



A SYSTEM OF CONDITIONS THAT ACTIVATE COGNITIVE ACTIVITY IN PRESCHOOL EDUCATION

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Kholdarova F.M.

*Independent researcher at the
Institute for Retraining and
Advanced Training of Directors
and Specialists of Preschool
Educational Organizations*

Abstract: *This article provides a scientific analysis of the system of pedagogical, psychological and social conditions that serve to develop and activate children's cognitive activity in the process of preschool education. It also highlights methods and effective methods for organizing an environment that supports children's cognitive processes.*

Keywords: *cognitive activity, preschool education, cognitive process, developmental environment, pedagogical conditions, motivation, interactive methods.*

In modern preschool education, not only the acquisition of knowledge by children, but also the comprehensive development of their cognitive processes (cognitive activity) is considered a priority. In particular, the formation of cognitive activity components in children, such as thinking, analysis, comparison, comparison, generalization, classification, and understanding of sequence, serves as an important foundation for their educational activities at later stages.

The effectiveness of activating the cognitive activity of preschool children in the process of forming elementary mathematical concepts largely depends on the created pedagogical conditions. First of all, it is necessary to take into account the age characteristics, cognitive needs and psychological capabilities of

children in the educational process. In this regard, classes based on game activities, the use of visual aids, the creation of problem situations and the use of creative tasks are of great importance. Also, the organization of an educational environment that allows children to independently search, supporting their interest and motivation, enhances cognitive activity. Through the use of an individual approach by the teacher, the establishment of collaborative activities, and the stimulation of reflection and logical thinking, mathematical ideas are gradually formed in children. The pedagogical conditions created in this way serve not only to master elementary mathematical concepts, but also to develop children's thinking, increase their



need for knowledge, and activate their cognitive processes.

The effectiveness of pedagogical conditions is determined, first of all, by the adaptation of the educational content to the age characteristics of the child. The gradual formation of mathematical concepts from simple to complex helps to harmonize abstract and practical processes in the child's thinking. This leads to the consistent and solid formation of knowledge.

The organization of the environment is also of particular importance in the development of mathematical thinking in preschool children. The presence of visual aids, mathematical toys and manipulative materials in the classroom encourages the child to actively search. These conditions allow the child to understand mathematics based on intuition and experience. In particular, the methodological approach of the teacher plays a central role in activating cognitive activity. The teacher uses various methods - conversation, problem situations, question-and-answer and didactic games, stimulating the child's active thinking process. In this way, the child is aroused in interest in the search for knowledge and finding independent solutions.

If the following pedagogical conditions are created for the effective formation of elementary mathematical concepts, children's cognitive activity (observability, logical thinking, attention, analytical skills) will be activated:

The educational environment, methodological approach and communication styles are important factors in the development of cognitive activity of preschool children. In the process of forming elementary mathematical concepts, these factors, being closely interconnected, serve to activate the child's cognitive activity.

First of all, it is necessary to create a coordinated learning environment. In such an environment, colorful, interesting and sensory-stimulating tools (cubes, shapes, cards, tangrams) are used for children. These tools help the child to perceive information faster and more consistently through his senses. Through sensory and manipulation-based experiments, children can independently observe, analyze, group and generalize.

Secondly, the approach based on didactic games ensures the active participation of children. Through plot-based, action-based and role-playing games, mathematical concepts are conveyed to the child in a form that is convenient and natural to him. Through this, children acquire not only mathematical thinking, but also social communication, cooperation, questioning and answer-finding skills.

Thirdly, it is necessary to follow a methodological sequence, that is, the principle of "concrete - visual - abstract". First, the concept is given using real objects, and then it is reinforced with formal images and graphics. Later, this knowledge is generalized using abstract symbols and mathematical terms. This



approach ensures effortless learning, in accordance with the nature of the child's thinking.

Fourth, through developmental dialogue and conversation, children develop the skills of forming their own thoughts, asking questions, analyzing answers, and logically explaining them. Question-and-answer methods provide active involvement in the child's thinking process and encourage them to think independently. In conclusion, the combination of the above pedagogical conditions contributes not only to the formation of elementary mathematical concepts in preschool children, but also to the effective development of their cognitive potential.

Also, pedagogical conditions that help activate the cognitive activity of preschool children in the process of forming elementary mathematical concepts include methods, approaches and organizational solutions that ensure effective teaching:

1. Creating a stimulating learning environment: Children are better involved in the learning process if they are integrated into game activities and practical tasks. Role-playing games, research corners, didactic materials and digital technologies create an environment that contributes to knowledge, increases interest in mathematics and allows children to experiment freely.

When the educational process is combined with game activities and practical tasks, children are more engaged

in learning. To do this, various techniques and tools are used that create an environment in which learning occurs naturally:

1. Role-playing games: children actively learn new concepts and develop thinking skills when they participate in role-playing games related to mathematical problems. For example, a "store" game, where they play the role of a buyer or seller, helps them master the concepts of quantity and counting. Such games encourage children to participate, make tasks interesting, and bring abstract concepts closer to everyday life.

2. Research Corners: Creating research areas with materials that children can freely use to classify, group, and experiment encourages an inquiry-based approach to learning. Children love to organize their own research, which develops independence and systematic thinking.

3. Didactic Materials: Specially selected didactic materials such as geometric shapes, counting sticks, and measuring tools provide a visual understanding of mathematical concepts. Working with these materials allows children to not only learn the concepts of shape and quantity, but also to apply them in practice.

4. Digital Technologies: Interactive applications and games complement the learning environment, making learning dynamic and interesting. Children can use digital tools to explore mathematical concepts through mapping, measuring, or classifying tasks, which provides a



flexible and personalized approach to learning.

5. Practical tasks: Practical tasks and projects based on the application of knowledge to everyday life help children see the connection between theoretical concepts and the real world. For example, children can be asked to measure the height of their classmates or count the total number of toys in the playroom.

For example, in an experiment conducted by a group of educators and psychologists in several preschool educational organizations, a stimulating learning environment was created, which included play and research zones.

Effectively creating a stimulating learning environment helps to engage children in learning and stimulates their cognitive activity in the process of mastering elementary mathematical concepts. In particular, a differentiated approach to teaching requires that the educator take into account individual differences in the speed and methods of mastering knowledge by presenting different tasks that correspond to the level of preparation of each child. These can be

adapted tasks for counting, measuring or classifying objects that stimulate independent thinking and cognitive activity.

When forming elementary mathematical concepts in preschool children, educators should take into account individual differences in the speed and methods of mastering knowledge. The differentiated approach is based on the idea of giving children tasks that correspond to their level of preparation that stimulate independent thinking and cognitive activity.

CONCLUSION

The activation of cognitive activity in preschool education requires and is necessary an integrated approach. The combination of a developing environment, innovative methods, motivation and an individual approach indicates the intellectual development of children.

Therefore, the creation of pedagogical conditions aimed at the development of cognitive activity in preschool educational institutions should be one of the priority areas of activity.

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