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CORRECTING SPEECH IN CHILDREN WITH INTELLECTUAL DISABILITIES BASED ON SENSORY INTEGRATION

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Annotatsiya. Ushbu maqolada sensor integratsiya asosida aqli zaif o'quvchilarni tarbiyalashda nutqga ta'sir etishning korreksion mazmuni, uning bajaradigan umumlashtiruvchi funksiyalari, yordamchi maktabda o'quv tarbiyaviy ishlarni amaliy jihatdan amalga oshirish va ta'lim, tarbiya va rivojlanish chizmasining uchta komponentlari yoritilgan.

Kalit so'zlar: korreksion ish, sensamator jarayonlar, sensor rivojlanish, taktil-motor va ko'ruv, ruhiy rivojlanish, atrof–olam, predmet va hodisalar.

Аннотация. В данной статье освещены коррекционное содержание воздействия на речь в воспитании умственно отсталых учащихся на основе сенсорной интеграции, выполняемые им обобщающие функции, практическая реализация учебно-воспитательной работы во вспомогательной школе и три компонента схемы обучения, воспитания и развития.

Ключевые слова: коррекционная работа, сенсомоторные процессы, сенсорное развитие, тактильно-моторное и зрительное, психическое развитие, окружающий мир, предметы и явления.

At the current stage of special education development, the main goal is the overall development of a child with disabilities, including adaptation and socialization. Primary developmental disabilities (such as impairments of hearing, vision, musculoskeletal system, central nervous system, and others) can lead to the child's social "isolation," disrupting their connection with culture, which serves as the source of higher cognitive functions and human abilities. This detachment from the traditional assimilation of social experience results in secondary developmental delays and social incapacity.

The number of children with developmental disabilities is significant, and unfortunately, there is a slight upward trend. Among all children with developmental disabilities, those with speech impairments rank second (2.86%), while children with intellectual disabilities rank third (1.84%). These are notably important figures.

It should be emphasized that psychological knowledge about children with various disabilities—particularly intellectual disabilities and speech disorders—is limited, as specialized psychology, as a broad field of psychological science, only began to emerge several decades ago. Knowledge about various disabilities is still quite restricted, which naturally generates professional interest among practitioners in this field.

1. Speech as a Factor in Human Development; Speech is a process of communication, and language is a system of phonetic, lexical, and grammatical tools developed by previous generations and applied in communication. Both speech and language are social phenomena.

Speech arises and develops under the influence of the need for communication and serves

the purposes of social integration. It ensures the historical continuity of human experience.

Speech is closely linked to the entirety of human intellectual life, including thinking, imagination, emotions, will, and other faculties. It is well-known that speech is one of the most important indicators of child development. It fulfills multiple human (or child) needs: communicative, informational, and cognitive (developmental), highlighting its great significance.

In today's world, the problem of developing speech in all children is extremely pressing. New technological achievements are constantly emerging that replace "live" communication. People are busy earning money (leaving little time for their children), and communication with children is becoming even less frequent. Interest in books, not only as a source of knowledge but also as a form of leisure, is declining among both children and adults. We are gradually forgetting correct and beautiful speech; increasingly, we hear impolite or coarse language from both younger and not-so-young individuals. Is this acceptable? What can the older generation teach children through such communication? Whom should they serve as role models for?

It is not surprising that the level of education in our country is declining; I have just listed some examples, and that is not even all of them. I truly want to hear and listen to correct, beautiful, and literate speech.

Speech serves as a tool for human thought, a means of communication, a way to express ideas, emotions, and feelings, and a means to organize activity.

Researchers identify various stages in the development of children's speech, name them differently, and indicate different age ranges (A. N. Gvozdev, N. I. Jinkin, A. N. Leontiev, G. L. Rosengard-Pupko, and others).

A. N. Leontiev distinguishes four stages in the development of children's speech:

Stage 1 – Preparatory Stage – up to 1 year;During this period, the child prepares for speech acquisition, and the system of mental activity related to speech development begins to form. Crying, screaming, cooing, babbling, and the first words are part of this initial stage of speech development.

Stage 2 – Early Childhood – up to 3 years;The development of active speech begins with the appearance of the child's first words. At this time, the child pays particular attention to the pronunciation of others. These first words carry social meaning. By around 1.5 years, words take on a more general character. By the end of the second year, phraseological speech emerges. By the age of two, speech becomes the primary means of communication. In the third year, the ability to create words initially appears through rhyming and later through the invention of new words.

Stage 3 – Preschool Age – up to 7 years;After three years of age, phonemic perception and sound articulation develop intensively. In children with normal speech development, the sound aspect of speech is fully formed by four to five years. Vocabulary continues to expand rapidly. The sense of language and word creation develops. Along with vocabulary growth, grammatical structures of speech also develop, and the acquisition of coherent speech progresses. The regulatory function of speech also develops. At this age, children easily memorize and recite poems and stories, and convey the meaning of images. By the end of the fifth year, children begin to acquire contextual speech. During this period, phonemic perception improves significantly, and correct pronunciation is fully established. By the age of seven, children use words that express abstract concepts and metaphorical meanings. By this age, they fully acquire the conversational style of everyday speech.

Stage 4 – School Age – 7 to 17 years;This stage is characterized by conscious acquisition and deliberate development of speech skills.

This age is discussed in more detail below.

Development of Communication – is a qualitatively unique integrated formation that reflects a certain genetic level of communicative activity and is referred to as communication forms.

During the first seven years of a child's life, there are four forms of interaction with adults:

1. Situational-Personal Communication: Appears between 2 and 6 months. The main reason for communication is personal. The primary means of communication are gestures and facial expressions.

2. Situational-Business Communication: Appears around 6 months. The main reason for communication is business (goal-directed activity). The primary means of communication are object-oriented actions.

3. Ex-situational Cognitive Communication: Appears in children between 3 and 4 years. The main motivation for communication is cognitive. The primary means of communication are speech operations.

4. Ex-situational Personal Communication: Appears in children aged 5–6 years. The main motivation for communication is personal. The primary means of communication are speech operations.

2. Features of Speech Development in Preschool Children with Intellectual Disabilities

The development of speech in children with intellectual disabilities differs significantly from that of typically developing preschool children.

Speech delays begin in infancy and accumulate during early childhood. As a result, these children are not prepared to acquire speech by preschool age. Conditions necessary for speech development—such as object-oriented activity, interest in the environment, emotional-volitional development, and particularly emotional interaction with adults—are not yet formed. Phonemic hearing is underdeveloped, and the articulatory apparatus is immature. Many children with intellectual disabilities do not begin speaking even by the age of 4 or 5.

From the perspective of speech development, children with intellectual disabilities represent different categories. Among them are children who do not speak at all, children with a limited set of words and simple phrases, and children with formally well-developed speech. However, all of them have limited understanding of spoken language, which is situationally dependent and separated from purposeful activity. Their speech does not reflect the child's actual intellectual capacities and cannot serve as a complete source of knowledge and information.

Phraseological speech is characterized by numerous phonetic and grammatical errors. The acquisition of grammatical structures of speech usually does not occur during the preschool period.

Coherent speech is particularly affected. One characteristic feature is the consistent disruption of number–noun agreement. The passive vocabulary significantly exceeds the active vocabulary, but this usually relates only to the understanding of individual words and not always. A child with intellectual disabilities may be able to pronounce words together with a picture or object, but may not understand them when spoken by another person outside the usual context. This indicates that children with intellectual disabilities retain the situational meaning of words for a long time. The semantic load of words in these children is much lower than in typically developing children of the same age.

The situational meaning of words, insufficient grammatical structure of speech, impaired phonemic hearing, and delayed perception often result in adult speech being completely misunderstood or misinterpreted by the child. The speech of children with intellectual disabilities is so poorly developed that it cannot function as a communicative tool. The underdevelopment of the communicative function of speech is not compensated by other means of communication, such as facial expressions or gestures. The absence of facial expressions, poor understanding of gestures, and reliance only on primitive, standard gestures distinguish children with intellectual disabilities from non-verbal children and from children with other disabilities.

Mastering the native language as a tool and method of human communication and cognition is one of the most important achievements of preschool-aged children. Speech development occurs through all types of child-directed activity, in daily life, in interactions with family members, and in specialized exercises aimed at developing speech.

Correction Support for Preschool Children with Intellectual Disabilities

In the process of speech correction, it is necessary to keep in mind the general and specific laws of development for children with intellectual disabilities.

A differential approach is based on the etiology, mechanisms, and symptoms of the disorder, the structure of the speech impairment, the child's age, and individual characteristics. In organizing corrective education, general didactic principles are emphasized: educational nature of teaching, scientific approach, systematization and consistency, accessibility, clarity, awareness and activity, and individualized approach.

Speech therapy interventions are also guided by specific principles: etiopathogenetic (taking into account the etiology and mechanisms of speech disorders), systematic approach considering the structure of the speech disorder, complexity, differential approach, step-by-step approach, ontogenetic approach, consideration of individual characteristics, activity-based approach, use of temporary solutions, and development of speech skills in natural communicative settings.

The main forms of speech therapy interventions include: teaching, instruction, correction, compensation, adaptation, and rehabilitation.

3.1 Methods for Speech Development

Mastering one's native language as a unique tool and method of human communication and cognition is one of the most important achievements for a child in preschool education. Children develop speech through all their activities, including daily life, interactions with family members, and specialized speech development exercises. Through sensory education and thinking development activities, children build adequate representations and images of the surrounding reality; they learn words that describe the characteristics of objects and understand cause-and-effect relationships. All social and emotional experiences are reinforced and generalized through words, giving speech itself a sufficiently meaningful foundation.

Specialized speech development exercises help children systematize and generalize the speech material they have acquired through other activities, expand and refine their vocabulary, and develop coherent speech. Additionally, specialized corrective tasks are addressed: the main functions of speech—fixation, accompaniment, cognitive, regulatory, and communicative—are developed, and work is carried out to correct children's pronunciation. In children with intellectual disabilities, particular attention should be paid to individualized lessons aimed at developing coherent speech, grammatical structure, and pronunciation.

The main goal of speech development is to bring it to the standard appropriate for each age stage, although individual differences in children's speech levels can be significant. Specialized exercises—speech drills and word games—play a crucial role in achieving these goals. The main aim of these exercises is to develop children's attention to words and their correct use. These exercises provide opportunities for children to practice speech and expand their vocabulary using words derived from different parts of speech.

Among methods for developing vocabulary, vocabulary exercises hold a special place. They help prevent and correct speech disorders, activate children's vocabulary, and develop attention to words and their meanings. They cultivate practical skills in children: quickly selecting the most accurate and appropriate word from their vocabulary, constructing sentences, and distinguishing nuances in word meanings. Questions play an important role in these exercises. Movement-based exercises can be applied during physical education breaks, daily routines, and day and evening walks.

During active games and morning exercises, activities are carried out that integrate speech material with the child's movements. Grammar rules are effectively reinforced, and artistic expressions are conveyed, which affects the rhythmic and pronunciation expressiveness of

children's performance. In play, along with artistic words, children more easily acquire the musicality, intonation, and rhythm of their native language.

In speech development activities for children with intellectual disabilities, as with typically developing children, special attention is given to the child's main activity. Considering the child's primary activity, speech therapy simulates various communicative situations.

Practical methods include exercises, games, and modeling. Exercises involve repeated performance of movements while performing practical and cognitive tasks. In speech therapy, they are effective for correcting articulation and voice disorders.

Exercises are classified as follows:

- Imitative-performative: breathing, vocalization, articulation; general, development of hand motor skills;
- Constructive: forming letters from elements, rearranging letters;
- Creative: applying learned methods in new conditions and with new speech material;
- Speech: repeating given sound words and others;
- Games to reduce tension: imitating movements, animal habits, which create a positive emotional mood.

The game method involves applying various components of play activity together with other techniques: demonstration, explanations, instructions, and questions. The leading role belongs to the teacher, who selects the game according to the correction goals and objectives, assigns roles, and organizes the children's activity.

Modeling involves creating models and using them to form concepts about the structure of objects, the relationships and connections between their elements (e.g., graphical diagrams of sentence structure, syllabic and sound composition of words).

Diagnostic and corrective methods include a systematic approach consisting of several interrelated components. Each component has its own goals, objectives, methods, techniques, strategies, and tactics.

Block I – Diagnostics

- Goal: Identify risk factors for each child and develop a correction program.
- Methods: Analysis of biographical data, review of medical documents, observation of children, interviews, identification of speech disorders (phonetic, lexical, grammatical) and neurological symptoms, and development of a long-term plan.

Block II – Corrective

Goal: To coordinate the correction process; overcome family conflicts; expand awareness of parenting motivations; resolve contradictions; change parents' attitudes and positions; and teach parents new forms of communication with their children.

The corrective block consists of two stages:

1. Preparatory Stage – The goal is to develop a positive attitude toward corrective work, increase self-confidence, prepare the articulatory apparatus, develop phonemic hearing, self-control, and form clavicular-diaphragmatic breathing for speech.

2. Primary Stage – Focused on correcting speech disorders: establishing, automating, and integrating sounds into independent speech; working on lexical and grammatical categories. Self-confidence and self-esteem are developed in the child. Personality development occurs in parallel with speech correction.

Methods: Group and individual corrective methods; group methods for parents: "Parent Seminars"; joint activities of parents and children.

Block III – Assessment and Monitoring

Goal: To evaluate the dynamics of speech and personal development, the level of stability, and the absence of relapses.

Methods: Reports from parents, observational assessments, comparative analysis of initial and follow-up assessments.

Finger Games (Developing Fine Motor Skills)

Various finger games can be used to develop fine motor skills, including flexion, stretching, massage, and softening a ball in the hands ("hedgehog" exercise).

You can create a finger sensory pool by dividing a large shoebox into sections, each filled with different materials, such as pine cones, legumes, rice, peas, sand, etc.

Dip the fingers into sand or water and create light "waves" with gentle movements.

Logorhythmic Exercises – Memorize poems using hand movements:

- "We bought a large watermelon" (demonstrate its size);
- "And quickly go home" (walking motions);
- "We washed it for a long time" (show washing motions);
- "We wiped it as best we could" (show wiping motions);
- "Cut along the lines" (demonstrate actions);
- "Then match them together" (along cheeks and jaw);
- "Sweet watermelon juice flowed."

Other playful associations:

- "Pine cone looks like a pineapple,"
- "Hamster resembles a mouse,"
- "Helicopter – on the roof,"
- "Antelope – like a goat,"
- "Small camel – on a llama,"
- "Well, I look like my mother."

Development of Phonemic Hearing

- "Hide Your Hands" – Hide your hands in sand or water after hearing a given sound.
- "Hijri Paths" – Draw circles in sand or water while pronouncing syllables.
- "Screen" – Adults hide objects behind a screen that can produce sounds (bell, drum, glass, wooden block). The teacher makes a sound with an object, and children guess which object produced it.

Forming Lexical and Grammatical Structure

- "Find the Word" – The child finds various hidden objects or toys in water or sand and matches their names with adjectives and verbs.
- Play games with teachers, e.g., preparing juice:
  - "Apple juice… (apple); pear… (pear); plum… (plum); cherry… (cherry); carrot, lemon, orange…"
  - Then reverse: "What is orange juice made from?"
- Using Pictograms – For example, show a picture of a rabbit, call the child to name it; model answer: "rabbit, small rabbit."
- "Who (or What) is Strange?" – Identify which animal differs from the others (wolf, deer, fox, dog).

Conclusion

According to the UN Convention, which is also implemented in Russia, ensuring children's rights primarily aims to provide all children, including those with severe developmental disabilities, with full social life opportunities and the conditions to fully realize their potential through rehabilitation, education, and upbringing.

The modern concept of rehabilitating children with developmental disabilities involves an integrative approach, comprehensive assessment of the disorder structure, and functional diagnosis, including evaluation of both impaired and unimpaired components of the psyche, connections between intellectual and cognitive impairments, emotional and personal traits, and communicative behaviors closely linked to speech development.

Indicators of effective complex (medical-psychological-pedagogical) rehabilitation include:

- Elimination of psychological and other functional disorders;
- Improvement of motor skills and speech correction;
- Restoration of communication abilities;
- Activation of activity;
- Integration into society.

A child with developmental disabilities requires long-term, consistent, and specially prepared assistance from teachers and relatives, as well as their care, patience, and perseverance.

Developmental tendencies of children with intellectual disabilities generally correspond to those of typically developing children. Some disabilities, including delayed speech, are mostly secondary.

References

1. Kostyleva N.Yu. "Ko'rsat va ayt", Moskva, "Sfera", 2007 yil.
2. Strebeleva E.A. "Maxsus maktabgacha pedagogika", Moskva, "Akademiya", 2001 yil.
3. Ushakova O.S., Strunina E.M. "Maktabgacha yoshdagi bolalarda nutqni rivojlantirish metodologiyasi", Moskva, "Vlados", 2008
4. Лубовский В.И. Психологические проблеми диагностики аномалного развития детей. - М.2001,

5. Akramova, X. (2020). Коррекционно-педагогические обобенности формирование навыков здорового образа жизни у детей с умственной осталостью в семейных условиях. Архив Научных Публикаций JSPI, 15(1). извлечено от https://science.i-edu.uz/index.php/archive_jspi/article/view/918

6. Akramova, X. (2020). Социально-педагогическая работа с детьми дошкольного возраста. Архив Научных Публикаций JSPI, 7(1). извлечено от https://science.i-edu.uz/index.php/archive_jspi/article/view/674

7. Akramova, X. (2020). Didactic Foundations of Labor Activity for Children with Intellectual Disabilities. Архив Научных Публикаций JSPI, 7(1). извлечено от https://science.i-edu.uz/index.php/archive_jspi/article/view/682

8. Akramova, X. (2020). Методика формирования общих трудовых навыков у умственно отсталых учеников через компьютерные мультимедийные программы. Архив Научных Публикаций JSPI, 1(12), 1-7. извлечено от https://science.i-edu.uz/index.php/archive_jspi/article/view/3182

9. Akramova, X. (2020). Methods of developing general work skills in mentally retarded students through information programs. Архив Научных Публикаций JSPI, 7(1). извлечено от

https://science.i-edu.uz/index.php/archive_jspi/article/view/697

10. Akramova, X. (2020). Peculiarities of the labor activity of mentally retarded pupils. Архив Научных Публикаций JSPI, 15(1). извлечено от https://science.i-edu.uz/index.php/archive_jspi/article/view/897

11. Akramova, X. (2020). Aqli zaif o`quvchilarda axborot dasturlari vositasida umumiy mehnat ko`nikmalarini shakllantirish metodikasi. Архив Научных Публикаций JSPI, 15(1). извлечено от https://science.i-edu.uz/index.php/archive_jspi/article/view/916

12. Akramova, X. (2020). Замонавий мультимедиа воситаларидан фойдаланиш - муваффакият гарови . Архив Научных Публикаций JSPI, 1(12), 1-5.извлечено от https://science.i-edu.uz/index.php/archive_jspi/article/view/3162

13. Akramova, X. (2020). Мактабгача ёщдаги болалар билан олиб бориладиган ижтимоий педагогик фаолият технологияси. Архив Научных Публикаций JSPI, 1(16), 1-5. извлечено от https://science.i-edu.uz/index.php/archive_jspi/article/view/3994

14. Mamedova K, Shoumarov “Aqliy zaif bolalar psixologiyasi”. Toshkent 1994. 30-39 betlar