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**FEATURES OF THE FUNCTIONAL BASIS OF WRITING
IN SENIOR PRESCHOOL CHILDREN
WITH GENERAL SPEECH UNDERDEVELOPMENT**

***Abstract:** this article presents the results of a study of the verbal and non-verbal components of the functional basis of writing in senior preschoolers with general speech underdevelopment. The problem of insufficient development of the functional basis of writing in senior preschoolers determines the need to prevent writing disorders. Our study is aimed at further development of methodological recommendations for the formation of the functional basis of writing in senior preschoolers with general speech underdevelopment in terms of preventing writing disorders.*

***Keywords:** functional basis of writing, components of the functional basis of writing, general speech underdevelopment, senior preschoolers, writing.*

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**ОСОБЕННОСТИ ФУНКЦИОНАЛЬНОГО БАЗИСА ПИСЬМА
У СТАРШИХ ДОШКОЛЬНИКОВ С ОБЩИМ НЕДОРАЗВИТИЕМ РЕЧИ**

***Аннотация:** в статье представлены результаты изучения вербального и невербального компонентов функционального базиса письма у старших дошкольников с общим недоразвитием речи. Проблема недостаточной сформированности функционального базиса письма у старших дошкольников определяет необходимость профилактики нарушений письма. Наше исследование*

направлено на дальнейшую разработку методических рекомендаций формирования функционального базиса письма у старших дошкольников с общим недоразвитием речи в аспекте профилактики нарушения письма.

Ключевые слова: функциональный базис письма, компоненты функционального базиса письма, общее недоразвитие речи, старшие дошкольники, письмо.

Written speech is a complex form of human mental activity and includes both receptive and expressive aspects: reading and writing. The process of mastering written speech is one of the most complex among various types of learning activities, and its disorders are often observed in schoolchildren. Mastery of writing requires the formation of certain psychophysiological prerequisites, which develop during senior preschool age. In children with speech disorders, the formation of these prerequisites is often impaired. This group includes preschool children with general speech underdevelopment.

The interest of researchers (T.V. Akhutina [2], R.E. Levina [6], E.A. Logina [7], A.V. Yastrebova [9]) in this problem is обусловлено many factors, in particular, the high prevalence of children with general speech underdevelopment entering first grade. In this regard, there is a need to prevent writing disorders in this category of children, which determines the relevance of the present study. Despite the sufficient level of prior research on this problem, the novelty of this study lies in the further development of methodological recommendations for forming the functional basis of writing as a means of preventing writing disorders.

In modern literature, alongside the concept of readiness for mastering written speech, the concept of the «functional basis of writing» is used, the formation of which is a necessary condition for successful literacy acquisition (A.N. Kornev [4], A.V. Lagutina [5]). According to A.N. Kornev [4], the functional basis of writing is a multilevel system that includes the most complex skills and functions, while the psychological foundation of writing and reading skills differs only slightly. In cases of systemic speech underdevelopment, difficulties in the formation and mastery of the functional basis of writing are also observed, leading to difficulties in acquiring writing

skills and subsequently developing persistent dysgraphia (M.M. Bezrukikh [3], A.N. Kornev [4], I.N. Sadovnikova [8], et al.)

Based on this, the purpose of the present study is to identify the features of the functional basis of writing in senior preschool children with general speech underdevelopment.

In accordance with the stated goal, the following research objectives were set/

1. To assess the level of formation of the verbal component of the functional basis of writing.
2. To assess the level of formation of the non-verbal component of the functional basis of writing.
3. To describe the features of the functional basis of writing in the examined group of children with general speech underdevelopment.

The research base was Municipal Budgetary Preschool Educational Institution Kindergarten No. 47 of Belgorod.

The experimental group consisted of 11 senior preschool children diagnosed by the Psychological-Medical-Pedagogical Commission with general speech underdevelopment, Level III of speech development, attending a preparatory compensatory group for children with severe speech disorders.

In accordance with the objectives, the main directions for studying the functional basis of written speech in senior preschool children with general speech underdevelopment were identified:

- assessment of the verbal component (sound analysis and phonemic perception);
- assessment of the non-verbal component (praxis of the articulatory apparatus, fine motor skills, grapho-motor coordination, and auditory-motor coordination).

To assess the state of the functional basis of writing, tasks proposed by E.F. Arkhipova [1] were used. Each task was evaluated using a point-based system (0–4 points).

Based on the diagnostic results, it was concluded that the majority of children in the sample demonstrated an average level of formation of the functional basis of

writing (63%), while 36% of senior preschoolers demonstrated a high level; a low level was not identified.

During the assessment of phonemic perception, difficulties were identified in the semantic differentiation of words, the ability to differentiate sounds by oppositions (voiced-voiceless, hard-soft, sibilant-hushing sounds), identification of the first and last sounds in words, and repetition of syllable chains with oppositional sounds. Tasks involving the classification of object pictures by features, identification of stressed syllables in monosyllabic and disyllabic words, and arranging pictures in a specified sequence were performed accurately. The distribution of phonemic perception levels was as follows: high level – 54%, average level – 46%, low level was not identified.

The assessment of articulatory praxis revealed the following distribution: high level – 18%, average level – 82%, low level was not identified. Difficulties were observed in tasks involving posture maintenance and switching from one posture to another. Children demonstrated inaccurate execution, prolonged articulation search, substitution of movements, rapid fatigue, and tense performance; some articulatory postures were not executed.

During the assessment of fine motor skills, almost all children demonstrated high results. Tasks were generally performed correctly without adult assistance; if errors occurred, children noticed and corrected them independently. Persistent echopraxia was absent.

The assessment of grapho-motor coordination included two graphic tasks: «Paths» and «Fence.» During task execution, children occasionally went beyond the boundaries, pencil lifts were observed, and patterns were executed slowly but confidently. In most cases, patterns corresponded to the model in size and rhythm, though occasional substitutions of elements occurred. The distribution of grapho-motor coordination levels was as follows: high level – 46%, average level – 54%, low level was not identified.

The assessment of auditory-motor coordination included two aspects: rhythm perception and rhythm reproduction. Children accurately identified and reproduced isolated beats and simple beat sequences. Difficulties were noted with accented beat sequences, and differentiation between loud and soft beats was absent. Tasks involving

symbolic recording of accented beats were not completed in most cases. The distribution of auditory-motor coordination levels was as follows: high level – 36%, average level – 63%, low level was not identified.

Comparing the obtained results of the functional basis of writing assessment, it can be concluded that children in the experimental group may experience difficulties in mastering written speech due to insufficient formation of the functional basis of writing. It should be noted that the verbal component of the functional basis of writing is better developed. Corrective and developmental interventions aimed at preventing dysgraphia are necessary, with an emphasis on the formation of the non-verbal component and particular attention to the motor sphere.

Thus, the presence of speech disorders, especially systemic ones, serves as a factor contributing to the development of written speech disorders. The functional basis of writing in children with general speech underdevelopment is insufficiently developed, leading to difficulties in mastering written speech. Analysis of the patterns of formation of the functional basis of writing in preschool children with general speech underdevelopment allowed identification of specific features of this process in two aspects: verbal and non-verbal components. This determines the need for targeted formation, correction, and development of these prerequisites, which not only facilitate successful learning but also promote the development of important cognitive and social skills, ultimately ensuring a high-quality transition to school education for children with general speech underdevelopment.

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