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ORGANIZATIONAL PEDAGOGICAL CONDITIONS AND THEORETICAL METHODOLOGICAL FOUNDATIONS FOR THE FORMATION OF TECHNOLOGICAL COMPETENCE IN FUTURE EDUCATORS

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Abstract: The article is devoted to the theoretical and methodological foundations and organizational and pedagogical conditions for the formation of technological competence among future teachers. It examines the theoretical and methodological foundations and organizational and pedagogical conditions for the formation of technological competence among future teachers. The results of scientists' research on the theoretical and methodological foundations and organizational and pedagogical conditions for the formation of technological competence among future teachers are analyzed and the author's personal thoughts on this problem are presented.
Key words: competence, technological competence, technological competence of the future teacher, formation of technological competence, theoretical and methodological foundations, organizational and pedagogical conditions.

Decree of the President of the Republic of Uzbekistan No. PF-5847 of October 8, 2019 "On the concept of development of the higher education system of the Republic of Uzbekistan until 2030" and No. PQ-289 of June 21, 2022 "Pedagogical The decision "On measures to improve the quality of education and further develop the activities of higher educational institutions training pedagogic personnel" assigned very responsible tasks to higher educational institutions training pedagogic personnel in our country. In order to ensure the implementation of these tasks, in the continuous education system that has been formed in our country, especially in higher education institutions, special emphasis is placed on the training of creative specialists who have mastered modern knowledge, skills and qualifications, and all the necessary conditions are being created for this. .

Pedagogical experiences show that the development of the theoretical and methodological foundations of the formation of technological competence in future pedagogues during the educational process is one of the important methodological issues. Several important methodological approaches are used in the development of theoretical and methodological bases for the formation of technological competence in future pedagogues. Below, we will briefly touch on some of these methodological approaches that form the theoretical basis for the formation of technological competence in future pedagogues.

Methodological approaches in pedagogy are a set of principles that determine the teaching or education strategy. In general, in order to comprehensively solve the problems of forming their technological competence in accordance with the technological tasks of training future pedagogues studying in higher educational institutions, the following should be done first of all: strengthening the knowledge, skills and qualifications acquired in the process of teaching pedagogic subjects and deepening; expand psychological-pedagogical, technological imagination; to develop creative thinking of future pedagogues and the ability to apply the acquired knowledge in practice; development of independent creative activities, support of innovative, creative, technological inventive activities; preparation for the effective use of information and communication technologies in the course of practical activity.

Methodology (derived from the Greek word methodos, which means research path, theory of knowledge) 1) theory and system of principles and methods of organizing and conducting activities; 2) the doctrine of the scientific method of knowledge; a set of methods used in science.

It follows that the methodology of the science of pedagogy is a teaching about the principles, methods and processes of knowledge and the re-transformation of pedagogical existence. It is the methodology that allows the most complete study of the process or phenomenon, therefore, the theoretical problems of modern education are closely related to the development of research methodologies and methods in the field of technological competence and competence development of future pedagogues.

Methodology consists of a complex of scientific knowledge and is manifested as principles, methods and means of organizing and implementing theoretical and practical activities in various fields. Therefore, the term "theoretical-methodological approach" means a system of principles and methods of learning and processing knowledge, concepts, skills to look at and solve a specific problem from different perspectives.

The technological approach to education determines the importance of technological competence in the innovative activity of the educational institution. Therefore, for us, every possible result is not the main one, but it is important to form technological competence, one of the components of professional competence of future pedagogues. This allows us to use a competency-based approach in our research. This, in our opinion, together with the previous three approaches should allow to achieve the highest result. So, the systematic approach allows to study the systematic features of the process of forming technological competence in future pedagogues and to create the required pedagogical structure - in our case, the model of forming technological competence, but it is the basis for presenting the specific features of technological activity, does not mean The content of the model, which reflects the joint successful actions of educational subjects in the process of professional training, means that it should be supplemented with an activity-based approach. However, the joint general activity of the system elements and the activity-based approach do not allow to determine the characteristics of competence that will be formed in future pedagogues, that is, to fully reveal the content of technological competence. Based on this, in our opinion, it is appropriate to introduce a competence-based approach with the common use of systematic, operational and technological approaches.

Below we will talk about the necessary theoretical-methodological approaches and pedagogical conditions for building a model of technological competence formation in future pedagogues.

As a general academic degree, a systematic approach was chosen that provides a comprehensive study of the problem of forming technological competence in future pedagogues and allows considering this process as a pedagogical system. Systematic approach means the direction of scientific knowledge and social practice methodology based on the study of objects as a system. In turn, the system is defined as a set of elements arranged in a certain sequence, interconnected and forming a unique unit [4].

As a methodology of scientific knowledge, the systematic approach is used in almost all areas of scientific activity. In particular, the pedagogical interpretation of the systematic approach V.P. Bespalko[3], N.V. Kuzmina[8], V.A. It is reflected in the scientific works of Slastenin[9] and others.

The systematic approach is one of the main and most widely used approaches.

It consists of the direction of scientific knowledge and methodology of social practice based on the consideration of objects as a system. The process of formation of technological competence in future pedagogues can be considered as a variant of the pedagogical system and should be considered as such. It seems to us that this is possible, because our phenomenon is the implementation of a pedagogical process, which is studied within the framework of a social institution and is aimed at the realization of a purpose of social importance. Its constituents consist of goal, substantive-organizational, procedural-technological and control-evaluation blocks, and the experience of future pedagogues is enriched due to the knowledge, skills and

personal qualities of professional importance. It is known that any part that is closed in relation to a certain functional content is considered to be a constituent of the system. We consider the above-mentioned blocks to be the constituents of the model we will develop, as they have independence of purpose and content and functional uniformity.

First, we will consider the process of forming the technological competence of future pedagogues from the point of view of the operational approach.

The activity approach is determined by the pedagogical attitude to the types of technological activities and the developed spiritual world, unique personal and professional qualities, personal abilities, technical and artistic creativity means and results, moral and aesthetic development. The implementation of the activity approach in the educational process increases the effectiveness of education, for future pedagogues to acquire knowledge, skills, abilities, to develop personal and professional qualities, to study, to cooperate, to receive independent education and study. It creates ample opportunities for mobilization and readiness for self-development. The activity approach is the basis of forming the technological competence of the future pedagogue and creates an opportunity to open his creative field in the methodical activity system. The introduction of the activity approach leads to the formation of technological knowledge and professional qualities necessary for future pedagogues to work as a team and group. The effectiveness of control, assessment, determination of goals, joint and independent performance of educational tasks in group work increases even more. The organization of group work of future pedagogues is necessary to fulfill the task of teaching others, to develop the functions of self-management of educational activities. The analysis of didactic ideas and methodological research on advanced pedagogical practice provides an operational approach with a general theoretical basis aimed at improving the educational process in HEIs [5].

One of the principles of teaching based on an active approach is to create a visual image of the content of information in future pedagogues. Because demonstrability is one of the important didactic principles. The methodological basis of the teaching process within the framework of the activity approach represents the ideological content of the formation of technological competence in future pedagogues. The essence, structure and effectiveness of pedagogical activity are the most urgent issues of pedagogical science and practice. The scientific analysis of pedagogical activity is based on the uniqueness of the creative approach of each pedagogue. At the same time, it is most promising to use the principles of a systematic approach in the analysis and construction of pedagogical activity models [5].

Broad implementation of the technological approach in the training of pedagogues at all levels of education, especially in higher education institutions, while providing them with deep and comprehensive knowledge, teaching them to think comprehensively creatively, to acquire independent knowledge, practical development of skills, organization of education based on innovative technologies, activation of the educational process, optimization of education based on the principles of technological approach.

The introduction of the technological approach to education does not mean only the use of technical means of teaching or information and communication technologies, but also the analysis of factors that increase the effectiveness of education, the formation of conditions, the use of methods and tools, as well as the effectiveness of the methods used. evaluation means the development of the foundations of the educational process and ways to optimize it [4].

In the science of pedagogy, the concept of "approach" is considered as a leading scientific idea and it is the basis of organizing the educational process. In this context, the technological approach is considered as the design and application of teaching technologies to solve educational problems. The main functions of the technological approach, based on the design and application of technologies in the educational process, are as follows: gnostic (knowing the specific

characteristics and signs of educational technologies); conceptual (revealing the essence of educational technologies and determining their uniqueness); constructive (design and creation of new technologies for educational practice); prognostic (various strategies, directions, techniques and methods of using technologies in educational practice). Therefore, the technological approach to education is inextricably linked with the concept of "technology" and is interpreted as a system of actions of subjects aimed at achieving educational goals.

But the analysis of scientific and teaching-methodical literature shows that the scientific debate about the definition of educational technology is still ongoing. Opinions about the difference between educational technology and teaching methods are very controversial issues. Nevertheless, most authors recognize that educational technology is related to the organization and implementation of the educational process in the most optimal way, taking into account the guaranteed achievement of didactics. It follows from this that the technological approach to teaching implies the design of the educational process in such a way that, based on the given conditions, the achievement of didactic goals is guaranteed based on the practical application of the necessary teaching technologies by the pedagogue.

Today, a number of new pedagogical technologies are being applied to the educational process. However, there are a number of important problems that still need to be solved in this regard, which place huge responsibilities on the shoulders of our pedagogic scientists. In our opinion, technology is a pedagogical activity that embodies the laws of teaching, upbringing and development and guarantees the final result" or "pedagogical technology is a teacher's (educator's) teaching (educator) tools for the student (student) in certain conditions and in a certain sequence, and as a product of the reaction, it is a process of intensive formation of predetermined personal qualities in them" [4].

It is natural to ask what are the specific aspects of using new pedagogical technology in the educational system. The peculiarity of the technological education system is that students work directly with "live" objects of production in theoretical and practical lessons. These objects are classified depending on the specialization of educational institutions. In the course of education, future pedagogues will get to know in depth the structure of one or another technology related to production, the structure of necessary equipment, the principles of operation, the technical (agrotechnical) requirements for the created product, the content of the work process, the sequence of actions, and the types of control. . So, here we are talking about "teaching technology" of technologies. This technology is evaluated by transferring students' abstract thinking to practice in a fast state. The future pedagogue observes the technological process in practical training, and in the next stages (production education) he manages and controls it as an "expert". Ensuring the appropriateness of this activity should be the main result expected from the pedagogical technologies used in this system [6].

When classifying pedagogical technologies, some scientists take into account the level of mastery of students. Therefore, they recognize the existence of pedagogical technologies related to reproductive, heuristic and creative activities. Russian scientist G.K. Selevko takes a deep, comprehensive approach to the classification of technologies and divides them into: 1) level of application; 2) philosophical basis; 3) leading factors of mental development; 4) appropriation controls; 5) orientation to the individual; 6) content and structure; 7) organizational work; 8) management of knowledge activities; 9) approach to the child; 10) priority methods; 11) directions for updating existing traditional systems; 12) divided into types according to the category of students [5].

One of the principles of pedagogical technology is "flexibility". It slightly expands the fields of application of pedagogical technology in accordance with the scope of educational content. The fact is that the technology designed for this or that topic should have flexibility at least within the

boundaries of the scientific departments. In this case, the pedagogue will have the opportunity to change or reconstruct the structure of the didactic process in a diagnostic and appropriate manner.Integrated pedagogical technologies designed on the basis of the principle of flexibility are useful for the continuous education system. Here, the educational elements and their content on the subjects of the science program only change in terms of size. The most important features of the teaching technology are: diagnostic expediency; efficiency; algorithmic; the possibility of design; manageability; correction input; visualization. It is worth noting that the process of technologyization in pedagogy is spreading widely due to the introduction of technical tools in education, and then pedagogical technologies into educational practice.

In the process of research, the following basic rules aimed at solving the problem of forming technological competence in future elementary school teachers were formed based on a systematic approach:

1. The process of forming technological competence in future pedagogues is a subsystem of their general professional training system.
2. The process of forming technological competence in future pedagogues can be imagined as a model with the characteristics of a pedagogical system.
3. Technological competence is an integral professional quality of a graduate, which is defined as the ability to know industrial technologies, modern educational technologies, methods, tools, forms of activity and the conditions of their application and organization. This integrated professional quality of the graduate is manifested in creativity, design, self-education, ability to learn, analytical skills and skills to analyze the results of one's work [6].

The basis of teaching students in pedagogic higher education institutions is the formation of practice-oriented technological competence qualities, which determine educational goals and results, and is carried out through a competence-based approach.

The competent approach embodies the innovative processes taking place in education today. It is in accordance with the general concept of the standard of education adopted in developed countries and shows the necessity of restructuring the content of education and transitioning to a system of quality control, i.e. a competence system. The approach from the point of view of competence is one of the foundations of improving education. Today, not only professional skills consisting of the skills to perform one or another technological operation are required, but competence consisting of a combination of professional and personal qualities such as professional skills, social ethics, ability to work in a team, initiative [5] .

Competence means not only the presence and significant amount of acquired knowledge and experience, but also the ability to use them effectively at the right time and apply them in the process of performing one's official duties.

In this sense, competence is a description of the future pedagogue, at the same time it is a description of his ability to perform effective professional activity and forms the basis of a competent approach to education.

Competence is expressed by the acquisition of knowledge, skills and qualifications necessary for future pedagogues to carry out personal and socially important activities and their ability to apply them in practical activities. In this place, the essence of the concept of "competence" is fully revealed, it is manifested in the following two forms: competence represents the personal qualities of future pedagogues; explains the basic requirements of the professional field. Competence does not mean that future pedagogues acquire separate knowledge and skills, but rather that they acquire integrative knowledge and elements of action in each independent direction. Also, in terms of the requirements for the level of practical training of future pedagogues, competence means their ability to use knowledge, skills and methods of activity appropriately in certain situations.

From our point of view, the implementation of a competent approach in the process of technological education is, first of all, an attempt to adapt education and its results to the requirements of the labor market. The introduction of a competent approach to the technological education system leads to a qualitative change in the content of the training of future pedagogues. In other words, the main goal of the approach from the competent point of view is the formation of mature (competent) pedagogues in the field of technological education, who have fully mastered general and special competencies. This, in turn, is the main result of educational activities of pedagogical higher education institutions [4].

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