

Technologies For Developing Auditory And Speech Perception In Preschool Children With Sensory Disabilities

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Abstract: The article examines modern pedagogical technologies aimed at developing auditory speech perception in preschool children with sensory alalia. The study analyzes methods for improving speech and auditory perception through sensory integration, game-based activities, multimedia and interactive technologies. It also shows the possibilities of increasing the effectiveness of children's speech development through individualized intervention and cooperation of specialists. The results of the study are presented as practical recommendations for educators and speech therapists.

Keywords: Sensory alalia, auditory perception, speech perception, preschool education, sensory integration, game-based pedagogy, multimedia and interactive technologies, individual intervention.

Introduction: Correct speech is an important condition for the comprehensive development of a child. The more correct and rich the child's speech, the easier it is for him to express his thoughts, the more opportunities he has to perceive the world around him, his relationships with adults and peers will be full and meaningful, and his mental development will be more active. Therefore, it is important to take care of the timely formation of speech in children, its purity and correctness, to prevent and correct various defects that are manifested in the language in which the child's speech is formed.

Speech disorders, limited speech communication can negatively affect the formation of a child's personality, cause mental disorders that do not actually exist, give rise to specific features of the emotional-volitional sphere, and pave the way for the development of negative qualities in his character.

All this negatively affects the acquisition of literacy, general development, and the choice of profession.

One of the problems in the development of a child is the lack of non-speech signs in preschool children with aphasia and their elimination.

Currently, the problem of eliminating speech and, at the same time, non-speech signs in children with speech disorders is one of the urgent problems.

Alalia is a continuous underdevelopment of the speech sphere of the cerebral cortex due to organic damage to the child's speech in the womb or at the initial stage of development.

The translation of the term "alalia" (Greek a-no, Latin lalio-speech) is the absence of speech, speechlessness, and speech disorders since ancient times. In the special literature, in addition to the term "alalia", the following terms are used to denote this speech defect: "Congenital aphasia", "Ontogenetic aphasia", "Developmental aphasia", "Dysphasia", "Slow speech development", "Constitutional speech lag", "Language acquisition deficits", etc.

Some authors have schematically described the dynamics of the origin and development of alalia as follows: one or another reason causes damage to the entire sensorimotor area of the cerebral cortex. As a result, total alalia occurs. In recent years, under the influence of the development of the brain substance and compensatory factors, the main focus of damage is

shifted to the sensory or motor areas of the cortex. Therefore, in the early stages of child development, the division of alalia into sensory and motor forms is conditional, and later it is possible to distinguish the leading component of the disorder.

In children with alalia, fine motor coordination of the speech apparatus is not formed. Anomic-synthetic disorders of the speech-motor analyzer have various manifestations: oral apraxia, disorder of the sequence, etc. In this case, difficulties are observed in finding the desired articulation position, the inability to perform a certain articulation movement, and mastering the sequence. In these cases, movement disorders that determine speech articulation disorders occupy a leading place. Also, as a result of kinetic and kinesthetic apraxias, deficiencies are observed in the phonetic and phonemic aspects of speech. Articulatory movements associated with kinesthetic impulses from the speech apparatus to the cerebral cortex normally play an important role in the process of sound analysis and description, helping to determine the sound composition of a word and maintain the necessary sound sequence. In alalia, the child has difficulty determining the necessary sound sequence of a word, cannot replace one word with another. This leads to an increase in paraphasia, defects indicating a violation of the mobility of the main causal processes, i.e., defects in the foci of perseveration, etc., excitation and inhibition. As a result, with sufficient preservation of hearing and speech understanding in a child, speech does not develop independently, for a long time it is limited to the pronunciation of certain sounds, unless paresis and lip paralysis of the articulation muscles are observed, which prevent the independent development of speech.

The higher the degree of underdevelopment of the cerebral cortex, the deeper and more severe the underdevelopment of speech functions. A direct connection between articulatory praxis disorders and speech movements is observed, and therefore, on the one hand, the phonetic system of speech, and on the other hand, understanding and perception of speech.

In alalia, a violation of fine articulatory movements leads to a decrease in the tone of the cerebral side of the speech-motion analyzer, as a result of which the perception of weak and subtle kinesthetic impulses becomes difficult and even completely limited. Only a few large kinesthetics are received and analyzed by the cortex. As a result, motor alalia, sometimes insufficient perception of speech addressed to oneself, slowing down and difficulty in understanding grammatical forms and large written text are observed.

Often, due to the inability to clearly perceive sounds,

children catch only individual elements of phrases and cannot connect them into a single content structure. Such limited comprehension is a secondary manifestation of the main defect.

Children can have a sufficient passive vocabulary, having extremely poor active speech. At first glance, the state of speech comprehension may not raise doubts, but there are still some difficulties in understanding complex variants of speech. Different levels of comprehension are identified: from complete lack of understanding of grammatical forms to special difficulties in understanding single grammatical constructions.

Diffuse phonemic representations, inaccuracy of sound perception and repetition, weak targeting of words in the sound and syllable composition of the word, are observed in children on the basis of the lack of structural formation of words and phrases, insufficient variability in the use of grammatical means. In alalia, the phonemic realization of words and statements is disrupted, the linguistic decoration of speech is not formed - sound-syllable and morpheme construction. Violation of the rhythmic origin of speech is manifested in the slowing down of the flow of speech, pauses between syllables and words when pronouncing words in syllables. Speech is either reciting poetry with a clear emphasis on the stressed syllable in each line or fragmentary (separating different speech fragments with intervals of different lengths). The lack of formation of the rhythmic structure of words and phrases is observed in conjunction with a violation of the tempo, rhythm, musicality of speech. Children cannot catch the rhythm and cannot perform the proposed rhythmic picture by clapping, tapping.

Alalia is a consequence of the lack of formation of the structure of the sentence, the immaturity of internal speech operations. Internal operations are the selection of words and the formation of a plan for the presentation. In addition, the child is tormented by the very process of implementing individual words and their connection. The lack of formation of speech operations (idea, programming, selection and division of speech material into content) is manifested in the inability to organize active thought lexically and grammatically correctly. Lexical-semantic and lexicogrammatical implementation of the sentence is incorrect, in which the incompleteness of subject-subject connections is evident (objects perceived by the child from the environment). This is assessed as semantic agrammatism: diffuse expansion of word meaning, substitutions of an associative nature, etc.

Due to the limited ability to master the system of speech signs, in motor alalia, the nominative and

predicative functions of speech suffer, holistic communicative activity is disrupted, and the controlling and cognitive function of speech is disrupted. In alalia, speech cannot be a full-fledged means of communication and a means of independent development.

In alalia, systematic underdevelopment of all aspects and functions of speech is observed. Difficulties are identified in the formation of phrases and the mastery of grammatical construction.

In alalia, insufficient development of imitation activity, incompleteness of all voluntary speech forms are observed.

Due to the immaturity of all operations in the process of articulation, researchers have shown a violation of the system of transfer and feedback connections in the mechanism of speech activity, as well as a violation of internal programming and a violation of the external implementation of articulation.

In connected speech, children have certain difficulties in combining sentences, it has been found that they do not have the ability to build a context. Speech is disjointed, incomprehensible, lacks time and cause-and-effect relationships.

Children with alalia, even when they have sufficiently mastered the dialogical form of communication, have difficulty mastering connected independent speech in context.

Compared to the dialogical form of speech, monologic speech is initiative, it requires the child to have a certain level of mental activity, which is important for the correct selection of language tools and thoughts.

To master connected speech, the child's internal speech must be sufficiently developed, which requires the ability to select words, identify them in a certain system, and draw up a plan for speech communication.

Contextual speech requires the child to develop not only internal but also external speech (the formation of a statement begins with motivation, then the motive is reinforced by thought as a reserve of activity, and external speech is carried out through internal speech). In alalia, the formation of contextual speech is disrupted.

In children with alalia, there is a lack of need for communication in a connected form at the initial stages of speech formation. This is associated with general disorders and speech activity, the entire initial stage is not formed. Due to the lack of speech, paralinguistic means are used: gestures, mimicry, pantomime, intonation. Children have difficulty logically presenting the content of successive pictures: some cannot arrange the pictures in the correct sequence, while

others cannot correctly describe the pictures in the correct sequence.

The lack of formation of contextual speech is associated with the incorrect implementation of the internal plan in external speech. Fragmentation, fragmentation of the statement are observed, in addition, a uniform sequence is disrupted, one or more logical lines of the situation are omitted, and thoughts are scattered.

The cause of difficulties in constructing a story based on a sequence may also be an emotional factor. The child may put in the foreground a vivid situation encountered in his past practice. A.R. Luria considers this condition not as a primary speech disorder, but as a disorder of the programming of general active activity.

The child has great difficulties in mastering complex logical-grammatical constructions that express the spatial relationship of objects. The story is chaotic, the expressiveness is poor, the means of communication are simple and monotonous. Children do not know how to select the evidence that is important for solving the problem, they cannot find the necessary words, they get stuck on secondary details, and they forget the main content.

As a result of the development of speech abilities, the acquisition of the cause-and-effect relationships of monological presentation, independent speech is somewhat corrected, the vocabulary grows and becomes more complex, the sound-syllable structure of words and sentences improves, and somewhat more complex sentences appear with the use of various forms of communication.

In this case, the underdevelopment of speech in children with alalia is combined with the underdevelopment of communication motivation, with a violation of the activity of various components of activity.

Various manifestations of speech underdevelopment are observed: from the complete absence of speech to partial speech disorders.

At somewhat higher stages of development, with the complication of the communicative situation, difficulties arise in fully revealing speech in performing tasks specifically selected for written speech. The lack of solid skills of connected speech is masked by the child's ability to express thoughts briefly, concisely, with a paucity of speech forms, or, conversely, with eloquence, tautology.

Motor alalia is not uniform in origin. In some cases, the operation of selecting language means, that is, phonemic, lexical and grammatical components, is not

formed, in some cases, the operation of matching is not formed.

The evidential differences identified in the manifestations of speech underdevelopment are seen by some authors as different degrees of manifestation of the same disorder. They differentiate alalia by degrees of speech underdevelopment and believe that the child goes through a number of stages in the process of his development, and for each of them his own picture of the disorder is characteristic.

In alalia, memory acquires a specific picture: its volume narrows, the rapid fading of the formed traces, the limitation of retaining speech stimuli, etc. Verbal memory is especially weakened. Verbal memory is a specific type of human memory, unlike motor, figurative, emotional memory.

With the strengthening of vision, children easily remember the material, and speech-visual memory is somewhat developed. Difficulty in word selection, along with forgetting words and the difficulty of restoring the structure of words, immediately limits the child's ability to express himself voluntarily. In the process of remembering the plot direction, the sequence of events is observed to decrease in active orientation, decrease in active observation, and lack of active observation.

In some cases, children develop pathological personality traits, neurotic character traits. Along with speech defects, children are observed to have negativism, lack of self-confidence, a state of tension, irritability, sadness, tearfulness, and sociability. Some children use speech only in emotional situations.

Fear of making mistakes and being ridiculed leads to children trying to circumvent speech difficulties, rejecting verbal communication, and using gestures more.

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In the process of school education, a number of difficulties are identified in the formation of reading and writing skills; due to poor speech practice, the lack of formation of language generalizations, the acquisition of literacy and preparation for studying

grammar are not formed.

Games for the development of memory.

1. For this game, two "Identical Pictures" with some differences are needed. First, the first picture is shown (for 30 - 50 minutes), then the second picture is shown. After the child has finished viewing, he is asked to tell the differences in the pictures from memory.

2. Pictures depicting objects placed on the table are shown (for 10 - 20 seconds). The pictures are removed and the child is offered to remember in what sequence the pictures will fall if we tilt the table in any direction.

3. For this game, you will need abacus sticks (no more than 10). I will throw them on the table to count. You will not have time to count them one by one, so you are invited to "draw" how many there are by looking at them. The sticks are thrown on the table, after 1-2 seconds they are covered with test paper. The child is asked how many sticks are on the table.

4. 1-3 geometric shapes are made from the abacus sticks. After 1-2 seconds they are covered with paper and asked to make such shapes by memory. Then they are compared with the sample.

Find!

A didactic game for the development of memory, attention and speech. This game can be played with one child or a group of children. The child is asked to vividly describe any object in the room from memory so that others can find it. In this case, it is not possible to look at this object and say its name. After explaining the rules of the game, the speech therapist gives one of the children a stone and suggests starting the game. The child who catches the stone talks about the object he thought of. After the task is solved, the child passes the stone to the next child. The game continues until each child has said his task. The speech therapist monitors the pronunciation of the important signs of the object. Other children can ask leading questions.

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