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Research Article

AN ASCERTAINING EXPERIMENT TO IDENTIFY THE FORMATION OF COMMUNICATION SKILLS IN 6–7-YEAR-OLD CHILDREN WITH DEVELOPMENTAL DELAY

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ABSTRACT

This article presents the results of an ascertaining experiment aimed at identifying the initial level of communication skills in 6–7-year-old children with developmental delay in educational settings in Kazakhstan and Uzbekistan. The study is based on a three-component diagnostic model covering cognitive-speech, motivational-personal, and social-behavioral dimensions of communicative development. A total of 1,898 children were screened, and 249 children with developmental delay were identified; 185 children formed the experimental group and 64 children formed the control group. The diagnostic procedure included observation, interviews, testing, analysis of activity products, play-based and situational tasks, and methods adapted from E. A. Strebeleva and L. A. Wenger. The results revealed that most children demonstrated low or medium levels of communicative skill formation, while a high level was extremely rare. The most pronounced difficulties were associated with limited vocabulary, weak coherent speech, low communicative initiative, insufficient non-verbal interaction, and difficulties in cooperation with peers. The findings substantiate the need for a targeted corrective and developmental program focused on speech development, motivation for communication, social-behavioral competence, and the formation of cooperative interaction skills.

Keywords: Communication skills, Developmental delay, Corrective pedagogy, Speech development, Uzbekistan.

INTRODUCTION

Communication is one of the key conditions for a child's successful socialization, learning activity, and adaptation to the educational environment. For children aged 6–7, communicative development is especially significant because this age marks the transition from preschool to primary school education. At this stage, children are expected not only to understand addressed speech and express their thoughts, but also to cooperate with peers, follow rules of interaction, maintain dialogue, and respond adequately to social situations (Shemetaeva, R. B. (2024). Theoretical aspects of the development of communication skills in children with mental retardation in the CIS countries and abroad. Theoretical Hypotheses and Empirical Results). Children with developmental delay often experience persistent difficulties in these areas. Their communicative behavior may be characterized by limited vocabulary, insufficient grammatical organization of speech, reduced initiative, emotional instability, weak understanding of non-verbal signals, and dependence on adult support. These difficulties create barriers to learning, peer interaction, self-regulation, and participation in collective activities (Shakirova, S. Y. (2022). Methods of speech development of children with disabilities. Eurasian Journal of Learning and Academic Teaching).

The theoretical foundation of this research is connected with cultural-historical and activity-based approaches to child development. L. S. Vygotsky emphasized the role of social interaction and speech in the development of higher mental functions. D. B. Elkonin's activity approach highlights the importance of play, cooperation, and communication in the formation of personality and cognitive processes. Humanistic views of education also stress the need for an individualized, supportive, and

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emotionally safe environment for children with special educational needs (Karimova, Z., & Saydaliyeva, K. (2025). Developing connected speech in children with intellectual disabilities. International Journal of Pedagogics).

In the educational systems of Kazakhstan and Uzbekistan, the development of inclusive and corrective pedagogical support has increased the need for reliable diagnostics of children's communicative skills. Such diagnostics should not be limited to separate speech indicators. It must reveal the relationship between speech development, motivation for communication, social behavior, and the ability to interact in real educational situations (Zashchirinskaia, O. V. (2020). Specificities of communication in children with intellectual disorders. Journal of Intellectual Disability - Diagnosis and Treatment). The aim of this article is to present and scientifically interpret the results of an ascertaining experiment designed to identify the level and structure of communication skills in 6–7-year-old children with developmental delay. The research also determines the main directions for subsequent corrective and developmental work (Kakhramonova, Z. (2025). The role of early intervention in speech and language disorders. Journal of Applied Science and Social Science).

MATERIALS AND METHODS

The study was organized as an ascertaining pedagogical experiment. Its purpose was to determine the initial state of speech, behavioral, and communicative skills in children aged 6–7 with developmental delay and to identify individual characteristics necessary for the design of corrective and developmental intervention (Doronina, I. V., & Pushkar, A. I. (2025). Formation of communication skills in older preschool children with mental retardation. The World of Pedagogy and Psychology). The object of the study was the communicative skills of 6–7-year-old children with developmental delay. The subject of the study was the level of development of motivational-personal, cognitive-speech, and social-behavioral components of communication.

The diagnostic model included three interrelated components. The cognitive-speech component covered speech comprehension, vocabulary, sound production, grammatical structure, coherent speech, and dialogic speech. The motivational-personal component included the need for communication, initiative, emotional responsiveness, confidence, and readiness to establish contact. The social-behavioral component included cooperation, observance of communication rules, use of speech etiquette, interaction with peers, and the ability to resolve elementary communicative difficulties. The study used diagnostic methods developed by E. A. Strebeleva and L. A. Wenger, as well as play-based and situational tasks, observation, interviews, testing, and analysis of children's activity products. The methods were adapted to the age, individual characteristics, and special educational needs of the children.

Table 1. Distribution of children by type of developmental delay.

Type of developmental delay	Number of children	Share (%)
Cerebral-organic	128	51.4
Somatogenic	85	34.1
Psychogenic	7	2.8
Constitutional	29	11.6
Total	249	100.0

The experiment was carried out in three stages. The preparatory stage involved the selection and adaptation of diagnostic materials. The main stage included individual and group diagnostic procedures. The analytical stage involved the processing of results, the identification of high, medium, and low levels of communicative skill formation, and the determination of typical difficulties (Kozar, L. E. (2024). Features of the development of communication skills in children with mental retardation). A total of 1,898 children were examined. Among them, 249 children with developmental delay were identified and included in the diagnostic analysis: 125 children from Kazakhstan and 124 children from Uzbekistan. The experimental group consisted of 185 children with developmental delay, while the control group consisted of 64 children. The study followed the principles of systematicity, comprehensiveness, objectivity, variability, and age appropriateness.

RESULTS AND DISCUSSION

The screening results showed that developmental delay was identified in 249 out of 1,898 examined children. In Kazakhstan, 125 children with developmental delay were identified, while in Uzbekistan 124 such children were identified. The largest number of children with developmental delay was recorded in Chirchik city and Sairam district. The lowest detection rates were observed in Zhetysay and Jizzakh districts. The analysis of clinical-pedagogical types of developmental delay revealed the

predominance of the cerebral-organic form, which accounted for 51.4% of the sample. This result indicates the significant role of perinatal and organic factors in the formation of developmental difficulties. The somatogenic form accounted for 34.1% and was associated with frequent illness, fatigue, and reduced working capacity. Constitutional developmental delay accounted for 11.6% and was characterized by a slowed but relatively harmonious rate of development. The psychogenic form accounted for 2.8% and was associated with unfavorable conditions of upbringing, emotional instability, behavioral difficulties, and pedagogical neglect (Kizilova *et al*., (2021). Features of the formation of communication skills in preschool children with ASD. Proceedings of the International Conference).

The first diagnostic block assessed speech skills. In the experimental group, 22.7% of children demonstrated a low level, 74.0% a medium level, and 3.2% a high level. In the control group, 21.0% demonstrated a low level, 75.0% a medium level, and 1.0% a high level. Although the medium level predominated in both groups, qualitative analysis showed that speech development in children with developmental delay was unstable and accompanied by fragmented utterances, limited vocabulary, impaired sound pronunciation, agrammatism, and difficulties in constructing coherent statements. The second diagnostic block examined social-communicative skills. In the experimental group, 24.8% of children demonstrated a low level, 72.9% a medium level, and 2.1% a high level. In the control group, 35.9% demonstrated a low level, 62.5% a medium level, and 1.5% a high level. The qualitative data revealed difficulties in understanding gestures, facial expressions, and intonation, as well as problems in interpreting emotional states, performing everyday social tasks independently, and following norms of behavior without adult support.

The third diagnostic block assessed the main components of communicative activity: initiative, ability to establish contact, verbal and non-verbal interaction, and adherence to communication norms. In the experimental group, 23.8% of children demonstrated a low level, 73.5% a medium level, and 2.7% a high level. In the control group, 26.5% demonstrated a low level, 71.8% a medium level, and 1.5% a high level. The results confirmed low initiative, weak ability to establish contact, insufficient mastery of non-verbal means, and reduced independence in communicative situations. An integrated analysis of the three diagnostic blocks showed that speech, social, and behavioral difficulties form a unified system of mutually aggravating deficits. Speech impairment limits the expression of thoughts and the understanding of addressed speech; social difficulties reduce communicative initiative; and insufficient initiative restricts the development of cooperation and dialogic speech (Gazieva, Z. L. (2023). Features of the course of communicative maladaptation in high school students with mental retardation. The World of Pedagogy and Psychology).

Table 2. Results of the three diagnostic blocks.

Diagnostic block	Group	Low (%)	Medium (%)	High (%)	Dominant level	Main qualitative difficulties
Speech skills	EG	22.7	74.0	3.2	Medium	Limited vocabulary; weak coherence
Speech skills	CG	21.0	75.0	1.0	Medium	Speech accuracy issues
Social-communicative skills	EG	24.8	72.9	2.1	Medium	Weak non-verbal comprehension
Social-communicative skills	CG	35.9	62.5	1.5	Medium	Need for social support
Communicative activity components	EG	23.8	73.5	2.7	Medium	Low initiative and contactability
Communicative activity components	CG	26.5	71.8	1.5	Medium	Rule-maintenance difficulties

Qualitative interpretation of the results showed that children with developmental delay rarely initiate communication, prefer situational-emotional interaction, experience difficulties in maintaining dialogue, use a limited vocabulary, demonstrate phonetic and grammatical errors, and require constant adult support. They also experience difficulties in joint activities, make limited use of gestures and facial expressions, frequently violate rules of play, and demonstrate emotional immaturity manifested in impulsivity, anxiety, and rapid fatigue. The comparison of the experimental and control groups revealed that children with developmental delay demonstrate lower

levels of verbal, non-verbal, and social interaction than their typically developing peers. The most pronounced difficulties were observed in communicative initiative, the ability to establish contact, and interaction with peers. These indicators confirm insufficient development of the motivational-activity and emotional-volitional components of communication (Akzholova *et al*., (2025). Communication development in children with intellectual disabilities: Implications for education and psychology. Journal of Intellectual Disability - Diagnosis and Treatment).

CONCLUSION

The ascertaining experiment demonstrated that communication skills in 6–7-year-old children with developmental delay are formed unevenly and predominantly correspond to low and medium levels. A high level of communicative development was rare across all diagnostic blocks. The most significant deficits were observed in vocabulary, coherent speech, communicative initiative, non-verbal interaction, cooperation, and social-behavioral regulation. The results confirmed that communicative competence in children with developmental delay cannot be considered as a set of separate skills. It is an integrated psychological and pedagogical construct that includes motivational-personal, cognitive-speech, and social-behavioral components. Deficits in one component negatively influence the others and reduce the child's ability to participate effectively in educational and peer interaction. The obtained data substantiate the need for a targeted corrective and developmental program aimed at expanding vocabulary, developing coherent and dialogic speech, forming non-verbal means of communication, increasing initiative, strengthening cooperation skills, and teaching norms of social behavior. The results of the ascertaining stage may serve as a basis for subsequent formative experimentation and for improving pedagogical support for children with developmental delay in inclusive and corrective educational environments. Corrective work should be organized through a comprehensive model that combines speech therapy, psychological support, play-based communication tasks, and systematic cooperation between teachers, parents, and specialists. Special attention should be given to creating communicative situations in which children can safely initiate contact, express needs, follow interaction rules, and receive immediate positive feedback. Diagnostic results should be used not only for determining the current level of development but also for planning individualized educational routes. For children with pronounced speech and social-behavioral difficulties, correction should begin with the formation of basic motivation for communication and gradually move toward dialogic speech, peer cooperation, and independent use of communication norms.

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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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