ADVANTAGES OF USING THE PROBLEM LEARNING METHOD IN MATHEMATICS LESSONS IN THE PRIMARY SCHOOL

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Annotation. Problem-based learning is the creation of a problem situation by setting a problem for students to solve during the educational process and finding its solution in the learning process. The article talks about the advantages of using the problem-based teaching method in elementary mathematics lessons.

Keywords. Problem-based learning, problem, discussion of the problem, microgroups, analysis-synthesis, conclusion.

In the modern Republic of Uzbekistan, economic, political and legal conditions have been created for the continuous development of the general education school. In particular, in a number of regulatory documents adopted by our government, a number of measures have been initiated in the field of raising the quality of education to a new level. In particular, special attention is paid to primary school education, the training of future primary school teachers as qualified personnel based on the requirements of the time is considered one of the pressing problems of our time. Taking this into account, the President of Uzbekistan Sh.M. Mirziyoyev emphasizes the following: “Improving school programs based on advanced foreign experience, reviewing curricula and subjects, adapting them to international standards, textbooks and it is necessary to improve the quality of literature

The main goal of problem-oriented educational technology is to increase the independence and activity of students, the development of their thinking, and the strengthening of the application of the acquired knowledge. In the pedagogical and psychological literature, when it comes to the scientific and theoretical foundations of problem-based learning, there are cases of considering it as an educational method, principle, or separate system. Regardless of how to call problem-based learning, its main feature is to increase the student's intellectual activity,

independent creative search, discovery of new knowledge, skills and abilities. Since the formation of the educational process on the basis of modern pedagogical technologies, several interrelated stages of acquiring knowledge have been distinguished, such situations as giving, written expression represent the level of knowledge and understanding.

Each text task, but also the exercises presented in mathematics textbooks and didactic materials, is a kind of problem that the student should think about solving, if they are not turned into a purely training work associated with a solution according to a ready-made model given by the teacher.

The teacher, learning with children how to solve problems of certain types, offering a large number of exercises of the same type in a row, does not develop students' own thoughts.

The technology of problem-based learning is theoretically substantiated by such prominent scientists as Selevko G.K., Okon V., Lerner I.Ya., Makhmutov M.I., Kudryavtsev T.V.

Problem-based learning can be used to master generalized knowledge - concepts, rules, laws, cause-and-effect and other logical dependencies.

Problem learning:

-provides a stronger assimilation of knowledge;

- develops analytical thinking;

- helps to make learning activities for students more attractive, based on constant difficulties;

- it focuses on the complex use of knowledge

The teacher creates a problem situation, directs students to solve it, organizes the search for a solution.

Thus, the child becomes in the position of his learning and, as a result, new knowledge is formed in him, he masters new ways of acting.

The difficulty of managing problem-based learning lies in the fact that the emergence of a problem situation is an individual act, so the teacher is required to use a differentiated and individual approach.

The main functions of problem-based learning.

They are divided into general and special.

General features of problem-based learning:

- ✓ assimilation by students of the system of knowledge and methods of mental and practical activity;
- ✓ development of cognitive independence and creative abilities of students;
- ✓ the formation of the dialectical-materialistic thinking of schoolchildren as the basis of their worldview.

Special Features:

- ✓ Education of skills of creative assimilation of knowledge (application of logical techniques or individual methods of creative activity);
- ✓ developing the skills of creative application of knowledge (application of acquired knowledge in a new situation) and the ability to solve educational problems;
- ✓ Formation and accumulation of experience in creative activity (mastering the methods of scientific research, solving practical problems and artistic reflection of reality.

Levels of problem-based learning

Depending on the nature of the interaction between the teacher and students, we distinguish four levels of problem-based learning:

1. The level of dependent activity - the students' perception of the teacher's explanation, the assimilation of a mental action model in a problem situation, the student's performance of independent work, exercises of a reproducing nature, oral reproduction;

2. The level of semi-independent activity is characterized by the application of previous knowledge in a new situation and the participation of schoolchildren in finding a way to solve the problem posed by the teacher;

3. The level of independent activity - the performance of work of a reproductive-search type, when the student himself solves according to the text of

the textbook, applies previous knowledge in a new situation, constructs, solves problems of an average level of complexity, proves hypotheses with little help from the teacher, and so on;

4. The level of creative activity - the performance of independent work that requires creative imagination, logical analysis and conjecture, the discovery of a new way to solve an educational problem, independent proof; independent conclusions and generalizations, inventions, writing fiction.

Such an analysis can already direct their thought in a certain direction. They will be able to check the correctness of the assumptions that have arisen by turning to a careful examination of the figures proposed by him.

Here again they will have to make a series of observations, comparisons, comparisons, as a result of which they must make sure that indeed all red figures contain four corners, and green ones - five corners.

Having noticed this feature, comparing it with the features of the terms-names of these figures, the children must come to a conclusion, which will be the answer to the problematic question posed.

In mathematics lessons, the use of problem-based learning technology ensures the assimilation of the most important ideas of modern mathematics, mastery of the system of basic scientific concepts, the ability to navigate in scientific and technical literature, the independence of finding the necessary information, and the activation of creative abilities.

The success of using the problematic method largely depends on the interested position of the teacher and the high internal motivation of students. In the process of using problem-based learning, both the assimilation of the material and the development of mental activity occur.

The main result of using the technology of problem-based learning is that the graduate of the school is guided by modern values, gains experience in creative activity, that he is ready for interpersonal and intercultural cooperation.

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