

**PRINCIPLES OF THE FORMATION OF MATHEMATICAL REPRESENTATIONS
IN PRESCHOOL CHILDREN**

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Annotation. This article describes the principles of the formation of mathematical representations in preschool children.

Keywords: mathematical outlines, didactic principles, preschool educational institution, various age groups.

Introduction

In the formation of elementary mathematical representations of children, the following didactic principles are based:

The principle of science. This principle requires a corresponding coverage of the facts studied in preschool educational organizations, as they are covered in science, that is, when we talk about science, we must first of all focus on the fact that the content of the given knowledge is structured on the basis of science.

The principle of unity of theory and practice. This principle requires going to expand the dependence of the given theoretical knowledge on life, on practice with all measures. By moving directly from mathematical theory to solving various exercises and problems, this principle is carried out in a wide picture. Indeed, it is necessary to give young children training, that is, knowledge, in the room where they see with their eyes every day, on the street, in connection with objects in the house, because it helps children to quickly get down, master.

The principle of specificity. It depends on the characteristics of development of children's thinking, from clarity to abstraction. The main goal of teaching mathematics is to develop logical thinking; however, the teaching of mathematics should not be separated from specific facts and images, but, on the contrary, the study of any issue should begin with the examination of these specific facts and images.

Clairvoyance facilitates the assimilation of learning material and contributes to the firmness of knowledge. For example, when we talk about a circle, children should be able to hold between their two hands by giving each of the child circles. That it is round, that it is flat, that all the analyzers of the child at the tip of the hand are better in their memory, attended.

The principle of systemality, sequence and robustness in knowledge acquisition. In mathematics, the importance of a systematic statement of material is very great, since in mathematics, logical connections between certain facts are extremely important. The knowledge given to children should be gradually complicated, starting with easy examples, not being fragmented and connected with each other.

And thorough mastery is of great importance in mathematics, in particular. Mathematical concepts are so interconnected that even if only a part of the mandatory minimum is not known, children will not be able to use their knowledge in life, and it will be more difficult to continue acquiring mathematical knowledge.

In mathematics, it is also very important to master the skills of number and number, size, geometric figures, tevarak-knowledge of the environment, timing. Especially in mathematics, even more so than in other disciplines, it is impossible to go forward with success without mastering some part of the program well and without strengthening the qualifications well.

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The principle of Individual approach. This principle arises from the requirements that it is necessary to take into account the age characteristics of children, that is, their abilities, psychology, and this principle must be carried out during the period of teaching mathematics.

Discussion and results

The main form of work carried out on the formation of mathematical representations is educational playful activity. Most of the program's tasks are solved in educational game activities. In children, in a certain consistency, outlines are formed, the necessary qualifications and skills are formed. In educational game activities and in everyday life, didactic games and play-exercises are widely used. In addition to educational game activities, games are organized, the mathematical imagination of children is strengthened, deepened and expanded.

The Ministry of preschool education of Uzbekistan reworked this program, taking into account the specific aspects of our republic: climate, geographical, economic, cultural, national conditions. The program includes the amount of knowledge and skills that children from birth to seven years of age must acquire. It provides for the comprehensive maturation of children of preschool age, taking into account psychological-physiological and specific characteristics.

Education in preschool educational organizations is carried out by an educator. It occupies a central place in the pedagogical process. Therefore, the educator must have a deep knowledge of his field, a good mastery of various methodological tools, a thorough pedagogical-psychological training. Alternatively, subjects in the specialty, including the law "on education", the National Program of Personnel Training, pedagogy of preschool education,

The "first step" should be a thorough mastery of the state program, state educational standards, the subject of the methodology for preparing children for school, etc.

By the time of school attendance, it is necessary for children to acquire relatively more interconnected knowledge of set and number, shape and size.

As education is prepared for activities, the educator carefully studies the content of the program. Mathematical knowledge is given to children in a strictly defined system and consistency, in which new materials must be at a level that children can master. Each task is divided into a number of sub-assignments. These small assignments are studied in series. For example, acquaintance of preparatory group children with the division of items into pieces is carried out in such a sequence: children in the first educational activity practice dividing items into two equal parts and master what is half; in the second educational activity, children's concepts of equal double items are expanded, and a corresponding dictionary is activated; in the third educational activity, the educator; later, the children are shown different ways of dividing geometric shapes into two and four parts, the children learn the relationship between the whole and the part. Thus, each section of the program is carried out in several (three to six) consecutive educational activities. Children's knowledge expands, is identified and strengthened when they move from one educational activity to another educational activity. Of great importance in the transition from one section to the second section of the program is the repetition of what has been passed, ensuring the connection of new knowledge with acquired knowledge. Repeating the material passed through the process of studying the new material will not only deepen the knowledge of the children, but will allow them to focus their attention on the new material, its thorough assimilation. Usually, a new topic is studied during three to five sessions, first in the first part of it, and later in the second. The topic should be repeated after two weeks, sometimes three

weeks. As the period of return to old material progresses, each studied section of the program must remain within the educator's thinking until the end of the school year.

In this regard, in one session itself, issues related to one section of the program or different sections, namely "quantity", "number", "size", "shape" and other sections, can be studied and repeated. This is how it will be possible to ensure that the program on all its sections is consistently studied by children and the formation of a system of elementary mathematical knowledge in them. In teaching mathematics, different types of educational activities are used. The type of educational activity is determined by its content. It is devoted to the study of new material or the repetition of what has been passed, the generalization of materials of a number of educational activities or the examination of children's knowledge.

In the teaching experience, qurama classes occupy the most place, in the first part of which new material is studied for 8-10 minutes, in the second part (for 9-12 minutes), the knowledge and skills acquired in previous classes are strengthened, and in the end, the previously mastered knowledge for children is repeated for 3-4 minutes. Mastering new material requires more tension from children. Therefore, the introduction of familiar material at the end of educational activities allows you to relax a little. For example, in the first part of educational activities in the preparatory group, an introduction to the composition of the number 5 of two numbers smaller than itself, in the second part, an improvement in the qualification of being able to draw a circle and an oval. The composition of numbers 3 and 4, consisting of two small numbers, can be studied, knowledge can be strengthened. In the third episode, "what's changed?" game can perform exercises on counting a set of items (e.g., determining how many planes are in each group, how many planes are in each group, how many of all planes are). The structure (structure) of educational activities depends on the size, content, expressiveness of the program sections, the level of assimilation of the relevant knowledge and skills and other factors. It is advisable to conduct educational activities on one or two topics in a small group of Chunonchi. At the same time in all groups, the first training on a new topic is usually devoted to complete learning, repetition is carried out in connection with the transition of new material or at the end of educational activities. The second, third and subsequent educational activities will be devoted to strengthening the material both on the given topic and on the previous ones. It is advisable to start training with repeated exercises, these exercises are self-sufficient intelligence Gymnastics, for example, "who counts which toys?" , "How many toys?" can be started with play-by-play. These can be used in a large group. (The called Children count the toys according to the instruction of the educator, and then the toys are closed with a napkin, after which the children find out how many of this or that toy were or who had the toys and how many were the toys.) Children (in middle, large, and school preparation groups) practice grouping items and geometric shapes by their different symptoms, and conceiving questions with the word "how many" in preparation groups for a set of toys, shapes, tables. Also, "find your neighbors", "what number did I miss?", "Whoever knows a lot will count long". When explaining the new material, it is important that the actions of the educator or The called child are visible to all children. Later, assignments to strengthen knowledge and skills are given to all children at the same time. Children should sit with their faces (or sides) facing in their seats. Because when checking the execution of assignments or giving new assignments, the educator will have to draw the attention of children to the sample, indicate one or another aspect of its execution. In the presence of six-seater tables, no more than four children should be planted around it. If necessary, it is necessary to put an additional 1-2 tables. Activities in which children's knowledge and skills are checked are organized in front of the educator's desk.

If action games are used in the course of educational activities or at the end of it, it is necessary

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to prepare a place in advance to host these games. When successfully conducting educational activities, the correct choice of instructions - instructions is of great importance. Both in the formulation of mathematical representations and in the case of bringing children to initial generalizations (connections and relationships between adjacent numbers, "equal", "excess", "low", "whole", "part"), the demonstrativity serves as the initial period. In all educational activities, objects, toys, natural materials used in everyday life are widely used. Toys are chosen in large quantities so that all children can play with toys. Various items are used as mathematical knowledge is assimilated by abstraction. At a certain stage of training, tables, schemes (a scheme for dividing apples into two and four equal parts) should be indicated material. The character of demonstrativity varies not only from age to age, but also depending on the place and the relationship between concrete and abstract at different stages of knowledge acquisition.

Chunonchi, counting the set of items at a certain stage of teaching is replaced by "number tables", "number stairs" and other exercises. Instruction-the choice of guides and their combination depends on the acquisition of knowledge and skills in the process of educational activity. In cases where it is necessary to generalize children's knowledge, to indicate different connections, relationships, it is necessary to combine several types of demonstrativity. For example, in the study of connections and relationships between neighboring numbers or quantitative compositions of numbers consisting of units, various toys, tables of geometric shapes, etc. are used. Children can be limited to a small number of mathematical objects after they have received initial representations of certain signs or properties. At the same time items, familiar to children, without excessive details, the sign of being looked at should be clearly expressed, and it should be relatively easy to see. For example, two-color cubes (bricks) or long and short ribbons are taken to show the little ones not the elements of the set, but its other components.

In mathematical educational activities, exhibitions are usually used, from a collection of multiple types of objects. For this reason, it is very important to consider the order in which these are placed. In a small group, the material is given to children in a private box (envelope). The distribution Number material to adult children can be served on the table in one tray (in one box). When using many types of items, they should be placed in such a way that the material you will need to start an educational activity stands on top. How to take communication methods by adding together?

The fact that the thinking of a child is indicative-mobile in nature justifies the need to form mathematical knowledge by organizing their various actions with a guide-guide. The oral narrative method (method) has little place in working with preschoolers and is used in colloquial form with children. The acquisition of knowledge, skills, skills is achieved by using various methods and including them together. The choice of methods is determined by the content of this or that program issue, as well as the corresponding level of knowledge and skills of children, finally, by any age characteristics. Teaching should not bring knowledge from adult to child to simple transmission. The educator must first develop children's interests in mathematical knowledge, mathematical ability, independent thinking, the ability to generalize, abstraction, spatial imagination, etc., as well as the ability to independently acquire and apply mathematical knowledge, skills and skills. Today teaching mathematics is built on the basis of comparison. On the basis of comparison, opposite concepts such as pair, whole and part, Long-Short, left-right are formed in children. It is important to slowly complicate the conditions of comparison, developing this mental action. Children practice comparing items in different plans according to the same characters, learning to compare items in pairs first, and then compare several items at once and group them by one or another character (for example, comparing them according to the shapes, colors of geometric figures, etc.). The role of the educator

in organizing a certain system of their work with manuals in children is to provide the necessary assistance in the process of performing actions, stimulate initiative, independence, bring children to conclusions. Putting an understandable, clearly expressed task is a prerequisite for activating children's thinking. The character of setting a task (game, practical, knowing) is determined both by the age characteristics of children and by the content of a mathematical issue. The educator shows and explains new actions to the children, while trying to prevent mistakes that can be made. For this, it is important to carefully work out the technique of movement (such as checking, superimposing, placing it next to it). Now studying scientific heritage, socio-political activities and acquaintance youth charity of our above-stated ancestors is considered one of the main urgent objectives of the modern intellectuals.

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