



## Formation And Development Of Cognitive Processes In Preschool Children

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**Annotation** This article analyzes the development characteristics of cognitive processes in preschool children — sensation, attention, perception, memory, imagination, thinking, and speech. The interrelation of these mental processes and their significance in the pedagogical process are examined from a scientific perspective. The article is enriched with modern psychological approaches and practical recommendations.

**Keywords:** cognitive processes, sensation, attention, perception, memory, imagination, thinking, speech, preschool age, psychology, methodology.

**Introduction.** Cognitive processes are a system of assimilation, storage and use of knowledge about the environment as a result of a person's conscious activity. It is through these processes that the human psyche is formed. The preschool period is a stage of intensive development of cognitive processes. During this period, the child's abilities to perceive, understand, remember, imagine, think and communicate are formed. Scientific research shows that it is precisely preschool age that lays the foundation for cognitive activity.

Sensation is a psychic process resulting from the impact of objects and phenomena in the external world on the child's sensory organs. At preschool age, a child begins to distinguish signs such as color, shape, sound, smell, temperature in the environment through sensation. This, in turn, forms the basis of perception and thinking. Sensory development is based on . Cognition of existence begins with sensation, perception. The goal of sensory education is to develop the sensory abilities of preschool children. Sensory education is a system of pedagogical influence aimed at improving the formation of sensory cognitive abilities, intuition, and perception. Maria Montessori technology is a





set of methods that promotes this idea and has played an important role in raising a spiritually mature, independent-thinking, and ambitious person.

**Main part.** According to the M. Montessori methodology, the following goals should be considered in the sensory education of preschool children:

- Formation of all external sensations.
- Through the education of external sensations, it is necessary to develop all mental processes that have not yet been fully formed. Because attention, intellect, and will are not fully developed.
- Getting rid of the usual one-sided cultural ideas
- Development of language through speech apparatus, increase in vocabulary.
- Development of the needs and requirements of children for self-service in accordance with their mental and physical capabilities.

The senses are acquired through sensory means. That is why it is extremely necessary to sharpen the senses from a young age, that is, sensory education. Extremely important features such as sensitivity to musical sounds, the ability to understand the subtleties of sounds, sensitivity, and the ability to feel the touch of something, which are unique to humans, are developed through sensory education in kindergarten. The role of the educator in developing the senses of children in kindergarten is very important. The educator should help children develop the level of sensitivity of their senses through various interesting activities. In this case, combining exercises aimed at developing children's senses with clear and meaningful games gives good results.

Attention is the focusing and concentration of the mind on an object, event, or activity. If a person cannot focus his attention on the thing he is perceiving or doing, then no psychic process can be goal-directed and productive. Sometimes, even when we look at an object, we may not see it or it may appear blurry to our eyes. A person busy with his own thoughts may not hear what others are saying. If our attention is focused on something, we may not feel pain. If we look at this object, the object with all our attention, we can learn everything about it. Attention is such an important psychic process that it is involved in all human activities. It is absolutely impossible to perform even the simplest activity (for example, threading a needle) and the most complex activity (such as reading, writing) without the participation of attention. Therefore, the role of attention in human life is very large. One of the famous Russian educators





K.D. Ushinsky, speaking about the importance of attention in human life, said: "Attention is the only door of our spiritual life through which everything that enters our consciousness passes." Indeed, what remains outside the door of attention does not reach our consciousness. Attention develops much faster in the preschool period of a child. During this period, mainly the involuntary type of attention develops more. However, the consistent increase in the activities of a child in preschool age, and in particular didactic and labor exercises, leads to the development of voluntary attention in them. As is known, the educational process at school cannot take a single step without voluntary attention. Therefore, it is necessary to try to develop the main features of voluntary attention and attention in children through various compulsory activities in preschool. Further development of attention is carried out in the educational processes at school.

**Perception** - The individual qualities of things (color, sound, hardness, etc.) are reflected in the cerebral hemispheres due to sensations. However, every thing or phenomenon in reality that surrounds a person embodies a whole complex of different qualities and properties. The sensations generated by the analyzers are combined with each other in the cerebral cortex to more accurately reflect things and phenomena, and a holistic image of things and phenomena is created in a person. At the same time, the psychic process that consists in the holistic reflection of things and phenomena that affect the sensory organs in our consciousness is called perception. Compared to sensations, perception is a much higher form of reflecting reality. Complex conditioned reflex connections that arise in the cortex of the cerebral hemispheres are the physiological basis of perception. Forms of perception: All objects in the material world that surrounds us are located in space and occupy a certain place, each of them has its own size, volume and shape. They are at a certain distance from us and other objects.

**Results and discussion.** Our ability to visualize such spatial states of things is called spatial perception. In addition, things in the material world are always in motion and change. These movements and changes occur within a certain period of time. The reflection of the sequence, speed, and duration of the movement and change of things in the human mind is called the perception of time. The reflection of the change in the position of objects in space is called the perception of motion. In kindergarten, observation should also be cultivated on the basis of developing perception. Observation is a quality that is very





necessary throughout a person's life, throughout his study and work. Observation is cultivated in children by conducting various didactic exercises and organizing excursions in kindergarten. In this regard, excursions based on the seasons (spring, summer, autumn, winter), and talking about pictures (who sees more) give good results. Of course, the questions asked to children during excursions and activities should be pre-planned, that is, on a planned basis. The normal development of the perception of kindergarten-age children and the development of their observation skills largely depend on educators and their pedagogical skills.

Memory is a complex process of remembering, retaining, recalling and forgetting any information related to our experience. Memory is a reflection of information related to any experience in our mind. The things and events we perceive around us do not disappear without a trace in our mind, but are stored in the cerebral cortex in the form of images. Later, even when the things and events themselves are not in front of us, we can restore these images in our mind. Due to the influence of external and internal stimuli, stimuli entering the brain leave "traces" in the brain, and these traces remain for many years (sometimes a lifetime). Kindergarten children involuntarily retain in their memory things that are of some importance for their activities, made a strong impression on them and interested them. They do not set a goal to remember something, and they are not even able to set a goal. It is no coincidence that involuntary memorization predominates in preschool children. There are reasons for this. Every educator should be well aware of the characteristics of children's memory. Only then can children's memory be properly developed.

Preschool children have a more developed figurative memory. Therefore, they remember what they see better than what they hear. Eliminating the confusion inherent in the memory of preschool children and developing their memory largely depends on educators. The educator should select the information that children need to remember in accordance with their age characteristics. It is advisable to use various meaningful games, exercises and trainings to train children's memory. For example, the game "Magazine-Magazine", various lotto games, riddles, didactic and special memory games are among them. In general, the educator should constantly monitor the child's memorization and recall of information. Because at preschool age, all types of memory begin to develop.





Imagination is the process of creating images of new objects and events through the revival and re-integration of previously existing temporal connections (associations) in a person's mind. D.B. Elkonin describes imagination as a "means of creating the inner world" of a child. Imagination plays a large role in the development of children of kindergarten age. Therefore, the child's imagination should be sufficiently developed during kindergarten. Because from the first day of school, children are required to have a well-developed ability to imagine, in particular, the ability to listen.

Thinking is a mental process that indirectly, generalizedly reflects the reality in the environment with the help of speech, and is a mental activity aimed at discovering and predicting socio-causal connections, realizing new things. Thinking is associated with speech. Thanks to thinking, we not only know facts and phenomena, but also understand the reasons for their existence. Thinking allows us to foresee future events: seeing a cloud, we conclude that it will rain. No matter how human thinking is developed, it cannot be fully developed without speech. Any thought arises and develops in close connection with speech. In psychology, speech is a means of thinking. Usually, speech is expressed in the form of judgments, conclusions, and concepts in the process of thinking. Therefore, judgments, conclusions, and concepts are called forms of thought. As a young child's thinking grows rapidly during the preschool period, its further development and advancement is one of the most important tasks facing children's institutions today.

Speech - the process of people interacting with each other through language is called speech. Speech and language should not be considered the same thing. Speech is the activity of a person using language to communicate with other people. Each person carries out communication in his own way. With the help of speech, people not only inform their contemporaries about what is happening at a certain time, but also pass on all the wealth of knowledge accumulated by mankind from generation to generation. After a child masters speech, he interacts with people in the life of the society in which he was born. Language is a socio-historical phenomenon of a national character. The structure of sentences also differs in different people. The speech of young preschool children develops orally. Vocabulary, grammatical structure, pronunciation, and logical consistency are developed under the guidance of a teacher. The development of speech is closely related to other cognitive





processes. Speech develops through the use of storytelling, question-and-answer, drawing-based storytelling, and dramatization methods.

**Conclusion.** Preschool age is the most important stage for the intellectual formation of a child's personality. The systematic development of cognitive processes during this period lays the foundation for the child's future educational activities. For the effective development of these processes, the active participation of educators and parents, purposeful pedagogical work, and an individual approach are important. Intuition, attention, perception, memory, imagination, thinking, and speech are interconnected, and the role of the teacher in the comprehensive development of these processes is invaluable. The educational process, carried out taking into account modern methodological approaches and the individual characteristics of children, will be highly effective.

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