



## THE MECHANISM OF CHILDREN'S COGNITIVE PROCESS

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**Annotation.** The article talks about the features of the formation of cognitive processes in preschool children. The structure of the cognitive sphere and a brief description of the development of processes such as perception, memory, imagination, thinking and also attention are being studied.

**Keyword.** Perception, Memory, Imagination, Thinking, Attention

The processes of cognition form the basis of the cognitive sphere. These include:

perception;

imagination;

memory;

thinking;

attention.

All of them are so closely intertwined that in the same short period of time all are involved, instantly switching from one to another.

The last of the listed mental processes has a special function - it acts as a kind of traffic controller and determines which object will be processed in the brain center.

The child pays attention to an object or its detail, to a natural phenomenon or sound, and at the same second he singles out something, remembers, imagines, and ponders.

It stands out for its specific weight in the cognitive sphere and perception. This is the leading cognitive process in preschool age, since mental development begins with the receipt of sensory information using the senses. Gradually, perception acquires meaningfulness and becomes the basis of cognitive activity. From the same process, memory is split off and acquires independent functions of cognition.

Perception

The process of a child's mental development is triggered by perception. Thanks to manipulations with objects and sense organs, sensory information enters the child's brain. The kid sees colorful figures, touches soft toys, tastes a plastic ring ...



Therefore, visual and tactile perception are actively involved.

The resulting sensations are accumulated and stored for further use as sensory standards.

The development of sensation and perception every year leads the preschooler to important achievements:

identification of the most important features based on the examination of surrounding objects;

formation of sensory standards and development in their use;

the formation of spatial orientation, the concepts of depth, height, etc.;

perception of time and orientation in time intervals,

ability to perceive works of art.

By the age of 3, the child already has a certain information base that allows him to recognize, remember, perceive more complex phenomena and integral objects.

The younger preschooler is still examining objects randomly - in the game, the most catchy qualities. But already at the age of 5, a child is able to closely examine a certain object in order to learn as much as possible about it, to identify features and properties.

At the senior preschool age there is an intellectualization of perception. The preschooler sets the task of examining an object or determining its qualities. If necessary, he gives a verbal description of what is perceived with the necessary detail.

## Memory

During the period of preschool childhood, a huge amount of information is accumulated and processed. Helps to cope with this memory. A preschooler develops the following types of memory:

figurative;

motor;

verbal.

The first memories are fragmentary, have the form of individual ideas about a particular subject. But these discrete representations already allow the child to recall and recognize previously seen objects or familiar people.

Younger preschoolers are focused on the most noticeable signs, and they remember them. Most of the time, these symptoms are not significant. It doesn't matter that the ball is red. The main thing is that he is resilient and knows how to jump.

But the ability to analyze at the age of three is still in its infancy, and the child can



persistently choose exactly the red ball with which he has already played.

First of all, the preschooler develops figurative memory. Being engaged in toys or examining an object, he notices more and more characteristics, due to which an image is formed. Significant assistance in the development of the child's figurative memory is provided by an adult if he draws his attention to important signs and pronounces: for example, a teapot has a spout, a flower has petals.

The memory of a 5-year-old child is at the level of development when it is possible to teach a child to count intelligently. He is already able to remember both the names of the numbers and their order in the number series.

Older preschoolers internally use speech to better remember information. The figurative form of memory is complemented by verbal. Firstly, children learn more and more words, and secondly, they associate the word with the image, moving both one and the other to the corresponding parts of the brain.

The preschooler gradually supplements direct emotional memorization and subsequent recall with arbitrary use of memory using verbal form. He learns to subordinate his actions to certain goals. In the same way, he sets himself the task of remembering the story or the assembly order of the constructor, in order to reproduce it if necessary.

At the senior preschool age, arbitrary memorization is formed, and logical memory is connected, which contributes to the development of other cognitive processes.

## Imagination

The mental process of imagination begins to develop at a time when at least a minimal stock of concepts and images is accumulated in the memory. The simplest use of a small hoop as a steering wheel requires the baby to remember the car and figuratively imagine how to handle this "steering wheel".

In the younger preschool age, imagination is only reproducing. The child remembers what he has already seen or heard, shows minimal imagination in order to pick up suitable substitute objects and use them in play activities.

Children's imagination changes qualitatively if a preschooler learns to supplement the image or plot known to him with new details. At the age of 5, children draw a candy tree and a fairy-tale land, try on the images of wizards and fairies, come up with plots for a role-playing game.

A six-year-old child boldly fantasizes. Can create a fictional character that only vaguely resembles a well-known image. The imagination of an older preschooler is characterized by the fact that he comes up with an idea, and then looks for means to realize it: draw, sculpt, compose a story. The process of imagination becomes a



creative activity.

## Thinking

The formation of thinking of a preschooler occurs through the dominant forms of cognition of reality. The child goes from practical actions to logical conclusions, using the forms of thinking:

visually effective;

visually figurative;

verbal logic.

At the initial stage, the child's mental activity is closely intertwined with his practical actions. Examining objects, the baby receives information about their properties. Learning to use household appliances, not only learns their functions, but also receives a lot of additional information. Children draw certain conclusions when they see how the cup is broken, the paper is torn, and the towel remains intact, no matter how much you pull it.

Elementary actions provide a lot of information that is remembered and used by the child in mental operations. For example, when building a tower of cubes and cones, a child may try to put a cube on a cone, but after the first attempt he will be convinced that such a configuration is impossible, and will use the cones only as final details.

Visually imaginative thinking allows a preschooler, without resorting to actions, to analyze, compare, draw conclusions. The child begins to think on the basis of images at the stage when he forms generalized ideas about objects and phenomena. Accumulating experience in games, creative activities, design, speech activity, older children begin to comprehend logic and objective patterns. Prerequisites for the development of logical thinking are being formed. At first, logical thinking manifests itself as thinking aloud, often accompanying action. The child learns more and more concepts, expresses his judgments about what he observes or represents. Verbal logical thinking develops as a transitional to theoretical one. Gradually, reflections turn into an internal plan, and the preschooler formulates a ready-made answer or proposal.

Ways of mental activity are mental operations. By the end of preschool age, analysis, comparison and generalization are most developed.

## Attention

The development of attention in preschoolers is to expand the volume and the formation of the most important properties:

distribution;





sustainability;  
switching.

The younger preschooler already manages to pay attention to two objects at the same time. Especially if this process is controlled by an adult and offers to examine both objects at the same time (the apple is red-sided, and the pear is yellow; two cubes - large and small). The child needs to distribute attention, and at first it is possible to cover only two objects with attention.

At 3-4 years old, the baby is able to do one thing for up to half an hour. But the stability of attention depends on the type of activity. He can look at the picture for no more than 5 minutes, while he can play for 20 minutes. The stability of attention increases significantly by the older preschool age and can be traced in activities that are attractive to the child.

The most difficult thing for a preschooler is an arbitrary switching of attention. Involuntarily, his attention can run from one object to another and linger as long as there is interest.

By the beginning of schooling, the child needs to learn how to switch attention on a signal. It is important to start such training from the age of 6, since this is a favorable age for the development of this property.

Attention accompanies the formation of all cognitive processes in preschoolers. It performs the function of a signal to start perception, imagination, thinking, and is also a condition that ensures the duration of the process.

In childhood, attention is involuntary, that is, for the most part occurs unintentionally, based on the interest, cognitive activity of the preschooler. The task of adults is to guide the child, to train to keep attention, which will lead to arbitrary control of the process.

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