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TEACHING PROBLEM SOLVING IN PRIMARY CLASSES

Annotation: In the article, the requirements related to the application of type problems in the process of teaching mathematics in primary classes were formulated and the rules of their application were examined. The method of conducting mathematics lessons is discussed on examples.

Keywords: methodology, practice, teaching, type

Аннотация: В статье сформулированы требования, связанные с применением типовых задач в процессе обучения математике в начальных классах, и рассмотрены правила их применения. На примерах рассматривается методика проведения уроков математики.

Ключевые слова: методика, практика, обучение, тип.

The main essence of the subject of methodology is to observe the rules required by the methodical process along with the teacher's unique methodology in the process of teaching any subject. Thus, the teaching of mathematics teaches the ways and methods of solving problems of one or another type. If he starts to teach algorithms during the teaching process, first of all, the teacher should direct the students to find this algorithm, to use it, and also at such a level that they can apply this algorithm to solving other problems of the same type (the realization that the problems given here belong to the same type is also a successful point of appropriation). But when it comes to non-homogeneous, so-called "non-standard" issues, they should feel that the algorithm they learned earlier does not work here (which itself requires skill), and in this case, the direction of training should be directed to the search, and in this direction, tips and instructions that may be useful for the orientation should be given. Although these instructions are not algorithmic and do not guarantee success, they can motivate students to find a solution. The main thing is that the student who is motivated to act under the influence of such instructions has the opportunity to gain experience in the search for the unknown in the analytical type of mental activity.

In general, problems are a tool of paramount importance in the management of the lesson applied as an organizational form of interactive learning. The use of this type of task, especially in the "research" and "creative application" stages of the lesson, has a positive effect on the efficiency of the teaching work. It should be emphasized here that D. Poyan's book "Как решать то, что не решается" (English to Russian translation, M, 1959), which has a unique place in the world scientific-methodical literature, proposed the stages of a general approach to solving mathematical problems. These stages, known as "Poya table", are the following: a) understand the structure of the issue; b) draw up a solution plan; c) implementation of the plan; d) going back or checking the solution.

During the solution of the problem, questions related to each part of the table were asked, and the answers to these questions were given in the book under the name "short heuristic dictionary". The author notes in the book that a great scientific discovery provides an opportunity to solve a relevant problem, but there is a particle of discovery in the solution of any problem. Teaching mathematics in this work has a wide range of possibilities. Experience shows that our teachers apply quite a variety of issues in the training process. Thanks to them (in the process of solving), students acquire new knowledge, repeat it, strengthen it, and in general, in this process, a system of scientific knowledge is obtained. These issues can be related to one or

another type (for example, coaching), as well as to the formation of skills in the application of this or that method. [4; 125] As a generalization of the facts obtained from the research, the requirements to be expected when using type problems in primary classes:

1. A strict system should be expected in the arrangement of type issues. This requirement applies both to different types of issues and to different issues of the same type. If the methods of judgments carried out during the solution of type issues are close to each other, they can be called close type issues. From this point of view, the following types of problems are considered close: simple ternary and complex ternary problems, omission problems, data equalization problems, substitution problems, and hypothesis problems. Let's not forget here that even though the calculation basis for solving problems related to proportional division and division into parts is the same, they are very far from each other in terms of judgment methods.

2. When introducing students to any type of problem, first, it is necessary to take problems with simple content that include small numbers for the application of the oral solution method. 3. At the initial stage, the methods of solving problems of the given type should be sought and found by means of judgments based on the visual representation of the content of the problem. Methods of solving problems of the given type are based on the visual representation of the condition of the problem and judgments that reveal the relationships of the quantities given in the problem.

4. When introducing students to a new problem type, it is necessary to solve several problems one after the other. In the process of mastering other problem types, it is important and useful for students to periodically return to previously learned types. It is recommended to include the simple type problem given during the revision in the complex calculation problem. 5. It is useful to solve the group of problems of the given type, draw conclusions relevant to the students' strength and conclude with generalizations; In these conclusions and generalizations, the common features of all resolved issues, their differences, and the method or solutions of these issues are mentioned. 6. After completing the work on the solution of one type of problem, the students' creation of a similar problem helps the students to understand and master the structure of the problems, their conditions, and the relationship between the quantities included in the problem; The fact that the students are able to set up a correct problem shows that they have mastered this type of problem well and are able to solve it. [3; 134-135] Presentation of examples of type problems and their solution technologies to students. 1. An example of a problem solved by the method of uniting. a) Issue. 5 balls are 60 cents. How many pennies are 7 such balls?

The condition of the problem can be written as follows:

5 balls60 cents

7 balls.....? Sh

In order for agirdin to solve this issue, he needs to make the following judgment: if 5 balls are 60 kopecks, then one ball is 5 times less than that, that is, $60 \text{ kopecks} : 5 = 12 \text{ kopecks}$. The price of one ball is 12 kopecks, the price of 7 balls is 7 times more, that is, $12 \text{ kopecks} \cdot 7 = 84 \text{ kopecks}$.

b) 4 balls are 80 cents. How to buy a ball like this for 60 cents? When solving this problem, the student makes the following judgment: 4 balls are 80 kopecks. A ball is four times less, that is, $80 \text{ kopecks} : 4 = 20 \text{ kopecks}$. If a ball costs 20 kopecks, then 60 kopecks can buy as many balls as $60 \text{ kopecks} : 20 \text{ kopecks} = 3$ (balls

The result

As a result, talking about the methods of teaching problem solving in schools and elementary classes, we can note that when introducing a new type of problem, it was emphasized as one of the main principles that it is necessary to solve several problems one after the other.

Literature:

1. Aliyeva, T.M. Mathematics teaching methodology in secondary school (general methodology, part II) / T.M. Aliyeva, T.E. Mutallimov, A.S. Adigozelov. -Baku: API, -1993.
2. Ibrahimov, F.N. Some issues of teaching mathematics in primary school (lecture notes) / F.N. Ibrahimov. -Baku: Mutercim, -2006.
3. Ibrahimov, F.N. Philosophy, didactics, implementation technology of mathematical education in secondary general education schools: Textbook / F.N. Ibrahimov. -Baku: Mutercim, -2018.
4. Ibrahimov, F.N. Teaching methodology of mathematics based on the curriculum model in secondary schools / F.N. Ibrahimov. -Baku: Mutercim, -2016.