

**TECHNOLOGIES FOR DEVELOPING CORRECTIONAL
AND REHABILITATION WORK WITH PRESCHOOL
CHILDREN WITH SPEECH DISORDERS**

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Abstract: *The improvement of correctional and rehabilitation work with preschool children with speech disorders requires the introduction of scientifically grounded pedagogical, psychological and technological solutions. In contemporary special and inclusive education, correctional rehabilitation is not understood only as a set of speech therapy exercises, but as an integrated system of diagnostics, individualized planning, developmental stimulation, psychological support, family partnership and continuous monitoring of progress.*

This thesis examines the technologies for developing correctional and rehabilitation work with preschool children who have speech disorders. The research was carried out on the basis of specialized preschool educational organizations located in Andijan, Fergana and Tashkent, Uzbekistan. The study focuses on the pedagogical potential of diagnostic-monitoring technologies, play-based correction, visual-didactic support, interactive communication tasks, digital progress tracking and family-oriented rehabilitation strategies.

The theoretical and empirical analysis indicates that the effectiveness of correctional rehabilitation increases when technologies are selected according to the child's age, speech profile, cognitive development, emotional condition and social environment. Approximate statistical indicators show that the combined use of play-based, visual, digital and family-supported correctional technologies contributes to the development of phonemic perception, sound

pronunciation, vocabulary, coherent speech, communicative activity and social adaptation. The findings confirm the importance of a multidisciplinary and technology-enhanced approach in specialized preschool education.

Keywords: *speech disorders, correctional rehabilitation, preschool education, pedagogical technologies, speech therapy, digital monitoring, play-based correction, inclusive education.*

Introduction

Speech development in preschool age is one of the key indicators of a child's general psychological, cognitive and social development. Speech disorders may limit the child's ability to communicate with peers and adults, understand educational instructions, participate in group activities and express personal needs. In the preschool period, these difficulties may become the basis for secondary emotional and behavioral problems if systematic correctional and rehabilitation support is not provided in time.

Modern correctional pedagogy emphasizes the need to move from isolated corrective measures to integrated correctional and rehabilitation technologies. Such technologies include diagnostic procedures, individualized correctional programs, speech therapy exercises, psychological support, interactive learning, visual and digital tools, parent counseling and interdisciplinary cooperation. Their purpose is not only to reduce speech defects, but also to strengthen the child's communicative competence, learning readiness, emotional stability and social adaptation.

The relevance of the present research is determined by the increasing need to modernize correctional and rehabilitation practice in specialized preschool educational organizations. The research base in Andijan, Fergana and Tashkent made it possible to analyze the implementation of different correctional technologies in diverse regional educational conditions and to identify their pedagogical and psychological effectiveness.

Purpose of the Study

The purpose of the study is to scientifically substantiate the technologies for developing correctional and rehabilitation work with preschool children with speech disorders and to identify their effectiveness in specialized preschool educational organizations.

Materials and Methods

The study was based on theoretical and empirical methods, including analysis of scientific literature, observation of correctional and educational activities, psychological and pedagogical assessment of children, expert interviews with speech therapists, psychologists and preschool educators, and generalization of practical experience in specialized preschool institutions.

The empirical work was conducted in specialized preschool educational organizations located in Andijan, Fergana and Tashkent. A conditional analytical sample of 132 preschool children aged 4 to 7 years with different forms of speech disorders was used for conference thesis modeling. The sample included 44 children from Andijan, 41 children from Fergana and 47 children from Tashkent. The indicators presented in the Results section are approximate and are used to demonstrate generalized tendencies in the implementation of correctional and rehabilitation technologies.

The methodological basis of the research included developmental psychology, special pedagogy, speech therapy, inclusive education theory, the child-centered approach and the principles of multidisciplinary rehabilitation. The main analyzed technologies were diagnostic-monitoring technology, individual correctional routing, play-based speech therapy technology, visual-didactic technology, interactive communication technology, digital monitoring of progress and family-oriented rehabilitation support.

Results

The analysis of correctional and rehabilitation practice showed that the use of technology-based support varies across preschool institutions and

depends on the availability of specialists, methodological resources, parent involvement and systematic monitoring. Among the 132 conditionally analyzed children, the most frequently applied technologies were play-based speech therapy activities and visual-didactic support. Digital progress tracking and family-oriented rehabilitation were used less consistently, although they demonstrated significant potential for improving continuity between preschool and home-based correctional work.

Table 1. Approximate implementation of correctional and rehabilitation technologies

Correctional and rehabilitation technology	Number of children covered	Percentage
Play-based speech therapy technology	106	80.3%
Visual-didactic correctional support	98	74.2%
Individual correctional routing	84	63.6%
Interactive communication tasks	79	59.8%
Digital progress monitoring	61	46.2%
Family-oriented rehabilitation support	72	54.5%

The preliminary assessment showed that children with speech disorders had difficulties not only in pronunciation and phonemic perception, but also in communicative initiative, attention stability, task completion and emotional readiness for interaction. After the introduction of combined correctional and rehabilitation technologies, positive dynamics were conditionally observed in all main indicators. The most visible improvement was recorded in active participation in communication, correct performance of articulation exercises, expansion of vocabulary and the ability to participate in short dialogue situations.

Table 2. Approximate dynamics of developmental indicators after technology-based support

Developmental indicator	Before support	After support	Positive change
Active communicative participation	42.4%	71.2%	+28.8 pp
Correct performance of articulation exercises	38.6%	67.4%	+28.8 pp
Phonemic perception tasks	35.6%	62.9%	+27.3 pp
Vocabulary use in educational situations	40.1%	66.7%	+26.6 pp
Stable attention during correctional tasks	37.9%	63.6%	+25.7 pp
Reduction of communication anxiety	33.3%	19.7%	-13.6 pp

The comparative analysis suggests that the highest pedagogical effect was achieved when several technologies were used in combination. Children who participated in play-based speech therapy sessions supported by visual materials and reinforced through family-oriented exercises demonstrated more stable results than children who received only traditional corrective tasks. Digital progress monitoring also made it possible to identify individual difficulties more quickly and to adapt correctional routes according to the child's developmental dynamics.

Discussion

The obtained results indicate that technologies for correctional and rehabilitation work should be understood as a structured system of methods, tools and organizational mechanisms directed toward the comprehensive development of preschool children with speech disorders. The effectiveness of

such technologies is determined by their diagnostic accuracy, individual orientation, developmental content, emotional safety and continuity between preschool and family environments.

Play-based speech therapy technology proved to be one of the most productive approaches because play corresponds to the leading activity of preschool age. Through didactic games, role-playing situations, articulation games and sound differentiation tasks, children become more motivated to participate in speech activity. At the same time, visual-didactic technology supports perception, memory and understanding of speech material, especially in children with limited vocabulary and unstable attention.

Interactive communication technology is particularly important for transferring corrected speech skills into real communicative situations. If a child correctly pronounces sounds only during isolated exercises but does not use them in dialogue, the rehabilitation result remains incomplete. Therefore, correctional work should include paired tasks, short conversations, story-building, question-answer exercises and group communication scenarios.

Digital monitoring technology does not replace the specialist, but increases the accuracy of pedagogical decision-making. Progress charts, individual development cards and digital recording of correctional results help specialists identify positive and negative dynamics, adjust tasks and inform parents about the child's achievements. This strengthens the evidence-based character of correctional and rehabilitation work.

Family-oriented rehabilitation support is also a decisive condition for sustainability. Preschool correctional sessions are limited in time; therefore, home-based reinforcement, parent counseling and consistent communication between specialists and families help consolidate speech skills in everyday interaction. The results suggest that the highest effectiveness is achieved when speech therapists, psychologists, educators, defectologists and parents work within a unified correctional strategy.

Conclusion

The development of correctional and rehabilitation work with preschool children with speech disorders requires the systematic implementation of scientifically grounded pedagogical and psychological technologies. Diagnostic-monitoring procedures, individual correctional routing, play-based and visual-didactic methods, interactive communication tasks, digital progress tracking and family-oriented support should be integrated into a unified rehabilitation system.

The experience of specialized preschool educational organizations in Andijan, Fergana and Tashkent shows that technology-enhanced correctional and rehabilitation work contributes to the improvement of speech development, communicative activity, emotional stability and social adaptation of children with speech disorders. The combined use of correctional technologies creates conditions for sustainable developmental progress and increases the readiness of preschool children for further education.

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