

**THE ROLE OF PROBLEM EDUCATIONAL TECHNOLOGY IN TRAINING  
FUTURE TEACHERS**

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**Abstract:**

In the article, problem-based learning technology is a teaching system in which the teacher presents a problem situation in the lesson, and the students solve it independently. It is said that technology helps in creative acquisition of knowledge and development of thinking ability. Also, the essence of the effectiveness of this technology in higher education today will be revealed.

**Keywords:** technology, teaching, problem-based education, technology, communication, effectiveness, student, method.

**Introduction**

As you know, technology is a set of techniques used in any business, skill or art. Pedagogical technology is a set of psychological-pedagogical relations that determine a special set and order of forms, methods, methods, teaching methods, educational tools; it is an organizational and methodological tool of the pedagogical process. Pedagogical technology is a meaningful technique for implementing the educational process. Pedagogical technology is interpreted as a description of the process of achieving planned educational results. Technology is an art, a skill, a skill, a set of methods of processing, a change of state, and teaching technology is an integral procedural part of the didactic system. Pedagogical technology is a model of joint pedagogical activity designed in every detail to design, organize and conduct the educational process, providing comfortable conditions for students and teachers. Pedagogical technology is a systematic way of creating, applying and determining the entire process of teaching and learning, taking into account technical and personnel resources and their interaction, aimed at optimizing forms of education. Methodological techniques for creating problem situations: The teacher brings the students to a contradiction and invites them to find a way to resolve it themselves. Presents different points of view on the same issue. Invites the class to consider the phenomenon from different positions (for example, commander, lawyer, teacher). Encourages students to make comparisons, generalizations, conclusions from the situation, compare facts (stimulating dialogue) Raises specific questions (for generalization, justification, specification, logic of reasoning). Identifies problematic theoretical and practical tasks (for example, research). Formulates problematic problems (for example, with insufficient or redundant data, with uncertainty in the formulation of the question, contradictory data, obviously made mistakes, limited time for solution). To successfully implement problem-based learning technology, you need: building an optimal system of problem situations and means of creating them (spoken and written word, multimedia); selection and use of the most relevant, essential tasks (problems); taking into account the characteristics of problem situations in various types of educational activities; The personal approach and skill of the teacher, the

ability to provoke active cognitive activity of the child, are of exceptional importance. Levels of problem-based learning reflect not only different levels of students' assimilation of new knowledge and methods of mental activity, but also different levels of thinking. The level of ordinary non-independent activity is the students' perception of the teacher's explanations, the assimilation of a pattern of mental action in a problem situation, the performance of independent work, and exercises of a reproducing nature. The level of independent activity involves performing independent work of the reproductive-search type, when the student independently works according to the text of the textbook, applies acquired knowledge in a new situation, constructs a solution to a problem of an average level of complexity, proves hypotheses through logical analysis - the teacher's assistance in this case is minimal. The level of creative activity characterizes the performance of independent work that requires creative imagination, logical analysis, the discovery of a new solution, and independent proof. At this level, independent conclusions and generalizations are made.

Problem-based education is a teaching method based on solving specific problems and tasks in universities. From a procedural point of view, the content of problem-based education consists in organizing learning situations, in the solution of which students and students the teacher participates. The process of solving each problem situation is characterized by the maximum independence of students and the atypical role of the teacher - he does not lecture, but only moderates and directs the learning process. At the same time, not only the new factual knowledge acquired by the student, but also the formation of active independent cognitive activity skills are valuable. In general, problem-based learning is multifunctional in nature, which allows solving many current educational problems: - creating conditions for the development of motivation; - increasing cognitive interest in educational, professional, professional problems; - reducing psychological discomfort before eliminating cognitive difficulties; - formation of independence; - development of creative abilities; - formation of conscious, personally acquired knowledge, skills, qualifications; - reinforcement of learned material; - development of research skills; - development of communication skills. At the center of problem-based education is the problem, in this case it is understood as a specific question (theoretical, practical) that requires learning and solving. The basis of the problem is the inconsistency or contradiction between the three recorded states of the object of the problem situation: - initial state; - the predicted state (as a rule, this is the expected state that the object should enter as a result of certain actions defined by the conditions); - the result (a state of the object that differs from the predicted one). In summary, problem situations are essentially situations of high uncertainty. Thus, in the problem-based learning format, the main task of students is to find ways to eliminate uncertainty.

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