

BY THE QUESTION ABOUT THE PRINCIPLES OF DIAGNOSIS OF DYSGRAPHIA IN PRIMARY SCHOOL CHILDREN

The article is focused on the problem of diagnosis and correction of dysgraphia as a syndrome disorder. Some studies in recent years showed a close connection between difficulties forming and underdevelopment of the writing at the primary school children not only with the underdevelopment of speech, but with the underdevelopment of non-verbal forms of mental processes; unformed process of attention and focus of activity, self-regulation, control over the actions. So it shows the necessity of detecting speech and writing disorders as well as completion of learning activity components development of primary school children with dysgraphia. Therefore, it is important to identify and consider the possible psychopathological characteristics of the child with dysgraphia. The unformed children's programming functions with dysgraphia, self-regulation and control of the writing speech are presented in a number of cases, a separate cause of writing disorders, and in others aggravating symptoms of dysgraphia (in the traditional sense), is one of the missing links of theoretical and practical knowledge of the written language disorders in primary school children. Such an interdisciplinary approach helps considered dysgraphia such a syndromic disorder that manifests itself in the disorder of formation and functioning of difficult to organized form of mental activity – writing (and in the future – writing speech).

Key words: *dysgraphia as a syndrome, learning activity components.*

Writing – is a complex mental process, which is still poorly understood, despite the huge interest of researchers in various fields of scientific knowledge to the problem that just goes to show the complexity of this mental process [27].

We conducted a brief analysis of the psychological essence of the writing and the ways of its formation in children shows the complexity of this kind of mental activity. Writing, as we now understand, can not be considered only as an ideomotion (as it was understood before), and as soon as the motor act (motor) and a touch act (as is still considered a writing some researchers have in our time.) Writing should be regarded as a mental function, psychological content which includes various mental processes in their interaction, and formed only by training.

Scientists have recently come to the conclusion about needing to account of individual psycho-physiological characteristics of children with learning and correction of written language. It appears that due to the great social importance of studying the problem of dysgraphia, extensive possibilities of clinical and neuropsychological researches will be involved in the study of dysgraphia in primary school children in developing methods for its prevention and correction in very near future.

Some studies in recent years, as says L.S. Tsvetkova [27] showed a close connection between difficulties forming and underdevelopment of the writing at the primary school children not only with the underdevelopment of speech, but with the underdevelopment of non-verbal forms of mental processes, such as

visual-spatial concepts, auditory-motor and opto-motor coordination, the general motor skills; unformed process of attention and focus of activity, self-regulation, control over the actions; motives formed not enough by this time.

As noted in his time P.F. Lesgaft [11], each conscious work requires a serious understanding of the meaning of space and time and the ability to cope with these relations not on the book, but in practice. For the problem of violations of writing speech this question is important, because in the acts of reading and writing, occur a mutual transformation sequence of graphic characters and the temporal sequence of sound complexes. Temporal and spatial aspects of perception and reproduction of speech can not be separated, because all objects and phenomena exist within a defined period of time and a certain space.

Understanding dysgraphia as a specific language disorder, as notes E.A. Loginova [12], does not negate the need to study the state of speech function in conjunction with all the mental processes involved in the functional writing system. Violation of the language operations in writing may be associated with disorder of non-verbal components of the system, for example, with weakness in audio verbal memory with dysgraphia, based on disorder of phoneme's recognition and dysgraphia based on the disorder of language's analysis and synthesis; also with imperfectness mental operations with dysgraphia associated with the disorder of linguistic analysis and synthesis.

Modern research specialists from other disciplines (L.S. Tsvetkova [27], A.N. Kornev [7], T.V. Akhutina [1], etc.) indicate that the majority of children with dysgraphia are different from their peers by state of neuro-mental health. Clinical and psychological and neuropsychological researches confirm that dysgraphia is not monosymptomatic condition in many cases. Disorders of writing are often not only occur in deficiency of cerebral functions, but are accompanied with disorders cognitive, psycho-organic and neurosis.

Therefore, we believe it is important to identify and consider the possible psychopathological characteristics of the child with dysgraphia: emotional and volitional immaturity, low mental capacity, high fatiguability, difficulty concentrating, and any others, as well as underdeveloped component of training activities such as educational motivation, ability to organize and plan their actions and control them. Such information about the child, in our opinion will help better organize correction of writing speech, it can involve professionals from adjacent scopes, this all can positively affect the timing and effectiveness of the corrective action.

Upon admission to the school the child should have a certain level of cognitive processes and age-appropriate motor development. Not revealed on time mechanisms of the difficulties in learning activities, writes I.N. Sadovnikova [20] as well as the lack of understanding and support from parents and teachers usually entail of the change in the nature of a child – appears secondary affective layers: the child discovers aggressiveness, often refuses to perform learning tasks or work only under penalty. These affective

responses masked a deep sense of inner baby's anxiety, feeling of worthlessness. He is afraid to make errors in his activity and thus detect his own inconsistency. Such secondary layers may become irreversible. At school age, partial violations compounded because of excessive stress on the nervous system, which leads to neurosis, sociopathic disorders in behavior, protective aggression. The lag may increase due to absenteeism for lessons what, in turn, can exacerbate the difficulties and lead to violations of the structure of child's personality.

As pointed out by H. Spionek [23], complex of detected factors has hierarchical in nature, and is not just a conglomeration, where the equally actions and important factors are simply summed. Therefore, these children need understanding, gentle approach and effective help by adults. Work with such children doesn't contain disciplinary measures and authoritarian style of communication, also there needs in school difficulties' early diagnosis.

E.P. Ilyin [6] points out that when the school life starts, there occurs permutation in the hierarchy of the motivational system. According to L.I. Bozovic [2], still are the leading "directly acting motives" but intentions "go on about" the immediate inducements, desires. Primary schoolchildren get new social setups, the new social motives associated with a sense of duty and responsibility, with need on education ("to be literate").

According to I.M. Verenikina [5], in the period from 8 to 10 years, there is increasing number of children, motivating its training activities sense of duty, but decreases the number of children who are studying with interest. Really working motive is getting high grades or praise. Broad social motives take leading position in children of primary school-age. The first place is taken by the profession's choosing motives and motives of self-cultivation. In second place are the motives of duty, responsibility (for students' grades 1–2 – in front of the teacher and the parents, for the third-graders – in front of classmates). A huge place to junior high school students learning motivation is the desire to get good grades. In this case, the pupils are not aware of the connection between the assessment and the level of their knowledge, objective mark role [24].

Teaching of writing, often not based on a naturally developing needs of the child, but is given him the outside, from the hands of the teacher. It requires a lot of attention and effort on the part of the pupil and the teacher. L.S. Vygotsky [4] pointed that the motives inducing to writing, still are not enough accessibly to the child. Starting to learn writing, pupil does not feel the need for this new function of speech and "vaguely" presents itself, why he needs it. According to L.S. Vygotsky [4], writing should be meaningful to the child, it should induce the natural need, a need, and it should be included in the list of vital tasks for the child.

One of the most effective means, according to N.F. Talyzina [24] that increases cognitive motivation (which by contents is inside) is problem of learning. With traditional training, usually to the third class comes "motivational vacuum": the loss of cognitive motives, lack of interest in teaching. Quite often, the reason for this is the inability to learn. This, in turn, leads to poor pupil

understanding of the material being studied, weak successful, non-satisfaction of the result, and as a result to low self-esteem. In some cases it is necessary to use play activities to form the pupils' missing funds teachings. This method is used when teaching has not yet become the dominant activity for the child, did not acquire personal sense. Play helps prepare children for learning. Gradually teaching acquires a personal sense, begins to cause a positive attitude toward themselves, which is an indicator of positive motives perform this activity.

Thus, the formation of the writing is a complex activity that requires a certain level of maturity emotional and volitional spheres, motivation, self-esteem, as well as adequate training of formation of the components of learning both general and specific. Given all said, it seems not only possible but necessary inclusion of certain gaming techniques in speech therapy on correcting dysgraphia in primary school children. Moreover, these methods should be are aimed at addressing not only the speech therapy tasks (correction of written language), but also to address the pedagogical tasks (formation of the components of learning activity), without which the first solution is not possible.

The practice of work speech-language pathologists with the current generation of younger schoolchildren, suffering from dysgraphia, confirms the need for substantial change in the organization and content of the speech therapy.

This was dictated primarily by changes in child development, had happened in recent decades. Numerous researches of psychologists and neuropsychologists witness to the fact that the somatic and mental statuses of schoolchildren improperly estimated based on the standards of yesterday. The development of today's children as a tempo and qualitative characteristics, and professionals should take into consideration the modification of the ontogenetic process during organization diagnostic and correction work, thinks A.V. Semenovich [22].

Currently the organization of speech therapy to overcome dysgraphia in primary school children exists in several methodological approaches.

The first approach is matched the modern theory of speech therapy and based on the results of the speech therapy diagnostic of children with problems of writing. This therapy could be done both individually and in groups. Speech therapist determines the type or combination of types of dysgraphia by the basis of the diagnostics and in accordance with this he plans the correction work, which is based on the principle of primary influence on the property of the disordered writing system's elements and their formation of zone of proximal development of the child and the impact of normative-age standards. The most detailed speech therapy treating of definite types of dysgraphia is reflected in the works of L.S. Volkova [15; 25; 26], R.I. Lalaeva [8–10], L.G. Paramonova [16–19], S.N. Shakhovskya [8; 13; 14; 28]. They also have characterized ways and types of work on preventing dysgraphia related to the insufficiency of speech and optical functions.

The second approach to overcoming dysgraphia reflected in the works of A.V. Yastrebova [29]. This approach has not only corrective, but also a preventive orientation. Correction and developing work within this approach

aimed at improving children's oral language, development of the thought and language activity and the formation of the psychological preconditions for the implementation of full-fledged training activities.

The third approach in the correction of dysgraphia in primary school children was more fully described in the works of I.N. Sadovnikova [20], where the author proposes a method of diagnosis of writing speech disorders and their correction. I.N. Sadovnikova does not compare revealed disorders in regulation in primary school children to certain types of dysgraphia, but classifies the mistakes made by pupils, and in accordance with this highlights the following direction in correctional work:

- development of spatial and temporal representations;
- development of phonemic perception and sound analysis of words;
- the quantitative and qualitative enrichment of vocabulary;
- improvement syllabic and morphemic analysis and synthesis of words;
- understanding of collocations and construction of sentences;
- enrichment of pupils' speech by familiarizing them with the phenomenon of polysemantics, synonyms, antonyms, homonyms syntactic structures, etc.

To overcome the writing disorders experts use different methods, but at the same time all of them are based on several fundamental principles which must be followed in the process of speech therapy correction [8; 18]:

- *The principle of comprehensiveness.* This impact on a child with a complex of violations, such as dysgraphia, implying a connection to the diagnostic and correctional work of specialists from related oblasts (psychologists, neurologists, neuropsychologists, and others).

- *The principle of systematic influence.* This implies influence on all aspects of speech and the child's psychics, which may be associated with this disorder, but not limited to correcting the actual problem.

- *The principle of reliance upon saved elements and account of the current zone of proximal development,* it makes efficient use of workarounds for the development and correction of impaired function.

- *The ontogenetic principle* implies taking into account the laws of formation of the written language as an activity that is necessary for determining the individual plan of remedial work with a child suffering from dysgraphia.

- *Accounting leading activity* to be used in the process of correctional work to increase the interest of the child and effectiveness.

- *Personally oriented approach* achieves in the process of correctional work necessary result is faster and more effective.

- *The impact on the social micro-environment* is of great importance for of correctional work, that's why in this process should be actively included and teachers, and parents.

It is known that the activity (in writing speech) goes the union of all the functional components of writing. Violation of interaction between them, as well as the lack of programming, regulation and control – the basic components of activity – can determine the presence of errors in child's writing, is not different

from those that are traditionally considered like dysgraphia mistakes – says E.A. Loginova [12]. Accordingly, the unformed children's programming functions with dysgraphia, self-regulation and control of the writing speech are presented in a number of cases, a separate cause of writing disorders, and in others aggravating symptoms of dysgraphia (in the traditional sense), is one of the missing links of theoretical and practical knowledge of the written language disorders in primary school children. Correction activities (such its components as a motive, programming, regulation control) are often not realized speech therapists as possible self-reliant areas of speech therapy.

The scientists also noted a sharp complexity of the structure abnormalities in the development of children, a significant increase of the so-called combined disorders in different groups of children, the emergence of new forms of deviations and unformed of certain areas of the mental development of the child. Differential diagnosis in some borderline cases and deviation in the development also is complicated (N.Y. Semago, M.M. Semago [21]). Altogether, this makes it necessary to expand concepts of experts on violations of writing speech and studying them from the perspective of current knowledge of the various fields of science.

Such an interdisciplinary approach, in our opinion, helps considered dysgraphia such a syndromic disorder that manifests itself in the disorder of formation and functioning of difficult to organized form of mental activity – writing (and in the future – writing speech).

Psychological and neuropsychological research dysgraphia as mental disorder (the process of writing) in the aggregate of all its elements is relatively small. Not enough is also the psychological and neuropsychological recommendations for the correction of dysgraphia or psycho-correction of children with writing disorders that could enhance the effectiveness of preventive and corrective work of speech therapists, to make more informative scheme of examination of children with dysgraphia.

Neuropsychologists (T.V. Akhutina [1], L.I. Wasserman, S.A. Dorofeeva, J.A. Myerson [3], N.J. Semago, M.M. Semago [21], A.V. Semenovich [22]) study especially emotional and personal sphere (motivation, interests, relationship system, the characteristics of communication) in primary school children, determine the level of development of higher mental functions as well, which is particularly important in relation to pupils with dysgraphia, research general organization, self-control regulation and control of activities, defined the zone of proximal development.

Thus, the correct use of diagnostic techniques of psychology and neuropsychology, greatly enhance the ability of speech therapists in diagnosis, and relying on it results, in the development of its educational strategy.

Summarizing all the above, we can draw the following conclusions:

– Analysis of published data showed that, despite numerous clinical and psychological and pedagogical research primary school children with dysgraphia, the problem of its successful correction remains valid, that requires the development of specific diagnostic techniques. Due to the variety of

etiopathogenetic factors, the problem of violations of the written language in primary school children calls for a comprehensive approach to itself to review a dysgraphia as a syndromic disorder.

- The scientific studies indicate that pupils who suffer from dysgraphia, characterized by a variety of clinical manifestations, the complexity and variability of etiology and pathogenesis, that defines such variety of clinical and pedagogic classifications of dysgraphia.

- Analysis of speech therapy, psycholinguistic and neuropsychological literature has shown that children with dysgraphia have not only specific errors that are caused by unformed oral speech. These children is characterized by disorder of mental-development, which manifests itself in violation of the emotional-volitional sphere and cognitive activities (thinking, memory, attention, visual-spatial perception, and praxis), and they have problems in forming programming functions, self-regulation and control of the written work.

- In the scientific and methodical literature are well represented principles, directions and methods of diagnosis of dysgraphia. However, the problem of an integrated approach to the diagnostics the dysgraphia as syndromic disorder remains under-developed. So far, are poorly understood the questions of selection criteria of unformed components of learning activity in primary school children with dysgraphia. Thus, studies that have implemented a comprehensive approach for the diagnosis of dysgraphia with considering symptoms, mechanisms, structure of the defect and psychological characteristics of junior high school students is not enough.

Need a system diagnostic dysgraphia, which can be flexibly adjusted to the demands of society to provide speech therapy's help for primary school children in overcoming disorders of writing in the face of massive schools and in speech pathology rehabilitation centers. Comprehensive diagnosis should include the following components:

- anamnesis (questioning the parents);
- this medical and psycho-pedagogical documentation;
- the complex of exercises for researching the level of non-verbal skill prerequisites for the formation of writing;
- the complex of exercises for researching the level of verbal skill prerequisites for the formation of writing;
- the complex of exercises for researching the level of maturity the components of studying;
- the complex of exercises for researching the actual level of the maturity of writing speech.

In this regard, research in this area are promising and will help to improve the methods and techniques of speech therapist's diagnosis of junior school children suffering from dysgraphia.

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Рябова О.В. К вопросу о принципах диагностики дисграфии у младших школьников

В статье рассматривается проблема диагностики и коррекции дисграфии как синдромного нарушения. Нейропсихологические исследования последних лет выявляют тесную взаимосвязь дисграфии не столько с недоразвитием речи, сколько с несформированностью невербальных форм психических процессов, а также с несформированностью целенаправленности деятельности, саморегуляции и контроля над действиями. В связи с этим в статье показана необходимость диагностики не только устной и письменной речи, но и сформированности компонентов учебной деятельности у младших школьников, что позволяет выявить и учитывать возможные психопатологические особенности каждого ребёнка с дисграфией.

Ключевые слова: дисграфия как синдром, компоненты учебной деятельности.

Рябова О.В. До питання про принципи діагностики дисграфії у молодших школярів

У статті висвітлено проблему діагностики й корекції дисграфії як синдромного порушення. Нейропсихологічні дослідження останніх років виявляють тісний взаємозв'язок дисграфії не стільки з недорозвиненням мови, скільки з несформованістю невербальних форм психічних процесів, а також з несформованістю цілеспрямованості діяльності, саморегуляції та контролю над діями. У зв'язку з цим у статті визначено необхідність діагностики не тільки усної і письмової мови, а й сформованості компонентів навчальної діяльності у молодших школярів, що дає змогу виявити і врахувати можливі психопатологічні особливості кожної дитини з дисграфією.

Ключові слова: дисграфія як синдром, компоненти навчальної діяльності.