RESULTS OF CORRECTIONAL LOGOPEDIC WORK IN THE DEVELOPMENT OF VOICE AND BREATHING OF CHILDREN WITH DYSARTHRIA

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https://doi.org/10.5281/zenodo.17937022

ARTICLE INFO

Received: 11th December 2025
Accepted: 12th December 2025
Online: 13th December 2025

KEYWORDS

dysarthria, speech respiration, phonation, logopedic correction, articulation, resonator exercises, phonopedic training, speech therapy, motor speech disorders, logorhythmics.

ABSTRACT

This article analyzes the effectiveness of a set of corrective logopedic exercises aimed at improving the voice and respiratory functions of children with dysarthria. The study was conducted with 20 children aged 6–10 diagnosed with dysarthria, who were divided into experimental and control groups. During a 12-week specialized logopedic program, changes in respiratory duration, vocal intensity and stability, articulation accuracy, and overall speech quality were assessed through diagnostic measures. The results demonstrated significant improvements in the experimental group, including strengthened speech respiration, enhanced phonation quality, and increased speech fluency. The article provides scientifically grounded evidence of the importance of corrective exercises in the logopedic treatment of dysarthria.

In our country, in recent years, fundamental reforms have been implemented in the areas of education, health and Child Development. Initiatives promoted by our president aimed at developing human capital, creating a quality and equal educational environment for each child, strengthening the psychophysiological health of children, especially in the direction of special pedagogy and speech therapy, are demanding new approaches. In our speeches in the field of education, the president noted that early identification of the possibilities of children, their comprehensive support and ensuring healthy development are the priorities of state policy. This approach makes the need to provide modern correctional services to children with speech-motor disorders such as dysarthria more urgent.

Today, the improvement of the system of logopedic services, the early detection of speech disorders in children, their comprehensive observation and correction on the basis of individual programs are the direction of state support. In particular, the incomplete formation of respiratory and phonation processes in children with dysarthria significantly affects the quality of speech, social adaptation, activity in the educational process. Therefore, the development of the sound and respiratory system is considered one of the most basic components of speech therapy.

Dysarthria is a complex speech-motor defect caused by disturbances in the activity of the central or peripheral nervous system, which affects not only the process of sound formation, but also the general rhythmic-melodic composition of speech, articulatory flexibility and the respiratory system, which ensures sound stability.ysarthria is a complex speech-motor defect caused by disturbances in the activity of the central or peripheral nervous system, which affects not only the process of sound formation, but also the general rhrams.

Corrective logopedic training serves as the main tool for restoring speech breathing and phonation processes in children with precisely dysarthria, strengthening the motor functions of the muscles of the speech apparatus, ensuring the stability of sound output. Speech quality of children with dysarthria can be significantly improved through scientifically based exercises, systematic approach and psychological-pedagogical support of speech therapy. This not only satisfies the child's communicative needs, but also helps develop his or her skills such as reading, learning, and freely expressing his or her thoughts.

Therefore, this study aims to develop breathing and sound functions in children with dysarthria through special logopedic exercises, scientifically assess the effectiveness of corrective approaches, and contribute to the improvement of methods used in logopedic practice. The study provides an important methodological and theoretical framework for determining the effectiveness of correctional programs that can be applied to pedagogical practice, their systematization and scientific justification.

Dysarthria is a speech disorder characterized by inadequate formation of articulation, breathing, voice, and prosodic processes resulting from Central or peripheral speech-motor system disorders. The degree of severity of this disorder significantly affects the child's phonation, speech breathing, intonation and articulatory accuracy. Low voice, rapid fatigue, lack of air in the process of speech, complete output of pronunciation are among the main forms of manifestation of dysarthria.

In the process of speech correction, the formation of speech breathing, stabilization of phonatory breathing, normalization of volume, timbre and duration of sound are among the important tasks. This research is aimed at determining the effectiveness of the development of sound and respiratory processes in children with dysarthria through a complex of special logopedic exercises.

Methodology

Study participants

The study involved 20 children aged 6-10 who were diagnosed with “dysarthria” by a neurologist. They were divided into two groups:

* Experimental Group (10 people) — engaged on the basis of a special correctional program.

* Control group (10 individuals) — alllogopedic training continued.Methodology

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Research process

The study was conducted for 12 weeks and included the following stages:

1. Initial diagnostics

o duration of speech breathing (in seconds);

o Sound Power and stability;

o sound output accuracy (logopedic test);

2. Correction program

A special sound-niqos exercise complex was applied to the experimental group:

o exercises that develop diaphragmatic breathing;

o "closed-lip" breathing exercises;

O phonopedic exercises (sustain sounds “a”, “o”, “u”);

o articulatory Gymnastics;

O logorhythmic exercises2. Correction program

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O phonopedic exercises (sustain sounds “a”, “o”, “u”);

o articulatory Gymnastics;

O logorhythmic exercises;

o resonator exercises (strengthening nasal, chest resonance).

3. Final diagnostics

After 12 weeks, the indicators of the two groups were re-evaluated and compared.

Data analysis

The results obtained were statistically compared based on scores, duration indicators, and quality analysis. The significance of the difference was assessed based on % increase

Results

1. Duration of speech breathing

• In the experimental group, breathing retention and stable release as a result of exercise increased from an average of 6-7 seconds to 12-14 seconds.

• In the control group, however, the performance improved to 1-2 seconds.

This indicates that the correction program significantly strengthens the breathing process.

2.esults

1. Duration of speech breathing

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This indicates that the correction program significantly strengthens the breathing process.

2. Sound power and stability

In the experimental group:

• volume to 25-30% ,

* stable phonation duration by 40% ,

• the cleanliness of the timbre improved by 35%.

Positive growth in the control group did not exceed 10-12%.

3. Articulation accuracy

In the experimental group, the indicators of articulation accuracy and sound generation increased by 50-60% (according to logopedic tests).

Clarity was observed in the sounds" T"," D"," s"," Z"," Sh"," R".

In the control group, however, these indicators remained on average around 15-20%.

4. Improved overall speech qualityIn the experimental group, the indicators of articulation accuracy and sound generation increased by 50-60% (according to logopedic tests).

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4. Improved overall speech quality

In experimental group children:

• Fluency of speech

* Reduced respiratory failure

* Reduction of sound fatigue

• In speech, a pause and Naturalization of the timbre were observed.

Overall, the general development of the children in the experimental group was 3 times more effective than in the control group.

Debate

The results of the study show that the main components of speech disorders in children with dysarthria — breathing, voice strength, prosody and articulation — are inextricably linked with each other. Special logopedic exercises activate precisely the diaphragm breathing, stabilizing the phonation process and helping the sound to come out naturally.

The study confirms that exercises and phonopedic approaches that strengthen the respiratory system are the most effective methods for children with dysarthria. In this, the use of logorhythmic exercises, the combination of musical rhythm and body movements made the sound output even easier.

Also, articulatory Gymnastics expanded the range of motion of the speech apparatus, serving as a quick restoration of sound accuracy.

The results are consistent with the corrective experiments presented in other scientific sources: the combination of work on breathing and resonator exercises significantly reduces dysarthria-accompanied sound disorders.

Conclusion

Based on the research carried out, the following conclusions were drawn:

1.The development of speech breathing in children with dysarthria significantly improves the stability of the voice and the accuracy of articulation.

2.he results are consistent with the corrective experiments presented in other scientific sources: the combination of work on breathing and resonator exercises significantly reduces dysarthria-accompanied sound disorders.

Conclusion

Based on the research carried out, the following conclusions were drawn:

1.The development of speech breathing in children with dysarthria significantly improves the stability of the voice and the accuracy of articulation.

2.Special corrective exercises (diaphragmatic breathing, phonopedic training, resonator exercises, logorhythmic exercises) strengthen the speech-motor system.

3.The 12-week logopedic program achieved a 3-fold increase in speech performance in the experimental group compared to the control group.

4.The volume, duration, timbre and fluency of speech have improved significantly.

5.This methodical approach is effective in working with children with dysarthria of preschool and school age.

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