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### **THE ROLE OF FINE MOTOR SKILLS IN THE DEVELOPMENT OF CHILDREN'S SPEECH ACTIVITY**

**Abstract:** This article examines the relationship between the development of fine motor skills and speech activity in children. It emphasizes that fine motor skills, including hand and finger coordination, play a key role in the formation of speech skills. The authors of the article analyze how various activities that contribute to the development of fine motor skills affect children's pronunciation, vocabulary and general speech activity. In conclusion, the importance of integrating exercises for the development of fine motor skills in early development to improve the effectiveness of speech development in children is emphasized.

**Keywords:** children, speech development, fine motor skills, speech, hands, finger exercises.

The complex development of a child and the formation of his personality is impossible without the purposeful development of speech skills. The quality of speech has a significant impact on a person's life. Speech is a key element of social activity necessary for the existence of groups of people. It serves as a means of transmitting thoughts, emotions and desires, as well as for establishing communication and sharing experiences with others. In this context, speech performs an important function in the child's verbal development [1].

The problem of speech and intellectual development of preschool children has always been relevant. However, at present it is becoming especially significant, since in recent years there has been an increase in the number of children with speech delays.

One of the key aspects of a child's speech development is the improvement of fine motor skills.

Fine motor skills mean a set of coordinated actions aimed at the precise execution of actions. The concept of «fine motor skills» is also applicable to the actions of the hands and fingers [2].

Fine motor skills are responsible not only for speech, but also allows you to develop spatial coordination, imagination, visual and motor memory. The influence of fine motor skills on speech development lies in the fact that the child's performance of any manual labor stimulates the work of speech centers. In other words, motor skills determine the success of the formation of speech skills.

This is due to the fact that in the motor area of the cerebral cortex there is the largest accumulation of cells controlling the hand, fingers and organs of speech: tongue, lips, larynx. This area of the cerebral cortex is located next to the speech area. Such close proximity of the motor



projection of the hand and the speech zone makes it possible to have a great influence on the development of active speech of the child through the training of fine finger movements.

From this, scientists from the Institute of Physiology of Children and Adolescents, including L. V. Antakova – Fomin and M. M. Koltsova, concluded that the development of a child's speech is inextricably linked with the development of fine motor skills. Based on this and other works, defectologists have developed programs for the formation of sensory – perceptual activity, including in children with perinatal lesions of the central nervous system [3].

Neuroscientists and psychologists involved in research on the brain and mental development of children also claim a link between fine motor skills of the hand and speech development. Children who have better developed small hand movements have a more developed brain, especially those parts of it that are responsible for speech. In other words, the better the baby's fingers are developed, the easier it will be for him to master speech. Of course, the development of fine motor skills is not the only factor contributing to the development of speech. If the child has well – developed motor skills, but they will not talk to him, then the baby's speech will not be sufficiently developed.

If we turn to the historical aspect of speech development, we will see that initially people used mostly gestures to communicate. Later they began to be accompanied by vocalization. The hand movements continued to improve, leading to the development of speech.

The development of the child's speech takes place in approximately the same sequence. First, the movements of the fingers are formed, then the articulation of sounds and syllables appears. All subsequent improvement of speech skills also largely depends on the degree of training of hand movements.

The problem of speech correction is relevant nowadays. Given that speech abnormalities occur at an early age, they must be identified and corrected in a timely manner.

A high level of fine motor skills development indicates the functional maturity of the cerebral cortex and the psychological readiness of the child for school. Games and exercises for the development of fine motor skills have a stimulating effect on the development of speech. They are a powerful means of maintaining the tone and efficiency of the cerebral cortex, a means of its interaction with underlying structures.

Work on the development of fine motor skills should begin long before entering school. Teachers who pay some attention to exercises, games, various tasks for the development of fine motor skills and hand coordination solve several problems at the same time:

- firstly, they affect the overall intellectual development of the child;
- secondly, they improve children's speech development;
- thirdly, they prepare him for mastering writing skills.

In order for the work on the development of manual motor skills to be effective and purposeful, it is necessary to follow a number of requirements:

- the work must be systematic and constant;
- the work should correspond to the level of general motor, mental development of the child;
- the job must meet the age requirements;
- work should bring joy to the child.

Finger exercises are an important part of the work on the development of fine motor skills.

By performing various exercises with the fingers, the child achieves good development of fine motor skills of the hands, which not only has a beneficial effect on development, but also prepares the child for drawing, and later for writing. The hands acquire good mobility, flexibility, stiffness of movements disappears, this further facilitates the acquisition of writing skills [4].

Thus, there is every reason to consider the hand as an organ of speech – the same as the articulatory apparatus.

Work on the development of fine arm muscles should begin from the earliest years. Even infants can have finger massage (finger gymnastics), which will allow them to influence the active



points associated with the cerebral cortex. In early and early preschool age, it is important to perform simple exercises accompanied by poetry, as well as pay attention to the development of basic self – service skills: buttoning and unbuttoning buttons, tying shoelaces, etc [5].

So, based on the experiments conducted and the examination of a large number of children, the following pattern was revealed: if the development of finger movements corresponds to age, then speech development is within the normal range. If the development of finger movements lags behind, then speech development is delayed [6].

For children, pronouncing poems in combination with movements brings many advantages: speech becomes more rhythmic, clear and expressive due to synchronization with movements, and rhymes have a positive effect on auditory perception. Finger games in the physical education format are the best option. It is recommended to perform finger exercises and massage before each lesson and after those that require active work of the fine muscles of the fingers. Children are happy to work with «prickly» balls, which help them to self – massage their hands and fingers. The design of the massager effectively affects various functions of the hand as an organ, as well as the analyzers and the psycho – emotional sphere of the child, helping to relieve fatigue of the finger muscles and improve blood flow. Palm skating on pencils, balls or other objects on the table also contributes to additional palm massage and improves hand coordination [7].

In working with children on the development of fine motor skills of hands, teaching dialogic speech, sensory education and the formation of spatial representations, substitute objects such as wooden and plastic clothespins of different colors and sizes are often used. In joint activities with children, clothespins «turn» into various animals and birds, helping to develop fine motor skills of the hands, developing sensory and spatial representations, communication, speech, imagination. Playing with bright, colorful clothespins is also fun for children.

Thus, fine motor skills occupy one of the most important places in the development of speech, since the training of finger and hand movements is the most important factor stimulating the child's speech development, contributing to the improvement of articulatory movements, improves the sense of rhythm and coordination of movements, prepares hands for writing and, last but not least, is a powerful tool that increases performance the cerebral cortex and the development of the child's thinking.

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