

## **USING COMPUTER TECHNOLOGY IN OVERCOMING THE WRITTEN SPEECH DEFECTS IN CHILDREN WITH MENTAL RETARDATION**

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### **ABSTRACT**

*This article covers the shortcomings in the written speech of children with mental developmental disabilities. The article also substantiates the importance of computer technology, the main effective computer programs, use of the word text editor for a correctional purpose in eliminating the shortcomings of written speech of students with mental development defects.*

**KEYWORDS:** *Students with Disabilities in Mental Development, Written Speech, Correctional, Speech Therapy, Computer Technology.*

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### **INTRODUCTION**

Written speech and, in particular, writing is a complex mental process. Its psychophysiological structure A.R.Loria, L.S. It is covered in the research work of tsvetkovas. The relationship between defects in written speech, defects in oral speech and hearing F.A. Rao, M. Ye. Khvattseva, R.E.Described in the works of such scientists as Levina. Defects in written speech in primary school students L.N. Yefimenkova, I.N. Sadovnikova, R.I. Lalaeva, A.N.Scientists such as Kornev have covered in their research work.

Currently, an important place in speech therapy is occupied by the problem of correcting various forms of dysgraphia in students with a defect in intellectual development. However, speech therapy techniques are not enough to correct these defects (R.E. Levina, 1968, 1970; G.A. Corner, 1957, 1979; N.A. Nikashina, 1959, 1959; R.I. Lalaeva 1978, 1983, I.719, N.19. 1983; E. F. Sobotovich, 1979, 1986; I. M. Platkina, 1973, 1978;). The disagreements that arise regarding the elimination of dysgraphia are due to the lack of a single point of view of researchers on the mechanisms of defects in written speech. To date, this issue is considered relevant [1].

M.E. Khvatsev, V.V. According to voronkovas, it was noted that in children with mental developmental disabilities, written speech defects are more common than in children with normal development. The reason for this was determined in the underdevelopment of cognitive activity, defects in oral speech, lack of formation of language generalizations, underdevelopment of Speech Hearing, Speech-Movement and visual analyzers.

At the same time, written speech defects in children with mental developmental disabilities are characterized by stability, which is directly related to the underdevelopment of cognitive activity, in which all mental processes are observed: perception, attention, memory, thinking, lack of imagination.

The symptomatics of dysgraphia in schoolchildren of this category are a large number and variety of errors in writing and the complexity of their mechanisms (V.V. Varanka, E.M. Gopichenko, E.F. Sobotovich), often manifested in a combination of complex, various forms (acoustic and

articulatory-acoustic, etc.) in a complex form [3].

Hearing attention and memory are not formed, mentally retarded students have difficulty moving from one type of activity to another, they hardly keep a sentence of 4-5 words in memory and have difficulty repeating it. For them, writing from memory based on auditory perception is considered one of the rather difficult tasks. There are difficulties in accepting the teacher's speech addressed to the class. They do not understand complex instructions.

The lack of formation of Visual Attention, Perception and memory hinders correct, conscious reading. Children make many mistakes when copying, do not find errors in checking their written work, do not know how to use tables, posters, samples given in a textbook or whiteboard.

Given the underdevelopment of phonemic perception, children with mental developmental disabilities very slowly master syllable and sound-letter analysis. There are many different mistakes in the work of such students: dropping a letter, not writing words to the end, writing words with additional letters and syllables, changing letters, syllables in a word, gross violation of words. Continuous writing of words, voluntary division of words.

Work on the elimination of these speech defects in mentally retarded students should be carried out in all educational disciplines, but Speech Therapy Training is important in the complete elimination of written speech defects. The use of a combination of traditional teaching methods and modern information technologies will help the speech therapist solve this problem. New information technologies have become a promising tool for correctional and developmental work with children with defects in oral and written speech. Widespread computerization opens up new, yet unexplored learning opportunities. They are associated with the unique capabilities of modern electronics and telecommunications.

Classes for correcting defects in written speech using multimedia technologies are both relevant and modern, they are interesting for children, serve as an additional incentive for self-development, help to eliminate speech defects, actively form the communicative characteristics of a mentally retarded child and are a powerful and effective means of Correctional influence.

With research issues related to the use of computer technology in correctional work with students with developmental disabilities in the special literature, E.P.Sineva, A.I.Kukushkina, A.Yu.Isakov, L.R. Mominova, M.Y. Ayupova, O.S. Ahmedova and others are engaged.

Currently, there is a huge arsenal of general developmental interactive games and computer programs for children. We studied and tested the following training programs in the correctional process: logopedic simulator "Delpha - 141", "sentence", "Alphabet", "speech therapy exercises", "games for Tigers" and others. Interesting stories create a game shukuhi, which is very important for children, since the main purpose of reading with computer programs is not only to master new knowledge and consolidate previously acquired knowledge, but also to emotionally free children, activate them and motivate them to work effectively [2].

One of the effective computer programs for eliminating defects in written speech is the specialized computer program "Alifbe". This program allows you to effectively organize work with children in individual and small groups. The program is based on methods of teaching children in need of special assistance (L. N. Efimenkova, G. A. Corner, R. E. Levina, R. I. Lalaeva and others). The computer program "Alifbe" fully takes into account the peculiarities of children's assimilation of printed text, creates the conditions for the search for new expressive means of children's creativity, the transition from ideographic writing to phonemic writing. Work using a computer program is carried out on the basis of visual perception and control of the results of user activity. In some exercises that cause difficulties, the possibility of additional reliance on hearing is provided. Thus, compensatory mechanisms are activated that allow the formation of stable visual-kinesthetic

conditioned reflex connections of the central nervous system. In the process of speech therapy work, on their basis, correct speech skills are formed, and in the future, self-control of one's own speech. This makes it possible to correct written speech disorders effectively and in a short time. This program consists of tasks such as determining the appearance of a letter, coloring a letter between an abstract drawing, writing a riddle answer, assembling a given word, phrase from letters, identifying a missing letter in a word.

The "sentence" trainer program is designed to eliminate the shortcomings of handwritten speech. It is known that the written speech of students with a defect in their mental development is accompanied by many spelling mistakes. This program allows you to form the correct writing skills.

Speech therapy training in eliminating deficiencies in written speech can be carried out using Word, a text editor. Due to the fact that children with a special desire for help often experience tension, fear of writing and unwillingness to improve these skills, the computer partially relieves these problems, without turning training into a process of continuous writing and rewriting. Working in a text editor is reminiscent of a literacy lesson - speaking out loud, due to the fact that the process of searching for the desired button is ongoing, you will have to articulate each sound. Thus, in the process of working in a text editor, Speech-Hearing, Speech-motor, visual analyzers are activated. The motion analyzer begins to work at the level of finger movement along the buttons, which helps to develop the skills of small hand motility of the child's hand. When letters, syllables, words, phrases are written, the child has the opportunity to observe the line from left to right, which is important for readers with writing defects. The Word program helps to diagnose a speech therapist, since it allows you to store in the computer memory the tasks performed by the child before and after the correctional process at the beginning of the year for a visual comparison of the results [2].

Recognizing that the computer is a powerful new tool for the intellectual and creative development of children, it is important to remember that it should only complement the teacher and not replace him. In the process of using computer technologies, we must not forget that in addition to education, it is very important for us to maintain the health of the child. Therefore, working with a computer should be planned as a stage of speech therapy training, logically fit into its structure, be consistent with the topic. In one lesson, it is recommended to include no more than two or three exercises at the computer, since excessive variety in work leads to an inadequacy of emotional arousal.

When planning Logopedic exercises using computer technologies, the following scheme can be used: 1-2 exercises that solve one basic exercise and auxiliary tasks that meet the main objectives of the lesson. It is advisable that the duration of the stage of work with computer technology in speech therapy training does not exceed 5-10 minutes.

The use of interactive games and computer programs in the educational process can significantly reduce the time for the formation and development of language and speech tools, communication skills, higher mental functions. In addition, their inclusion in speech therapy training allows you to individualize the correctional process, take into account the educational needs of each child, which ultimately helps to increase the effectiveness of the correctional-developmental process. Thus, computer technology is an effective technical tool, with the help of which it is possible to significantly enrich the correctional and developmental process, stimulate individual activity and the development of children's cognitive processes, eliminate the shortcomings of the child's written speech, educate a creative personality adapted to modern life.

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