

# Author's Approach to the Problem of Correctional Speech Therapy with Children Suffering from Alalia

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**Abstract**—In this article we present a methodology which enables preschool and primary school unlanguage children to remember words, phrases and texts with the help of graphic signs - letters, syllables and words. Reading for a child becomes a support for speech development. Teaching is based on the principle "from simple to complex", "a letter - a syllable - a word - a proposal - a text." Availability of multi-level texts allows using this methodology for working with children who have different levels of speech development.

**Keywords**—Alalia, analytic-synthetic method, development of coherent speech, formation of vocabulary, learning to read, sentence formation, three-level stories, unlanguage children.

## I. INTRODUCTION

**A**LALIA - is the absence or underdevelopment of speech in children with normal hearing and initially saved intelligence [3]. In international practice alalia is commonly known as dyspraxia. Alalia is often caused by damage of speech areas of the cerebral hemispheres of the brain at birth, and brain diseases or traumas which a child might have in the pre-speech period of life. Severe degrees of alalia are characterized by a complete absence of speech or presence of babble words. In milder cases, there are the beginnings of speech, characterized by a limited vocabulary, wrong grammatical structure and difficulties in learning to read and write.

Underdevelopment of speech in alalia is systemic. The speech is distorted in all of its components: pronunciation of sounds, phonetic and phonemic processes, syllable word structure, vocabulary, grammar and connected speech.

- The speech of a child suffering from alalia is extremely poor or absent: in place of words a child speaks an obscure sound complex, some onomatopoeia. Instead of talk a child actively uses facial expressions and gestures.

- It is difficult for a child to find specific articulations; it is typical for the children to replace the articulation of controversial sounds. The child also cannot copy a sound or word after the teacher and repeat a phrase. Correct articulation in speech is difficult to bear in mind.

- It is difficult for the child to change from one articulation to another or to start moving articulation organs. Syllabic word structure in the children's speech is brutally distorted (in this case sound pronunciation is not of primary importance):

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replacement, omission of syllables and contraction of the words to one syllable. There may be perseverations (abnormal involuntary repetition of the same elements of the speech).

- Vocabulary is accumulated slowly and is not used in speech practice for a long time. Nouns prevail in speech. Verbs are absent or are represented by naming of several simple actions. Children do not know how to use synonyms, antonyms, generalizing words.

- The grammatical structure of the speech is broken: children do not use prepositions, omit or distort word endings (in the Russian language, for example, it concerns the cases system and singular and plural number), cannot coordinate the words in a phrase or sentence.

- Phrasal speech is missed, or the child uses a simple phrase with broken grammar structure which often is a combination of words and gestures [2].

Our long experience has shown that the traditionally accepted system of corrective speech therapy work in Russia with this category of children is not sufficiently specific and efficient.

## II. RESULTS AND DISCUSSIONS

The author's approach to the problem of correctional logopedic work with this category of children consists of the follows steps.

### A. Literacy

Following the rule "read before talk," we give the child a particular support for stronger pronunciation. Moreover, teaching children to read and to write in an analytical and synthetic way, we teach them to listen and to distinguish sounds in the speech and read the word.

As soon as psychological contact to a child is established and common ground has been found, a speech therapist begins to imitate a sound, and immediately gives the letter, the symbol of the sound, to the child. How many letters are given to remember depends on the child's characteristics, capabilities and organization. As a rule, at first we give Russian letters A, M, Y. Russian «A» is pronounced like [Λ] in the «cut», Russian «Y» is pronounced like [U] in the «book». Russian «M» corresponds to English «M». As usual at the beginning of work we take 1 consonant and 2 vowels which are easy to articulate and more often are used in common simple words. As some examples we can give several games that can be used to remember the letters:

- To find all the letters A on the board (to erase, to circle, close, magnet, etc).

- To give the letters to different toys, calling them. For example, the Bear will be given all letters A, the Rabbit—all

the letters Y, the doll – letters M. To do this we must prepare 5 pieces of a letter.

- Take the letter out of the bag (which was brought by some of the toy animals, such as Bear). What did the Bear bring? The child takes the letter out and calls: "A, Y, Y, A, M, M, Y, Y, etc."

Once the child has memorized 2 - 3 letters, we begin to teach them to merger the letters. For this we use the following exercises:

- The letter «M» is in front of the child, and the letter «A» is on the left. With your left hand slowly push up the letter «A» to the letter «M», at the same time pronounce «AAA», when letters meet – say «M». It turns into "AAAAMM" [AM]

- An exercise on the board. There is a market track between letters «A» and «M». The child wipes the track off the board with a finger, speaking «A» (lane disappears, the child gets interested in the process), moves the finger to the letter «M» and combines it into "AAAM". Another option is: the child draws a path from the letter «A» to the letter «M» by her/himself, and says: "AAAM"

Once the child has understood the roles of merging, we continue working on reading of syllables.

For this we use the following exercises:

- To read syllables, taking them out of the pack of cards and giving them to the toy (Bear, Rabbit, etc).

- To take the syllables out of a doll's pocket, or out of the frog's mouth and read.

- To read the syllables written on the board. The child likes to read the syllable and erase it.

- To read the syllables, and the card to the board, or on the contrary - to read the card with the syllable and remove it from the board.

- Remove the card with a syllable from the sleeve of the speech therapist.

- With four syllables on the cards you can play the game, "What is lost?"

- The syllables might be made up of two halves as you can see in Fig.1.

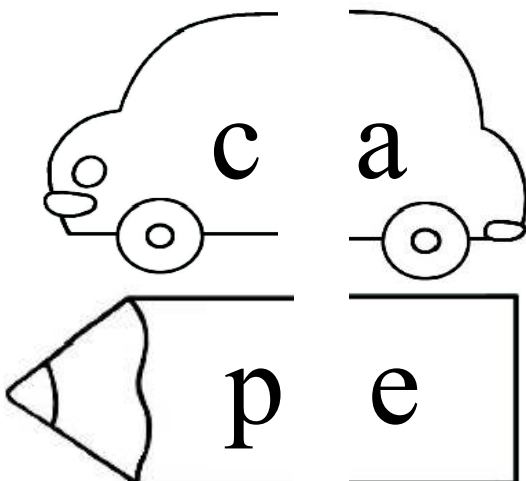


Fig. 1 represents pictures consisting of two halves

- Read the syllables written inside outlined pictures as is in Fig.2. You can ask the child to find a pencil and read the syllable inside, then find the syllable "ap" and name the picture in which the syllable written.

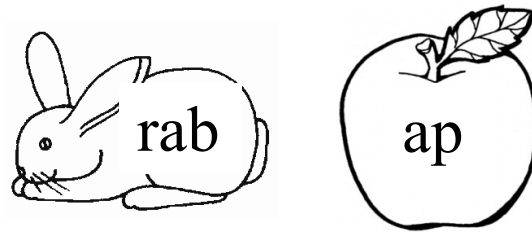


Fig. 2 represents the syllables written in outlined drawings

Children are taught to call the sounds of a word in the order, make up words from syllables, and make up sentences from words. The child relates the written word to the picture of the subject, the child calls the sounds in order in syllables and words; the child finds one word out of several (5 - 6) of printed words and correlates it with the picture, he/she exercises choosing the words for a given sound and syllable. Thus, the child learns to read, to talk, to remember, to differentiate sounds, letters and words at the same time. Reading words and sentences consciously, working with a simple deformed printed text, the child enriches his/her speech practice quicker.

Useful and effective works in this direction are the crossword puzzles and riddles, in which the child is required to be able to do sound-letter word analysis. It is the development of phonemic perception which is one of the main directions in the speech formation. The earlier the child begins to listen to the sounds of speech, the sooner he/she will be able to distinguish them, which will lead to correct pronunciation of words, following the proper sequence.

The children are excited to make words from syllables. For this purpose we use subject images on separate cards and cards with syllables.

#### B. Age

Correctional work with a child having severe speech disorder (alalia), in our opinion, should be started at the age of three. First of all, the consequences of the central nervous system affection are more easily compensated at early age. Secondly, it is the fact that work with this speech disorder will take more than one or two months, it might take up to several years. So, the sooner we start remedial work, the better the child will be prepared for school.

#### C. The Variety of Pictures and Game Material

The reason for this is the fact that correctional work begins early in life and demands great effort from the child. It is only possible to increase the motivation for studies in young children through active use of visual and game material. Therefore, the main task of the teacher is to make lessons more interesting, productive and equipped using colorful, functional and accessible to the perception material.

#### D. Repetition

A child suffering from alalia masters the native language in the same way as if someone learns a foreign language. This is due to the fact that the child quickly loses a way of articulation which was heard to find. Conditioned reflex connections do not have time to form. That is why for remembering one word he/she needs its repetition (over 120 times). The task of the speech therapist is to create the necessary conditions and monitor the mood of the child so that he/she does not refuse to pronounce the same words over and over again.

How make your child to say one word 20 - 30 times a class. We offer the class's fragment of remembering the word «Ball». Here, in the child's responses we omit the articles because there is no such a part of speech in Russian.

- The child is shown a toy - "Ball". The child with the speech therapist repeats the word three times answering the question "What is it?"

- The toy "frog" appears. "Give the ball to the Frog" (the child performs the action). "What did you give to the frog?" - «Ball». «Well done!»

- The toy "Doll" appears. Give the ball to the Doll" (the child performs the action). "What did you give to the doll?" "Ball." "It is good!"

- The toy "Bear" appears. "Give the ball to the Bear." "What did you give to the Bear?" "Ball."

- "What has the bear got?" "Ball." "What has the doll got?" "Ball.", "What has the frog got?" "Ball."

- Close your eyes. (The speech therapist hides one of the Balls.) "What did Bear hidden?" "Ball.", "Let's find (looking with the child), "There is not any on the sofa, there is not any on the shelf. Here it is, on the floor! "" What's that? » «Ball.»

- Now I'll close my eyes, and you will hide the ball. (The child hides one of the balls.) "What did you hide?" "Ball." (The speech therapist looking for a ball.)

- Catch. "What did you catch?" "Ball."

- Throw. "What did you throw?" "Ball."

- The child can be offered to throw colored balls into the baskets of the same color.

- Reading the word "ball."

- To get together the picture of a "ball" from parts (3 or 4). When he/she gets together the picture – he/she names it.

- To make a ball from plasticize. Call what you have made.

Thus, in this lesson the child has said the word "Ball" 30 times in games.

#### E. Compulsory Systematic Management of an Individual Child's Notebook

Every notebook will be all in one for the child as an album, a dictionary and an ABC-book. The notebook will be filled while accumulating speech material and forming of active and passive vocabulary of the child.

#### F. Stages of the Remedial Work

1. At the first stage the main task is formation of active vocabulary, which is understood by a child and can be used by him/her. These are: monosyllabic words, two-syllable words with the stress on the first syllable, two-syllable words with

the stress on the second syllable, three-syllable words of the same pattern of stress and rhythm. At this stage the teacher works on literacy. The ability to analyze the sequence of sounds and letters in the words is being developed.

When a child has accumulated about 50 nouns and 10 verbs, we start working to form simple sentences and memorize a story. At this stage it is advisable to use stories of two or three short sentences, which consist primarily of nouns [1]. This is caused by the fact that in the Russian language verbs appear in the speech of children (ontogeny) much later. We can take the story "A spider" in Fig.3 as an example: «Here is a stove. There is a spider in it». In Russian we do not have the linking verb «to be» in Present. So, if we simplify the story with no verbs, we will have: «A stove. A spider in it. »

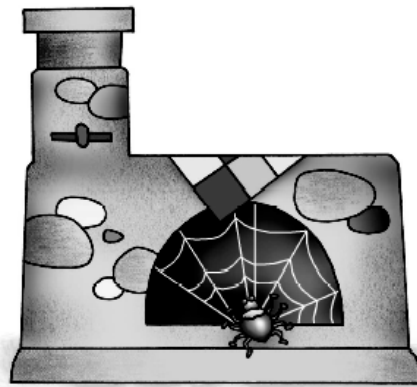


Fig. 3 represents the story "A spider"

The child can read himself or being helped by the speech therapist. The child can repeat after the teacher with the support of the picture and text. This is just an example of stories. Similar texts can be made up by a speech therapist based on the child's abilities.

At the same way we go on working on the accumulation of active and passive vocabulary.

2. At the second stage we continue to work at literacy on the level of reading separate words, sentences and short texts. The pronunciation of sounds is being formed. However, this work can be started at the first stage provided an insufficient number of sounds in a child's speech for pronouncing simple words. In this case the speech therapist provokes a certain sound and gives to a child a visual image of it - a letter, he/she includes the letter into a syllable, and then into a word.

At this stage we start work with the use of prepositions and adjectives in speech; the child is taught descriptive stories. The child gets acquainted with singular and plural nouns, verbs, he/she is taught to agree nouns with pronouns. Accumulation of specific vocabulary in topics continues.

3. At the third stage the main point is the development of the connected speech based on a series of plot pictures. Grammatical categories are automatized (the use of prepositions, changing words in cases, coordination of all parts of speech in gender and number). At the same time we work at forming of sounds articulation, automation and

differentiation of sounds in speech.

The period of improving speech comes. During this period the volume of sentences and stories is expanding. In addition, children are trained in creative storytelling.

Forming phrases and stories is a very important and specific direction in teaching unlanguage children. Texts are selected according to the individual needs of the child, the level of his/her speech development and speech understanding. Therefore, there are different types of stories in the work with children:

- Simple stories of two, three or four sentences.
- Stories with three levels of difficulty [1]. As in the story "A cat" in Fig. 4.



Fig. 4 represents the story "A cat"

Level A. It was warm. The cat walked. A cloud appeared. The rain started. The cat became wet. It ran home. At home the cat slept.

Level B. It was warm in the outside. The cat was walking. A dark cloud appeared. The rain started. The cat became wet. It ran home. The cat laid down on a warm pillow and fell asleep.

Level C. The cat was walking in the outside. The sun was shining. It was warm. Suddenly a dark cloud appeared in the sky. Cold heavy rain started. The cat became wet entirely. It was dripping. It ran home. At home the cat lay on a warm place and began to dry. Mary gave the cat some milk. But the cat did not drink the milk. It wanted to sleep.

Where was the cat walking?

What was the weather like?

What appeared in the sky?

What kind of rain started?

What happened to the cat?

Where did the cat run to?

What did the cat do at home?

What did Mary give to the cat?

Why did not the cat drink milk?

- Simple narrative stories.
- Descriptive stories.
- Comparative- descriptive stories.

However, these texts can be changed at the discretion of the teacher or to be adapted to each child individually.

We list below the main stages of work with three-level stories.

1) The teacher gives the child a plot image and asks him/her to name the items shown on it. If the child is able to answer the questions (those who understand the speech), the speech therapist asks questions such as "What does ...?" Additional questions are allowed such as: «What color is ...?" "Count how many ...." etc.

2) Based on the abilities of the child, the teacher chooses a story (level A, B or C), the teacher reads the text to the child slowly.

3) Then the teacher reads and the child repeats the sentence after the speech therapist.

4) After that, the child is invited to read the text him/herself (being helped by the adult).

5) Next, a speech therapist reads out the questions and offers the child to answer them using the picture, or find the answer in the text and find the right sentence. The teacher must take into account the fact that the question is based on the content of each sentence in the text.

6) A crucial step is learning by heart of the text and saying it about the picture. At this level speech development child cannot retell the text because vocabulary and grammatical structure are not sufficient and they are not formed. Therefore, learning the story is significant.

#### G. The Content of the Remedial Work with the Child with General Underdevelopment of Speech of Levels I - III Suffering from Alalia

1. The content of lessons with the child with general underdevelopment of speech of levels I - II may include:

- 1) Reading syllables and familiar words:
  - syllable cards;
  - syllable styles;
  - syllable tracks;
  - tables of words;
  - the game "Make up the word under the picture."
- 2) Naming and remembering a new letter, reading syllables with this letter.
- 3) Making words of syllables sounds and letter analysis of words.

4) Saying sentences by plot pictures:

- in the notebook (well familiar words);
- sentences by cards (3 - 4 pictures);
- sentences after an actions is performed "Vanya, take the car. What did you do?" "I took the car." "Vanya, bring me the glue. What did you do?" "I brought the glue." "Vanya, ask for water," "Aunt Nadia give me some water." "Vanya, close the door. What did you do?" "I closed the door," etc.

5) Remembering stories. (Usually the work is carried out at three stories at the same time). Children answer the questions on the content.

6) Working with a pencil on a sheet of paper:

- drawing paths with the right holding a pencil;
- drawing lines (vertical, horizontal);
- connecting the dots;
- outlining stenciled shapes;

- drawing figures connecting the dots, etc.

7) Making the whole out of parts: pictures out into parts, puzzles, Nikitins' squares, tetris on a wooden base, etc.

8) Formation of mathematical skills. Counting from 1 to 10 (counting some things), matching the quantity with the number, the number with quantity.

We have identified basic verbal direction of remedial work with this category of children. In subsequent phases further speech therapy work is supposed to master simple everyday conversational speech by children, that is to say, communicative function continues to form. This is achieved through subject-role-playing, mock tales, telling about vacation and their friends, etc.

2. The content of lessons with the child with general underdevelopment of speech of levels II - III may include:

1) Connected speech. At this stage we work in different ways, such as: reading, memorizing, repetition (retelling) the text about a picture or story on a series of thematic pictures. Be sure to teach the child to answer questions about the text.

Each of the stories involves phonetic work on a certain sound, so the child learns to find a word with a given sound, locate it in a word, to divide words into syllables, find words to syllabic patterns.

2) The grammatical structure.

- Work with prepositions in, on, behind, under, above

- Grammatical agreement of adjectives with nouns in gender, number and case:

Warm jacket

Warm mittens

Warm blanket

Warm wind

Here in Russian the adjective « warm» has different endings because of the nouns.

- Grammatical agreement of nouns to singular and plural verbs. Including:

Boy goes.

Boys go.

In the English language other grammatical categories should be taken instead of these. For example, active and passive voice, aspects of tenses, etc.

3) Sound-letter analysis of 3, 4, 5-letter words (words analysis, as well as making puzzles of different kinds, using crosswords with letters cut which children fill in the lines.

4) Writing. We believe that a child suffering from alalia before going to school should be taught calligraphy. Even if the child copes with sounds-letter analysis orally he will certainly make mistakes writing even simple words. Therefore, she/he must be given time for training. We write letters, syllables, words and short sentences after detailed analysis.

5) Teaching the answers to social questions.

6) Lexical topics.

The work is done over 12-15 lexical topics. Lexical topic - is a wealth of material for language development. For example, the lexical topic "Trees" involves the following areas of work:

- Memorizing the names of trees 6-7

- Learning parts of the tree

- Word formation: a leaf of oak –an oak leaf

- Formation of the plural: leaf - leaves

- Work with prepositions: on a branch, in the hollow, out of the hollow, near a tree, the tree.

- The connected speech. The story "In the Forest" is a good example of this lexical topic in the manual «Read before talk».

- Verbal dictionary: What does the tree do?

stands

grows

blooms

gets green

rises

sheds (leaves)

- Comparative and descriptive stories like "The oak and the birch». See the manual «Read before talk» [1]. Similarly you can compare "The birch and the spruce," "The trees and the bush".

7) We continue forming mathematical skills by teaching the child to do the sums, read and solve written tasks, to answer questions about the tasks, choose an action.

Why should we focus on calculation skills? We believe that this is another lexical topic. The problem is that a child suffering from alalia has a great difficulty perceiving the meaning of text tasks. A task- is a text that is to be divided into parts, each part to be asked a question. Make sure that the child understands the meaning and knows what action to choose.

8) Logical tasks.

### III. CONCLUSION

We have identified basic verbal directions of remedial work with this category of children. In subsequent phases a further speech therapy work is supposed to master the elementary everyday conversational speech by children, that is, its communicative function continues to form. This is achieved by subject-role-playing, mocking of tales, telling about their holidays, their friends, etc.

Initially, this technique was designed to work with children with alalia. But it also has been successfully used in working with children with severe type of dysarthria, intellectual disabilities, hearing loss, early autism and with children with a complex defect.

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