



Research Article

DEVELOPING COMMUNICATION SKILLS IN CHILDREN WITH AUTISM SPECTRUM DISORDER IN PREPARATION FOR SCHOOL EDUCATION

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ABSTRACT

This scientific article examines the theoretical and practical foundations of developing communication skills in children with Autism Spectrum Disorder (ASD) during their preparation for school education. The study analyzes the communicative development characteristics of children with autism, their difficulties in social adaptation, and modern pedagogical approaches aimed at addressing these challenges. The article discusses evidence-based intervention methods such as visual supports, the Picture Exchange Communication System (PECS), Applied Behavior Analysis (ABA) therapy, social stories, and play-based therapy. In addition, the importance of inclusive education environments and the cooperation between parents and educators is also emphasized. The results of the study indicate that a complex and individualized approach is the most effective in developing communication skills in children with ASD. Systematically applied pedagogical strategies significantly improve children's social adaptation, increase communicative activity, and enhance readiness for formal school education.

Keywords: Autism spectrum disorder, Communication skills, Inclusive education, PECS, ABA therapy.

INTRODUCTION

Currently, educational reform in Uzbekistan, the development of inclusive education, and ensuring equal opportunities for children with special educational needs are among the key priorities of state policy. As President Shavkat Mirziyoyev emphasized, "No child should be left without attention; every child has the right to education" (Mirziyoyev, 2021). This approach serves as a strategic foundation for the development of inclusive education. Preparing children with autism spectrum disorder (ASD) for school education is of particular importance, as these children often experience significant difficulties in social communication, language development, and behavioral regulation (American Psychiatric Association, 2013). Therefore, the educational process must be organized based on an individualized approach. In Uzbekistan, large-scale reforms are being implemented to develop inclusive education. In his 2020 speech, the President emphasized the need to expand inclusive education in order to ensure that

every child finds their place in society. This highlights the necessity of improving systems for working with children with autism. Research shows that children with ASD have difficulties understanding facial expressions, gestures, and tone of voice, which limits their ability to respond appropriately to social signals (Lord *et al.*, 2020). Uzbek scholar S. Umarova (2019) describes this condition as "limited social perception" and emphasizes the importance of a step-by-step approach combined with visual support. Communication skills in children with autism develop through several stages: attention development, nonverbal communication, verbal communication, and social dialogue (Bondy & Frost, 1994; Koegel & Koegel, 2012). Motivation plays a crucial role at each stage of development (Table 1). Visual support is one of the most effective pedagogical tools for children with ASD. It facilitates faster information processing, reduces anxiety, increases independence, and helps children understand daily routines. D. Khasanova (2021) scientifically proved

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the effectiveness of visual methods in preschool children with autism. The PECS (Picture Exchange Communication System) is widely used to develop communication skills in children with autism (Bondy & Frost, 1994). Applied Behavior Analysis (ABA) is also considered a scientifically

based and highly effective method for shaping and modifying behavior (Cooper, Heron, & Heward, 2007). N. Karimova (2022) found that regular application of ABA significantly improves social activity in children.

Table 1. Description of Modern Pedagogical Methods for Working with Children with Autism Spectrum Disorder (ASD).

Methodology	Primary Focus	Tools/Techniques	Key Benefit in Uzbekistan's Inclusive Reform
PECS	Functional Communication	Picture cards, exchange symbols	Enables non-verbal children to express immediate needs, reducing frustration.
ABA	Behavioral Modification	Positive reinforcement, prompting	Builds classroom-ready behaviors and social skills through systematic repetition.
Visual Support	Cognitive Organization	Schedules, timers, social stories	Reduces anxiety during transitions between lessons or activities.

Social stories help children understand real-life situations and facilitate adaptation (Gray, 2010). According to R. Nabiyev (2020), this method reduces anxiety and improves social adaptation. Play activity is a natural developmental tool for children with ASD, helping them develop communication skills, express emotions, and learn cooperation (Murodova, 2019). UNESCO (2017) defines inclusive education as a system that ensures equal opportunities for all learners. Parental involvement is also essential, as active participation contributes to stable developmental outcomes (Yuldasheva, 2021). Research indicates that a comprehensive approach is the most effective strategy. The combination of PECS + visual support, ABA + play therapy, and social stories + inclusive education significantly accelerates communication development in children with autism. Uzbek researchers such as X. Qodirova (2021) and M. Jo'rayev (2020) also emphasize the importance of individualized educational plans and the use of visual materials in inclusive education.

MATERIALS AND METHODS

Research Design

This study employed a qualitative and quasi-experimental research design aimed at analyzing and improving communication skills in children with Autism Spectrum Disorder (ASD) during their preparation for school education. A combination of observational, intervention-based, and comparative approaches was used to ensure comprehensive analysis.

Participants

The study involved children diagnosed with Autism Spectrum Disorder (ASD) aged between 5-7 years, enrolled in preschool or preparatory inclusive education settings. Participants were selected using purposive sampling based on the following criteria: diagnosis of ASD according to DSM-5 criteria. Limited verbal or nonverbal communication abilities. No severe intellectual disability preventing participation. Additionally, parents and special education teachers were involved to support intervention implementation and data collection (Figure 2).

RESULTS AND DISCUSSION

One of the primary challenges in children with autism spectrum disorder (ASD) is the underdevelopment of both verbal and nonverbal communication skills. Many children experience delayed speech development, limited eye contact, and difficulties in understanding social cues (Lord *et al.*, 2020). Uzbek defectologist S. Umarova (2019) describes this condition as a "psychological barrier to social interaction" and emphasizes the necessity of a step-by-step pedagogical approach to address it. In the scientific literature, Applied Behavior Analysis (ABA) is widely recognized as one of the most effective interventions. Uzbek researcher N. Karimova (2022) investigated the role of ABA in behavior development and found that this method strengthens positive behaviors in children. According to her findings, regular implementation of ABA therapy enables children to adapt more effectively to the social environment. Visual support is also considered an essential tool for children with autism. The Picture Exchange Communication System (PECS), developed by Bondy and Frost (1994), is widely used to enhance communication skills. Uzbek scholar D. Khasanova (2021) highlights that PECS is particularly effective in preschool education settings, especially for nonverbal children.

Social stories are another effective method in preparing children with autism for school life. Developed by Gray (2010), this approach simplifies and explains real-life situations in a structured way. Uzbek educator R. Nabiyev (2020) notes that social stories reduce anxiety and facilitate adaptation to the school environment. Play therapy also plays a significant role in developing communication skills. Uzbek psychologist Sh. Murodova (2019) demonstrates that through play, children learn to express emotions and acquire social roles (Figure 3). Group play activities, in particular, help develop cooperation skills in children with ASD. Inclusive education in Uzbekistan is gradually developing in line with international recommendations. According to UNESCO (2017), inclusive education improves social adaptation by ensuring equal learning opportunities for all children. Uzbek researcher F. To'xtayev (2022) emphasizes that teachers' specialized training is a crucial factor in the successful implementation

of inclusive education. Parental involvement is also a key component in preparing children for school. Uzbek researcher Z. Yuldasheva (2021) states that parental participation plays a central role in reinforcing learned skills, and without cooperation between parents and educators, outcomes remain unstable. Communication skills in children with autism develop gradually, starting with attention and eye contact, followed by nonverbal

communication, the emergence of simple speech, and finally the development of social dialogue and independent communication (Figure 1). Analysis indicates that the most effective outcomes are achieved through a combination of methods. The integrated use of visual support, PECS, and ABA therapy significantly enhances the speed and quality of communication development in children with ASD.

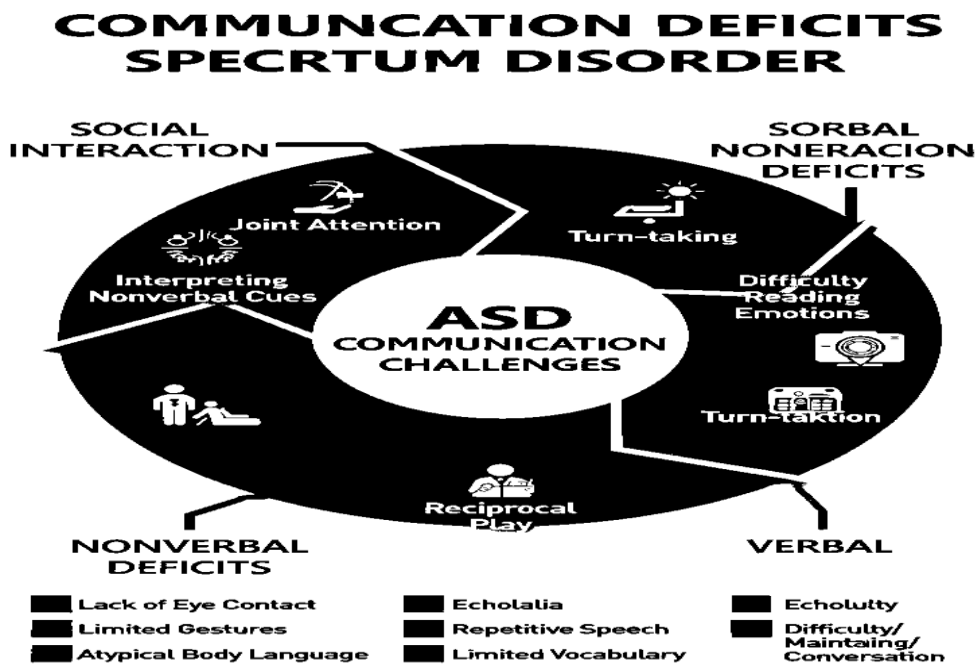


Figure 1. Structural Analysis of Communication and Social Interaction Challenges in Children with ASD.

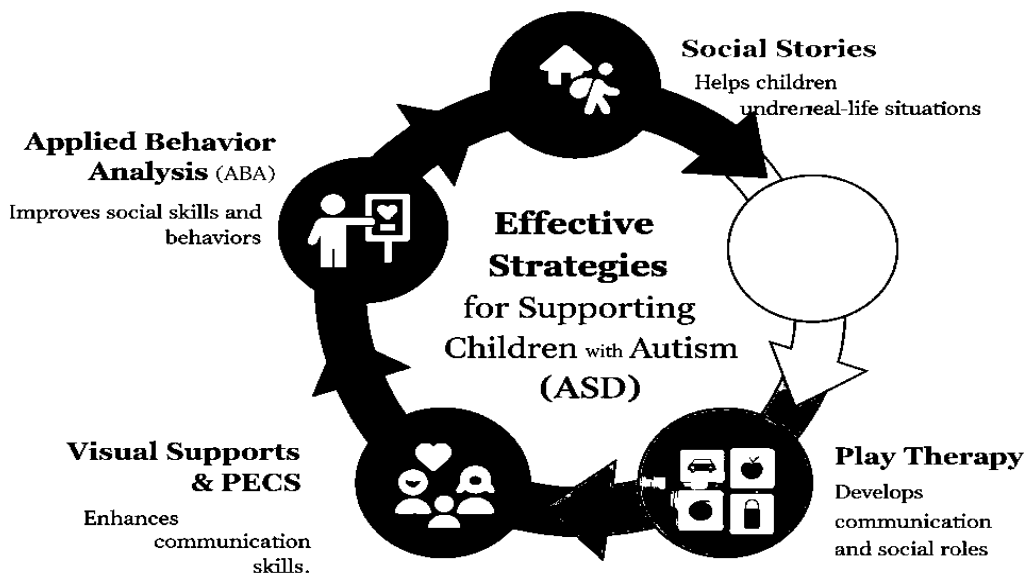


Figure 2. Effective Pedagogical Strategies for Supporting and Educating Children with Autism (ASD).



Figure 3. Practical Application of Corrective Pedagogical Methods for Children with Autism Spectrum Disorder (ASD).

CONCLUSION

In conclusion, the development of communication skills is one of the most critical priorities in preparing children with autism for school education. Communication serves as the foundation for social interaction, engagement with teachers and peers, and active participation in the learning process. Due to limited social communication, children with ASD face significant challenges in adapting to school environments, which requires a structured, evidence-based, and individualized approach. Developing communication skills in children with autism is not a single-stage process but a long-term, systematic, and comprehensive intervention. Initial stages focus on attention, eye contact, and engagement with the environment. Subsequent stages include nonverbal communication, PECS-based expression, verbal speech development, and social dialogue. Scientific literature and practical experience confirm that visual support is one of the most effective strategies for children with autism. Visual materials such as pictures, schedules, and pictograms create a structured and understandable learning environment. PECS serves as a critical tool for initiating communication in nonverbal children, enabling them to express their needs independently. Furthermore, ABA therapy is effective in shaping behavior and reinforcing positive habits. Through this method, children gradually learn social rules and appropriate responses to different situations. Social stories help reduce anxiety by

preparing children for school-related experiences in advance. Play therapy is also essential in developing communication skills, as it allows children to naturally engage in social interactions, express emotions, and learn cooperation. Inclusive education environments play a key role in the integration of children with ASD into society. Learning alongside typically developing peers enhances social engagement and accelerates communication development. In Uzbekistan, ongoing reforms in inclusive education confirm the relevance of this field. The principle introduced by President Shavkat Mirziyoyev, stating that “no child should be left without attention,” highlights the importance of equal educational opportunities for all children, including those with autism. This requires effective collaboration among teachers, psychologists, and parents. Overall, preparing children with ASD for school education requires a complex pedagogical, psychological, and social approach. The combination of individualized education plans, visual tools, modern therapeutic methods, and inclusive environments leads to the most effective outcomes.

Such an approach not only improves academic success but also facilitates long-term social adaptation and independent living skills. Therefore, the role of specialists working with children with autism goes beyond teaching knowledge; it includes supporting social integration,

developing individual potential, and helping each child find their place in society.

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CONFLICT OF INTERESTS

The authors declare no conflict of interest

ETHICS APPROVAL

Not applicable

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AI TOOL DECLARATION

The authors declares that no AI and related tools are used to write the scientific content of this manuscript.

DATA AVAILABILITY

Data will be available on request

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