

## **Organization Forms of the Development of Primary Mathematical Concepts in Children**

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**Abstract:** This article presents opinions and conclusions about the importance of the forms of organizing the development of elementary mathematical concepts in children.

**Keywords:** Concept, object, quality of education.

Concept is the result of differentiating or generalizing objects and events according to the symptoms of some environment. For example, number, quantity, section, straight line, etc. A symptom (sign) is a property that indicates the similarity, equality or difference of objects or events. Subjects mean objects. Generally, objects have certain important and non-essential properties. An important property refers to properties that belong only to this object and without which the object cannot exist. Properties that do not affect the existence of the object are considered non-essential properties. If there are properties of an object to know what it means, then the concept of this object is said to exist. The concept is named, it also has content and size. All the important properties of the object together form the content of the concept. A collection of objects with the same important properties constitutes a concept volume. Therefore, the scope of the concept is also a collection of objects that can be named by a single concept. Mathematical concepts, in turn, arise as a result of the generalization of the great experience accumulated by humanity and reflect the essence of the material world, but result from their idealization while ignoring many properties of real objects.

The formation of mathematical concepts is recognized as one of the necessary school subjects for preparing children of primary school age to teach mathematics. The main issue of the theory and methodology of the formation of mathematical concepts in children is the development of didactic foundations of the formation of mathematical concepts in children. This, in turn, is solved by performing tasks such as in-depth knowledge of the world, learning new methods of thinking development. Theoretical aspects of the formation of mathematical concepts in children are created on the basis of psychological, pedagogical and other fundamental sciences:

- Demonstration program documents ( instructions on forming mathematical concepts in children , etc. );
- Methodical literature (articles published in special magazines, for example, educational manuals on preschool education, games, etc. );
- The problem of collective and individual work, best practices and opinions of scientists has a scientifically based methodical system. Their main elements, purpose, content, methods, forms and methods of organizing work are inextricably linked. The main goal among them is focused on the formation of imagination.

Formation of mathematical concepts is a purposeful pedagogical process of human creative activity. Its purpose is to prepare children not only to know mathematics, but also to help them find their place in life. The main issues of the science of developing mathematical concepts in children are as follows:

and school preparatory groups in terms of the level of development of mathematical concepts in children ;

- Development of mathematical concepts, planning of preparation for learning school mathematics; development of ways and conditions of development of mathematical concepts ;
- Providing methodological instructions that ensure the development of mathematical concepts in children. It is known that every person can build a developing society in the conditions where he can find his place in life according to his aspirations, abilities and capabilities. Full functioning of a person in society, i.e. daily life, production activities, higher level general development and improvement of general culture are required. Therefore, our main task is to encourage children of school age to learn, to call for activity, to show the importance of mathematical concepts in every type of practical activity, and to teach them to think. So, modern preschool education has the task of developing independent, active mathematical concepts in children from a young age. In modern science, several directions for the development of mathematical concepts have been defined: philosophy considers the problem of the authenticity of knowledge; logic is studied as a knowledge system that develops understanding, psychology examines the hypothesis that each child's independent thinking process is manifested by what and through which thinking process; pedagogy examines ways of forming creative activity in children, preparing the young generation for creative work.

The problem of development of mathematical concepts from a psychological point of view includes the following issues: 1) emergence of the structure and form of the concept ; 2 ) development of mental actions and ways and methods of mental activity for the formation of concepts. This problem was first addressed by L. S. Vygotsky, AN Leontev, SVL. The works of Rubinstein, O. K, Tikhomirov and others are dedicated. Secondly, PY Galperin, YIGrudenov, ZIKalmikov, YM Kolyagin, VA Krutesky, AM Matyushkin, ZI Slekan, NF Talizina, LM Friedman and others studied in their work. Considering the psychological and pedagogical studies, it can be concluded that the formation of mathematical concepts in children develops effectively under the guidance of a pedagogue, in the process of purposefully organized activity. Under the guidance of a teacher, the knowledge of generalization, thinking, and logical connection develops in the educational process , and this is definitely reflected in the pedagogical process.

In solving this problem, the psychologists' priority is that the formation of mathematical concepts in a child is carried out on the basis of special psychological laws. But mathematical concepts are not born with a person. Preschool education should be of great importance in raising these characteristics in children. The level of modern development of science and technology and life sets the task of continuous improvement of the process of education and upbringing of young generations growing up before preschool education. Psychologists, pedagogues and methodologists, together with experienced teachers, are persistently searching for ways, forms and methods of organizing lessons, conditions for raising the quality of knowledge and skills are being developed. It is important to work hard with the younger generation when setting demands for strengthening the quality of education. Preschool education is not only about determining the amount of specific knowledge, but also about developing mathematical concepts in children based on the results of acquired knowledge. In the studies of MADanilov, LV Zankov and others, the child's educational activity takes place in comfortable conditions, using various subjects to develop their mental activity. Therefore, educational methods should be focused on

the formation of mathematical concepts for the development of creative activity in the child, embodying different methods of work.

The development of mathematical concepts in children depends on a number of conditions:

First, it is important that the child acquires the knowledge and skills he has acquired before.

Second, the content of mathematical concepts must be sequential.

Thirdly, the child must learn the process of mastering mathematical concepts and know the resulting conclusions.

The fulfillment of these tasks depends on the level of knowledge and the level of development of the child's mind. Therefore, at the first stage, it is necessary to offer the pedagogue (educator) issues that do not require a lot of mental strength and diligence.

In this case, the child should master a simple mathematical concept, and then gradually develop and complicate the mathematical concepts until the child develops the ability to work independently. The appropriateness of using the process of mastering a mathematical concept also depends on the content of this concept. The information in each concept is a logically completed framework of mathematical concepts and ideas, which must be actively mastered by the educator, reworked and thought through to the end.

Didactic principles of education should be taken into account when forming mathematical concepts in children.

The development of mathematical concepts and its complexity should be built on the basis of the law of negation of negation, which is one of the basic laws of dialectics. According to this law, the substitution of one problem for another problem must be based on a clear connection between them.

the following and previous issues arises from the unity of their internal quality. This qualitative unity derives from the structure of how each set of issues is structured.

It is also necessary to be able to draw conclusions when solving problems, to find ways to solve the problems that have arisen. Starting work from solving the most convenient and simple problems, which gives an opportunity to fully use the knowledge formed by pedagogues in solving problems, can lead to the expected results.

Also, the implementation of such work depends on the content of the selected issues, their variety, solution methods, and also on the organization of the training.

In order for the training to be sufficiently satisfactory and successful, the pedagogue must clearly understand and master the general educational, educational and developmental purpose and task of the training, as well as the methods of its implementation. In the process of solving problems in the lesson, every child should have achieved the system of mathematical knowledge, special and general educational skills and qualifications, the level of development and upbringing, which will allow him to develop his independent thinking.

Each objective of the training should be clear, and a specific qualitative change in knowledge should be expected. The child should have the appropriate skills and abilities to solve problems, logical and creative thinking activities, and moral education should also be fully formed in him. The pedagogue should encourage the child with the help of questions, create problem processes, organize free creative activities. In the implementation of these works, the following conditions must and are necessary:

- to maintain the speed of training that does not allow accidental "gap";
- all explanations, orders and instructions must be made clearly before the start of the work ;

- the pedagogue (educator) should constantly activate children's thinking during their individual answers in their explanations;
- while all the children are working, do not distract them with unnecessary words, do not walk around the room, and do not say reprimands to certain groups of children in a loud voice;
- different form and appearance of the work ;
- to use various strategic methods of organization in the analysis of the discussed material .

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