22% of respondents suggested creating scientific interest groups, which would be headed by a teacher passionate about science. Additional points for admission to master's and postgraduate programs will be a good motivation for scientific research, according to 25% of students.

Based on an analysis of scientific literature, taking into account the results of a survey of teachers, students, undergraduates, and graduate students of the institute, a model was developed for the formation of student motivation for research activities, where the main system-forming factor is the joint scientific activity of students on the basis of self-government. The structure of the model consisted of 3 blocks: "target", "organizational-content" and "resultative" (Fig. 2). The conceptual block includes goals, objectives and principles (general scientific and general methodological). The organizational and content block reveals a step-by-step algorithm for designing a program for attracting students to research activities. The developed "steps" indicate the sequence of actions when creating a student scientific community (club, association) based on self-government, developing an action plan and monitoring their implementation. The effective block consists of 3 performance indicators, which show an increase in the proportion of students



Forms of scientific events



involved in scientific activities, based on statistical data.

Along with improving the organization of scientific work at the Institute of Physical Culture and Sports, to test the effectiveness of the developed model based on a step-by-step algorithm, a student scientific club "ON START" was created in 2021 on the basis of self-government. Its goal was to attract students to scientific research, increase their methodological culture, interest in mutual scientific search for innovative independent forms and methods of research in the field of physical culture and sports. The scientific club has been actively working for two years; the performance indicators presented in the model for all three positions are increasing every year. The share of students involved in active research activities increased by 2.5 times by 2023. All this points to the correctly chosen path and the effectiveness of the developed model, which can still be improved in many ways.

Based on the research data obtained and the experimental work carried out over 3 years, it is possible to identify the conditions for the implementation and effective functioning of the presented model of developing students' motivation for research activities: organization of a student scientific club (community); variety of scientific events; selection of means and forms of activities for students, taking into account their interests, age and level of knowledge; monitoring the effectiveness of research activities among students; rewarding the best students based on individual and group performance.

Conclusions. Throughout the entire period of students' studies at a university, it is necessary to systematically and purposefully carry out scientific activities, create creative groups taking into account scientific interests, provide a research base, equip them with scientific work methods, create situations of success when introducing scientific results into practice, encourage the creative independence of researchers when solving practical problems. The creation of scientific student communities and associations allows students to conduct full-fledged scientific work, find like-minded people with whom they can interact and share the results of their research, thoughts and views.

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References

1. Volkova A.V. Sotsialnyye faktory aktivizatsii nauchno-issledovatel'skoy deyatel'nosti studentov sotsialnoy napravlenosti. Vestnik Kemerovskogo gosudarstvennogo universiteta. 2010. No. 3(43).
2. Girfanova E.Yu. Otnosheniye studentov NKHTI k nauchno-issledovatel'skoy deyatel'nosti. Vestnik Kazanskogo tekhnologicheskogo universiteta. 2013. No. 6. Vol. 16. pp.306-308.
3. Kogan E.A. Otnosheniye studentov vuzov k nauchno-issledovatel'skoy rabote. Chelovecheskiy kapital. 2020. No. 8 (140). pp. 179-187
4. Mametyeva O.S., Suprun N.G., Khalikova D.A. Nauchno-issledovatel'skaya rabota studentov vuza: rezul'tativnost' problemy organizatsii. Sovremennyye problemy nauki i obrazovaniya. 2018. No. 1. p. 8.
5. Materova A.V. Motivatsionnyy aspekt sovershenstvovaniya nauchno-issledovatel'skoy deyatel'nosti studentov tekhnicheskikh spetsialnostey. Vektor nauki Tolyattinskogo gosudarstvennogo universiteta. Seriya: pedagogika, psikhologiya. 2010. No. 2 (2). pp. 84-87.
6. Saykina E.G., Kruchinina M.A. Formirovaniye interesa studentov k uchastiyu v nauchno-issledovatel'skoy deyatel'nosti. Fizicheskaya kultura i sport v postindustrial'noy epokhu: problemy i puti ikh resheniya. Proceedings national scientific-practical conference. St. Petersburg: LGU im. A.S. Pushkina publ., 2022. pp. 74-78.
7. Saykina E.G., Smirnova Yu.V. Nauchno-issledovatel'skaya rabota kak effektivnyy sposob popolneniya professionalnykh znaniy spetsialista po fitnesu. Fitnes i yego rol v ozdorovlenii naseleeniya Rossii. Proceedings national scientific-practical conference dedicated to the 75th anniversary of the Institute of Physical Culture and Sports of the Herzen University. St. Petersburg: OOO «Mediapa» publ., 2022. pp. 20-29.