

THE USEFULNESS OF THE LOGOPEDIX SOFTWARE IN CORRECTING LANGUAGE DISORDERS IN STUDENTS WITH MODERATE AND MILD DEFICIENCY

UTILITATEA SOFTULUI LOGOPEDIC LOGOPEDIX ÎN CORECTAREA TULBURĂRILOR DE LIMBAJ LA ELEVII CU DEFICIENȚĂ MODERATĂ ȘI UȘOARĂ

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Abstract: For people with disabilities, technology makes things possible. We can conclude that technologies are considered a determining factor for people with different disabilities to become independent. The impact of educational software on students is obvious: you can see an increase in interest in learning, an increase in attendance at classes, better school results. Modern IT means significantly increase the attractiveness of the educational process. Educational software is "the most important technological innovation of modern pedagogy." The aim of the research is the verification and applicability of educational software in the correction of language disorders in students with intellectual disabilities. The experimental stage consisted of a formative experiment that aimed to influence the subjects, by applying a program of language understanding and correction of language disorders based on the use of educational software "Logopedix" for the experimental group, and classical speech therapy, for the group Control. Both experiments were performed in a physical context.

Keywords: language disorders, educational software, intellect deficiency.

Introduction

The research of language based on concrete or observable facts raises a series of theoretical and practical aspects. It must be borne in mind that communication occurs through language, language being also an instrument of thought. Human thinking is formed based on language and is expressed through language. The correction of speech and language disorders, in general, stimulates the mental development of the individual,

his integration in activity and life, leads to the assertion of personality on a social and cultural level. It is a desideratum made by specialists in the field of human sciences, concerned with ensuring a harmonious and complex development of man today.

The treatment of language disorders from their inception phase creates the early premises for the elimination of some of the causes of school failure, namely the causes of speech therapy. Therapy must be adapted to each child, to each case, to the rhythm that suits him and to his learning possibilities and to the degree of the disorder. Due to the complexity of the problems involved, the methods register in the therapy of language disorders a great variety. Specifically, the techniques used are based on exercises and include what the child must go through to achieve the proposed goal: obtaining correct speech.

In the current conditions, speech therapists are more and more challenged in offering and carrying out high quality speech therapy, for the correction of people with language disorders. Thus, an increasing number of speech therapists have become interested in the potential therapeutic applications of computer programs. Any practicing speech therapist recognizes that this technique of sustained repetition of the correct pronunciation of sounds, syllables, words and sentences leads to a decrease in interest and motivation to practice, because it causes a certain monotony, fatigue and regression in correction. That is why a combination of traditional techniques with the new logotherapeutic information technology would stimulate the child's motivation for systematic practice and accelerating therapeutic progress. Through computer technology, the therapeutic relationship is improved, in the sense of eliminating the frustration activated by the monotonous exercises of classical therapy, which indirectly determines the increase of children's self-esteem. In an attempt to respond as professionally as possible to people with language disorders, speech therapists use a wide range of techniques. Of these, computer techniques are considered the most flexible and advanced. For the use of logotherapeutic technologies, it is necessary that the software be clinically tested and adapted to the specifics of various target populations.

Research highlights a high potential of computer technology to complement traditional speech therapy methods, procedures and techniques. In order for information

technology to be fully effective, the development of these techniques must be done in accordance with the requirements of users - software created according to the frequency of language problems encountered in children.

The computer can be an excellent play partner and a good "educator" and his intervention depending on the variety of programs used and the involvement of psychopedagogical factors, will be reflected in shaping the child's personality.

Research objectives

- Theoretical study of the offers potentially provided by the field of Education sciences from the perspective of the introduction of educational software in speech therapy;
- Arguing the imperative to correct language disorders in the area of educational software, which actively and specifically contributes to the global effects of communication;
- Finding the specifics, conditions and useful strategies of educational software;
- Identifying educational software suitable for students with intellectual disabilities;
- -Exploring didactic optics for the implementation of a didactic model for correcting language disorders in students with intellectual disabilities on the example of the educational software "Logopedix".

The purpose of the research

To identify the didactic and methodological conditions / strategies for optimizing the correction of language disorders in students with intellectual disabilities by using an experimental pedagogical model implemented in speech therapy with the applicability of educational software.

Research hypotheses

5. It is assumed that, by integrating educational software in speech therapy of language disorders of children with intellectual disabilities, results are obtained significantly higher than those obtained by classical speech therapy.
6. It is presumed that a mediating and necessary factor in the use of computer programs and techniques in the therapy of language disorders is the age and degree of disability of children.

Methodology

The initial group of subjects included in the study consists of 40 students of the Special High School "Constantin Păunescu", Tecuci, Galați County, characterized by:

- chronological age: between 10 - 14 years;
- classes: aV- a - aVIII-a:
- degree of mental deficiency:
- 40 subjects - moderate and mild mental deficiency: IQ = 35 - 70.

Note: the level of intellectual development of the subjects (the value of IQs) was not calculated but was extracted from the personal files of the children submitted to the school secretariat).

Following the testing from the initial stage, based on the detection of language incomprehension and the most common pronunciation disorders, we selected subjects that will later be introduced in the complex speech therapy program, divided into two groups, as follows:

- Experimental group - 20 students with pronunciation disorders - participating in speech therapy using educational software
- The control group - 20 students with pronunciation disorders - who participate in speech therapy using classical (traditional) methods in correcting the affected sounds.

The distribution of students in the two groups was made taking into account the observance (as much as possible) of the homogeneity criterion, depending on the results obtained at the initial evaluation, along with other criteria.

In establishing the two groups, the possible influence of random variables was taken into account such as: the motivational level of the subjects, the anatomical-physiological characteristics of the phono-articulatory apparatus, the level of development of phonemic hearing, experience in computer use (most students who use the computer at home were assigned to the experimental group).

Within the intervention program, the educational software was used, offering the possibility to develop the ability to imitate verbal actions and commands, onomatopoeia, recognizing objects by the sounds produced and then identifying them in images. All these actions took place according to the software in the first stage of correcting speech

disorders.

In the final stage of the program, work was done on the child's ability to recognize letters, to reproduce them graphically and to form sentences with words. All these exercises took place according to the program of the educational software.

Results

By applying the Wilcoxon test, a statistically significant advance in development was highlighted in the experimental group students, in all three sections of the TACL-R test: in the section Word classes and relationships ($M1 = 24.9$; $M2 = 38.35$; $Z = -3.939$; $p = 0.000$), in the section Grammatical morphemes ($M1 = 24.15$; $M2 = 38.50$; $Z = -3.928$; $p = 0.000$), in the section Developed sentences ($M1 = 20.25$; $M2 = 34, 80$; $Z = -3.930$; $p = 0.000$), On the other hand, the students in the control group also made significant progress in development on all sections of the TACL-R test: in the section Word classes and relationships ($M1 = 24.85$; $M2 = 33.80$; $Z = -3.941$; $p = 0.000$), in the section Grammatical morphemes ($M1 = 23.55$; $M2 = 32.00$; $Z = -3.935$; $p = 0.000$), in the section Developed sentences ($M1 = 19, 20$; $M2 = 31.85$; $Z = -3.941$; $p = 0.000$).

In the test stage, the application of the U-Mann Whitney test did not indicate significant differences between LE / LC, the two samples being homogeneous. At the retest stage, the values of the U-Mann-Whitney test indicated statistically significant differences between the experimental group and the control group: in Word classes and relationships $U = 48,000$; $p = 0.000$), in Grammatical Morphemes $U = 3,500$; $p = 0.000$), at Developed Sentences $U = 38,000$; $p = 0.000$)

The results obtained in the three sections of the TACL-R test showed that the performances of the LE group are significantly superior to the LC group in terms of language comprehension skills, at the end of the training program, which validates the advanced working hypothesis at this level.

Conclusion

The potential of ICT encourages innovation in the approach to teaching and learning and thus becomes an essential solution to the problems of the traditional educational environment. The computer-assisted training method is embedded in the complex set of interactive teaching techniques and strategies. Educational software, the

product of computer-assisted training, is not aimed at changing the teaching content. Applied in different operational paths (individual, group, frontal, intra- and extracurricular), the educational software diversifies the didactic activity, modifies the role of the teacher, favors the acquisition of theoretical and practical skills in learning.

An increasing number of speech therapists have become interested in the potential therapeutic applications of computer programs. Any practicing speech therapist recognizes that this technique of sustained repetition of the correct pronunciation of sounds, syllables, words and sentences leads to a decrease in interest and motivation to practice, because it causes a certain monotony, fatigue and regression in correction. That is why a combination of traditional techniques with the new logo-therapeutic information technology would stimulate the child's motivation for systematic practice and accelerating therapeutic progress. Through computer technology, the therapeutic relationship is improved, in the sense of eliminating the frustration activated by the monotonous exercises of classical therapy, which indirectly determines the increase of children's self-esteem.

For the use of logo-therapeutic technologies, it is necessary that the software be clinically tested and adapted to the specifics of various target populations.

The computer can be an excellent play partner and a good "educator" and his intervention depending on the variety of programs used and the involvement of psychopedagogical factors, will be reflected in shaping the child's personality.

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