SJIF Impact Factor 2021: 8.013| ISI I.F.Value:1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 6 | Issue: 4 | April 2021 - Peer Reviewed Journal

CLASSIFICATION OF TEACHING METHODS IN TEACHING MATHEMATICS

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ABSTRACT
The word mathematics is derived from an ancient Greek word meaning "to know the sciences". The object of study of mathematical science consists of the spatial forms of things existing in matter and the quantitative relations between them. The purpose of teaching mathematics is determined by its role in the development of society and the formation of the individual.
KEY WORDS: *classification, method, methodology, elementary mathematics*

DISCUSSION

From history, aspects of mathematics have been formed: the creation and application of the tools necessary for practical-human productive activity, and the acquisition of mathematical methods aimed at understanding and changing the world associated with spiritual-human thinking. Mathematics develops in students the will, concentration, ability and activity, imagination, moral qualities of the person (determined, goal-oriented, creative, independent, responsible, hardworking, disciplined and critical thinking) and the ability to defend their views and beliefs on the basis of evidence. In the process of studying mathematics, methods and techniques of human thinking include induction and deduction, generalization and determination, analysis and synthesis, abstraction, analogy, classification and systematization. In the study of mathematics, students acquire the skills to express their thoughts and ideas clearly and completely, concisely and meaningfully, to understand, comprehend and perform mathematical notation. Mathematical thinking develops the ability to draw logical conclusions about objects and how to construct them, to form opinions, to justify and prove, and on this basis logical thinking develops. It also nurtures the ability to formulate algorithmic thinking, work on a particular algorithm, and build new ones. In the process of solving examples and problems from mathematics, creative and practical aspects of thinking develop. Aesthetic education is given to students by teaching them to think clearly, concisely, fluently in mathematical proofs, to imagine geometric shapes, to see beauty on the basis of their symmetry, strict laws.

In order to deal with possible cognitive problems in quality education, it was necessary to develop a number of points that allow the use of graphical settings using theorems within the set conditions. While these developments make it possible to obtain fully expected results, the institutional situation poses serious challenges to tuning the schedule, yet the distribution of such a product has proven effective in in-depth negotiations between teacher and students to be effective. After giving an example, we would like to return to the general questions discussed at the end of this article after trying to show how to cite its content from a system perspective. In order to achieve the goal of the approach, the characteristics of the educational content are taken into account, in which the content of education is preserved and then the necessary developments are developed, which are not included in the text of knowledge. This makes it possible to deny the complexity of the didactic aspect. However, it can also be seen that the application of this production technology is not an easy task at present, but it is also gaining interest through theoretical research questions. Artigue and Perrin (1991) considered these challenges in civil engineering in groups consisting mainly of disabled students. Conducting work in such classrooms served as an activity that showed students a dramatic character change through a magnifying glass. Such changes

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stem from the gaps between engineering beliefs and the teacher's understanding of the role of the teacher in education: the teacher's desire to build a continuous transition of small steps without providing anything to students who cannot yet see mistakes; allows easy and simple management of the contract, everything is focused on the student being able to demonstrate their external skills, but if the student fails, the teacher is not asked too many questions. Teachers think that we have adapted it in the implementation of the proposed engineering ideas, but in reality there is a change in the whole system. These difficulties are indirectly related to the theoretical shortcomings that underlie engineering. For a very long time, the theoretical basis did not see the teacher and the student as actors, and therefore modeling remains at the center of the student learning relationship. Finally, in addition to these questions, the engineering builders explained their main problem in writing: What level of description should be applied? Which epistemology to rely on? How to achieve brevity and clarity? How to narrow down the product presentation? The problems that arise as a result of deviating from the chosen path in voluntary management, multiply here, and it must be admitted that there is no clear answer to their solution.

The work done in solving the problem certainly has its place, creating a set of functional products that fit into the framework of the theory, in order to better understand the issues related to the preparation of educational content. However, like any other approach, it does not completely solve these difficult problems. At the present time, the science of mathematics is conventionally divided into two: 1) elementary mathematics, 2) higher mathematics.[1] Elementary mathematics is also a science with an independent content, based on elementary data from various branches of higher mathematics, namely theoretical arithmetic, number theory, higher algebra, mathematical analysis, and the logical course of geometry. Higher mathematics, on the other hand, applies this by finding mathematical laws that fully and deeply reflect the spatial forms of the real world and the quantitative relationships between them. The science of elementary mathematics forms the basis of the school mathematics course. The purpose of the school mathematics course is to convey to students through a system of mathematical knowledge in a certain way (methodology), taking into account their psychological characteristics. (The word methodology is a Greek word meaning "way").

Mathematical methodology is one of the main branches of pedagogy and didactics, and at the level of development of our society is an independent discipline that studies the laws of teaching mathematics, teaching in accordance with the objectives of education. Mathematical methodology answers the following three questions related to the learning process:

1. Why should we study mathematics?
2. What should we learn from mathematics?
3. How to study mathematics?

The concept of the methodology of mathematics was first described in the work of the Swiss pedagogue-mathematician G. Pestalozzi "Visual study of numbers." Professors V.M. Kolyagin, J. Ikramov, R.S. Cherkasov, N. Gaybullaev, T. Tulaganov and other methodist scientists were engaged in the methodology of school mathematics, which is taught on the basis of the current program. By education, we mean conscious and goal-oriented cognitive activity between teacher and students. Any education has two goals:

1) To provide students with the necessary knowledge system to be learned on the basis of the program.

2) To form students' logical thinking skills by imparting mathematical knowledge.

In order to achieve these two goals in the educational process, the teacher must explain each concept taught on the basis of psychological, pedagogical and didactic laws. This results in a psychological process in the minds of students called cognition. We know from the course of philosophy that the process of cognition "means from living observation to abstract thinking and from it to practice."[2] It seems that the process of knowing depends on thinking. Thinking is the active reflection of the objective world in the human mind. From a psychological point of view, the process of cognition is of two types:

1) Emotional cognition (intuition, perception, and imagination).

2) Logical knowledge (concept, judgment and conclusion).

A form of thinking that reflects the basic properties of things in a mathematical object is called a mathematical concept. Each mathematical concept is characterized by its two aspects, namely content and volume. The content of a concept is said to be the basic set of properties that represent that concept. The volume of a concept is the set of all the objects that fall into that concept. Introduction of mathematical concepts is carried out on the basis of :

1) Exact - inductive method;

2) Abstract - deductive method.

Confirmation or denial of a mathematical idea formed on the basis of mathematical judgments. There are three types of mathematical judgment:

1. Unity judgment.
2. Private judgment.
3. General judgment.

In the process of teaching mathematics, all three types of the above sentences are inextricably

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linked. In other words, a special judgment is formed as a result of a single judgment, and a general judgment is formed as a result of a private judgment. Mathematical reasoning is also a form of logical thinking. The third final judgment, made up of two firm judgments, is called a conclusion. The main types of mathematical judgment in a mathematics course are: axiom (gr. "A sentence with prestige"); postulate (gr. "demand-determining"); theorem (gr. "look out"). Didactic principles in mathematics lessons.

1. The principle of science.
2. The principle of demonstration.
3. The principle of consciousness.
4. The principle of activity.
5. The principle of careful mastering.
6. The principle of systemicity.

Mathematical teaching methods. In modern didactics, including the subject of methods of teaching mathematics, the problems of the method of teaching are generally solved, which is characterized by the following two aspects:

a) Teaching (teacher's activity);

b) Learning (conscious cognitive activity of students).

Teaching and learning methods are inextricably linked to each other and make the teaching process happen. Teaching methods in a mathematics course can be classified as follows.

1. Research methods (observation, experiment, comparison, analysis and synthesis, generalization, abstraction and classification);
2. Teaching methods (heuristic method, programmed learning method, problem-based learning method, lecture and conversation methods).
3. Inference methods (induction, deduction and analogy).

We know that the object of study of the science of mathematics consists of the spatial forms of things in matter and the quantitative relations between them. In the process of determining the quantitative relationship between these forms, mathematicians use scientific methods of research as a tool.

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