

DOI <https://doi.org/10.30525/2592-8813-2022-1-25>

ОСОБЛИВОСТІ ПРОФЕСІЙНО-ПЕДАГОГІЧНОЇ ПІДГОТОВКИ МАЙБУТНЬОГО ВЧИТЕЛЯ ТЕХНОЛОГІЙ В ЗАКЛАДІ ВИЩОЇ ОСВІТИ

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Анотація. У статті розглядаються проблеми інтенсивної перебудови окремих параметрів навчання майбутніх вчителів технологій, зокрема тих, що посилюють їх професійно-педагогічну кваліфікацію, не порушуючи конструктивних напрацювань минулого. Визначається потреба суттєвого оновлення змісту, форм, методів, засобів і прийомів навчання, яке дасть змогу підвищити якість педагогічної кваліфікації випускників та її суперечність з відсутністю обґрунтованих і експериментально перевірених організаційно-педагогічних умов модернізації професійно-педагогічної підготовки майбутніх вчителів технологій. Також розкривається професійно-педагогічна підготовка майбутнього вчителя технологій, яка ґрунтується на чіткому урахуванні сучасних вимог освіти, таких як: кваліфікаційна характеристика вчителя і робочих професій певних галузей; вимог до системи безперервної професійної освіти; суб'єктно-діяльнісного підходу до професійної підготовки; вікових та індивідуальних можливостей здобувачів вищої освіти в галузі «Технологія».

Ключові слова: графічна підготовка, майбутній вчитель технологій, модернізація, професійно-педагогічна підготовка, педагогічні умови, технологічна освіта.

FEATURES OF PROFESSIONAL AND PEDAGOGICAL TRAINING OF THE FUTURE TEACHER OF TECHNOLOGIES IN THE HIGHER EDUCATION INSTITUTION

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Abstract. The article considers the problems of intensive restructuring of certain parameters of training of future teachers of technology, in particular those that strengthen their professional and pedagogical qualifications, without violating the constructive developments of the past. The need for significant updating of the content, forms, methods, means and methods of teaching is determined, which will improve the quality of pedagogical qualification of graduates and its contradiction with the lack of reasonable and experimentally tested organizational and pedagogical conditions for modernizing professional and pedagogical training of future teachers of technology. It also reveals the professional and pedagogical training of future teachers of technology, which is based on strict consideration of modern educational requirements, such as: qualification characteristics of teachers and working professions in certain fields; requirements for the system of continuing professional education; subject-activity approach to professional training; age and individual opportunities of higher education students in the field of "Technology".

Key words: graphic training, future teacher of technologies, modernization, professional-pedagogical training, pedagogical conditions, technological education.

Statement of the problem. Modern reforms of the higher education system put on the agenda the issue of preserving the best examples of trained professionals in various fields in the context of academic freedom and determine the implementation of promising innovations that can quickly improve the situation, including technology education.

The urgency of the study is due to the fact that in the current development of Ukrainian society, integration of education of our country with the world and European educational space are becoming increasingly important productive approaches to the domestic education system, which would ensure not only quantitative implementation of compulsory education and raised the education and culture of citizens to a much higher level. Training of a diverse personality capable of active adaptation in society, independent life choices, starting their own work, continuing professional lifelong learning, self-education and self-improvement, is one of the priorities of modern education. Therefore, the system of training future teachers, in particular teachers of technology, determines the restructuring of professional training of future professionals in accordance with international educational standards.

Thus, the awareness of the need to form a professional competence in the future is embodied in the principle of professional orientation of higher education, which regulates the relationship of general, technical knowledge and specific practical nature of knowledge, skills in the chosen profession, contributes to the formation of professional orientation.

Features of training future teachers of technology are based on strong regulatory and legal framework. In particular, the issues of formation and development of professional competence of education seekers are presented in many current normative documents on education. Thus, the State Standard of Basic and Complete Secondary Education states that the purpose of the educational field "Technology" is to form and develop project-technological competence of students, which is reflected in the enrichment of their creative potential and further socialization in society.

Analysis of the latest scientific research and publications. Theoretical and methodological principles of training future teachers of technology are revealed in the scientific works of T. Humeniuk, M. Korets and others. The scientific achievements of L. Chystiakova, M. Feshchuk, Y. Feshchuk, M. Koziar and others are devoted to the problem of forming the content of professional training of future teachers of technologies. Scientists V. Honcharova, N. Mironenko and many other modern researchers are also dealing with the issues of professional training of technology teachers at the present stage.

The purpose of the study is to reveal the peculiarities of professional and pedagogical training of future teachers of technology at the present stage of development of higher education in Ukraine.

The novelty of the article is determined by the search for a theoretical solution to the problem of modernization of professional and pedagogical training of future teachers of technology, consideration of contradictions and existing prospects.

Methodological or general scientific significance lies in the coverage of three interrelated concepts: methodological, theoretical and technological.

The methodological concept is based on the study of theoretical and methodological principles of building effective educational processes.

The theoretical concept of the study is related to the definition of its terminological basis.

The technological concept of the study is based on the identification of appropriate organizational and pedagogical conditions.

Presentation of the main material. Professional and pedagogical training of future teachers of technology is multifaceted and aimed at: ensuring quality education as the main link in the organization of higher education institutions; transition to multidisciplinary education and creation of a system of continuing education, in this connection change of the curriculum; organization of individual work with applicants for higher education, independent development of work skills; strengthening the training of specialists in accordance with the target agreements in which customers participate.

Analysis of the experience of professional training of future teachers of technology in Ukraine and relevant regulatory and methodological documentation shows that such training is mainly aimed at forming higher knowledge and skills in higher education, the dominance of traditional higher education frontal forms of education, as well as insufficient attention to development professional and personal qualities, including the formation of readiness to organize extracurricular activities of students. This is reflected in the educational and qualification characteristics and content of curricula and training programs for specialists in the field of education "Technology" (Чистякова, 2010:60).

We agree with the opinion of T. Humeniuk that technical knowledge plays an important role in shaping future teachers of technology. The author notes that modern educational sciences are achieving significant success in the fields of general pedagogy and educational technologies at various levels of educational institutions. In particular, it is worth paying attention to the works that, according to researchers, cover some issues of training future teachers of technology: the development of creative, technical and professional skills; characteristics of the content and methods of service work (I. Voloshchuk, O. Gnedenko, O. Gubenko, J. Gushuley, L. Denisenko, N. Znamerovskaya, Y. Kirilchuk, T. Kravchenko, G. Mamus, A. Mizrakh, V. Peregodova, V. Rybintsev, B. Simenach, V. Titarenko, L. Khomenko, O. Chashechnikova, V. Chepok, Z. Shapoval, L. Shpak, V. Kharitonova, etc.) (Гуменюк, 2008:82).

The concept of professional training of future teachers of technology, developed by T. Humeniuk in the context of emphasizing the features of training future teachers of technology, is of fundamental importance, and its essence is reflected in the concept of technology training, can create conditions for training future teachers of technology (Гуменюк, Корець, 2010).

As we can see, the requirement for future teachers of technology is the ability to consider the unity of theory, methodology and practical training, in order to: understand the essence of the educational purpose of labor training of students; possession of modern education and production technology; knowledge of the basic laws of psychological and physical development of children of different ages; knowledge of aesthetic requirements for the manufacture of work objects; knowledge of the main types of decorative and applied arts; the ability to organize a variety of content and form of artistic and labor activities; ability to plan various forms and nature of extracurricular activities to justify ways of conducting the educational process; ability to construct didactic material to provide theoretical and practical training, independent work of students. The specifics of training future teachers of technology require a combination of skills, the formation of a fairly high level of education, the ability to understand artistic values, the formation of tastes, aesthetic sense. All this requires changes in the training of future teachers of technology and revision of the structure of the curriculum of the seminar program of training workshops for future teachers of labor training and technology.

According to the Law of Ukraine "On Higher Education", vocational training is interpreted as obtaining a qualification in a related education or specialty (Про вищу освіту: Закон України, 2022).

Professional and pedagogical training – a system of organizational and pedagogical activities, which involves the formation of individual orientation, knowledge, skills, competencies and training (Буган, Уруський, 2001:179).

Professional training of future teachers of technology includes cycles in specialized technical areas to the curriculum, in which applicants for higher education acquire technical and technological knowledge; gain real experience; learn to understand techniques and language of technology; use construction and technological documentation; get acquainted with educational equipment; pay attention to the formation of technical concepts, spatial representations; ability to build and disassemble drawings and diagrams; expand the polytechnic outlook.

Noteworthy are the scientific investigations of Yu. Feshchuk on the role of spatial thinking of future teachers of technology for the implementation of successful professional and pedagogical activities. In particular, the author argues that in the professional activities of future teachers of

technology, spatial thinking occupies a leading place, because these professionals have to constantly operate on spatial images. According to the researcher, this is due to the practical orientation of the subjects. They also justified the need to create an educational system that will promote the development of spatial thinking in higher education and qualitatively increase its level (Козяр, Фещук, 2008:111).

The researcher claims that in the process of teaching graphic disciplines in modern higher education institutions using traditional teaching aids, the effective development of spatial thinking and graphic training of students is difficult. Evidence of this is the results of the observational experiment conducted by Yu. Feshchuk among future teachers of technology and teachers of graphic disciplines of relevant pedagogical specialties. The author established that the development of spatial thinking is carried out in the process of creating an image and its transformation. Analysis of the essence and structure of the concept of "spatial thinking" allows the researcher to say that spatial thinking is a specific type of mental activity that creates spatial images and operates them in the process of solving problems that require orientation in space (Козяр, Фещук, 2008:113).

Yu. Feshchuk proved that clarity is important for the development of spatial thinking in the study of graphic disciplines, as drawing and descriptive geometry studies the shape, size and relative position of objects in space. The lack of specific objects or models, drawings and pictures makes it difficult for students to have a clear idea of what they are studying. Strengthening the role of visual aids is not a mechanical increase in their number, but in continuity (when using clarity, you must take into account the visual aids used in the previous stages of drawing), variability (it is better to use different types of clarity), reversibility (assuming the problem of connecting graphic concepts with different models and illustrations) (Фещук, 2005:70).

Analyzing the above, we can say that along with the skills of future teachers of technology, you need to effectively use working time, work techniques, economical use of materials, electricity, excellent product quality, work activity and creative, innovative attitude to work, labor, production, technological discipline, aesthetically design products, adhere to personal hygiene and safety, an important feature of the future training of technology teachers is the mastery of graphic culture and the ability to convey technical information in non-verbal ways (using graphics, drawings, diagrams, etc.), which is important in organizing the educational process of higher education.

In the context of our study, the opinion of L. Chistyakova on the organizational and pedagogical conditions that provide optimal professional and pedagogical training of future teachers of technology is productive. In our opinion, L. Chistyakova rightly proved that the effectiveness of training future teachers of technology to organize extracurricular artistic and labor activities of students is provided by the following organizational and pedagogical conditions: availability of a program of progressive training of future teachers for extracurricular artistic and labor activities (the first stage – educational preparation of research works in the fields of socio-humanitarian and psychological-pedagogical disciplines; the second stage – theoretical and practical training of artistic and industrial art; the third – special courses "Organization and methods of extracurricular activities", "Professional culture of the future teacher of technology"); formation of positive motivation for artistic and labor creativity; updating the content of special and compulsory disciplines for the study of higher education in various arts and crafts; conducting production (pedagogical) practice in extracurricular artistic and labor activities and production (technical) practice in folk crafts; participation of students of higher education institutions in creative activities in the field of decorative and applied arts in extracurricular activities (studios, clubs, exhibitions, festivals, etc.); mastering by future teachers of technologies of personality-oriented technologies of organization of artistic and labor activity of students of secondary education in extracurricular time.

In the scientific position of the author we are impressed by the creative, ideological and pronounced applied aspect (Чистякова, 2010:60).

Researcher N. Myronenko thoroughly emphasizes the uniqueness of professional and pedagogical training of future teachers of technology in the context of intellectual and creative abilities of students. As well as highlighted criteria and indicators of readiness of specialists in the field of "Technology" for the formation of creative and intellectual abilities in students of secondary school: motivational (interest in students' intellectual development, focus on students' creative achievements, value attitude to the formation of students' creative and intellectual abilities, interest in students' intellectual development, emphasis on student's creative achievements, formation of student's values of creative and intellectual abilities), cognitive (knowledge of the laws of psychology and pedagogy for the formation of creative and intellectual abilities, students' knowledge of techniques and methods of stimulating the formation of creative and intellectual abilities of students in lessons of labor training (technology), abilities, ability to determine goals, content, forms of cognitive activity features, ability to determine the needs of students, practical activities), practical-activity (ability to form and implement innovative and interactive learning skills, intellectual abilities, management of student activities) (Мироненко, 2011:77).

One of the main ways to improve the training of future teachers of technology is to supplement and replace traditional specialties. That is, it is a new integrated training course with the use of modern innovative educational technologies. As V. Goncharov emphasized, "deep structuring of educational material" is necessary (Гончаров, 2012). Improving educational processes and increasing their efficiency is tracking the integrity of systems, identifying links between different sciences, transitions between different topics and phenomena.

Therefore, the modernization of the system of training specialists in the field of education "Technology" is aimed at developing and implementing a new comprehensive methodological system. In the training of specialists in the field of technological education, one of the most important prerequisites for the formation of design and technological competence of technology teachers is the study of disciplines that are part of the educational program "Secondary Education (Labor Education and Technology)": "Engineering and Computer Graphics", "Technological practicum", "Production and processing of structural materials", "Theory and methods of teaching", "Professional and practical training", "Folk crafts", "Theory and practice of design", "Computer technology" which further require the implementation of practical activities of the teacher.

Mastering graphic skills is a fundamental part of the educational and methodological system in artistic and graphic training of higher education, which requires a system of exercises aimed at reproducing graphic skills and abilities of image objects, ie mastering techniques and methods of expressive drawing, spatial distinctions and perceptual spatial imaginations, mental manipulation of spatial images, characteristics of mental reflection of spatial properties of objects.

Conclusion. Professional training of a future teacher of technology in a higher education institution is a process of formation of his personality, formation of competence, professional competence, professional culture, which are a prerequisite for successful future professional activity in modern conditions. It should also be based on a clear choice of forms and methods of teaching taking into account modern educational requirements: qualifications of teachers and working professions of certain industries, the requirements of continuing vocational education, subject-activity approach to training, age and individual opportunities for higher education. Its content should be personality-oriented and competency-based educational paradigms for the development of future professionals. This process requires the modernization of Ukrainian professional and pedagogical training of future teachers of technology in higher education.

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