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RESEARCH ON THE LEVELS OF SPEECH DEVELOPMENT IN CHILDREN WITH VISUAL IMPAIRMENTS

The article discusses the results of a study of speech skills in children with combined disorders. A child learns the speech he hears around him, selecting and adapting it to solve communicative tasks that arise in accordance with his life needs at a certain stage of development. It is the development of communicative activity that determines the formation of speech, and not vice versa. The speech of children of the same age, but with different levels of development of communicative skills, differs significantly. In contrast, the speech of children of different ages, who are at the same level of communicative activity, has similar characteristics - lexical composition, grammatical complexity and sentence construction. This is explained by the fact that typical tasks for each level of communication form a selective perception and assimilation of the speech features that children hear. Therefore, for the development of speech, it is important not only to offer a variety of speech material, but also to set new communication tasks that stimulate the use of new speech tools.

The study found that children with combined disorders have underdevelopment of the content side of speech, sound pronunciation, lexical-grammatical structure and vocabulary. These disorders are due to significant vision problems caused by dysfunction of the visual analyzer, as well as early speech underdevelopment. Most children in the experimental group had a low level of cognitive activity: children rarely asked questions, their speech was slowed down, and speech initiative was almost absent. Answers to questions were delayed, simplified and often inaccurate. Vocabulary, especially verbs, was limited. Children did not show interest in speech contacts during walks and games. In general, preschoolers with combined disorders were not sufficiently oriented in communicative situations associated with various types of activities.

Key words: speech development, speech skills, preschooler, combined disorders.

1. INTRODUCTION

Problem statement. Speech diagnostics of a preschooler and organization of assistance from adults require taking into account various but important characteristics of the psyche, which provide the child with the possibility of speech communication. The child is constantly in the process of forming mental qualities and simultaneously developing forms and means of communication. The parameters of the speech attitude of a preschooler are proposed from the position of a communicative approach to the development of speech means. The main principle of this approach is the statement that interpersonal interaction is the basis of mutual understanding. It is impossible to comprehend another person outside of personal contact with him. T. Pirozhenko notes that the goal and result of speech interaction is understanding, which is possible only under the conditions of establishing interpersonal relationships. All motives of communication - personal, activity or cognitive - to achieve this goal require both the establishment of interpersonal contact and the choice of appropriate speech means [4].

The speech of children with combined developmental disorders usually has significant deviations. The most common speech therapy diagnosis is systemic speech underdevelopment of moderate or severe degree, which includes violations of the content side of speech, pronunciation of sounds, lexical-grammatical structure and limited vocabulary. Such speech disorders are caused by serious visual defects associated with dysfunction of the visual analyzer. As E. Synyova notes, early speech underdevelopment in such children is manifested in the following aspects: lack of speech or insufficient vocabulary; inability to form visual associations between words and images, which complicates understanding and leads to a limited active vocabulary (for example, a child cannot describe silver snow due to the lack of its perception); lack of visual images negatively affects the ability to retain complex statements in speech memory. In addition, a delay in the formation of praxis, gnosis and spatial orientation disrupts the development of articulation skills. Visual impairment limits a child's motor activity, which narrows their ability to communicate with the environment, complicates speech interaction, and reduces the quality of the social environment. All of these factors negatively affect the formation of mental processes, including speech development [7].

Analysis of recent research and publications. From the point of view of speech therapy diagnostics, the speech of children with combined disorders is defined as a systemic underdevelopment of severe or moderate degree. As noted in their studies by E. Sobotovich, V. Tyshchenko and others, the presence of intellectual disorders or mental retardation affects the

general functional mechanisms of speech activity. This leads to primary difficulties in the formation of verbal actions and speech operations, which are closely related to cognitive activity. Accordingly, the correctional work of a speech therapist with preschoolers who have combined disorders should include areas aimed at stimulating cognitive functions [9].

O. Davydova emphasizes the need to include sensory actions in the process of correcting severe speech disorders in preschoolers. She notes that thanks to sensory actions (visual, tactile, auditory perception), generalized methods of assimilation of systematized knowledge are formed. In the case of disorders of sensory functions, in particular vision, there is a need to activate the child's cognitive processes, including their sensory basis. L. Vavina, E. Synev emphasized the mandatory inclusion of sensory behavior in the process of correcting severe speech disorders in preschool children, systematized it on the basis of sensory behavior (visual, tactile, auditory examination), which indicates that it is possible to learn general methods of knowledge formation [1;6]. Children with sensory disorders, especially with visual impairments, face the problem of stimulating cognitive processes with the involvement of sensory bases.

The purpose of the article is to study and describe the levels of speech development of preschoolers with visual impairments.

2. THEORETICAL BASIS OF THE RESEARCH

In the scientific literature, the state of speech development in children with profound visual impairments is determined by four levels. It is emphasized that the proposed speech levels do not reflect the gradual formation of speech, when one level follows another. They indicate the peculiarities of the content of speech and the structure of speech impairment, which are characteristic of the same age groups of 6-8-year-old children with visual impairments. I. Gudym, L. Vavina note that the levels are arranged according to the principle from high to lower [5].

The first level of speech development of children with visual pathology is characterized by the presence of developed speech with sufficient vocabulary and correct phonetic design (with the exception of 1-2 sounds); children with this level have formed the correspondence of word and image, the ability to use grammatical categories, the ability to compose stories. Violations of sound pronunciation in these children are insignificant and can manifest themselves in the form of functional disorders of whistling and hissing sounds, [R] and [L]. At a high qualitative level, these children have auditory differentiation of sounds and, in most cases, phonemic analysis, synthesis and representation. Children fully understand the speech of people

around them. All of them successfully cope with tasks aimed at determining the quality of expressive speech.

The coherent speech of these children is characterized by the use of multi-word sentences, elaboration, normal pace and rhythm. In conversation, in play, in educational activities, these children demonstrate speech activity and independence. Non-speech symptoms in children with visual impairments with the first speech level are not pronounced: spatial orientation is complete; general motor skills, coordination, balance and fine motor skills of the hands, speech motor skills are well developed. The qualitative state of these indicators correlates with the state of sound pronunciation and speech in general.

The correlation of normal speech development with different age indicators, different degrees and times of visual impairment indicates minor speech disorders. Individual cases of sound pronunciation disorders in children with developed speech are not associated with loss or vision loss (the degree of vision loss may be high, and speech disorders are mild).

The second level of speech development in children with visual impairment is characterized by the presence of all the basic components of speech, but the vocabulary is somewhat limited, there are difficulties in using grammatical categories, composing extended sentences and stories; there are many violations of sound pronunciation, phonetic analysis and synthesis. Children with this speech level are burdened with a significant number of phonemic disorders, which manifest themselves in whistling and hissing sounds, rotacisms, lambdacisms, as well as parasigmatism, pararotacisms, paralambdacisms; disorders in the pronunciation of voiced and voiceless sounds. In speech, there is an incorrect use of individual sounds, replacement of sounds with similar ones in terms of articulatory and acoustic features, and a violation of auditory and articulatory differentiation of phonemes is observed.

Violation of the phonetic level of speech in children of this group is not a consequence of gross morphological changes in the articulatory apparatus and hearing. At the same time, they have insufficiently formed auditory differentiation of sounds and speech-auditory representations. I. Gudym, L. Vavina indicate that violations of auditory differentiation concern mainly hissing, whistling sounds, [R] and [L] [5].

Many children, answering the question “Come up with words for the given sound”, in addition to the correct answers, give incorrect answers. All these features complicate the mastery of phonemic analysis and synthesis. If children in this group can quite easily separate a word from a sentence, can say exactly how many words are in a sentence and which word follows it, then operations with syllables and sounds are difficult for them. The greatest

difficulties are caused by the request to determine the sequence of sounds in a word. A significant part of children cannot cope with the task of syllabic synthesis (for example, when children are asked to form a word from the given syllables in a broken sequence, they simply try to guess the word). Sound synthesis is even more difficult (for example, almost all children form the word “mouth” from sounds presented in a disturbed sequence – [T], [O], [R], not the word “mouth”, but the more familiar word “cake”). Many children generally refuse to complete the task of composing words and sounds. The above-mentioned violations of the phonetic-phonemic side of speech do not affect children's understanding of the speech of others (with the exception of the use of prepositions, the misunderstanding of which is a consequence of the lack of formation of spatial representations).

The expressive speech of these children is also characterized by a fairly complete qualitative level, although their vocabulary is poorer than that of children with the first level (naming no more than 98% of the names of the proposed objects, pictures or toys). The nominative function of the word is presented within sufficient limits and the generalizing function of the word is approximately the same. Children have difficulties in declension of nouns by numbers, in using the case forms of masculine and feminine nouns, in using verbs in the past tense.

The coherent speech of children is at the level of using one-, two- and three-word sentences. There are practically no detailed stories. Speech is concise, laconic, narrations without special emotional coloring. Speech, game or educational activities of children of the outlined group have a lower level of activity, independence. In general, speech development is at a sufficiently high quality level, however, the pace of general development is somewhat lagging behind age norms. According to E. Synyova, there are no gross violations in general motor skills and fine motor skills of hands, speech motor skills, but their significant unformedness and low quality of fine motor skills are observed, which in many cases can explain the above-mentioned state of sound pronunciation in these children [7].

Third level: all components of speech are limited, poor vocabulary, inconsistency of word and image, use of one- and two-word sentences. Children with this speech level have many phonetic disorders in speech. In most cases, auditory differentiation of sounds is impaired. Phonemic representations are insufficiently formed or absent. Violations of auditory differentiation, as in children with the second level, most often concern hissing and whistling sounds, [R] and [L]. However, violations in the formation of phonemic representations are more pronounced: children cannot come up with more than one word for a given sound, or do not perform this task. The unformedness of the processes of phonemic analysis

and synthesis in these children is strongly expressed quantitatively and qualitatively. The concept of "word" is unformed, it is impossible to determine the number and sequence of words in a sentence. A similar situation is manifested in operations with syllables and sounds: children do not independently perform tasks on syllabic and sound synthesis.

Not all children fully understand the speech of those around them. Expressive speech is characterized by a poor vocabulary (naming no more than 75-85% of presented objects, drawings or toys). At a low level (no more than 80%) the nominative and generalizing functions of the word are presented, and most often children do not generalize words in the categories of "shoes" and "furniture". Most children in this group perform tasks on changing nouns by numbers, using case forms of nouns with help and make a significant number of mistakes. Word formation is also possible only with help. They make many mistakes in the use of prepositions. According to E. Sobotovich, V. Tyshchenko, the coherent speech of these children is reduced to listing or using one- and two-word sentences, there are no detailed stories; there are no comparisons, emotionality in retelling [9].

The speech characteristics of these children discussed above indicate their significant lag behind age norms. There is a significant lack of formation of general motor skills (improper coordination, balance, etc.) and fine motor skills. This state of the considered parameters explains the lack of formation of speech indicators (especially sound pronunciation).

Poorly operating with sounds, children have difficulty coping with word formation and word change tasks. Oral speech has a weak emotional coloring. Difficulties in operating with sounds and syllables cause children's insecurity, which manifests itself in speech retardation. In the future, the difficulty of forming visual, motor and auditory images of sound and word often complicates the correlation of sound and letter. Limited or lack of visual experience, which develops against the background of other negative factors, leads to a decrease in the pace and level of speech development, as well as to the slowed formation of object images. L. Vavina points out that the development of other mental processes is interconnected with and conditioned by the delayed development of speech [1].

The fourth level is the use of only individual words or their parts. Children with this speech level have numerous violations of the phonetic level of speech. All children have no auditory differentiation of sounds, phonemic representations. Children cannot come up with words for a given sound. Given this qualitative characteristic of phonetic-phonemic representations, there is a complete lack of formation of the processes of phonemic analysis and synthesis. The lack of formation of the concepts of "word", "syllable", "sound" is noted, which makes it impossible to perform any operations with these concepts when performing the corresponding

tasks. Children have a reduced understanding of speech. E. Synyova indicates that their expressive speech is limited (naming no more than 55-65% of the presented objects, drawings and toys, mainly in babbling) [7].

Coherent speech is at the level of naming individual words. Given this state of speech, it is impossible to speak of any performance by these children of tasks aimed at identifying the qualitative characteristics of the grammatical level of speech. The speech characteristics of children considered above indicate their sharply expressed gross lag behind the age norms of speech development in 6-8-year-old children. According to L. Vavina, there is also underdevelopment of general motor skills and fine motor skills of hands, speech motor skills [1]. So, the speech of children with the outlined speech level is characterized by a distinctly pronounced phonetic and lexical-grammatical underdevelopment. Extremely poor and distorted vocabulary. Children experience difficulties in independent speech: they skip words, underspeak or remain silent. There are numerous violations of the phonetic level of speech: gross defects in sound pronunciation and auditory differentiation of sounds, significant difficulties in phonetic analysis of words due to underdevelopment of elementary forms of phonemic analysis and synthesis. Observations of typhlopedagogues, defectologists and speech therapists indicate that the development of children with the fourth speech level significantly lags behind the age norm. Their cognitive activity should be constantly stimulated by adults.

3. RESEARCH METHODOLOGY

As an experimental group, we identified a group of preschool children (sixth and seventh years of life) in the amount of 12 people, who, according to the findings of the Inclusive Resource Center, had combined disorders. All preschoolers in the study group have a combination of intellectual disability, pathology of the visual analyzer, and general speech underdevelopment.

A 5-point system for evaluating the results was introduced for conducting the examination. Under the conditions of correct performance of the tasks, the child should receive 325 points. The indicators for determining the level of speech development were as follows:

- high level (5 points) - the child independently completed all tasks;
- sufficient level (4 points) - the child completed 3 tasks independently, the rest - after clarifications from an adult;
- average level (3 points) - the child independently completed 2 tasks after clarifications from an adult;
- level below average (2 points) - the child independently completed 1 task after clarifications from an adult;

- low level (1 point) – the child did not complete the task independently, requires clarification from an adult before completing other tasks;

- critical level (0 points) – refusal to complete the task.

The purpose of this examination is to check the nominative function of speech of children with combined disorders, the formation of possessive, qualitative, relative adjectives, the ability to compose phrases (sentences) based on pictures.

In the *first task*, the speech therapist asked the child to name the pictures in order and answer with only one word.

The *second task* was to name the action based on the pictures. The speech therapist asked the child to say in one word what the characters in the pictures are doing.

The *third task* was to form possessive adjectives from nouns using questions like: “If a dog has a dog’s paw, then whose is a wolf’s?” etc.

The *fourth task* is to form qualitative adjectives. The speech therapist offers the child a task like: “Tell me, are they called cunning for cunning, and greedy for greed?” etc.

The *fifth task* is to form relative adjectives. The speech therapist offers the child a task like: “Tell me, if raspberry jam is raspberry, then cherry jam is what kind?” etc.

The *sixth task* is to compose phrases based on pictures. The speech therapist offers the child to tell what is drawn in the picture.

4. RESEARCH RESULTS

The levels of development of speech skills in children with combined disorders are distributed in points as follows: high level: 273–325 points; sufficient level: 218–272 points; average level: 163–217 points; level below average: 109–162 points; low level: 55–108 points; critical level: 0–54 points.

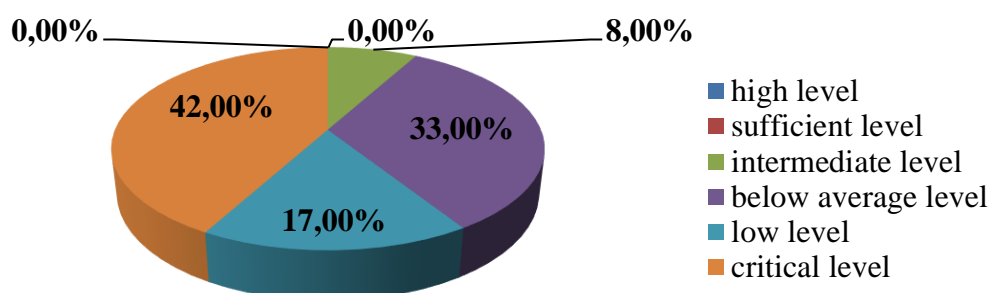


Figure 1. Levels of development of speech skills in children with combined disorders

No child reached a high or sufficient level of speech development (0%). The average level was found in 8% of children, the level below average in 33%, the low level in 17%, and the critical level in 42% of children. Figure 1 presents the distribution of speech development levels among preschoolers with combined disorders.

The results of the study revealed significant differences in the state of speech activity of children in the experimental group. Tasks such as “What is in the group?”, “What is on the street?”, “What is in the bag?” helped to assess the knowledge of blind children about objects that fill their familiar space (toys, furniture, dishes, clothes). Both children correctly named objects that were familiar to them, such as toys (doll, car, cubes, cradle, children's furniture and dishes) and clothes (tights, dress, shirt, pants, hat, gloves, jacket). However, they could name less familiar objects only with the help of adults. Verb vocabulary was assessed through didactic games and exercises, such as “Who moves how?”, “Who does what?”, as well as in practical activities (“What did we do?”, “What will we do?”). Children demonstrated positive results only in naming verbs that directly relate to their life in the orphanage and everyday situations.

In the game “Tell me which one?” blind children explored the named objects tactilely or by taste and named their properties. They used such qualitative adjectives as “small”, “big”, as well as some taste characteristics, such as “sweet” and “bitter”.

Thus, the study showed that 11 of the examined children actively used nouns, verbs and adjectives, and one child only partially used nouns and verbs. However, blind children often could not correctly correlate words with images of objects. From the stimulated examination, an active vocabulary and quantitative composition of parts of speech were determined. This allows us to conclude that the level of speech development of children is at a low level.

An important aspect of individual diagnostics (in situations of stimulated speech) was that the child performed the task with the help of an adult. It should be noted that we provided a special format of support, when the experimenter found out what the child could not do on his own, but was able to do with the help of an adult. This approach made it possible to determine not only the current level of development of the child, but also what he could achieve with support, outlining his “zone of proximal development”. Based on the results obtained, conclusions were drawn regarding another important component - learnability, that is, the child's ability to master grammatical knowledge in cooperation with an adult, willingness to accept help and the speed of mastering new ways of acting. We believe that the examination of the grammatical structure of the speech

of a preschool child with complex disorders is impossible without taking into account his lexical stock. For this purpose, the basic methodological principles aimed at understanding, using and applying grammatical categories by children were applied.

Firstly, we took into account a comprehensive approach. This requires a comprehensive study and assessment of the speech activity of a preschool child by various specialists (teacher, defectologist, speech therapist, methodologist). Achieving such a level of assessment is possible in the structure of a specially organized study, which allows for the exchange of diagnostic information, to work out optimal methods and techniques of professional interaction (both correction and further development of speech).

Secondly, a holistic, systemic analysis. It is known that the development of speech in a preschool child is closely related to such mental processes as: perception of different modalities, memory, thinking, etc. Depending on the speed of formation of a particular mental process, the range of individual differences in speech development also varies. Thus, V. Tyshchenko notes that a child may be late in the formation of sound pronunciation, but ahead of the vocabulary (both active and passive), there may be agrammatisms, etc. Given this, diagnostic methods provided for the study of various aspects of speech [10].

Thirdly, the principle of dynamic learning was applied. This principle is based on the proposition about the general patterns of child development and the tasks of the actual and proximal development zone. Based on these propositions, we used the method of correlation analysis, thanks to which we can draw conclusions about the effectiveness of speech influence.

5. CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

The results of the study revealed the following features: most children in the experimental group had low cognitive activity, they almost did not ask questions. Children's speech was slow, and speech initiative was extremely rare. Children answered the questions asked after pauses, often ineptly or unclearly, using simplified speech constructions. Restrictions were also found in the choice of vocabulary, especially verbs. During walks and play activities, children did not demonstrate interest in communicative contacts. In communication situations related to various types of activities, preschoolers in the experimental group were not sufficiently oriented. The composition of the active vocabulary was characterized by a significant predominance of nouns and verbs, while adjectives (mostly qualitative) and functional parts of speech were used in small quantities. This state of the

lexical stock was insufficient for constructing coherent statements and creating grammatical and syntactic connections. At the same time, a positive sign was that all children in the experimental group used auxiliary non-verbal means of communication (facial expressions, gestures), which indicates the presence of search activity in speech situations.

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ДОСЛІДЖЕННЯ РІВНІВ СФОРМОВАНОСТІ МОВЛЕННЄВОГО РОЗВИТКУ У ДІТЕЙ З ПОРУШЕННЯМИ ЗОРУ

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У статті розглянуто результати дослідження мовленнєвих умінь у дітей із комбінованими порушеннями. Дитина засвоює мовлення, яке чує навколо себе, обираючи та адаптуючи його для розв'язання комунікативних завдань, що виникають відповідно до її життєвих потреб на певному етапі розвитку. Саме розвиток комунікативної діяльності визначає формування мовлення, а не навпаки. Мовлення дітей одного віку, але з різними рівнями розвитку комунікативних навичок, суттєво відрізняється. Натомість мовлення дітей різного віку, які перебувають на однаковому рівні комунікативної діяльності, має подібні характеристики — лексичний склад, граматичну складність та побудову речень. Це пояснюється тим, що типові завдання для кожного рівня спілкування формують вибіркоче сприйняття та засвоєння мовних особливостей, які діти чують. Отже, для розвитку мовлення важливо не лише пропонувати різноманітний мовний матеріал, але й ставити нові завдання спілкування, які стимулюють використання нових мовленнєвих засобів.

Дослідження виявило, що у дітей із комбінованими порушеннями спостерігається недорозвиненість змістовної сторони мовлення, звуковимови, лексико-граматичного складу та словника. Ці порушення зумовлені значними проблемами зору, викликаними дисфункцією зорового аналізатора, а також раннім недорозвитком мовлення. У більшості дітей експериментальної групи виявлено низький рівень пізнавальної активності: діти рідко ставили запитання, їхнє мовлення було уповільненим, а мовленнєва ініціатива майже відсутня. Відповіді на запитання були затриманими, спрощеними та часто неточними. Словниковий запас, особливо дієслова, був обмеженим. Діти не проявляли інтересу до мовленнєвих контактів під час прогулянок і ігор. Загалом дошкільники з комбінованими порушеннями недостатньо орієнтувалися в комунікативних ситуаціях, пов'язаних із різними видами діяльності.

Ключові слова: розвиток мовлення, мовленнєві вміння, дошкільник, комбіновані порушення.