

NON-TRADITIONAL APPROACHES TO TEACHING MATHEMATICS

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Abstract: *if a system upgrade activity is short-lived, has a holistic system feature and only serves to change certain elements of the system, it is called an update. If the activity is based on a certain conceptual approach and its result is the development or transformation of a particular system, it is called innovation. In other words, innovation refers to activities that change the internal structure of a particular system. Innovative education is the one that gives students the opportunity to develop new ideas, norms, rules, the qualities, skills, and abilities of natural perception by others.*

Keywords: *mathematics, innovations, teaching method, education.*

НЕТРАДИЦИОННЫЕ ПОДХОДЫ К ОБУЧЕНИЮ МАТЕМАТИКЕ

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Аннотация: *если действие по обновлению системы является кратковременным, имеет целостную системную функцию и служит только для изменения определенных элементов системы, это называется обновлением. Если деятельность основана на определенном концептуальном подходе и ее результатом является разработка или преобразование определенной системы, это называется инновацией. Другими словами, инновация относится к действиям, которые изменяют внутреннюю структуру конкретной системы. Инновационное образование - это то, что дает студентам возможность развивать новые идеи, нормы, правила, качества, навыки и способности естественного восприятия другими людьми.*

Ключевые слова: *математика, инновации, методика обучения, образование.*

The technologies used in the innovation education process are called innovative educational technologies or educational innovations. Innovation in education can

be said to consist of forms, methods, and technologies that can be used to solve a problem in the field of education or in the learning process with a new approach. Increasing the effectiveness of education in the face of the education system today, through the introduction of educational and world-class education standards, is a fully developed creative, rich, professional, national and universal values, brought up in the spirit of the idea of national independence. the pedagogical team of educational institutions in solving such tasks as the upbringing of a fully developed personality with an educational and methodological complex of modern approaches to teaching and module of innovation.

Every teacher of science should radically change their teaching activities. In accordance with the requirements of the time, each teacher of science with his / her own knowledge, profound pedagogical-psychological and methodological knowledge, skills and abilities, as well as knowledge and ability to use them in the educational process, improves the effectiveness of the educational process. Be the owner of innovative activities. Each lesson requires a specific innovation and a creative approach from the teacher. The teacher is currently the author of each lesson. Because the teacher relies on the experience of the leading teachers in the preparation of this lesson, learning the methodological manuals and so on.[2]

In the math class, all elements of the learning process are interconnected. These are closely related to the purpose and content, the means, the methods, the forms of education organization. In non-traditional education, four components are combined. These are goals, content, activities, results. Consequently, the main features of modern mathematics are:

- ❖ Compliance with the requirements of the program;
- ❖ Clear planning of the objectives of each lesson;
- ❖ Ensure that the learning materials are distributed in the classroom and achieve the planned learning outcomes;
- ❖ Ensuring that students are actively working in the classroom without tiring;
- ❖ Focusing on students' interest in science and the acquisition of knowledge, etc. [1].

In many publications on pedagogical and psychological and science teaching methods, individualized learning is seen as an individualized form of learning that helps the individual develop his or her personality in the light of his or her interests. This education is, in essence, a comprehensive development of all participants in the learning process. This implies an approach when designing an education, of course, not the personality of a particular student, but primarily of learning objectives related to specialty activities. Recognizing that all the methods used in the educational process are personal, we also call the method of instructional influence on the individual student. Understanding the basics of personality-centered learning and understanding one another. The basis of traditional learning is an explanation, and the difference between these concepts is explained as follows: Explanation is one subject, a monologue; understanding is the understanding of two subjects, cooperation, dialogue. Transformation from explanation to understanding, from the monologue to the dialogue, from social control to development, from management to self-regulation. The educator should

not only get the students to know the subject, but also to make them cooperate and showcase their creativity. Pedagogical support of the student is the basis of the teacher must have a function. The learner does not have enough creative research, experience, abilities and potential to explore the issue. She needs the advice and help of a teacher. According to researches, support for the teacher is based on the following principles: [3]

- ❖ love for a child;
- ❖ humanize the environment in which the child lives;
- ❖ to see their own child as a child.

Foreign psychological research suggests that the task of a teacher is to shape and develop a child's personality. According to Rogers, a teacher should follow the following steps to create an environment in the classroom that influences the individual development of the student:

- ❖ to show students full confidence in the learning process;
- ❖ to help clarify and articulate the goals and objectives of each student and class;
- ❖ motivation for students to have internal motivation;
- ❖ be a source for each pupil with a variety of district experiences, always available when needed;
- ❖ the teacher always senses and accepts the mood of the student group;
- ❖ be an active participant in group dialogue;
- ❖ expressing your feelings;
- ❖ each student will be able to understand his or her feelings and experiences;
- ❖ self-awareness.

The teacher who organizes a person-centered education should meet the following requirements:

- value attitude to the child, culture and creativity;
- demonstrate human pedagogical attitude;
- mental and physical health of the child;
- creation and regular enrichment of educational-development and cultural-information educational environment;
- improving the content of education with regard to the formation of the student's personality;
- mastering various district pedagogical technologies that promote the formation and development of the student's personality;
- support and development of each student's specifics.

In the 1980s, American technology was developed by American educators in collaboration with many innovations in the education process. They have summarized and researched the best practices of several schools. Organization of collaborative learning - emphasizes the need for democracy, equality, cooperation in the subjective relationship between the educator and the learner, the introduction of co-operation in shaping the purpose and content of performance and the evaluation of results. This pedagogical technology is part of many modern pedagogical technologies as a source of new pedagogical thinking and progressive

ideas. The main idea of collaborative learning is not just doing something together but learning together.

The main idea of the technology of collaborative learning is to create conditions for students to actively collaborate in different learning situations. Students have different opportunities for mastering the learning materials: some are quick to follow the teacher's explanations and some need extra time and explanatory work. These students will be passive during their training sessions. If you divide students into groups of 4-5 or more, each student will be responsible for the tasks and group tasks assigned to them. At the same time, low-performing students seek help from advanced students. Problems arising from the partnership are solved. Experience shows that reading together is not only fun and easy, but also effective. There are various options for collaborative learning, with the following general principles:

- ❖ The groups are organized by the teacher, taking into account the psychological flexibility of the students before the training. Each group should include "strong", "moderate", "weak" and, of course, girls and boys;

- ❖ One task is assigned to the group, and the task of each member of the group is determined by the teacher;

- ❖ Team work is evaluated, not what each student does;

- ❖ The teacher determines which group member is responsible for the task of the group. In some cases, a "weak" student may also be selected because the purpose of each task is not their performance, but their achievement by each student.

The technological process of collaborative learning consists of the following elements:

- ❖ Learning problem (problem situation);

- ❖ Dividing students into groups that meet their learning objectives;

- ❖ Distribution of didactic materials;

- ❖ Teaching materials on the module of modern approaches and innovations in teaching of mathematics;

- ❖ Group work planning;

- ❖ Individual performance of tasks, discussion of results;

- ❖ Discussion of the overall mission of the group (notes, additions, clarifications);

- ❖ Information on the results of the work of the group;

- ❖ General conclusions about the work of the groups and achievement of the goals.

Educational technology should include all the features of the system: logic of the process, its interconnection and integrity of all its components. Activity-oriented approach. It refers to the formation of processive qualities of the individual, the activation and intensification of the activity of the learner, the disclosure of all the abilities and capabilities of the learner in the learning process.

References / Список литературы

1. *Abdukadirov A.A. and others. «Case-study» method: theory and practice. Tashkent, 2009. 125.*

2. *Yunusova D.* Modern technologies of teaching mathematics. Textbook, Tashkent, Science and Technology, 2011.
3. *Yunusova D.* Theory and practice of preparing future mathematics teachers for innovative activities. Tashkent, Science, 2009.
4. *Yunusova D.* Organization of mathematical education based on educational technologies. Tashkent. University, 2005.