

Speech therapy aspect of improving the quality of education of schoolchildren in a capital megapolis

Yuliia Vyatleva^{1*}, Natalia Grigorenko², Yuliia Pokrovskaya², and Natalia Bal³

¹Logomag LLC, Laboratory of Special Training and Education, Moscow, Russia

²Moscow City University, Department of Speech Therapy, Institute of Special Education and Psychology, Moscow, Russia

³Belarusian State Pedagogical University named after Maxim Tank, Institute of Inclusive Education, Department of Speech Therapy, Minsk, Belarus

Abstract. The Russian language, as the state language, is given an honorable and important role, uniting all nationalities together. For its mission to serve the unity, solidarity, and mutual understanding of all the peoples of Russia, a mandatory national educational program has been approved, operating throughout the territory of the Russian Federation. The present article is dealing with the problem of mastering the Russian language. The goal of the research is to study the etiology and specifics of writing disorders in primary school children studying at general education school and to develop differentiated strategies for teaching pupils with various manifestations of dysgraphia. Methods used during the preparation of the article included theoretical research, such as learning, generalization, analysis, synthesis, axiomatics, as well as empirical techniques, namely, observation and comparison. Results and novelty of the research consist of clarifying information about the state of the problem of writing disorders in contemporary schoolchildren, updating scientific ideas about the contingent of primary school children in need of correctional assistance from specialists; applying an interdisciplinary approach to the study of the etiology, mechanisms, causes, and specifics of various manifestations of dysgraphia in primary general school children; supplementing the scientific data on the impact of didactogenia on the quality of learning writing and the formation of dysgraphia in pupils with difficulties in the assimilation of the program learning material on the Russian language; as well developing high-performance speech technologies for the early detection and elimination of violations of written language and difficulties in learning academic courses of the Russian language.

Keywords: children with an articulation disorders, dysgraphia, communicative and speech development.

* Corresponding author: vyatleva@list.ru

1 Introduction

The problem of improving the quality of education of the Russian Federation citizens is one of the most urgent in Russia, whose importance increases when considering the issues of access to education for all categories of citizens, especially people with health limitations, including children with speech disorders [1]. Thus, pupils with writing disorders experience a deficit in the formation of the necessary psycho-speech prerequisites for successful assimilation of both oral and written language, whose formation occurs in early childhood and is characterized by a slow pace and qualitative inferiority [2, 3]. Altogether, this not only limits the communicative and speech development but also hinders their further successful socialization and integration in society [4, 5]. That is why this problem is faced by researchers not as a particular specific task that requires the attention of narrow-profile specialists, but as a rather acute state issue that needs interdisciplinary interaction of scientists from different branches of science, who are ready to consider it from different scientific perspectives [6-8].

The formation of all speech system components in primary school children with general speech underdevelopment (GSU) is disrupted [9]. Therefore, the main task of a speech therapist is to prevent writing disorders in younger schoolchildren [10]. Contemporary scientists also consider a comprehensive approach to the study of writing disorders in school children. As part of this view of the research object, some facts of the negative impact of didactogenia on the nature of this disorder have become known [11]. In this case, the process of forming correct writing and reading in schoolchildren is influenced not only by the constitutional psycho-speech prerequisites necessary to ensure this type of activity but also by the conditions in which the pupil's written language is formed.

Until now, experts have had an optimal set of progressive techniques that have been successfully used in the practice of overcoming dysgraphia in schoolchildren with speech disorders. However, the dramatic change in the contingent of secondary school pupils and the increase in the number of pupils in need of remedial help of a speech therapist is forcing scientists to revisit the detailed analysis of this issue to clarify information about the updated contingent of the contemporary school, as well as the effectiveness of correctional and developmental technologies that affect the quality of pupils' education [12].

All of the above has determined the **goal of the present research** which consists in studying the etiology and specifics of writing disorders in primary school children studying at general education school, and to develop differentiated learning strategies for pupils with various manifestations of dysgraphia.

The research hypothesis is as follows: the correctional and developmental methodology should be based on the principles of interdisciplinary interaction and an individually differentiated approach to overcome and prevent writing disorders in schoolchildren with both obvious signs of dysgraphia and sporadically occurring markers of this disorder.

Research objectives include conducting a theoretical analysis of the written activities formation in schoolchildren with speech disorders; systematizing the main areas of diagnostic and remedial work on overcoming and preventing writing violations of younger pupils studying at general education school; carrying out an experimental study of the etiology and specifics of dysgraphia in primary school children; substantiating differentiated learning strategies and speech therapy assistance to pupils with various manifestations of dysgraphia; developing differentiated guidelines to form prerequisites for competently written language in younger pupils with various manifestations of dysgraphia at Russian language lessons and speech therapy classes in general education school.

2 Methods

When preparing the article, the authors employed theoretical research methods, such as study, generalization, analysis, synthesis, axiomatics, as well as empirical methods, namely, observation and comparison.

3 Results

The experimental study was conducted as part of the preparation of the master's final qualification work of A.V. Markova. Scientific management of experimental work was carried out by Associate Professor, Candidate of Pedagogical Sciences (Ph.D.), Yu.Ye. Vyatleva, scientific advice on diagnostics and analysis of anamnestic data of subjects was provided by Associate Professor, Candidate of Pedagogical Sciences (Ph.D.), N.Yu. Grigorenko, mathematical and statistical processing of experimental data was carried out by Senior Lecturer Yu.A. Pokrovskaya. The study was conducted at the Institute of Special Education and Complex Rehabilitation of the State Autonomous Educational Institution of Higher Education Moscow City University.

The ascertaining experiment was carried out from September to October 2017 based on State-Funded Educational Institution No. 1404 in Moscow. The study involved 112 pupils aged 8–9 years from the third grades of general education school.

The conducted study allowed clarifying the scientific and theoretical ideas about the contingent of primary school children [13], and, in particular, revealing that they included children with a conditional norm of speech development (54%), whose indicators did not exceed the acceptable norm, as well as children with dysgraphia (38%), and children with markers of writing disorders (8%), forming a risk group. Analysis of the results has shown that in the group with a conditional norm, the results of the formedness of oral and speech prerequisites for literate writing were higher than those in the group with dysgraphia and the risk group. They were characterized by a higher level of sound reproduction, and phonemic perception, as well as they had better developed lexical and grammatical side of speech, and independent coherent speech. Children from experimental group 1 (EG-1) (pupils with a conditional norm of speech development) had significantly better-formed components, such as educational motivation, self-esteem, and reflection. Also, they were more successful in completing educational tasks than pupils from EG-2 (children at risk), and EG-3 (children with dysgraphia).

The practical part of the study aimed at correcting and preventing disorders of dysgraphia in younger schoolchildren. The formative experiment was carried out from November 2017 to May 2018 based on the same school No. 1404 in Moscow. The study involved 112 pupils aged 8-9 years from the third grades of general education school.

Differentiated strategies were presented as follows:

- **strategy “A”** for children with a conditional norm of speech development
- **strategy “B”** for children at risk
- **strategy “C”** for children with dysgraphia.

Each strategy consisted of four modules:

- MODULE I. Developing oral and speech prerequisites for literate written language.
- MODULE II. Developing literate writing.
- MODULE III. Developing the reading process.
- MODULE IV. Developing and activating learning activities.

The developed strategies for the first time imply not only the traditional work of a speech therapist but also include full-fledged recommendations for primary school teachers. Organizing activities recommended for different categories of pupils involves both working in speech therapy classes and the classroom during lessons [14]. For pupils who have

manifested the determinants of dysgraphia, it is necessary to strengthen not only speech therapy work to prevent the identified markers but also to pay attention to academic knowledge, skills, and abilities in the Russian language. In this case, a thorough diagnosis and identification of existing difficulties and gaps in the assimilation of the program material of pupils is required, which will allow them to go further according to different strategies of correctional and developmental learning. In some cases, the teacher-centered teaching on the entire Russian language course is offered depending on the grade (level of knowledge), while in other cases, an individually selective approach based on a separate study of small educational and thematic sections is suggested [15, 16].

Analysis of the results obtained in the course of the control experiment (April-May 2018, conducted at the same school No. 1404 in Moscow) has shown that there was a significant increase in the level of formedness of oral and speech prerequisites for the formation of literate writing in all groups compared to the results of the ascertaining experiment (80% of cases). In the group with a conditional norm (71%) and the risk group (65%), the results were higher, which was explained by children's higher level of oral speech development at the initial stage of correctional work. Children in these groups were not found to have a low level of development. In the group of children with dysgraphia, significant positive dynamics were also revealed (58%): they had an increased level of sound pronunciation and phonemic perception. They had shown better development of the lexical and grammatical aspects of speech, as well as independent coherent speech. Pupils in all groups had shown an increase in self-esteem and motivation to learn. According to the results, children in all groups have shown significant improvements in terms of all studied parameters.

4 Discussion

Traditional speech therapy work carried out in general education organizations leaves out of their professional functions the problems of forming literate writing in children with dysgraphia markers, and also does not include in the scope of their activities control over the assimilation of this skill in pupils with a conditional norm of speech development. This draws attention to the narrowing of the field of speech therapy monitoring in terms of studying the etiology and specifics of the origin of dysgraphia and its manifestations in different categories of children, which leads to missing the starting points of its beginnings [4].

The contingent of children in general education school is heterogeneous in its composition in terms of the formedness of prerequisites for writing and speech activity, as well as in terms of a sufficient level of academic success necessary for the full assimilation of literate writing [17].

5 Conclusion

Practical testing of the developed strategies of differentiated correctional and developmental learning has shown high performance in pupils with dysgraphia and those having low academic performance in mastering the Russian language course (bilinguals, non-native speakers, pedagogically neglected children with deviant behavior and manifestations of school maladjustment). The proposed technology is focused on a variety of options for the educational needs of children enrolled in general education and inclusive schools. This allows concluding that the research has been completed productively; however, discussion of the concerned scientific issues cannot be limited to a single article.

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