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PSYCHOLOGICAL CONTENT OF DEVELOPING SCIENTIFIC RESEARCH COMPETENCES OF MASTER'S STUDENTS

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Abstract
This article discusses the pedagogical and psychological content of developing scientific research competencies of master's students . It also shows that master's students should be aware of the content of scientific approaches, concepts, theories, and the latest information in their discipline during their studies at a higher educational institution and their subsequent professional development.

Keywords: Innovation, science, scientific and pedagogical activity, research, scientific research, discovery, self-awareness, scientific conferences, intellectual-developmental.

Introduction

An analysis of the training of personnel in master's specialties in the republic shows that over the past period, certain achievements have been made in all aspects and components of this training. In particular, regulatory and legal, scientific and methodological, and material and technical support have been created; modern pedagogical and information and communication technologies have been introduced into the educational process, and a system of scientific personnel training is being formed.

The Resolution of the President of the Republic of Uzbekistan No. PQ-4963 dated January 25, 2021 “On measures to support research activities in the field of preschool and school education and introduce a system of continuous professional development” [2] and the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 36 dated March 2, 2015 “On approval of the

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Regulation on Master's Degrees" [3] includes comprehensive measures to train highly qualified personnel in master's specialties, continuously improve the professional level of scientific staff, retrain preschool and school education personnel, and improve the skills of management personnel and methodologists. In conducting research on improving the methodology for developing scientific research competencies of primary education master's students, important concepts were initially studied based on an analysis of scientific, pedagogical, and methodological literature.

In the process of scientific research, emotional perception, abstract thinking, and practical testing are reflected. Scientific research activities have a holistic system, which is mainly formed and implemented in the process of continuous education. Its initial stage corresponds to the school period. At this stage, students develop initial concepts about conducting scientific research. In the subsequent stages, knowledge, skills, and competencies are formed. The higher stages of the system represent the practical implementation of scientific research [15].

Higher education, particularly the master's degree, is considered one of the key stages in conducting scientific research, where students acquire clear directions for the research process [6] . Based on the goals and objectives of the research activity, the study and monitoring of existing scientific literature made it possible to explain the main underlying concepts of the dissertation work.

Science is a set of knowledge and skills acquired through reading, studying, and life experience [10] . Science is derived from the Arabic language, written as "ilmun", pronounced as ilm. This word is formed in the form of a verb in Arabic, meaning "to know" - "to learn". The word "ilmiy" was also adopted from Arabic to Uzbek, and in the meaning of the word "ilm" it was adopted from Arabic to Persian, and from Persian to Uzbek. This suffix mainly forms a relative adjective adopted from Arabic and Persian to Uzbek [13].

"Tadqixot" is an Arabic word that has been adopted into Uzbek and is the correct plural form of the word "tadqixot". In Arabic, it is written as تادقسون, and pronounced as tadqixat. Meaning: "to study thoroughly", the word "tadqixot" is a verb "dakkaka" and means "to become clear, to determine" [11].

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Scientific research is a process of creating new knowledge, a type of cognitive activity. It is characterized by objectivity, reproducibility, reliability, verifiability, and accuracy [7].

The research should always give the same result when repeated under all conditions, proving the issue being investigated. Scientific research consists of two closely related parts - experiment and theory. The main components of scientific research are: defining the topic, preliminary analysis of existing information, possibilities and methods in the field of research, scientific views, conducting experiments, monitoring and summarizing the results obtained, checking the knowledge gained on the basis of the evidence obtained, expressing new ideas and laws, and making scientific hypotheses. The division of scientific research into primary and applied, quantitative and qualitative, unique and complex research is widespread. The technologies and experiments of scientific research are widely used not only in science itself, but also in solving a number of economic and social problems [13]. Today, higher education in our country, in accordance with world standards, consists of: bachelor's and master's degrees.

The current functioning of the education system and the standards set for it prove that optimal management of the higher education process is one of the urgent problems. Educational activities in higher education consist of a specific pedagogical scientific research activity. As is known, higher education is the most important link in directing future personnel to scientific research activities.

pedagogy and psychology that a scientific worldview is based on knowledge , that is, the acquisition of a system of knowledge about a scientific worldview. is formed on the basis of . A child is born and over time becomes interested in and strives to understand the world and the environment. Young people who are educated in infancy, childhood, adolescence, and adolescence study the laws of nature and society, along with the laws of the social environment and social relations. They look for ways to solve existing problems in society , draw systematic conclusions about realities and problems . During this period, students develop the ability to manage their own emotional and spiritual needs. an opportunity arises.

This stage plays a special role in the maturation of the human personality, in its development as a complete person. During the student period, psychological

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changes of great importance occur, in the process of certain social activities of young people, a stable, solid scientific worldview is formed in them under the influence of education and upbringing. The consistently occurring psychological changes in the personality, the scientific worldview being formed and its improvement depend on the nature of the student's activity , directly on the acquisition of a system of knowledge about the scientific worldview . At this stage, the student, unlike a schoolchild, begins to perceive life for the first time as a complete person on the basis of ensuring the real objectivity of the active scientific knowledge process . In the study , the pedagogical possibilities of developing scientific research competencies of primary education master's students are clarified on the basis of projective organization of scientific and creative activity skills in accordance with educational goals , and scientific and creative activity has a significant impact on the comprehensive, harmonious improvement of the individual.

Students' scientific and creative activities in and out of class, in essence, improve the necessary information and data, add strength and energy to their work, and begin to establish feelings of satisfaction with the result of their work. Scientific and creative processes carried out together with the team (activities in scientific schools) and their wide implementation serve to alleviate the problems that arise during the period of entering scientific activity , to draw systematic conclusions about realities and problems. In the process of young people's scientific research activities, a wide path opens up for their scientific knowledge and perception of the world. This serves to ensure the real objectivity of the scientific knowledge process . Scientific knowledge creates an opportunity for the development of the individual , for them to express their opinions and defend them.

Ensuring the real objectivity of the process of scientific knowledge requires an organizational consideration of all elements of the processes of scientific knowledge. Scientific knowledge is the highest form of human spiritual activity aimed at identifying the objective laws of the world of nature, society and thought. The results of scientific knowledge find their expression in the system of scientific knowledge. Scientific knowledge, which is the process of its formation, expresses its own integrity - a system. One of the important aspects of

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this system is the levels of scientific knowledge. Most scholars recognize two levels of scientific knowledge. These are[17]:

a) empirical knowledge;

b) theoretical knowledge.

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Engaging in scientific research activities teaches students to perceive, remember, plan research and focus attention on the object of research. They develop the qualities necessary for a researcher, intelligence, and speed. During this period, it is necessary to correctly direct students to the solution of the problem they are interested in, to help them correctly perceive its content. Such assistance is provided to the student by the head of the research work, the pedagogical scientific research association, and the leaders of the circle. In order to effectively organize the research process, students are taught to analyze scientific sources, develop a file, search for necessary materials in the literature, and sort them by type and status [16].

It is associated with planning the details of scientific research, monitoring data, integrating results into a single solution, and mastering them. These activities are very important for the development of developing centers and areas in the areas of scientific research.

The following main components of skills related to scientific research activity are conditionally defined: motivational gnostic; scientific and creative activity[5]. The study of these conditionally defined main components of skills related to scientific research activity, in turn, served to clarify the pedagogical possibilities of developing scientific research competencies of primary education master's students on the basis of projective organization of scientific and creative activity skills in accordance with educational goals.

Motivational skills are considered as a set of individual motives and a sign of a person's ability to engage in creative and scientific work. They are important for the interest in knowledge that is formed on the basis of perceived motivation [9]

Gnostic skills - the development of the future cadre's orientation to creative implementation of personal and professional activities, the nature of his research, a set of methodological skills in scientific research activities and the personal

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characteristics of the researcher, directly include the experience of students in scientific research work [11].

Scientific and creative activity skills are aimed at the independent activity and independent development of the individual and are expressed in the following research skills and qualifications: the ability to identify the problem, briefly and clearly express it, formulate a scientific hypothesis, plan, collect and analyze the obtained data; summarize and draw conclusions, formalize and present the results of scientific research [14]. Projective organization of scientific and creative activity skills in accordance with educational goals serves to clarify and improve the pedagogical possibilities for developing scientific research competencies of primary education master's students . Accordingly, the study clarified the pedagogical possibilities for developing scientific research competencies of primary education master's students on the basis of projective organization of scientific and creative activity skills in accordance with educational goals .

A conclusion is drawn on the specialist's performance based on the level of improvement of the above-mentioned research skills.

The integration of student research activities refers to the totality of the psychological, theoretical-methodological, and technological preparation of the person responsible for the quality of the scientific research process.

The effectiveness of the integration of student research activities is carried out in the following interrelated areas: psychological, theoretical-methodological, and technological[4].

Psychological direction. The successful implementation of scientific activity depends on several factors, including the individual psychological characteristics of the researcher.

Ability is a general psychological concept that represents a set of individual psychological characteristics of a person and is considered the main condition for the effective implementation of this or that activity [11]. Conscious activity, awareness of the content of the scientific problem, criticality, independence, willpower, determination and other personal characteristics are among them. Such characteristics are very important for any specialist, including students conducting research activities. In order to understand the research problem, the student must ask himself: “What do I want?” “Why do I want this?” Only then

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will he psychologically prepare himself to find ways to verify concepts and prove the truth, to carry out serious research activities. The effectiveness of scientific activity is inextricably linked with the capabilities of memory. Memory is the process of organizing and remembering past activities, which allows them to be reused in this process or to return to the sphere of consciousness [5].

Memory is distinguished by the following characteristics: speed of memorization, amount of memorization, length (duration) of memorization and accuracy. The ability to remember only the most important things, and to recall from memory those that are rarely used and of little interest when the time comes, is of particular importance. Bibliographic indexes in libraries, reference journals, systematic and reference catalogs, relevant sections, help in developing memory. Memory can also be improved through various exercises. Observation in research activities is considered one of the most important empirical research methods and means a person's ability to see important, characteristic, including almost invisible, properties of objects, phenomena and activities.

The theoretical and methodological direction includes the following: the researcher's study of certain methodological standards or properties, scientific knowledge, the ability to use them in the process of implementing research tasks, the ability to scientifically substantiate certain concepts, forms and methods of management design, the ability to engage in critical thinking and creative activity, and the acquisition of basic research skills [8].

The technological direction includes the following skills [12] :

Be able to use purposeful thought experiments in the research process;

be able to find creative solutions to various scientific tasks;

work on issues that matter;

using information tools to find solutions to research problems;

conducting an examination.

Also, possessing rational technologies and methods of carrying out scientific activities, having a developed written and oral speech. Being able to transfer the acquired knowledge to modern opportunities in a goal-oriented manner. Adhering to the hygiene of mental labor and its beneficial conduct, using one's physical and mental strength beneficially, adequately assessing the quality of the results of scientific activities, etc. In carrying out scientific research activities, the

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professionalism of the researcher within the scope of his research is of great importance[5].

Implementing the above-mentioned areas will help develop research skills in the researcher conducting research activities.

According to the newly amended Law "On Education", "a master's degree is a higher education program with a duration of at least one year in a specific specialty based on a relevant bachelor's degree." The list of master's degree specialties and corresponding bachelor's degree programs is determined by the authorized state educational authority. [1].

The issue of involving students in scientific research processes and forming a scientific worldview in them has been widely covered in the works of Eastern thinkers in the past. In this regard, Al-Farabi, in his work "On the Achievement of Happiness," discusses the procedure for studying science. In his opinion, first the science that is necessary to know is studied, which is the science of the foundations of the universe. After studying it, it is necessary to study the natural sciences, the structure and shape of natural bodies, and knowledge about the sky.

References

1. O‘zbekiston Respublikasining 2020-yil 23-sentyabrdagi O‘RQ-637-sonli “Ta’lim to‘g‘risidagi” Qonuni. https://lex.uz/docs/5013007
2. O‘zbekiston Respublikasi Prezidentining 2021-yil 25-yanvardagi PQ-4963-son «Maktabgacha va maktab ta’limi sohasidagi ilmiy-tadqiqot faoliyatini qo‘llab quvvatlash hamda uzluksiz kasbiy rivojlantirish tizimini joriy qilish chora-tadbirlari to‘g‘risida» Qarori.
3. O‘zbekiston Respublikasi Vazirlar Mahkamasining 2015-yil 2-martdagi 36-son “Magistratura to‘g‘risidagi nizomni tasdiqlash haqida” qarori
4. Университет как фактор модернизации России: история и перспективы (к 55-летию ЧГУ им. И.Н. Ульянова) : материалы Междунар. науч.-практ. конф. (Чебоксары, 18 октября 2022 г.) / редкол.: А.Ю. Александров [и др.]; Чувашский государственный университет им. И.Н. Ульянова. – Чебоксары: Среда, 2022. – 408 с.
5. Чечулина Н.А., Лихачев А.С. Компетентность студента при разработке гранта, научно-исследовательской и научно-практической работы.

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Журнал: Наука о человеке: гуманитарные исследования. Номер: 1 (15) Год: 2014 Страницы: 131-140.

6. Пространство научных интересов: иностранные языки и межкультурная коммуникация – современные векторы развития и перспективы: сборник статей по результатам VII научной межвузовской конференции молодых ученых 03.03.2022 г. (ШИЯ НИУ ВШЭ) / отв. ред. Бочагова Екатерина Игоревна, Коюшева Рена Сабировна, Крюкова Елизавета Сергеевна, Мальцев Марк Александрович, Селезнёва Екатерина Викторовна, Фоминых Анастасия Павловна. – Выпуск 6. – М., 2022. – 414 с. https://lang.hse.ru.
7. Asqarov B. Bo‘lajak kasb ta’limi o‘qituvchilarini tadqiqotchilik faoliyatiga tayyorlash metodikasi. Ped.fan.bo‘y.fal.dok.diss. -T.: 2018.
8. Karimova V. M., Sunnatova R. Mustaqil fikrlash. Akademik litseylar va kasb-xunar kollejlari uchun o‘quv qo‘llanma. - T.: Sharq, 2000.-112 6.
9. Mardanov Sh. Q. Pedagog kadrlarni ta’limiy qadriyatlar asosida tayyorlash va malakasini oshirishning pedagogik asoslari: Ped. fan. dok. ...diss. – T., 2006. – 302 b.
10. O‘zbek tilining izohli lug‘ati // A.Madvaliev tahriri ostida. - Toshkent: “O‘zbekiston milliy ensiklopediyasi” Davlat ilmiy nashriyoti, 2006 – 2008 yillar. https://ziyouz.uz/kutubxona/ziyouz/lugatlar/.
11. Pedagogik atamalar lug‘ati. – Toshkent: Fan, 2008. – 196 b.
12. Qodirov X. Sh. Kasb ta’limi o‘qituvchilarining bilim va ko‘nikmalarini shakllantirishda axborot-kommunikatsiya texnologiyalarini qo‘llash metodikasini takomillashtirish: pedagogika fanlari bo‘yicha falsafa doktori (phd) dissertatsiya avtoreferati. – T.: 2017. – 48 b.
13. Safarova R., Musayev U. va b. Umumiy o‘tra ta’lim mazmunini modernizatsiyalashning didaktik parametrlari. –Toshkent: Fan, 2008. –222 b.
14. Turmatov J.R. Kasb ta’limi o‘qituvchilarida tadqiqotchilik kompetensiyalarini shakillantirish metodikasini didaktik ta’minotini takomillashtirish. Ped.fan.bo‘y.fal.dok.diss. T.: 2019.
15. G‘oziev E. Yosh davpi psixologiyasi.- T.: O‘qituvchi, 1994. – 224 b.
16. Ботвинников А. Д. Пути совершенствования методики обучения педагогика. – М.: Просвещение, 2013.

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ISSN (E): 3067-7874
Volume 01, Issue 05, August, 2025
Website: usajournals.org

17. www.intereuroconf.com. Bolibekov A.A. Ilmiy bilish va uning o‘ziga xos jihatlari. ILMIY BILISH VA UNING O‘ZIGA XOS JIHATLARI. Vol. 10 No. 1 (2023): "England" Modern psychology and pedagogy: problems and solution.