

## MATHS KEY OF MIND AND INTELLIGENCE

(Methodology for the formation of elementary mathematical representations of children in preschool institutions)

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**Abstract:** This article includes theoretical and methodological problems. It gives recommendations on planning, organizing and conducting work with foster children of a preschool educational institution to study concepts such as quantity and count, size, geometric shapes, space and time.

**keywords:** score, quantity, space, time, forms

Preschool education is primary, the most basic part of the continuing education system. According to the scientific conclusions of experts, a person receives 70% of all information up to 5 years during his life. Therefore, the education of pre-school education is very important in making children healthy, knowledgeable and mature staff. The President of the Republic of Uzbekistan Shavkat Mirziyaev at a meeting held on August 16, 2017, set a number of important tasks to fundamentally reform the structure of the preschool education system, and to fully reach children in these institutions. As a result of analyzes in this area, 3 important documents were signed in a short time: Decree of the President of the Republic of Uzbekistan "On measures to fundamentally improve the management of the preschool education system" No. PP-5198 of September 30, Decree "On measures for the radical improvement of the preschool education system" for No. PP -3261 dated September 9, as well as the Decree "On the organization of activities of the Ministry of Preschool Education of the Republic of Uzbekistan" under No. PP-3305. The program adopted in order to improve this sphere noted the place of preschool education as the primary link in the system of continuing education in the formation of legal literacy of children in preschool

educational institutions, as well as the main priority direction of state policy in the republic on the educational system and education of a harmonious generation.

A concept is the result of differences and generalizations of objects and phenomena according to the characteristics of a certain environment. For example, number, quantity, segment, straight line, etc. A feature is a property, meaning the similarity, equality, or difference of an object or phenomenon. Objects are objects. Usually, objects have certain important and not important properties. An important property applies only to this object and without this property the object cannot exist. Properties that do not affect the presence of an object are not important properties. If there are properties for designating an object, then in this case there is a concept about the object. The concept is called, and also has content and volume. All important properties taken together constitute the content of the concept. A set of objects that have the same important properties make up the scope of the concept. Therefore, the scope of a concept is also a set of objects that can be called a single concept. Mathematical concepts, in turn, arise as a result of a generalization of the great experience accumulated by mankind and reflect the root essence of the material world, but are formed as a result of their idealization, turning a blind eye to many properties of real objects. In the formation of mathematical concepts, the training of preschool children in the study of mathematics is recognized as one of the necessary subjects of the school. The main task of the theory and methodology of the formation of mathematical concepts consists of the development of didactic foundations for the formation of mathematical concepts in children. This, in turn, is solved by performing tasks such as the study of new methods of deep knowledge of the world, the development of thinking. Theoretical aspects of the formation of mathematical concepts in children are created on the basis of psychological, pedagogical and other fundamental disciplines:

- visual program documents (instructions on the formation of mathematical concepts in children, etc.);

- methodical literature (articles published in special journals, for example, textbooks on preschool education, games, etc.);

- to carry out work collectively and individually, leading experiences and opinions of scientists.

To date, the problem of the formation of mathematical concepts has a scientifically sound methodological system. Their main elements are closely interconnected with the purpose, content, methods, forms and techniques of organizing work. The main goal between them is aimed at the formation of representation.

The formation of mathematical concepts is a purposefully carried out pedagogical process of a person's creative activity. Its purpose consists not only of teaching children mathematics, but also of preparing them for life, helping them to assert themselves.<sup>1</sup> The main tasks of the discipline for the development of mathematical concepts in children consist of the following:

- substantiate a plan of conditions for the second junior, middle, senior and preparatory groups in terms of the level of development of mathematical concepts in children;

- plan the preparation for the study of school mathematics for the development of mathematical concepts;

- develop ways and conditions for the development of mathematical concepts;

- give guidelines to ensure the development of mathematical concepts in children.

The main conditions for a thorough lesson:

1. The teacher must know the basics of the features of the scientific psychological, pedagogical development of the child.

2. Know the scientific system for the development of mathematical representations of the child.

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<sup>1</sup> Bikbaeva N.U., Ibrahimova Z.I., Kasimova H.I. The formation of elementary mathematical representations, T., 1995

3. To know the training program, that is, the content of work with elementary mathematical representations in each age group.

4. Own teaching methods for teaching children, that is, know how to carry out work.

5. To master the material of the training program, to know what is carried out only in special classes.

6. To know how to plan training in mathematical concepts at each lesson, such as quantity, form, environment, time, together with the activity of numbers.

7. Know that the structure of the lesson is based on the didactic principle.

8. Widely use in the classroom various analyzers.

9. To know that the widespread use of visual materials is one of the basic conditions.

10. To know that the child's work with handouts is the main condition for each lesson.

Competencies of the sphere "Development of the cognitive process"<sup>2</sup>

<sup>2</sup>After the educational activity in the field of development of the cognitive process reaches its completion, the child is 6-7 years old:

- takes an active interest in obtaining knowledge;
- independently finds and uses information for educational and life activities;
- understands the simple connection between objects, events and manifestations and perceives them as an integral unity;
- knows numbers, counts and applies in life;
- acts according to space, form and time;
- carries out elementary mathematical calculations;
- monitors events and phenomena in the environment, and also explores them;
- shows caution and care for the environment.

In the formation of mathematical concepts in preschool children, interactive technologies and information from the Internet should be used.

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<sup>2</sup> Xasanbayeva.O.U. "Pedagogy of preschool education" .Т .., 2006

In the second younger group, special work began on the development of mathematical concepts. The harmonious upbringing of children depends on the degree of successful organization of the first perception of quantitative relations and spatial forms of the exact sciences.

In modern mathematics, the theory of problem books is used to substantiate the concepts of “number”, “form” and others. This, in turn, creates the condition for the formation in children of quantitative relations and the formation of the concept of natural numbers. The problem book is considered an unexplained concept, given on the basis of examples, for example, in a task book for children in a preschool educational institution it is said about a book of fingers on a hand or a book of words in a sentence. In addition, the problem book is used as words denoting the sum of something, for example, a flock, a bouquet, a herd, but this element may be missing one element or even elements.

In particular, the setting of new goals for the school has led to a radical change in the content teaching mathematics in preschool education.

With effective teaching of children's mathematics at a preschool educational institution, the future educator must master and deeply master the developed methodology “Formation of mathematical representations in preschool children”.

The education of the young generation in the spirit of devotion to their people, society and country, respect and preservation of the rich national cultural heritage and values was an urgent task facing society, it requires great work from the employees involved in the educational process.

## **References**

1. Gabdulhakov, V.F., 2013 Design of technology of personification. In the Proceedings of the International Scientifically-Practical Conference "Modern scientific achievements" Prague: Dil 35 Pedagogika, pp: 85-87.
2. Kalimullin, A.M. and V.F. Gabdulkhakov, 2013 Diversification and New Model of Preparation of a Teacher. Education and Self-Development, 4(38): 3-10.
3. Tchoshanov, M., 2013 Engineering of Learning: Conceptualizing e-Didactics. Moscow: UNESCO IITE, pp: 192