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# DEVELOPMENT OF PROFESSIONAL COMPETENCE OF FUTURE TECHNOLOGY TEACHERS USING INNOVATIVE TRAINING METHODS

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**Annotation**
This article is devoted to the problem of pedagogical technologies as one of the factors influencing the quality of training of specialists in higher educational institutions. The article reveals the features of pedagogical technologies and teaching methods, the conceptual foundations of pedagogical technologies, the concepts of pedagogical technologies in three aspects.

**Keywords:** Pedagogical technology, methodology, teaching methods, reform of the education system, conceptuality, student-centered education, differential education.

In his message to parliament for 2023, the President of the Republic of Uzbekistan Sh.M. Mirziyoyev focused on the problems of education. 2023 has been declared the year of “Caring for People and Quality Education.” It is necessary to continue Improving the quality of education has become one of the important directions of the educational policy for the development of New Uzbekistan.
In the Development Strategy for 2022-2026, much attention is paid to increasing the coverage of the population at all levels of education, since the transition to an innovative economy requires highly qualified personnel. The training of teachers for secondary schools is one of the important tasks facing pedagogical higher educational institutions of the country.
Accordingly, measures are currently being taken in the higher education system to introduce new educational technologies as a set of traditional and innovative methods and techniques. I would like to emphasize: it is not calls for



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modernization of the educational process, nor the development of new improvement and development programs that renew a school, it is a teacher who has mastered modern educational technologies of teaching and upbringing that renews it.

The modern organization of the educational process must guarantee the ability of each student to master educational material at a high level, ensure his readiness to carry out effective activities in complex, variable, constantly changing conditions.

Professional competence of a teacher is the ability of a teacher to solve professional problems and tasks in the conditions of professional activity. This is the sum of knowledge and skills that determines the effectiveness and efficiency of work. This is a combination of personal and professional qualities

Developing the professional competence of future teachers, developing skills in organizing the educational process, and using modern innovative pedagogical technologies is one of the ways to solve the problems.

In pedagogical science, there has not yet been an unambiguous definition of the concept of "pedagogical technology". Here are some of them:

"Pedagogical technology is a systematic method of acquiring knowledge, taking into account the entire process of technical and human resources in their interaction, which aims to optimize the forms of education" (UNESCO).

"Pedagogical technology is a set of psychological and pedagogical attitudes that determine a special set and arrangement of forms, methods, methods, teaching techniques, educational means; it is an organizational and methodological toolkit for the pedagogical process." (B.T. Likhachev);

"Pedagogical technology is a model of joint pedagogical activity thought out in every detail in the design, organization and conduct of the educational process with the unconditional provision of comfortable conditions for students and teachers." (V.M. Monakhov);

"Pedagogical technology is a meaningful technique for implementing the educational process." (V.P. Bespalko) [7].

"Educational technology is associated with the emergence of a technological approach to learning, the theoretical basis of which was the idea of learning programming; ...are feedback tools, teaching machines, language laboratories,



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and simulators. This is a process of interaction between teachers and students, guaranteeing the achievement of the set goal" (M.P. Sibirskaya).

For many years, the role of pedagogical technology was played by methodology - scientifically based methods, rules and techniques for teaching a subject, achieving a specific goal. What is the difference between methodology and technology?

A number of authors see the difference between pedagogical technology and methodology in the "guaranteed achievement of pedagogical goals" (D.V. Levitas, G.Yu. Ksenzova, L.A. Baykova). As a result of discussions among scientists, the following conclusions were made: the technology differs from the methodology in its predictable versatility and diagnostic results under any conditions. The technology, as a rule, is made up of standard methods and techniques, repeated many times under different conditions and giving the same result, which saves the teacher's time for creative work with students. Pedagogical technology does not apply methodology, but is based on it. [4 ]

The concept of "methodology" is broader than the concept of "pedagogical technology", which allows you to effectively design the learning process and obtain results that meet the planned goals. The methodology depends on the personality of the teacher, the subject, composition and level of learning by students, etc. The methodology includes tasks - "why teach, what and how", technology - only "how"?

Compared to method-based training, teaching technology has serious advantages:

- the basis of technology is a clear definition of the final goal. In traditional pedagogy, the problem of goals is not the leading one; the degree of achievement is determined inaccurately, "by eye." In technology, the goal is considered as a central component, which makes it possible to determine the degree of its achievement more accurately.
- technology in which the goal (final and intermediate) is defined very precisely allows the development of objective methods for monitoring its achievement.
- technology allows us to minimize situations when a teacher is forced to move on to pedagogical impromptu in search of an acceptable option.

An analysis of the literature shows that scientists consider the concept of "educational technology" in three aspects:



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- scientific - as a part of pedagogical science, studying and developing the goals, content and methods of teaching and designing pedagogical processes;
- procedural - as a description (algorithm) of the process, a set of goals, content, methods and means of achieving the planned learning outcomes;
- activity-based - the implementation of the technological (pedagogical) process, the functioning of all personal, instrumental and methodological pedagogical means.

Any pedagogical technology must satisfy the basic methodological requirements - criteria for manufacturability, which are:

conceptuality - reliance on a certain scientific concept, including philosophical, psychological, didactic and socio-pedagogical justification for achieving educational goals.

systematicity - the logic of the process, the interconnection of all its parts, integrity.

controllability – implies the possibility of goal setting, varying means and methods in order to correct results;

efficiency – guaranteed achievement of a certain standard of training, being effective in terms of results and optimal in terms of labor intensity;

reproducibility – the possibility of application in other educational institutions of the same type, by other teachers.

The listed criteria for manufacturability determine the structure of pedagogical technology, which includes three parts:

The conceptual part of educational technology is the scientific basis of the technology, those psychological and pedagogical ideas that are embedded in its foundation.

The content of the technology consists of goals - general and specific, as well as the content of the educational material.

The procedural part is represented by a combination of the following elements: organization of the educational process; methods and forms of educational activities of students; methods and forms of work of the teacher; the teacher's activities in managing the process of mastering the material; diagnostics of the educational process. [ 4]

The new educational paradigm, which places the development of the student's personality at the center of the educational system, aims at new learning



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technologies. By "new" pedagogical technologies, we do not mean the temporal aspect: new as just or recently appeared, but new as different from the usual, traditional ones.

Traditional teaching methods contribute to a greater extent to the assimilation of factual material and the ability to reproduce knowledge in a familiar situation. However, the modern world puts forward very specific demands:

- the ability to flexibly adapt to changing life situations, independently acquire the necessary knowledge, skillfully apply it in practice to solve a variety of emerging problems;
- think independently critically, be able to see problems arising in reality and, using modern technologies, look for ways to rationally solve them; clearly understand where and how the knowledge he acquires can be applied in the reality around him; be able to generate new ideas and think creatively;
- work competently with information (be able to collect the facts necessary to solve a certain problem, analyze them, put forward hypotheses for solving problems, make the necessary generalizations, comparisons with similar or alternative solutions;
- be sociable, contactable in various social groups, be able to work together in different areas, in different situations, easily prevent or be able to get out of any conflict situations;
- independently work on the development of one's own morality, intelligence, and cultural level.

The main direction of modernization of the education system is to solve the problem of personality-oriented education, when the development of the student's personality is the focus of the teacher's attention, when the organization of active cognitive activity becomes the main task of the teacher.

Of course, modern pedagogical technologies, based on reasonable expediency, strive to take into account as many factors as possible that influence the learning process, and under these conditions the place and role of the teacher in the educational process changes significantly. World pedagogical science today considers the teacher as a manager who manages the active developmental activities of the student. In this situation, the teacher must master all the tools of teaching methods, and the role of technology in achieving modern quality of education in these conditions increases significantly.



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If, under the traditional education system, the teacher and the textbook were the main and most competent sources of knowledge, the teacher monitored the students' mastery of educational material, then with personality-oriented education, the teacher acts as the organizer of the student's independent active cognitive activity, a competent consultant and assistant. His professional skills should be aimed not just at monitoring the knowledge and skills of students, but at diagnosing their educational activities in order to help in time with qualified actions to eliminate emerging difficulties in cognition and application of knowledge. This role is much more complex and requires a higher level of skill from the teacher.

Personally-centered learning essentially provides a differentiated approach to teaching students, taking into account the level of intellectual development of the student, the degree of his preparation in a given subject, his abilities and inclinations. To do this, first of all, it is necessary to involve each student in the active cognitive process, i.e. not the process of passive acquisition of knowledge, but the active cognitive activity of everyone, their application of this knowledge in practice and a clear awareness of where, how and for what purposes this knowledge can be applied. The purpose of such training is to create conditions for ensuring students' own educational activities, taking into account and developing individual characteristics. A student-centered lesson is not just the creation of a favorable creative atmosphere by the teacher, but a constant appeal to the subjective experience of students as the experience of their own life activity. [6]

Subject-oriented technologies are built on the basis of didactic improvement and reconstruction of educational material (primarily in textbooks). In modular-rating technology (P. Jatsevichene, K. Vazina, I. Prokopenko, etc.), the main emphasis is on the types and structure of modular programs (enlargement of blocks of theoretical material with a gradual transfer of cognition cycles into activity cycles), rating scales for assessing assimilation. In the technologies "Ecology and Dialectics" (L. Tarasov) and "Dialogue of Cultures" (V. Bibler, S. Kurganov) - to redesign the content of education in the directions of dialectization, culturalization and integration. [ 8]

The technology of differentiated learning (N. Guzik, I. Pervin, V. Firsov, etc.) provides for the differentiation of setting learning goals into group learning and



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its various forms, ensuring specialization of the educational process for different groups of students.

The technology of developmental education includes all stages of activity, each of which makes its own specific contribution to the development of the individual. Important in this case is the motivational stage, according to the method of organization of which subgroups of developmental training technologies are distinguished, based on: cognitive interest (L. Zankov, D. Elkonin-V. Davydov), individual experience of the individual (I. Yakimanskaya), creative needs (G. Altshuller, I.Volkov, I.Ivanov), needs for self-improvement (T.Selevko). This group also includes the so-called nature-conforming technologies (literacy education - A. Kushnir, self-development - M. Montessori); their main idea is to rely on the developmental forces inherent in the child, which may not be realized if there is no prepared environment, and when creating this environment, it is necessary to take into account, first of all, sensitivity - the highest susceptibility to certain external phenomena. [9]

Pedagogical technologies based on the personal orientation of the educational process include the technology of developmental education, pedagogy of cooperation, technology of individualization of learning (A. Granitskaya, I. Unt, V. Shadrikov); based on the activation and intensification of students' activities - game technologies, problem-based learning, programmed learning, the use of schematic and symbolic models of educational material (V. Shatalov), computer (new information) technologies (I. Robert and others). The latter, using programming languages to present information, translate it into machine language.

Thus, the problems of developing the professional competence of future teachers using innovative technologies, the vast experience of pedagogical innovations, original schools and innovative teachers constantly require generalization and systematization. The variety of approaches to defining the concept of “educational technology”, the multitude of their varieties, conceptual foundations and characteristics necessitate focusing on analyzing the essence of this phenomenon, both in theoretical and practical terms.



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