MODELING A SENSORIMOTOR DEVELOPMENTAL ENVIRONMENT FOR PRESCHOOL CHILDREN WITH ALALIA: A CORRECTIVE-PEDAGOGICAL APPROACH

Ozoda Sirojiddinovna Ishmatova
Senior Lecturer, Department of Special Pedagogy
Chirchik State Pedagogical University
Doctor of Philosophy (PhD) in Pedagogical Sciences
ORCID: 0009-0009-2664-1424

Abstract

This article examines the corrective-pedagogical foundations of modeling a sensorimotor developmental environment for preschool children with alalia. The study is conceptually aligned with the uploaded dissertation, which substantiates the corrective value of rhythmic exercises, kinesthetic stimulation, adaptive individual environment, and the integrative use of pedagogical means in speech rehabilitation. The dissertation shows that speech development can be improved through the optimization of movement and kinesthetic influence, the adaptation of visual-phonetic and acoustic-phonetic tasks to a physiological individual environment, and the staged use of rhythmical exercises for voice, breathing, and diction. In the uploaded logopedic source, alalia is described as a condition that requires a holistic, systematic, and long-term intervention directed at all speech functions and at the child's personality as a whole. Based on these ideas, the article argues that a sensorimotor developmental environment for children with alalia should be organized as a purposeful pedagogical system combining movement, rhythm, visual support, tactile and kinesthetic stimulation, speech imitation, and communicative tasks. Such an environment creates conditions for the emergence of speech initiative, the activation of speech perception and production, and the transition from pre-verbal or minimally verbal behavior to functional communication.

Keywords: alalia, sensorimotor environment, preschool children, corrective pedagogy, speech initiation, rhythm, movement, kinesthetic stimulation, speech therapy.

Annotatsiya

Mazkur maqolada alaliyali maktabgacha yoshdagi bolalar uchun sensomotor rivojlantiruvchi muhitni modellashtirishning korreksion-pedagogik asoslari tahlil qilingan. Maqolada ritmik mashqlar, kinestetik stimulyatsiya, adaptiv individual muhit, harakat, ko‘rish, eshitish va nutqiy taqlidni birlashtiruvchi integrativ yondashuvning mazmuni yoritilgan. Sensomotor rivojlantiruvchi muhit bolada nutqiy tashabbusni yuzaga keltirish, nutqni idrok etish va ishlab

chiqishni faollashtirish, pre-verbal xatti-harakatlardan funksional muloqotga o‘tishni ta’minlovchi pedagogik tizim sifatida talqin qilingan. Shuningdek, maqolada bunday muhitni modellashtirishning tarkibiy qismlari, tamoyillari, bosqichlari va amaliy ahamiyati bayon etilgan.

Kalit so‘zlar: alaliya, sensomotor muhit, maktabgacha yoshdagi bolalar, korreksion pedagogika, nutqiy tashabbus, ritm, harakat, kinestetik stimulyatsiya, logopedik ta’sir.

Аннотация

В статье анализируются коррекционно-педагогические основы моделирования сенсомоторной развивающей среды для детей дошкольного возраста с алалией. Раскрывается содержание интегративного подхода, объединяющего ритмические упражнения, кинестетическую стимуляцию, адаптивную индивидуальную среду, движение, зрительное и слуховое восприятие, а также речевое подражание. Сенсомоторная развивающая среда рассматривается как педагогическая система, обеспечивающая возникновение речевой инициативы, активизацию восприятия и продуцирования речи, а также переход от довербального поведения к функциональной коммуникации. Кроме того, в статье представлены структурные компоненты, принципы, этапы и практическое значение моделирования такой среды.

Ключевые слова: алалия, сенсомоторная среда, дети дошкольного возраста, коррекционная педагогика, речевая инициатива, ритм, движение, кинестетическая стимуляция, логопедическое воздействие.

In modern speech therapy and special pedagogy, the problem of alalia cannot be solved through isolated speech drills alone. The uploaded logopedic source emphasizes that alalia is a medical, psychological, and pedagogical problem, and that intervention must address speech functions comprehensively while taking into account ontogenetic patterns of speech development. It also notes that systematic logopedic work should be organized so that the child becomes prepared for later school learning and communication. At the same time, the uploaded dissertation offers a broader corrective framework that can be extended beyond hearing impairment to other developmental speech disorders. In its conclusions, the dissertation states that the development of children’s speech requires the use of complex methodological and didactic opportunities of phonetic rhythmics, including movement, kinesthetic influence, and the integration of rhythmic components into speech rehabilitation. It also argues that speech development may be improved by ensuring the physiological orientation of visual-phonetic and acoustic-phonetic tasks and by maintaining the unity of kinetics and kinesthetics within a rhythmic interval.

For preschool children with alalia, these ideas are especially important because speech does not emerge in a stable and spontaneous way. A structured sensorimotor environment can become the medium through which perception, movement, imitation, and communicative intention gradually transform into speech activity. Therefore, the aim of this article is to describe the principles and components of modeling a sensorimotor developmental environment for preschool children with alalia.

A sensorimotor developmental environment may be defined as a specially organized corrective-pedagogical space in which the child's visual, auditory, tactile, kinesthetic, motor, and speech experiences are integrated into purposeful communication-oriented activity. This definition is conceptually supported by the dissertation, where speech development is linked to the combined participation of auditory, visual, movement, and kinesthetic analyzers, and where phonetic rhythmics is presented as a movement-based corrective technology for developing pronunciation and prosody through multisensory influence.

In relation to alalia, such an environment should not be reduced to a collection of toys or exercises. It should function as a methodically designed system. The uploaded dissertation demonstrates that corrective work becomes more effective when pedagogical means are used integratively, when rhythmic exercises are graded according to specific components, and when the child's individual physiological and educational environment is taken into account. This is highly relevant for alalia, where the child often needs structured repetition, external support for initiation, and multimodal stimulation to activate speech processes.

The first component of a sensorimotor environment for alalia is the **rhythmic-motor component**. It includes stepping, clapping, body imitation, movement sequencing, and coordinated motor patterns that prepare the child for temporal organization of speech. The second component is the **visual-supportive component**, which includes gesture, object demonstration, picture-symbols, visual sequencing, and face-to-face articulation modeling. The third is the **kinesthetic-tactile component**, where tactile prompts, hand support, object manipulation, and articulatory-kinesthetic awareness exercises are used to build bodily grounding for speech. The fourth is the **breathing and voice component**, where vocal play, prolonged exhalation, sound onset exercises, and simple prosodic patterns are introduced. The fifth is the **communicative-play component**, through which speech units are embedded into emotionally meaningful interactions. The dissertation supports this structure through its emphasis on voice, breathing, diction, movement, rhythmic intervals, and integrative pedagogical influence in speech rehabilitation.

The methodological principles of modeling such an environment are as follows. First, the principle of **systemicity** means that all elements of the environment are connected and directed toward the gradual emergence of speech. Second, the principle of **adaptivity** requires adjustment to the child's age, functional state, and individual speech profile. Third, the principle of **multisensory integration** implies that speech is supported simultaneously by movement, perception, and tactile-kinesthetic reinforcement. Fourth, the principle of **staging** presupposes that speech development proceeds from pre-speech activation to imitation, from imitation to stable verbal production, and from verbal production to communicative use. These principles are consistent with the dissertation's methodological model and with the alalia source's insistence on comprehensive and differentiated intervention.

The practical modeling of the environment may be organized in four stages. At the first stage, the therapist creates a safe and motivating space for attention, imitation, and sensorimotor activation. At the second stage, simple movement and perception patterns are connected with vocal reactions, gestures, and proto-speech elements. At the third stage, words and short verbal patterns are introduced within rhythmic and visually supported communicative routines. At the fourth stage, the child is encouraged to generalize speech activity into broader interaction with adults and peers. Such staged work corresponds to the dissertation's conclusion that the methodological stages of speech development may be improved through the integrative use of phonetic-rhythmic technologies and pedagogical means in speech combinations.

An important implication of this approach is that the environment itself becomes corrective. It continuously prompts the child toward perception, action, anticipation, imitation, and verbal response. In preschool age, this is especially valuable because speech activity often depends on emotionally meaningful and physically grounded interactions. The alalia source also highlights the need for long-term systemic work aimed at overcoming speech underdevelopment and preparing the child for educational tasks. Therefore, modeling a sensorimotor environment is not an optional supplement but a central corrective strategy in early work with alalia.

Modeling a sensorimotor developmental environment for preschool children with alalia is a productive corrective-pedagogical strategy grounded in a systemic view of speech development. The uploaded dissertation offers a transferable methodological framework by emphasizing movement, kinesthetic influence, rhythmic organization, adaptive individual environment, and the staged integration of pedagogical means into speech rehabilitation. The uploaded logopedic source on alalia confirms that the disorder requires holistic, differentiated, and long-term intervention directed at all speech functions. On this basis, a sensorimotor developmental environment may be understood as a structured medium in which speech emerges

through the coordinated interaction of rhythm, movement, perception, breathing, and communication.

References

1. Ishmatova, O. S. The use of phonetic rhythmics in the development of speech in primary school children with special needs. PhD dissertation. Chirchik, 2025.
2. Ayupova, M. Y. Logopediya. Tashkent, 2007. Sections on alalia, speech underdevelopment, and systemic corrective work.
3. Ishmatova, O. S. (2025). THE ROLE OF PHONETIC RHYTHMIC ACTIVITIES IN NATIONAL SURDOPEDAGOGY. children, 3(3)
4. Ishmatova, O. (2025). THE RELEVANCE AND NECESSITY OF USING PHONETIC RHYTHMICITY IN THE DEVELOPMENT OF SPEECH OF ELEMENTARY SCHOOL STUDENTS WITH SPECIAL NEEDS. The Educator Journal, 5, 15-25.
5. 104. Cason, N., Hidalgo, C., Isoard, F., Roman, S., & Schön, D., S.Bella (2015). Rhythmic priming enhances speech production abilities: Evidence from prelingually deaf children. Neuropsychology, 29(1), 102–107Шапкова Л.В. Коррекционные подвижные игры и упражнения для детей с нарушениями в развитии. М.: Советский спорт, 2002. – 212 с.
6. Яхина Е.З. Методика музыкально-ритмических занятий с детьми, имеющими нарушения слуха: Пособие для студентов дефектологических факультетов / под ред. проф. Б.П. Пузанова. — Москва, 2003. — 157–158 с.
7. G’ulomov A., Qodirov M. Ona tili o’qitish metodikasi. O’quv qo’llanma. Toshkent 2012
8. Vashkevich N.L. Emil Zhak-Dalkroz i ego metod (sistema) muzykal'nogo vospitaniya. Ritmicheskaya gimnastika Emila Zhaka-Dalkroza. Uslubiy qo‘llanma. Tver, 2010. — 285 b.
9. Шиф, Ж. И. "Психологическое изучение основных вопросов обучения аномальных детей." Альманах Института коррекционной педагогики 22 (2015): 95-106.
10. Adams Costa, E., Day, L., Caverly, C., Mellon, N., Ouellette, M., Wilson Ottley, S. 2019. Parent-child interaction therapy as a behavior and spoken language intervention for young children with hearing loss. Language, Speech, and Hearing Services in Schools, 50(1): 34–52.
11. Pay F.A., Lagovskiy N.M., Basova A.G. Metodika obucheniya glukhonemykh. Uch. posobiye dlya vyssh. ped. ucheb. zaved. dlya ped. tekhnikumov i dlya uchiteley shkol glukhonemykh. Vyp. 1. – M.: Uchpedgiz, 1934. – 168 s.
12. Шапкова Л.В. Коррекционные подвижные игры и упражнения для детей с нарушениями в развитии. М.: Советский спорт, 2002. – 212 с.