

# Proceedings of International Congress on “Multidisciplinary Studies in Education and Applied Sciences”

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## PECULIARITIES OF THE DEVELOPMENT OF GRAPH-MOTOR SKILLS IN SENIOR PRESCHOOL CHILDREN WITH SPEECH DISORDERS

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### Annotation

The technique of mastering graphomotor skills requires the coordinated work of the small muscles of the hand and the whole arm, well-developed visual perception and voluntary attention, includes the method of holding a pen or pencil while drawing, pressure, accuracy and smoothness of movements.

**Key words:** Junior school age, preschool education, child, educator, pedagogy, methodology.

Currently, all specialists working with preschool children pay attention to the formation of graphomotor skills. For preschoolers, the development of graphomotor skills is important: firstly, graphomotor skills are involved in the graphic activities of children - drawing, tracing, modeling, etc., secondly, graphomotor skills are the basis for the further formation of the functional basis of writing, according to M. M. Bezrukikh, S.E. Bolshakov, etc. Preschoolers with general underdevelopment of speech have impaired graphomotor skills, which is associated with the peculiarities of the cognitive sphere, which manifest themselves in poor development of fine motor skills, insufficient visual-spatial orientation, poor coordination of movements, and incorrect position of the hand during graphomotor activity (E.V. Diulina, M. M. Koltsova, R. I. Lalaeva, etc.). In the works of I.T. Vlasenko, A.R. Luria, A.V. Semenovich, it is noted that the formation of graphomotor skills depends on the maturity of their prerequisites, which include spatial, dynamic and rhythmic factors. And maturity is manifested in the child's ability to consistently perform actions.

In the works of V.V. Babina, O.S. Bot, A.V. Wenger, studied the formation of optical-spatial orientation, as well as dynamic and rhythmic aspects, indicators of which are productive activities associated with the practical development of spatial representations.

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Such domestic scientists as L.A. Venger, N.N. Voloskova, E.I. Ignatieva, O.A. Karabanova, G.G. Misarenko, M.G. Khrakovskaya devoted their research to the problems of the formation of graphomotor skills and investigated the influence of visual perception on the ability to draw and write.

Foreign psychologists were engaged in the study of graphic activity:

J. Piaget, M. Frostig and others, domestic: B.G. Ananiev, T.V. Akhutina, P.Ya. Galperin, A.V. Zaporozhets, N.S. Pantina, E.N. Potapova, I.S. Yakimanskaya.

T.S. Komarova created a classification of skills and abilities that make up the drawing technique, which includes: generalized image methods; shaping movements; sensory abilities for graphic activity. Developed methods for the formation of graphomotor skills.

M. Frostig in her research noted that at preschool age, mastering graphomotor skills is especially difficult for children.

She connects these difficulties with the unformedness of their individual properties of visual perception: visual-motor coordination, optical-spatial relations, figure-background relations.

According to research by T.P. Butsykina and G.M. Vartapetova, about 33% of preschoolers with general underdevelopment of speech experience minor difficulties in the kinesthetic and kinetic organization of movements, 41% have pronounced impairments in graphomotor skills, T.A. Aristova, I.N. Vikhrova, O.I. Krupenchuk, S.N. Lysyuk, E.G. Simernitskaya.

In connection with the above, the topic we have chosen "Speech therapy work on the formation of graphomotor skills in older preschoolers with general underdevelopment of speech" is relevant. In the system of preschool education, much attention is paid to the comprehensive development of the child. It includes the development and actualization of cognitive processes, the development of speech, the maintenance of physical health and a healthy lifestyle, the enrichment of the spiritual and moral component of culture. Also, an integral part of the comprehensive development of a preschooler is the development and improvement of graphomotor skills.

A.O. Glebova defines a graphomotor skill as a certain position or movement of the writing hand, which allows you to depict written characters and their combinations, draw, color, connect dots, etc. But graphomotor skills are not only the development of fine motor skills, this concept also includes the way of holding a writing object, the pressure force during graphic activity, accuracy, rhythm,

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---

pace, smoothness of movements. Also important components are voluntary movement, visuospatial perception, attention and motor skills.

Graphomotor skills include both copying graphic samples of various levels of complexity, and independent creation of graphic images. Graphomotor skills are formed already at the preschool age of images, provided that the training program includes the development of perceptual actions and visual perception as a basis. A significant role in this process is played by the use of a system of auxiliary means (coordinate grid, auxiliary supports, etc.)

In turn, the formation of graphomotor skills, according to M.M. Koltsov, depends on such components as good development of general and fine motor skills, serial organization of movements, visual-spatial representations and visual memory, hand-eye coordination. Therefore, an important correctional and developmental task is the development of manual skills, fine motor skills of the hands, the development of memory and visual representations in preschool children. The development of graphomotor skills is one of the important conditions for mastering the skill of writing at school. Writing and the graphomotor skill realized at the same time is a very complex function of the body in terms of organization and implementation. However, in this complexity of the organization of the graphomotor skill lies its general developmental potential.

MM. Bezrukikh, S.E. Gavrina, E.V. Guryanov, S.P. Efimova, E.V. Novikova, N.V. Novotortsev, studied the process of formation of communication systems between visual, auditory and motor analyzers, and proved that they depend on the formation of: visual and motor control, coordination of movements (the ability to coordinate the movements of the parts of the writing hand, the skill of arbitrarily changing the direction of movement), spatial perception (fields vision - integrity, breadth, versatility; visual acuity; eye), spatial representations (knowledge of the "body scheme"; the ability to see the grapheme and its exact location; ability to analyze an object, its image; commensuration processes), a sense of rhythm (the abilities that manifest themselves when reproducing rhythmically organized elements of a time series), “manual skill” (developed fine motor skills), the necessary volume of attention distribution to prevent graphic errors, visual attention.

About a third of the entire motor projection area in the cerebral cortex is occupied by the projection of the hand, which is located in close proximity to the speech motor zone, this explains the effect of training fine finger movements.

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MM. Bezrukikh, exploring writing as a type of graphic activity, considers its complex psycho-physiological structure. Which includes visual control, visual memory, hand-eye coordination, motor control, perceptual regulation and a complex of linguistic skills.

The readiness of older preschoolers to master graphomotor skills is ensured by the development of perceptual abilities, which include high rates of visual perception, optical-spatial orientations, and hand-eye coordination. The connection between perceptual actions and productive activity was noted in the works of L.A. Venger, A.V. Zaporozhets, V.P. Zinchenko.

Thus, the formation of graphomotor skills in preschoolers begins in early childhood, when the child gets to know the world around him, learns to “communicate” with it. The most sensitive period for successful, purposeful, conscious learning of graphomotor skills is the period of senior preschool age, when neoplasms appear in the child's psyche, the ability to set goals relating to himself, his own behavior appears.

Successful mastery of graphomotor skills prepares the child's hand for writing.

In preschool children with general underdevelopment of speech, the following prerequisites for impaired development of graphomotor skills are noted:

- insufficient development of visual attention;
- uncertainty in the performance of dosed movements;
- decrease in speed and dexterity of movements;
- violation of the sequence in the performance of movements;
- slowness or stuck in one position;
- low muscle tone.

In this regard, in children with general underdevelopment of speech, these prerequisites lead to the following features in mastering graphomotor skills:

- lag in the formation of spatial orientation;
- insufficiently developed coordination of movements;
- underdevelopment of kinesthetic and kinetic praxis;
- Poorly developed fine motor skills of the fingers;
- insufficient level of visual-spatial perceptions, poorly coordinated activity of the hand and eye.

Coordination of complex movements, lack of confidence in the execution of accurately measured movements, reduction in speed and dexterity of performance is an expression of motor insufficiency. In children of this category, insufficient coordination of fingers and hands is observed. In a child, instead of the carpal joint

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and phalanges of the fingers, the elbow and shoulder joints work, which once again emphasizes the violation of fine motor skills during the development of graphomotor skills. Errors in the style, as well as non-compliance with the size and proportions of the elements of letters, the same slope, lines, as a result of which the letter takes on a sloppy look, are closely related to incorrect hand movements.

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## Proceedings of International Congress on “Multidisciplinary Studies in Education and Applied Sciences”

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