

IMPROVING THE DIDACTIC SYSTEM OF SCHOOL PREPARATION BASED ON THE DEVELOPMENT OF COGNITIVE ACTIVITY IN PRESCHOOL CHILDREN

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Annotation: This article examines methodological approaches to improving the didactic system of preparing preschool children for school through the development of cognitive activity. Particular attention is given to the development of attention, memory, thinking, perception, imagination, and independent reasoning. The study considers age-appropriate educational tasks, didactic games, problem-based situations, observation, practical activities, and teacher-child interaction as important components of an effective preparation system. The article also emphasizes the need to consider children's individual developmental characteristics when organizing educational activities.

Keywords: preschool education, cognitive activity, school readiness, didactic system, cognitive development, educational methods, preschool children.

Theoretical foundations of cognitive development in preschool children.

Preparing a child for school is a complex educational process that cannot be reduced to teaching letters, numbers, reading, or simple writing skills. A child entering school encounters a new social and educational environment in which he or she is expected to listen carefully, understand instructions, remember information, complete tasks independently, communicate with others, and respond appropriately to unfamiliar situations. Therefore, effective school preparation should focus not only on what a child knows but also on how the child learns, thinks, explores, and uses newly acquired information. Cognitive activity is one of the central components of this preparation. It reflects the child's active process of understanding the surrounding world, acquiring information, comparing objects

and events, establishing relationships between them, asking questions, solving simple problems, and drawing conclusions. In preschool education, cognitive development is closely connected with the child's everyday experience. Children learn not only during specially organized lessons but also while playing, communicating, observing nature, constructing objects, asking questions, and participating in practical activities. The preschool period is particularly important because many basic cognitive processes develop rapidly during these years. Attention gradually becomes more purposeful, memory becomes more organized, and thinking moves toward more complex forms of comparison, classification, and reasoning. However, these abilities do not develop automatically at the same level in every child. They require an appropriate educational environment and systematic pedagogical support. For this reason, the organization of preschool education should create conditions in which children can actively explore and make sense of their experiences rather than simply reproduce information provided by an adult.

One of the important characteristics of cognitive development at preschool age is the strong relationship between curiosity and learning. Children naturally want to know why things happen, how objects work, and what may happen if a situation changes. Questions such as “Why does this happen?”, “What will happen if we change it?”, or “How can we do it differently?” demonstrate an emerging need for explanation and reasoning. Instead of immediately providing the correct answer, a teacher can use such questions as an opportunity to encourage independent thinking. In this situation, the teacher becomes not merely a source of information but a guide who helps the child search for an answer. The development of attention is another important element of cognitive preparation for school. At school, children need to listen to instructions, concentrate on a task, and complete activities within a certain period. Preschool activities can gradually develop these abilities through age-appropriate exercises. For example, children may be asked to identify differences between pictures, find a missing object,

continue a sequence, remember the location of several objects, or follow a sequence of instructions. Such activities should not be organized only as repetitive exercises. Their content should be varied and connected with meaningful situations so that children remain interested and actively involved.

Memory development is also closely related to school readiness. However, memorization should not be understood simply as the ability to reproduce large amounts of information. It is more valuable when children learn strategies for remembering and recalling information. Stories, pictures, objects, movements, and associations can be used to help children organize information in a meaningful way. When a child retells a short story, reconstructs the order of events, or remembers the characteristics of several objects, memory develops together with language and thinking. Thinking occupies a particularly important place in cognitive development. Preschool children gradually learn to compare objects, identify similarities and differences, classify things according to certain characteristics, establish simple cause-and-effect relationships, and make conclusions. These abilities can be developed through practical tasks rather than through abstract explanations. For instance, instead of simply explaining the concept of classification, a teacher can provide several objects and ask children to group them according to color, shape, size, function, or material. The child then has to decide which characteristic should be used and explain the choice.

Problem-based tasks can make this process even more meaningful. A problem situation does not necessarily have to be complicated. A simple question such as “How can we arrange these objects so that everyone can see them?” or “Which container can hold more water, and how can we check it?” encourages children to make predictions, test ideas, and compare results. Through such activities, children begin to understand that a problem may have several possible solutions and that an assumption can be checked through practical action. The didactic system used for school preparation should therefore be based on the

gradual development of cognitive abilities. Tasks should correspond to children's developmental levels while providing enough intellectual challenge to encourage further progress. If activities are too simple, children may lose interest; if they are excessively difficult, they may experience frustration. A balanced approach allows the child to experience success while still requiring effort and reasoning.

An important condition of this system is the recognition of individual differences. Preschool children do not develop at exactly the same pace. One child may demonstrate strong verbal reasoning, while another may show greater ability in visual or practical tasks. Some children may concentrate for a longer period, whereas others may require shorter activities with more frequent changes. Therefore, effective preparation for school should provide different forms of participation and allow children to demonstrate their abilities in various ways. The theoretical analysis shows that cognitive development should be considered a central component of school preparation. A child who is able to observe carefully, ask meaningful questions, remember relevant information, compare alternatives, and search for solutions has a stronger foundation for further learning. Consequently, improving the didactic system of preschool education requires a shift from simply transmitting knowledge toward organizing meaningful cognitive experiences in which the child becomes an active participant in the learning process.

Didactic conditions for developing cognitive activity. An effective didactic system for school preparation should create conditions in which preschool children are able to learn through active participation. The teacher's task is not simply to provide information but to organize situations that encourage children to observe, compare, question, experiment, and make simple conclusions. Such an approach makes learning more meaningful and supports the development of cognitive independence. One important condition is the use of developmentally appropriate tasks. Activities should correspond to children's age, previous

experience, and individual abilities. Tasks that are too easy do not provide sufficient intellectual challenge, while excessively difficult activities may reduce motivation. Therefore, the level of difficulty should gradually increase as children's abilities develop.

Play-based learning is particularly valuable at this stage. Through didactic games, children can develop memory, attention, logical thinking, language, and problem-solving skills without feeling that they are performing formal academic exercises. Research on preschool education also emphasizes the importance of combining child-led and teacher-guided activities and providing opportunities for play and exploration. Another important condition is a supportive learning environment. Children should have access to visual materials, construction objects, puzzles, natural materials, and other resources that encourage independent exploration. Such an environment transforms the classroom from a place where children mainly receive information into a space where they can discover relationships and test their ideas. Thus, the didactic system should combine purposeful teaching with children's natural curiosity, ensuring that cognitive development becomes a continuous part of everyday preschool activities.

Methods and activities for improving school preparation. The methodological improvement of school preparation requires the selection of activities that develop several cognitive abilities simultaneously. Rather than separating attention, memory, thinking, and language into completely independent exercises, teachers can integrate them into common educational situations. Problem-based activities are particularly useful. A teacher may present a simple situation and ask children to suggest possible solutions. For example, children can be asked how to divide objects equally, arrange pictures according to a sequence, or determine which material is suitable for constructing a particular object. Children first express their assumptions and then test them through practical

activity. This process develops reasoning and encourages them to understand that an answer can be found through investigation.

Observation and comparison should also occupy an important place in preschool activities. Children can compare objects according to size, shape, color, function, or material and explain the reason for their classification. Such tasks gradually develop analytical thinking. Story-based activities can strengthen both memory and language. After listening to a short story, children may be asked to reconstruct the sequence of events, identify the main character's actions, or suggest another ending. This allows several cognitive processes to work together.

Importantly, the teacher should provide children with opportunities to explain their answers. The explanation is often more valuable than the answer itself because it reveals how the child is thinking. Systematic use of such activities can make school preparation more purposeful and cognitively rich. Evidence from school-readiness research also indicates that effective preparation involves not only academic knowledge but listening, self-regulation, curiosity, independence, and problem-solving.

Individualization and evaluation of cognitive development. Improving the didactic system also requires a more flexible approach to evaluating children's cognitive development. Preschool children differ considerably in their pace of development, interests, communication abilities, and preferred ways of learning. Therefore, assessment should not be limited to whether a child gives the correct answer. The process through which the child approaches a task should also be considered.

Pedagogical observation can provide valuable information about how children concentrate, remember instructions, communicate their ideas, solve problems, and respond to difficulties. Based on these observations, teachers can adjust the complexity and form of subsequent activities. Individualization does not

mean creating a separate educational program for every child. Instead, the same learning objective can be achieved through different levels of support. One child may complete a task independently, while another may need visual guidance, additional questions, or a practical demonstration. Gradually reducing this support can encourage greater independence. The learning environment should also allow children to work individually, in pairs, and in small groups. Different forms of interaction provide opportunities to develop both cognitive and social skills. Recent research on preschool interventions similarly emphasizes that school readiness includes attention, self-regulation, and other competencies alongside early academic abilities. Therefore, an improved didactic system should be flexible, child-centered, and based on continuous pedagogical observation. Its effectiveness should be judged by the child's growing ability to think independently, understand instructions, find solutions, and apply acquired knowledge in new situations.

Conclusion

Improving the didactic system of school preparation based on the development of cognitive activity requires a shift from simple transmission of knowledge toward the organization of meaningful learning experiences. Preschool children need opportunities to observe, question, compare, experiment, communicate, and find solutions independently. Such activities help develop attention, memory, thinking, imagination, language, and other cognitive abilities that are important for successful adaptation to school.

The effectiveness of school preparation depends not only on the content of educational activities but also on how these activities are organized. Age-appropriate tasks, didactic games, problem-based situations, practical exercises, and supportive teacher-child interaction can create an environment in which children learn through active participation. At the same time, individual

developmental differences should be considered when selecting tasks and evaluating children's progress.

A well-organized didactic system should therefore combine purposeful pedagogical guidance with children's natural curiosity and independence. Continuous observation and flexible adjustment of learning activities can help teachers identify children's needs and provide appropriate support. In this sense, cognitive development should be viewed not as an additional element of preschool education, but as one of the central foundations of meaningful school preparation. Quality early childhood education provides an important foundation for further learning and long-term development.

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