

## THE CONCEPT OF GRAPHOMOTOR SKILLS AND THEIR PSYCHOLOGICAL-PEDAGOGICAL ESSENCE

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**Abstract:** This article provides a scientific and theoretical analysis of the concept of graphomotor skills, their components, mechanisms of formation, and psychological and pedagogical essence. The relationship of graphomotor activity with mental processes, its importance in the development of children, and its role in the educational process are highlighted. The pedagogical conditions for the development of graphomotor skills are also substantiated.

**Keywords:** graphomotor skills, preparation for writing, fine motor skills, mental processes, visual-motor coordination, pedagogical impact

In the modern education system, the readiness of children for writing is one of the important issues. Writing is not just drawing signs, but a complex psychophysiological process that requires the coordinated activity of many mental functions, the motor system, and sensory processes. From this point of view, graphomotor skills are considered an important component of children's development. Graphomotor skills are formed on the basis of the integration of the child's hand movements, visual perception, spatial imagination, attention, memory, and motor control processes. These skills not only form the basis of writing, but also have a significant impact on general intellectual development. The purpose of this article is to scientifically explain the concept of graphomotor skills and analyze their psychological and pedagogical essence.

Graphomotor skills are a set of movements, coordination, and mental processes necessary for the implementation of writing and drawing activities. This concept includes the following aspects: accuracy of hand and finger movements; visual-motor coordination; movement planning; spatial orientation; the ability to repeat graphic elements. Graphomotor activity is associated with psychomotor development is directly related to and is determined by the level of maturation of the child's nervous system. These skills usually begin to form in preschool age and are improved in the process of school education. Graphomotor skills form the technical basis of writing activity. If these skills are not sufficiently developed, the child will experience difficulties in writing: uneven movements, distortion of the shape of signs, rapid fatigue, and decreased attention are observed. Graphomotor skills are a complex system consisting of several components: Fine motor skills - coordinated movements of the muscles of the hand and fingers. This constitutes the main physiological mechanism of writing movements. The development of fine motor skills is determined by: muscle tone; accuracy of movement; motor speed. Motor functions in mentally retarded children develop relatively slowly. This indicates that the child is lagging behind in development in the motor sphere. In most children, motor deficits are expressed in disorders of coordination of complex movements, inaccuracies in the performance of fine movements, a decrease in the speed and accuracy of movements. Performing movements according to verbal instructions or performing a sequence of movements is considered to be the situations that cause the greatest difficulties for the child. Children also lag behind their peers in performing movements according to spatio-temporal parameters, incorrectly perform the sequence of movements, and omit its components.

Specific features are observed in the development of fine motor skills in the fingers of mentally retarded children. This is manifested by a lack of coordination of finger movements (for



example, buttoning and unbuttoning, tying and untying shoelaces, etc.). Most children have impaired fine motor skills and hand-eye coordination. Hand movements are clumsy and clumsy. Sometimes children cannot move both hands at once. Underdeveloped hand-eye coordination is manifested by frequent mistakes in picking up and putting down objects, as the child cannot correctly judge direction and track his hand based on visual control. Even connecting two points with a line causes some difficulties for them. Since speech and fine motor skills in children are closely related, the development of their manual motility is considered of great importance. According to M. I. Kolsova[44], the morphological and functional formation of speech areas occurs under the influence of kinesthetic impulses coming from the hands. Improving manual motility leads to the activation of speech centers in the brain and, as a result, the development of speech function. The development of manual motility is important not only in activating speech motility, but also in preparing the hand for writing.

As a result of violations in written speech, children do not fully understand the verbal instructions of the teacher. In general, the above-mentioned specific features of graphomotor skills indicate that they are not in a satisfactory state. Violations in speech activity affect the formation of the sensory, intellectual, affective-volitional spheres of children. In this case, insufficient stability of attention, its distribution is limited. Although the content and logical memory are relatively preserved, the verbal memory in children weakens, the efficiency of the memorization process decreases. They cannot remember complex structures, elements and their sequence. With the help of a correctly developed correction program and correctly selected exercises by the teacher, it is possible to give a greater or lesser impetus to the child's mastery of graphomotor skills. Exercises aimed at developing fine motor skills, hand-eye coordination, spatial-temporal parameters, and strengthening the muscles of the palm of the hand should be included in the corrective work program organized with children. The process of mastering graphomotor activity is very difficult for a child, and for mentally retarded children this process is doubly difficult. If corrective work is not carried out in the field of graphomotor activity in preschool age, this will lead to errors in writing during school education, and as a result, the child's level of mastering the school program will decrease. At the same time, ugliness of handwriting, incomprehensibility of writing and gross spelling errors can also be observed. Thus, in older preschool children with mental retardation, due to damage to all speech systems, the child's motor development also begins to lag behind. This condition can be expressed in the incomplete formation of fine and general motor skills. These disorders are manifested in writing. Children's handwriting becomes incomprehensible and ugly, which causes great difficulties in finding a target in a notebook. All this leads to difficulties in school, a feeling of anxiety in the child and a decrease in the level of mastery.

Graphomotor skills are an important psychological and pedagogical component of children's development. They form the basis of writing activity and are inextricably linked with mental processes. The systematic development of these skills increases educational effectiveness, reduces difficulties in writing and has a positive effect on the overall cognitive development of the child. The process of graphomotor development requires an integrated approach. It is necessary to take into account psychological, pedagogical and physiological factors.

### References:

1. Mamedov K.K., Soatov M.I., Pulatova P.M. Fundamentals of oligophrenopedagogy: A textbook for students of defectology faculties of pedagogical institutes. - T., Teacher, 1994.
2. Akramova X.S. Technology of using a computer program in the formation of labor skills in mentally retarded 4-5th grade students: Author's dissertation (PhD)... - T.: TDP, 2020. —24 p.



3. Muzaffarova X.N. Speech disorders in children and methods of their correctional approach// J. Tafakkur ziyasi — 2020. — No. 1. — P. 153-155.

4. Musaeva N. Introduction to verbal and nonverbal communication in mentally retarded students

5. Z.T. Nishanova, G.K. Alimova Psychological service. Psychocorrection Tashkent-2019

6. O.I. Tolipova General psychology Tashkent-2018

7. "Dysmorphography in children" — I.V. Prishchepova

8. Psychological and pedagogical diagnostics. Ed. I.Yu. Levchenko S.D. Ibrom. M., "ASADEMA", 2005

