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SCIENTIFIC AND RESEARCH ACTIVITIES AS A FACTOR IN IMPROVING THE QUALITY OF TRAINING OF PHYSICAL CULTURE AND SPORTS SPECIALISTS

The article is devoted to the scientific and research work of students of the specialties 014 “Secondary Education (Physical Culture)” and 017 “Physical Culture and Sports”. It is a mandatory part of the educational process for all students within the university and includes almost all types of educational activities. Such forms of work as the performance of practical, seminar, laboratory work; writing essays that contain segments of identifying problems and finding their solutions; preparation and defense of course and master’s theses, which are necessarily related to the subject of scientific research of the departments.

The relevance of the research problem is determined by the fact that the knowledge created by the science of physical culture can be used to optimize the educational process at different stages of education, to improve the organizational, content and regulatory foundations of physical education – sports activities, physical rehabilitation, physical recreation and physical and mental health of different segments of the population.

Research methods: *the following theoretical methods were used during the study – generalization and systematization of scientific, psychological and pedagogical literature and information resources, analysis and synthesis of research results to determine the structure of the phenomenon under study.*

Scientific research of university students during the acquisition of knowledge, skills and abilities consists in providing, ensuring and forming the prospect of using the scientific and technical achievements of the higher education institution and almost global scientific experience for the development of key and priority areas of science in the future.

The purpose *of the article is to attract a greater number of higher education students to participate in conducting their own scientific research not only within the framework of the working programs of academic disciplines, as well as to realize the importance of scientific work and interest in participating in student scientific paper competitions, olympiads, publications and further prospects for their self-development. The work used theoretical methods – generalization and systematization of scientific, psychological and pedagogical literature and information resources, which were aimed*

at analytical and synthetic processing and systematization of information, which made it possible to identify the main trends that affect the training of students.

*According to the **results** of the study: research work in higher education institutions – motivates applicants to conduct their own research, teaches them to analyze theory, generalize the experience of working in different types of institutions, helps to systematize professional knowledge and apply it in practice, forms research and creative competencies. The organization of research work of students in higher education is one of the ways to form the professional suitability of future specialists for continuous improvement of professional activity and the introduction of innovations.*

Key words: *physical culture and sports, research, search work, educational and professional program, scientific and research work of students (SRS), professional competence.*

Introduction. The scientific and research work of applicants is a component of the training system for specialists in the specialty 014 “Secondary Education (Physical Culture)” and 017 “Physical Culture and Sports”, which provides and forms professional competencies in them, directs them to conduct their own searches, present and publish their own research as a result of completing individual scientific and research tasks.

For novice researchers, it is very important not only to know well the basic provisions that characterize scientific work, but also to have at least a general idea of the methodology and techniques of scientific creativity, because, as modern educational practice of higher educational institutions shows, such researchers most often have questions of this nature in the first steps towards mastering the skills of scientific work [1].

The combination of educational and scientific and innovative activities in the educational process allows applicants to higher education institutions to master the methodology of performing scientific and research work and solve tasks independently.

Physical culture as a branch of scientific knowledge at the present stage occupies a significant place in the general system of branches of knowledge, its problems, on the one hand, are intensive differentiation, and on the other hand, are signs of a tendency towards integration. In this regard, there is a need for a large amount of educational information, which the student must master in order to become a highly professional specialist.

Historical experience on the issues of organizing scientific research work in higher education institutions, participation of applicants in experimental research and training of scientific and pedagogical personnel can be traced in the works of A. Alekseyuk, N. Demyanenko, K. Galkin, S. Zolotukhina, I. Zazyun, G. Klovak, V. Mayboroda, O. Mykytyuk and others [7; 8]. Significant attention can be paid to the works of scientists who have developed important provisions on the theory and methodology of physical education – V. Arefyev, E. Vilchkovsky, M. Dutchak, L. Ivanova, T. Krutsevich, I. Lyakhova, L. Matveyev, E. Prystyupa, A. Tsyos, B. Shiyan, training of physical education and sports specialists – O. Vatseba, S. Garkusha, M. Gertsyk, E. Zakharina, M. Pryimak, E. Prystupa, Yu. Sazanov, A. Svatiev, L. Sushchenko, O. Tymoshenko, theories and methods of training high-class athletes – G. Arzyutov, I. Ganchar, O. Deminsky, S. Ermakov, V. Ivlev, V. Kashuba, L. Matveev, V. Platonov, Yu. Shkrebtii [1; 8].

The aim and task is to analyze the content, variety of forms and organization of search, scientific and research work of applicants for physical education and sports specialties in the process of their professional training.

Research methods: the following theoretical methods were used during the study – generalization and systematization of scientific, psychological and pedagogical literature and information resources, analysis and synthesis of research results to determine the structure of the phenomenon under study.

Research results. Scientific research and its achievements are one of the components of the activities of higher education institutions of Ukraine. They are part of the foundation of educational and professional programs, in particular, a condition for the formation of integral, general and professional (special) competencies in applicants, including:

- the ability to solve complex problems in a certain field;
- the ability to search, analyze and process information from various sources;

- the application of certain concepts, theories and methods;
- awareness of the importance and significance of conducting one's own project research;
- carrying out an analysis of analogues; using the obtained results in a certain field, specialty [7].

The Regulation on the organization of scientific, scientific and technical activities in higher education institutions of III and IV levels of accreditation, approved by the order of the Ministry of Education and Science of Ukraine, determines that "... clause 6.1. The subjects of scientific activity in higher education institutions are full-time scientific and scientific-pedagogical employees, doctoral students, postgraduate students and students. The following definition can also be given: "... clause 2.2.1. Implementation of measures to support scientific research of young scientists and gifted students is carried out on the basis of their involvement in scientific schools". According to the current legislation "... clause 6.4. a component of the scientific and technical potential of higher education institutions is the scientific achievements of students, which includes scientific and research work included in the schedule of the educational process (coursework, master's theses, practical and laboratory classes, industrial practice with elements of a research nature), and work that is individually performed outside the schedule of the educational process" [5]. Scientific research of students plays a key role and helps in their development as highly qualified professionals, as it is an integral part of the educational process for students of the first (bachelor's) and second (master's) levels of higher education [3].

Scientific work differs from any other in its goal – to obtain new scientific knowledge. It is in the process of this work that objective knowledge about reality is produced and theoretically systematized. However, in science, it is not enough to establish some new scientific fact, it is important to give it an explanation from the standpoint of science, to show its general cognitive, theoretical or practical significance, and also to foresee previously unknown new processes and phenomena in advance.

The separation of physical culture as a complex concept and its components – physical education, sports, physical rehabilitation, recreation and adaptive physical education into an independent field of knowledge in Ukraine occurred only in the mid-90s of the last century. Before that, the specified field of knowledge was a component of pedagogical science. One of the reasons for the need for such separation was that physical culture as a scientific discipline acquired a special status due to the complex nature of the application of the knowledge it created, which today goes far beyond the needs of pedagogical science [8].

At Ushynsky University, the main forms of research activity of applicants are: student research circles, creative problem-solving associations and groups, research work of future specialists in a certain specialty on the basis of general and specialized institutions, children's and youth sports schools, sports associations of Odessa and Odessa region, participation in student scientific conferences, Olympiads and competitions of various levels (university, regional, all-Ukrainian and international), in psychological and pedagogical research conducted by university departments, international programs, competitions, grants; research work on the basis of other universities, implementation of research projects when writing qualification (course, master's) theses [6].

At the present stage, it is relevant to involve a greater number of higher education applicants in conducting their own scientific research not only within the framework of the working programs of academic disciplines, but also in their interest in publication activity, participation in student scientific paper competitions, participation in submitting grant applications under the guidance of scientific and pedagogical workers, as well as awareness of the importance of scientific and research work and further prospects for its development and in independent growth as a specialist. University applicants will receive some support and assistance in conducting research, presenting their completed works at competitions and exhibitions, and implementing and publishing the results of psychological and pedagogical achievements in the educational process.

Ushynsky University is the base for holding the second round of the All-Ukrainian Student Olympiad in many academic disciplines and specialties and the All-Ukrainian Competition of Student Scientific Papers in Fields of Knowledge and Specialties.

Over 400 scientific and pedagogical employees manage the scientific activities of applicants at the university. Competitions of student scientific papers and reports are held annually, collections

of student scientific articles are published, student scientific conferences and Days of Student Science are held. The best students are given the opportunity to participate in regional, all-Ukrainian and international conferences, competitions and exhibitions.

The role of students' scientific research is to provide, ensure and form the possibility of effective use of the scientific and technical potential of the higher education institution for the further development of priority and key areas of science. Scientific research is a key tool for the development of international scientific cooperation with foreign higher education institutions, scientific organizations and companies as one of the priorities of the University. The university has a significant scientific and human resource for managing students' research work [6].

Scientific intelligence plays a key role in the formation and development of scientific schools in higher education institutions. Scientific schools require systematization of interactions, information exchange, mutual transparent evaluation and presentation of scientific research. Effective implementation of scientific research in higher education institutions is a means of increasing their competitiveness in the international, national educational and scientific space, as well as in international and national ratings [1].

The educational, educational, scientific and research process at the University is a creative and intellectual, organizational function in the field of higher education, which is carried out through a system of pedagogical, methodological and scientific measures and is aimed at obtaining, transferring, increasing and using knowledge, skills, abilities and other competencies of applicants, as well as at the formation of a comprehensively developed personality.

Individual tasks (abstracts, essays, educational and research tasks, calculation, graphic works in individual disciplines, coursework, qualification master's theses, etc.) are performed by applicants independently under the guidance of a scientific and pedagogical employee of the departments in accordance with the individual curriculum. It is allowed to perform complex topics by a small group of students.

Research in the field of physical culture and sports may require studying the historical experience of a certain problem; comparative analysis of the state of this problem in theory and practice; study of foreign works of scientists and the state of practice today. Most often, it is necessary to study and pay attention to the basics of biological and medical sciences necessary for a correct understanding of the features of child development, his education and training [1].

Acquisition by students of modern technologies and methods of organizing work in the field of their future specialty, development of theoretical knowledge and practical training, professional skills and abilities, based on those obtained during their studies at the university, for making bold and independent decisions in the process of their professional activity; laying the foundation for the ability to systematically update their knowledge and creatively and innovatively use them in practice. Educational and production practices involve synthesizing and improving the knowledge, practical skills and abilities acquired by students, mastering professional experience with the aim of their further preparation for independent practical activity, as well as collecting materials for performing qualification work [2].

For the scientific research and development of higher educational institutions, a characteristic feature is the unity of goals and directions of educational, educational and scientific activities, close cooperation of all forms and methods of students' scientific work, which is embodied in the educational process and outside the educational time. This guarantees and enables their participation in scientific activity throughout the entire period of study, closely related to both scientific and research work carried out by the departments of the higher education institution and to public activity. The content and structure of the SRW provides for and approves the sequence of its methods and forms in accordance with the logic and gradualness of the educational process, which determines the sequential change of its means and forms from one discipline to another, from one course to the next, from department to department, from certain types of classes to others, a step-by-step increase in the complexity and volume of knowledge, skills and abilities acquired by students in the process of their scientific activity. Having received professional knowledge, skills and abilities, and having experience in

organizing and conducting scientific research, a graduate of a pedagogical university will be able to creatively and non-standardly approach the solution of urgent problems of future professional activity. It is no less important that a young scientist, embodying the achievements of pedagogical science and advanced experience in work, improves his professional level, acquiring the highest quality knowledge, skills and abilities. After all, a student's scientific work, research is a brief statement in written form of the content of a scientific problem based on the study of the most important literary and archival sources and independent practical research. Therefore, the performance of scientific work with its correct organization plays a significant role in the formation of professional orientation, self-education skills and research abilities of students [1].

The scientific and research work of students, carried out in a complex, is aimed at solving the following key tasks:

- formation of scientific worldview, mastery of scientific apparatus and means of scientific research;
- development of creative thinking and individual abilities of students in solving practical problems;
- to promote assistance to students in mastering the specialty, achieving high professional skills;
- instilling in students the skills of independent scientific and research activity;
- development of initiative, the ability to use theoretical knowledge in practical activities, involvement of the most gifted students in solving scientific problems that are important for science and practice;
- the need for continuous updating and improvement of one's own achievements and knowledge;
- increase of theoretical experience and scientific erudition of the future specialist;
- creation and development of scientific schools, creative associations, education within the walls of a higher education institution of a reserve of scientists, researchers, teachers [4].

Research work of students of higher education institutions takes place in three main areas:

- research work is an integral part of the educational process and is included in the calendar-thematic and curriculum plans, curricula of disciplines as mandatory for all students;
- research activities that are carried out outside the educational process – in circles, problem groups (laboratories), translation and information studios, during educational practice, etc.;
- scientific and organizational events; competitions, olympiads, conferences and others [7].

The organization of research and development in the educational space contributes to a more in-depth mastery of professional academic disciplines by students, while providing the opportunity to fully demonstrate their individuality, creativity and form their own opinion on each discipline. At the same time, special attention is paid to involving students in analyzing, collecting and summarizing the best experience from practical activities, conducting theoretical, sociological and empirical research, preparing reports and other types of scientific work.

Conclusions. Encouraging, motivating and stimulating applicants for physical education and sports specialties to conduct and highlight their own achievements in scientific works, research, publications during their studies at a higher education institution is becoming one of the primary tasks in the system of training professionals, however, rating encouragement of students does not always encourage them to achieve the set goal.

Only a comprehensive approach will make it possible to realize the importance of scientific research work and further prospects for its development, which will involve teaching professional academic disciplines, observing academic integrity, an open and transparent system of academic mobility, providing scholarships, the opportunity to participate in competitions and olympiads of student scientific works, participating in the submission of grant applications, etc.

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НАУКОВО-ДОСЛІДНИЦЬКА ДІЯЛЬНІСТЬ ЯК ЧИННИК ПІДВИЩЕННЯ ЯКОСТІ ПІДГОТОВКИ ФАХІВЦІВ З ФІЗИЧНОЇ КУЛЬТУРИ І СПОРТУ

Стаття присвячена науково-дослідницькій роботі здобувачів освіти зі спеціальностей 014 «Середня освіта (Фізична культура)» та 017 «Фізична культура і спорт». Вона є обов'язковою частиною навчального процесу для всіх студентів у межах університету і включає майже всі види навчальної діяльності. Такі форми робіт як виконання практичних, семінарських, лабораторних робіт; написання рефератів, які містять сегменти виявлення проблеми та пошуку їх вирішення; підготовка та захист курсових та магістерських робіт, що обов'язково пов'язані з тематикою наукових досліджень кафедр.

Актуальність проблеми дослідження визначається тим, що знання, створені наукою про фізичну культуру, можуть використовуватися для оптимізації навчально-виховного процесу на різних етапах освіти, для вдосконалення організаційної, змістової і нормативної основ фізичного виховання – спортивної діяльності, фізичної реабілітації, фізичної рекреації та фізичного і психічного здоров'я різних верств населення.

Методи дослідження: під час дослідження використовувалися наступні теоретичні методи – узагальнення та систематизація наукової, психолого-педагогічної літератури та інформаційних ресурсів, аналіз та узагальнення результатів дослідження для визначення структури досліджуваного явища.

Наукові дослідження здобувачів освіти в університеті під час опанування знань, умінь і навичок полягає у наданні, забезпеченні та формуванні перспективи використання науково-технічних здобутків закладу вищої освіти і майже всесвітнього наукового досвіду заради розвитку ключових і пріоритетних напрямів науки в майбутньому.

Метою статті є залучення більшої кількості здобувачів вищої освіти до участі в проведенні власних наукових досліджень не тільки у межах робочих програм навчальних дисциплін, а також усвідомлення важливості наукової роботи і зацікавленості до участі в конкурсах студентських наукових робіт, олімпіадах, публікаціях та подальших перспективах і саморозвитку. В роботі були застосовано теоретичні методи – узагальнення та систематизація наукової, психолого-педагогічної літератури та інформаційних ресурсів, які були спрямовані на аналітико-синтетичну обробку і систематизацію інформації, що дало змогу виділити основні тенденції, які впливають на підготовку студентів.

За **результатами** дослідження: науково-дослідницька робота у ЗВО мотивує здобувачів щодо проведення власних наукових досліджень, навчає аналізувати теорію, узагальнювати досвід роботи різних типів закладів, допомагає систематизувати професійні знання і застосовувати їх на практиці, формує дослідницько-творчі компетентності. Організація науково-дослідної роботи студентів у вищій освіті є одним із шляхів формування професійної придатності майбутніх фахівців до постійного удосконалення професійної діяльності та впровадження інновацій.

Ключові слова: фізична культура і спорт, дослідження, пошукова робота, освітньо-професійна програма, науково-дослідницька робота студентів (НДРС), фахова компетентність.