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THE ROLE OF PEDAGOGICAL TECHNOLOGIES IN TEACHING MATHEMATICS IN THE SYSTEM OF HIGHER TECHNICAL EDUCATION

ANNOTATION

In this article, the role of pedagogical technologies in teaching mathematics in the higher technical education system and the importance of improving the pedagogical system, the successful application of pedagogical technologies to the educational process and the formation of a holistic view of the content of science, the main issues of using the elements of pedagogical technology that ensure coherence and the level of solving them is given.

Key words: higher, technical education, mathematics, pedagogical technologies, technologies.

OLIY TEXNIK TA’LIM TIZIMIDA MATEMATIKA O‘QITISHNING PEDAGOGIK TEXNOLOGIYALAR ROLI

ANNOTATSIYA

Mazkur maqolada oliy texnik ta’lim tizimida matematika o‘qitishning pedagogik texnologiyalar roli va pedagogik tizimni takomillashtirish, pedagogik texnologiyalarni ta’lim jarayoniga muvaffaqiyatli tadbiq etish va fan mazmuniga yaxlit qarashni shakllantirishdagi ahamiyati, uzviylikni ta’minlovchi pedagogik texnologiya elementlarini qo‘llashning asosiy masalalari va ularni xal kilish darajasi berilgan.

Kalit so‘zlar: oliy, texnik ta’lim, matematika, pedagogik texnologiyalar, texnologiyalar.

РОЛЬ ПЕДАГОГИЧЕСКИХ ТЕХНОЛОГИЙ В ПРЕПОДАВАНИИ МАТЕМАТИКИ В СИСТЕМЕ ВЫСШЕГО ТЕХНИЧЕСКОГО ОБРАЗОВАНИЯ

АННОТАЦИЯ

В данной статье рассматривается роль педагогических технологий в преподавании математики в системе высшего технического образования и важность совершенствования педагогической системы, успешного применения педагогических технологий в образовательном процессе и формирования целостного представления о содержании науки. Приведены основные вопросы использования элементов педагогической технологии, обеспечивающих связность, и уровень их решения.

Ключевые слова: высшее, техническое образование, математика, педагогические технологии, технологии.

At the modern stage of scientific and technical development, special attention is paid to the promotion of mathematical knowledge. After all, mathematics is the theoretical basis of all scientific sciences and the practical basis of production in various fields. Therefore, development of students' mathematical abilities is one of the most important tasks of modern education.

There are also different opinions about the application of pedagogical technologies to the educational process. For example, in order to improve the pedagogical system and successfully apply pedagogical technologies to the educational process, it is appropriate to implement the following tasks [1, 9]:

- forming the personality of the teacher and the student in the form of a person - a person - a person - individuality - a subject - a perfect person;
- effective use of trainings, business games, psychodrama and special exercises for the formation of certain qualities, traits, qualities, characteristics in students and teachers;
- improvement of teacher training methods, formation of creative research in them;
- application of other methods to increase efficiency of rating, test, module systems;
- sorting pedagogical technology tools according to the essence of science according to the age of students and discovering modern ones;
- to move away from narrative in texts and move to problematic, creative, independent thinking;
- creation and implementation of invariants and modifications of the educational program;
- to clearly implement interdisciplinary communication for the formation of educational motives without allowing repeated knowledge;
-use of active, innovative, non-traditional, creative methods and forms of the educational process;
- getting rid of formality about the structure and stages of the lesson, achieving interpersonal compatibility and equal rights by getting rid of obligation;
- turning the educational and training process (teacher and students and students' interaction) into a cooperative activity accelerates the decision-making of the practical expression of the "National Personnel Training Program" [2, 6].

One of the main criteria of technology is coherence, which is reflected in the main content of other criteria. Also, coherence in the content of pedagogical technology: coherence of processes; unity of goals and tasks; coherence of methods, forms and tools; expected results and future plans are created and implemented as a systematic process based on a holistic, coherent, step-by-step, manageable scientific idea.

The content of the concept of technology is revealed according to a certain field of human activity. For example, in production: mining of minerals, metal processing were also widely used, as well as book printing technologies [5].

Technologies in the educational process can be called "pedagogical technologies" and they can be included in the methodology, or vice versa, methodologies can be included in the pedagogical technologies.

For example: If the method of finding the greatest common divisor of two numbers (arithmetic, algebraic, Euclidean algorithm methods) is included in the technology of laboratory work in mathematics, then laboratory work is a component of a special method (methodology of teaching mathematics) [4].

There are also different views on how many stages and how pedagogical technologies can be implemented. For example, in the design of educational processes, it is possible to distinguish the following main tasks of the teacher in the entire educational process:

1) the task of ensuring the integrity of the educational process;

2) designing and implementing the educational process;

3) the task of self-analysis, that is, the teacher's analysis of his activity at different stages of this process.

Educational technology covers many operations consisting of three stages: design, implementation, control and evaluation.

Designing is the determination of the intended goal and the set of methods and means for its implementation. Within this block, operations are carried out in the following sequence: determining the time of implementation of educational technology (for the academic quarter, half-year, annual and entire educational period); analysis of educational materials; distinguishing goals and didactic tasks; bringing educational materials to a certain structure and distribution by time; determining the stages of acquiring knowledge, skills and abilities, as well as the development of qualities and qualities of a person; Identifying methods and tools to engage students [7].

The implementation block is the process of implementing the goal set in the design-build block.

Control, the task of the control unit is to carry out current, intermediate and final controls in order to achieve the set goal, that is, to provide regular feedback and process information.

It is desirable to use individual-oriented pedagogical technologies in mathematics lessons. Person-centered mathematics teaching technology includes the following goals [3]:

1) to make every student interested in mathematics and ensure its development in the conditions of a cooperative environment;

2) development of students' creative abilities;

3) development of individual cognitive abilities of each child;

4) help a person to know himself, find his place, realize his potential.

The use of lesson projects based on pedagogical technologies in mathematics education: firstly, it opens the way to the use of various models in the educational process; secondly, inter-thematic and inter-subject coherence is ensured, thirdly, it serves as an important tool to ensure the coherence of theory and practice, fourthly, it helps to differentiate and individualize practical lessons; fifthly, an opportunity is created for students to work independently. Repetition and generalization of the topics covered not only helps students to form separate concepts, but also helps to understand the essence of a whole, integrated process, to perceive the unity of education. Each student is provided with an environment based on his/her personal characteristics.

Thus, in order to use the elements of pedagogical technology that ensure coherence in mathematics education, it is necessary to conduct a deep analysis of generalization and repetition lessons, to determine their content and the existing knowledge levels of students, to equip the classroom (auditorium) with technical tools, to provide the educational process with the necessary information and control work in advance planning is required.

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