METHODS OF TEACHING MATHEMATICS IN PRIMARY CLASSES

Imamova Nasiba Xurramovna,
Teacher of Shahrisabz State Pedagogical Institute

Abstract:
The article provides information about the methods of teaching mathematics, the specific features of the methods. Induction, deduction, analogy methods are given in detail.

Key words: method, teaching methods, deduction, induction, analogy, observation, oral conversation, teaching method, mathematics.

Introduction

All reforms carried out in the education system of our republic are aimed at ensuring a bright future for the young generation. A number of laws and documents adopted in this regard in the first years of independence are proof of our opinion. For example, the Law "On Education" aimed at the fundamental improvement of the education system in the Republic of Uzbekistan, the "National Program of Personnel Training" adopted in order to gradually implement reforms in this field, and as its integral successor "Strategy of Actions for the Development of the Republic of Uzbekistan", Presidential Decree No. 134 "On Approval of the National Program for the Development of Public Education in 2022-2026" [1,3], Uzbekistan in the world ranking It is appropriate to mention the "Concept of Science Development until 2030" and "Development Strategy of New Uzbekistan" adopted in order to raise its prestige. Based on these documents, it is important to further improve the mathematics teaching system of primary education.

Analysis of literature on the topic

In all the literature on the methodology of teaching mathematics, the methods of induction, deduction, and analogy are discussed. In particular, L.N.Skatkin defines teaching methods as follows: "Teaching methods are methods of organizing students' cognitive activities in the lesson." Psychologist I.YA Lerner also agrees with this opinion. In addition, the methodist Nekandarov defines teaching methods in his doctoral thesis as follows: "Teaching methods are the methods of starting students' learning activities in this lesson." But in the pedagogy book of G. I. Shukina, it is said about teaching methods: "Teaching methods are the joint work activities of the teacher and students aimed at educational goals in this lesson."

Research methodology. Methods of organizing educational activities can be classified into several groups:

I. According to the sources from which students learn:
- Verbal, instructive and practical method (explanatory conversation, story, working with a book, etc.);
- instructional methods (observation of surrounding objects and events).

II. **According to the direction of the student's opinion**: induction, deduction and analogy; methods.

III. **Pedagogical influence on the level of independence of students in learning:** method of educational work performed under the guidance of a teacher; method of students' independent work.

IV. **According to the level of independent activity of students**: explanatory - illustrative method; reproductive method; method of problem statement of knowledge; partial research and research method.

Analysis and results.1. **Oral methods.** In this case, it is possible to provide the most amount of information in a short period of time, to put problems in front of students, and to show ways to solve them.

2. Guided methods. Guided teaching methods allow students to gain knowledge based on observations. Observation is an active form of emotional thinking, which is widely used in teaching, especially in elementary grades. The surrounding objects and events and their various models (various types of instruction manuals) are the objects of observation. Instructional methods of teaching cannot be separated from oral methods of teaching. Demonstration of instructions-manuals is always carried out together with explanations of the teacher and students. 4 main forms of joint use of instructional tools with the teacher's words are identified: 1) the teacher directs the students' observations with the help of words; 2) verbal explanations provide information about the non-visible aspects of the object; 3) Instructions-manuals serve as illustrations confirming or concretizing the teacher's verbal explanations; 4) the teacher summarizes the students' observations and makes a general conclusion.

3. **Practical methods.** Methods related to the process of formation and improvement of qualifications and skills are practical methods of teaching. In particular, such methods include written and oral exercises, practical and laboratory work, and some types of independent work. Exercises are mainly used as a method of strengthening and applying knowledge, forming skills and abilities. An exercise is a planned repetition of an action in order to master or strengthen it. Great importance is attached to training, practice and creative exercises. Creative exercises include, for example, solving problems and examples in different ways, creating a problem based on an expression, short writing, creating a problem based on a drawing, solving problems and other exercises.

The essence of methods of induction, deduction and analogy. These three methods differ from each other depending on the characteristics of the conclusions underlying the acquisition of new knowledge.

The method of induction is such a way of learning, in which the student's thinking grows from unity to generality, from specific conclusions to general conclusions. An inductive conclusion is a conclusion that goes from the particular to the general. Using this method, the teacher carefully selects examples, problems, instructional materials in order to discover a law or rule. In primary 1-2 classes, more activities are introduced in an understandable inductive way. In elementary grades, the deduction method is widely used in connection with the induction method. In connection with the transition of primary classes to the requirements of the new teaching program, the limits of the use of the deduction method have expanded significantly. The usual methodology was to use almost inductive method and limited use of deductive method. The method of deduction is such a way of knowing that this way consists in obtaining new specific knowledge on the basis of more general knowledge.

Deduction is the transition from general rules to specific examples and concrete rules. We give examples of inductive and deductive conclusions. In order to explain the connection between the sum and the addend to the first graders, we bring the children to the conclusion by an inductive way. using indexing (various circles), first find the size of all circles (1 +2 =3).

After that, 1 red circle (representing the first addendum) is moved, while the children make sure that 2 blue circles remain, i.e. the second addendum. (3 − 2 = 1) After that, if 2 blue circles (representing the second addendum) are subtracted from the 3 circles, they make sure that 1 red circle remains, that is, the first addendum (3 −1 =2) . After that, along with other numbers and other instructional materials, such exercises are performed, and the children themselves express this general conclusion: if the first addendum is subtracted from the sum, then the second addendum is formed, if the

sum is If the second addend is subtracted, the first addend is the product. The inductive conclusion made by children is used for deductive reasoning when considering the subtraction of numbers 5,6,7,8,9. Analogy is a conclusion in which, based on the similarity of some features of objects, an approximate conclusion is made that these objects are also similar in other features.

An analogy is an inference "going from specific to specific", from one specific information to another specific information. For example, the transfer of written methods of addition and subtraction of three-digit numbers to addition and subtraction of multi-digit numbers is based on the application of the method of analogy. For this purpose, in the methodical literature, it is recommended to solve such examples when introducing written addition and subtraction of multi-digit numbers, in which each subsequent example includes the previous one. For example: 1 126 4752 54752 837 6837 76837 +172 + 3246 +43246 - 425 - 2425 - 52425 After solving such examples, students themselves can add and subtract multi-digit numbers in writing, add three-digit numbers in writing and they conclude that it is done like subtraction. At the heart of the use of the above-mentioned methods (induction, deduction, analogy) are mental operations such as analysis, synthesis, comparison, generalization and abstraction. The method of thinking (thinking) aimed at dividing the whole into its constituent parts is called analysis. The method of thinking aimed at establishing connections between subjects or events is called synthesis. When answering the question, how many tens and how many ones are there in the number 100, students analyze the number. They follow these words (that is, they conduct an incorrect analysis), and doing so often leads to a mistake, that is, a false synthesis.

The method of comparison consists in distinguishing similar and different signs of the considered numbers, arithmetical examples, problems. The elementary course of mathematics opens up great opportunities for the use of the method of comparison: comparison of numbers, expressions and numbers; comparing two expressions; comparing issues etc. Children are faced with generalizations when forming new mathematical concepts and laws.

Generalization is the separation of common important aspects from the studied objects and separating them from unimportant ones.

Conclusions and Suggestions
Each type of teaching methods reflects a short way to achieve the goal and serves to increase the quality of education. Being able to use each method in its place and effectively is a part of pedagogical skills.

REFERENCES

1. "2022-2026-yillarda Xalq ta'limini rivojlantirish bo'yicha Milliy Dasturni tasdiqlash to'g'risida"gi 134-sonli Prezident Farmoni. 11.05.2022

2. Jumayev M.E. Matematika o'qitish metodikasi (OO'Y uchun darslik)Toshkent. "Turon-Iqbol" 2016. 426 b.

3. Jumayev M.E, Tadjiyeva Z.G'. Boshlang'ich sinflarda matematika o'qitish metodikasi. (OO'Y uchun darslik.) Toshkent: Fan va texnologiya, 2005.

4. Jumayev M.E, Boshlang'ich sinflarda matematika o'qitish metodikasidan praktikum. (O O'Y uchun) Toshkent: O'qituvchi. 2004.