



## TECHNOLOGY OF ORGANIZING INDEPENDENT EDUCATION OF STUDENTS IN MATHEMATICS

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### Abstract

This article contains recommendations on how to organize the educational process on the basis of advanced pedagogical and modern information technologies, as well as on how to achieve high qualifications using teaching methods

**Keywords:** education, method, pedagogical technology, teaching.

The organization of the training process in educational institutions on the basis of advanced pedagogical and modern information technologies in accordance with state educational standards requires higher qualifications even from the teachers of the higher education institution. Therefore, it is necessary that they instill knowledge of the following educational methods:

- 1) oral method (lecture, conversation, Story, etc.;
- 2) practical and laboratory work;
- 3) Independent Education;
- 4) logical method of adaptation;
- 5) problematic traceability (reproductive) method;
- 6) visual method; inductive and deductive methods; scientific methods; methods of control and self-control of training.

Detailed coverage is given on the circumstances of the teacher's use of these techniques in which cases, in what problems they should have the potential to use them in solving, and the circumstances of their use based on the characteristics of the students, and the issues of their rational application in the course processes.

A few of these techniques are used in the process of "mathematics" classes. Of these, oral, demonstrative, logical methods of teaching are used in the form of a lecture of the type of lesson, it is advisable to work independently, problem methods are widely enslaved in practical-laboratory training of Science, and from



scientific, inductive and deductive methods-in independent education of students.

When imparting knowledge in mathematics to future engineers, it is necessary to choose the most optimal methods of teaching methods. The choice of optimal teaching methods can be carried out only by using a didactic systematic approach, which requires the manifestation of the teaching process and all its components in legal interaction. Yu.K.As Babansky noted: "an educator does not shy away from considering the connection between elements of the learning process, such as methods, tools, forms of content, as well as the conditions under which he will be practiced, only in a systematic approach to the delivery of his science to the student. Because in a one-sided approach, it is impossible to choose an optimal solution." Based on this definition, we can list the main criteria for choosing the optimal method of teaching methods:

- lesson process planning;
- basic training maxad;
- features of the content of the topic;
- student and teaching opportunities;
- time allotted for training;
- compliance of training with conditions.

In the technology of training management, first of all, it is possible to see with what tool and in what sequence this goal can be achieved, while the purpose of the lesson is clear, integrated into the profession. The activities of the teacher should be visible in the way of the organizer of the process of mastering the educational material and give importance to the activity of the student's activities. To do this, in the statement of the content of the material, the teacher uses various teaching methods and capabilities.

They have their own characteristics in the pedagogical system for slave methods in each training session. The main type of training in which the teacher is guided by the formation of concepts and behavior is practical classes and head-to-head lesson methods, the methodology for conducting which depends on pedagogical experience and skill. Studying this process incessantly, the skill of the teacher in his profession is determined by the fact that he occupies a complex of teaching technologies and their optimal forms.

Methods that are entering the educational process today in the name of "new pedagogical technology" imply the goal of achieving high results over a short period of time, without exerting excessive mental and physical effort on the part



of the teacher and the student. The student is expected from the objectivity with which educational processes should be taught to the level of his subject, who is directly involved in his upbringing. The learner has become the owner of the course process, just like the teacher.

The presence of such different definitions of pedagogical technology testifies to the versatility of the concept in question. This reason can be approached from pedagogical, psychological, didactic, organizational, economic, social, environmental and other points of view. So, in the process of pedagogical technology, the teacher, showing all his skills and knowledge, achieves the goal that the lesson pursues in all short vakt.

One of the emerging disciplines in the field of education is modern pedagogical technologies, the following methods are used in modern lessons, as well as in the subject of" mathematics:

A cluster (grid) is a branching of thoughts, which helps students to delve into a topic, teaching them to freely and openly Network a concept or specific thought relating to a topic in a coherent manner. This method encourages strengthening the mentioned topic, mastering it well, generalizing it and expressing the imagination of students as a subject in a drawing form.

Mental attack is the collection of thoughts and ideas in a large mikdor, making students free from the same inertia of thinking, ensuring the emergence of new thoughts in the process of solving creative tasks, which is more often used in the repetition and evaluation stages of method lessons.

The boomerang method-learning the teaching material in a deep and holistic state during one session, creative understanding, is integrated into the free possession of the subject, covers oral and written forms of work, and during one session, each participant can perform various tasks, take turns in the role of a student or teacher.

Problem situation method-used in theoretical and practical training. It is carried out in stages in sheep:

- A problem is indicated by the teacher.
- Students cite the root causes of this problem.
- There are currently various disciplines of pedagogical technology, some of which are listed below:
- Traditional education is the class-lesson system that is currently the most sought after.



- Pedagogical technology based on the activation and acceleration of student activity - problematic education, various homogeneous premises.
- Pedagogical technology based on didactic improvement and processing of educational material.
- Pedagogical technology based on the effective management and organization of the educational process - stratified, educational, collective method, group, computerized educational technologies.
- Developing educational technologies - the development of positive qualities of a student person, knowledge in some area, creative abilities.

There are also various other elements of pedagogical technology, which are attributed to the pedagogical scientist J.G. Yuldoshev divides into:

1. Empiric - obtaining knowledge through sensory organs.
2. Cognitive is a technology for expanding the range of knowledge in the world around.
3. Heuristic is a system of teaching with a goal of asking unifying questions.
4. The development of creative thinking, which has a creative-research character, is united to maksad in students.
5. Inversion - the formation of a system of thinking, having the property of studying information from different sides, replacing it with an urn.
6. Integrative is the integral correlation of an infinite number of small parts that make up information, their integrity, the identification of a single linear hulosa on the basis of one whole.
7. Adaptive - to study and teach information and the process of their use, to achieve a bruised result based on moslasting.
8. Inclusive - organization of the educational process on the basis of equality in the interaction of the teacher and the student.

In addition to traditional lesson methods in graphic sciences, it is also possible to enslave the yunalish of pedagogical technologies.

Educational methods such as story, conversation, research, inductive and deductive discussions, independent work with a book, the use of modern sources in education, oral flock, written works, creativity, programmed education, independent control work to one degree or another, provide teachers today at every stage of the educational process. But today's upbringing requires the teacher to form a healthy spiritual person, a harmonious person, not just a mature, educated person.



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