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TRENDS IN THE DEVELOPMENT OF CREATIVE SCIENTIFIC POTENTIAL IN HIGHER EDUCATION APPLICANTS

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Abstract. *The article considers the problem of development of creative scientific potential in students as a set of creative abilities aimed at the development of innovative thinking, the ability of students for scientific activity, professional self-development, the acquisition of a scientific and creative lifestyle in the process of cooperation between all subjects of pedagogical interaction. The study aims to create favourable conditions for creative research activities of student youth in higher education institutions. The study was conducted at the premises of educational and scientific Institute of Physical Education and Sports, State Institution Luhansk Taras Shevchenko National University. 94 students of 1–4 years of study majoring in Secondary education (physical education) took part in it. We determined the dynamics of development and the characteristics of the motives of research activities of higher education seekers, affecting the quality of professional training and the process of mastering the personal self-determination of young people, including innovative tools, webinars, trainings, master classes; initiative and development of creative qualities; participation in conferences, contests, Olympiads, student societies, scientific clubs. During the entire period of study in a higher education institution, applicants need to obtain purposeful and systematic consulting assistance at the implementation of creative projects, writing abstracts, articles, research papers. Besides, creative groups and student societies should be created, taking into account scientific interests and abilities of the students. They need to be equipped with research methods as well as young researchers should be encouraged for creative activity and independence in solving scientific problems, which led to an increase in the quality of the educational process in the institution of higher education.*

Key words: *creative scientific potential, applicants, quality of higher education.*

Introduction.

In recent years, the quality assurance of higher education in Ukraine has been addressed in the Laws of Ukraine "On Higher Education" (2014), "On Education" (2017), "On Scientific and Scientific-Technical Activities" (2016), Resolutions of the Cabinet of Ministers of Ukraine "On the Establishment of the National Agency for Quality Assurance in Higher Education" (2014), "On Licensing of Economic Activities" (2015), Decrees of the President of Ukraine "On Sustainable Development Strategy Ukraine – 2020 " etc.

Thus, one of the main socio-cultural problems is the need to reform the system of higher education in Ukraine, its improvement and increase of the level of quality, which is greatly conditioned by globalization. Thick textbooks and long, boring lectures have been replaced by contact classes, which provide brief key information. Traditional printed textbooks are increasingly being replaced by the latest gadgets. Training is being refocused on practical aspects [4, p. 80]. There are the following popular teaching methods: interactive ones with the use of modern technologies; case method; business game method, project method etc. Besides, distance learning has become widespread.

Analysis of References and Recent Research. The question of the development



of the creative potential in the individual has been considered by scientists in the context of the issues of modern education (N. Ostapenko) [6], the empowerment of individual abilities (S. Shandruk) [14], the development of creative abilities and the potential of students in the educational process (O. Milashovska) [5].

Research work of higher education students as a part of professional training was considered by O. Doronina [2], O. Kondur [4], V. Proshkin [12] and others. Scientists drew attention to the peculiarities of the organization of research work of future higher education specialists and the improvement of education quality. We believe that it is useful to continue the study of this problem in the context of development of creative scientific potential in higher education applicants and the impact of scientific activities of students on the formation of their professional competencies as competitive graduates of higher education in the labour market.

Connection of work with scientific programs, plans, topics. The study was conducted according to the priority direction of the research work of the Department of Theory and Methods of Physical Education "Perspective Directions for the Improvement of Training Quality of Physical Education and Sports Specialists" (state registration number 0117U005556).

The research objective is to create favourable conditions for creative research activities in higher education students.

Data and Research Methods: analysis and generalization of scientific and methodological literature on the research topic; comparison and generalization of theoretical and empirical data used to determine students' motives for the development of creative scientific potential; pedagogical observations; methods of mathematical statistics for the comparative analysis of research results.

The study was conducted at the premises of educational and scientific Institute of Physical Education and Sports, State Institution Luhansk Taras Shevchenko National University. 94 students of 1–4 years of study majoring in Secondary education (physical education) took part in it.

Research Findings and Their Discussion. N. Ostapenko considers the creative potential of an individual as a complex system of "psychogenetic and psychological qualities, the integrity of natural and social human forces, a set of abilities, opportunities and properties for creative activity" [6, p. 90]. We support the opinion of S. Reshetnyak, who connects creative potential with the competence of a specialist. One of the most demanded competencies expected by employers from university graduates all over the world is the creative potential of a person [13, p. 202].

According to O. Doronina, the improvement of the scientific activities of higher education applicants, ensuring its correlation with real economic problems that require scientific solutions, and expanding the forms of motivation of students to research will contribute not only to professional and personal development of future professionals but also strengthening of intellectual potential of the country (region) and increase of the efficiency of the labour market by filling vacancies with competent employees [2, p. 215].

V. Proshkin considers research work of students as a system of methods, means and measures of preparation of the creative personality, formation of the value



relation to creative activity, development of research competence and scientific creativity [12, p. 117].

Scientific activity of higher education applicants is one of the methods of competence formation in a modern specialist in the field of education and physical education. The main directions of research activities in higher education applicants are as follows [3]: research work, which is reflected in the curricula, educational programs, and is a mandatory component of the educational process in higher education institutions of Ukraine; research work of students, which is carried out outside the educational process including scientific societies and in independent work of higher education applicants.

According to O. Doronina, the set of motives that motivate the applicant to participate in scientific activities should be divided into two groups: external, related to the recognition of the scientist in the society, conditioned by the likelihood of receiving certain tangible and image-building rewards and meeting the status needs of the individual; internal, related to the implementation of cognitive research needs, interest in the scientific research and the desire to obtain qualitatively new scientific results in the corresponding area [2, p. 213].

A considerable attention is paid to the dynamics of development and characteristics of motives of research activity in higher education applicants which influence the professional training quality and affect the process of mastering of personal self-determination of youth. The motive of creative achievement is significant motivating factor to educational activities of future physical education teachers. The need to achieve the goal is defined by student youth as the desire to succeed [1; 7; 11].

Below, we will consider the motives that increase the interest of students of the Institute of Physical Education and Sports in the development of creative scientific potential (Table 1).

Table 1. - Motives increasing the interest in student youth for the development of creative scientific potential (%)

Item No.	Motives Activities	Number of students (n 94)			
		CG (n 46), %		EG (n 48), %	
		beginning	ending	beginning	ending
1.	Absence of motives	30.2	28.6	29.7	10.4
2.	Innovative tools, webinars, trainings, masterclasses	16.9	17.2	17.3	22.4
3.	Initiative and development of creative qualities	22.4	23.2	22.5	27.3
4.	Participation in conferences, competitions and olympiads	15.2	14.5	14.3	20.5
5.	Student societies, scientific circles	15.3	16.5	16.2	19.4
TOTAL		100%	100%	100%	100%

Author's development



According to the results of the survey, the motives increasing the interest of future physical education teachers in the development of creative scientific potential were distributed as follows: The control group (CG) almost showed no changes, and the experimental group (EG) showed that absence of motives decreased from 29.7% to 10.4%; innovative tools, webinars, trainings and masterclasses were preferred at the beginning of the experiment by – 17.3%, which eventually grew to 22.4% at the end. The greatest increase was for the development of creative qualities in applicants (from 22.5% to 27.3%). As for participation in competitions, olympiads, conferences of various levels, the figure decreased from 14.3% to 20.5%; and student societies, scientific circles were preferred at the beginning by 16.2%, which at the end of the experiment reached 19.4% of students of the educational and scientific Institute of Physical Education and Sports.

The effectiveness of teaching activities is determined their research work with students, their ability to involve students into creativity and science, to form students' curiosity and desire for knowledge. Under such conditions, students will willingly participate in the discussion of scientific issues conducted by departments; take an active part in science contests as well as scientific and practical conferences at various levels [8, p. 228].

The quality of training of future physical education teachers in higher educational institutions is a system-integral unity of its procedural and productive characteristics, which is characterized by professional and personal development of future specialists who are competitive and able to understand the value-semantic context of educational activity, increase creative potential, find non-standard solutions for vocational and educational tasks as well as capable of vocational self-determination and self-realization. The expansion of innovative processes in the educational space of the institution of higher education has become a significant driving factor for the formation of new mechanisms for professional training and the creation of an internal system of education quality that contains the development of innovative methods, processes and resources presented in organizational and regulatory documents, various procedures for controlling the quality of vocational training of applicants and the main activities of the institution of higher education [8, p. 229-230].

Thus, research activities of higher education applicants is an organic combination and continuation of educational activities, an effective means of influence, implementation of research and creative abilities, intensification of cognitive, creative and scientific activities that improve the quality of training and competitiveness of higher education. The process of high-quality professional training of future specialists for the scientific work will be effective if students are involved in various forms of research including participation in scientific and practical conferences of various levels, competitions, olympiads, webinars, trainings, etc. [10, p. 51].

Summary and conclusions.

It is important to note that the improvement of vocational training quality and training efficiency will take place in the conditions of educational-innovative, digital environment of the institution of higher education with a harmonious combination of



traditional methods and results of a creative search, application of nonstandard, ICT technologies, modern methods, means, techniques, flexible learning pathways, original ideas and forms of educational process based on student-centered learning, search, innovation, trust, and systematic monitoring of educational service quality [9, p. 183].

It should be noted that students of Educational and Scientific Institute of Physical Education and Sports began to take an active part in international conferences. Therefore, during the entire period of study in a higher education institution, applicants need to obtain purposeful and systematic consulting assistance at the implementation of creative projects, writing abstracts, articles, research papers. Besides, creative groups and student societies should be created, taking into account scientific interests and abilities of the students. They need to be equipped with research methods as well as young researchers should be encouraged for creative activity and independence in solving scientific problems.

We understand the creative scientific potential of an individual as a set of creative abilities aimed at the development of innovative thinking, the ability of students for scientific activity, professional self-development, the acquisition of a scientific and creative lifestyle in the process of cooperation between all subjects of pedagogical interaction.

The prospect of further research is to study the scientific problems of young people in the region.

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