APPLICATION OF THE TAN-SODERBERG GLOBAL READING METHOD IN TEACHING OF AUTISTIC SPECTRUM DISORDERS

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Summary. The article deals with theoretical and practical issues of using the TAN-Soderberg global reading method when working with junior schoolchildren with autism spectrum disorders. The features of this method and the principles of its construction are highlighted. The main competences of the TAN-Soderberg method are highlighted. Four main structural components of the TAN-Soderberg method are characterized. The stages of preparatory work for using the TAN-Soderberg method of global reading are defined. The practice of using the TAN-Soderberg global reading method when working with primary school pupils with ASD is described. The sequence of actions for the direct use of the “global reading” method for teaching pupils with autism spectrum disorders to read is determined. The importance of avoiding stereotypes when working with cards of pupils with autism spectrum disorders is noted. Key words: autism spectrum disorders, TAN-Soderberg global reading method, pupils with ASD, junior schoolchildren with ASD.

Introduction. Today, the problem of the spread of ASD has gained tremendous importance, as the number of children with this disorder in the world increases every year. This is evidenced by statistics from studies at the global and Ukrainian levels. Thus, the Center for Disease Control and Prevention in the United States in 2020 published statistics on registered cases of children with autism. According to the data that were found in the diagnosis of children under the age of eight, this figure increased by 10% compared to 2018 data. Experts of the Center give explanations for such statistics. According to scientists, the increase in the number of children with autism occurred in the twenties due to the development of diagnostic tools. That is, those children who did not have obvious psychophysical disorders, previously mistakenly received other medical conclusions. After a detailed diagnosis of 11 states of America, scientists were able to state that every 56 children had autism spectrum disorders[[3]]. These trends require the search for new systems and approaches to corrective work with children of a specific nosology. Modern world trends of integration of people with ASD into society require inclusive education for their comprehensive development. It is common knowledge that the main means of integration is communicative activity. In many studies, it is noted that the violation of communication skills of children with ASD occurs at the level of the
formation of non-verbal communication (T. Kolomoiets, O. Chebotariova, O. Kazachiner et.).

Analysis of current research. The problem of complex speech disorders, including in children with early childhood autism, was and is being dealt with by both foreign and domestic scientists L. Kanner, S. Konopiasta, V. Lebedynskyi, T. Morozova, O. Nikolska, K. Ostrovska, L. Shypitsyna, D. Shulzenko and others. V. Zaremba, O. Kazachiner, N. Lishchuk, N. Morozova, T. Teleshenko, I. Tychyna, O. Chebotariova and others devoted their research to the TAN-Soderberg method as a means of developing communication in working with children with special educational needs.

At the same time, the problem of implementing the TAN-Soderberg global reading method in correctional work with junior schoolchildren with early autism syndrome, which will be considered in our article, has not been sufficiently investigated.

Features of the TAN-Soderberg method. The TAN-Soderberg method is focused on stimulating the appearance and formation of greater opportunities in mastering speech activity and communication competence in children with ASD. This method is aimed at the formation and development of such concepts as: learning the meaning of new words and their understanding; speech development; practicing clear pronunciation of words; memory development; assimilation and differentiation of words with similar sounds; development of speaking skills and literacy [5].

As stated in the corrective and developmental work program “Development of speech using the TAN-Soderberg method” for grades 1-4 of special institutions of general secondary education, the main goal of the TAN method is development of children’s speech (speaking). The main tool of this method is global reading [12].

H. Piontkovskaia and Ye. Kuzminskaia highlight the main principles of the TAN-Soderberg method in their research. They include: systematicity and consistency; connection with junior schoolchildren’s lives; visualization of language and speech; accessibility; emotional saturation of the lesson [9].

In addition to the principles, the researchers outline in their works the main tasks of the TAN-Soderberg method: formation of junior schoolchildren’s knowledge, abilities and skills in their native language, which can be applied in specific communication conditions (linguistic competence); formation of the ability to instantly recall a word sample from long-term memory, depending on a specific language task, as well as inclusion of a given word in a language chain (lexical competence); development of phonemic hearing, which is the basis of forming the correct pronunciation of sounds and sound combinations; mastering intonation means of expression (phonetic competence); formation of the ability to correctly use grammatical forms of the native language (grammatical competence) [9].

In the studies of O. Kolomiichenko, certain features of the use of the TAN-Soderberg method were identified: to encourage children to “talk – chatter”; to record or draw what children say; to develop inner speech; to teach children to listen; to form the ability to wait one’s turn; to improve the ability to tell stories with different strength of voice, with different intonation, at different pace, expressively; to improve speech through reading; to recite poems/rhymes, practice rhythm; to learn to read globally [6].
O. Kazachiner’s research presents four main structural components of the TAN-Soderberg method: “Circle”, “TAN-exercises-games”, “Reading using the global method”, “TAN-stories” ([5]). Let us describe the highlighted components in more detail. One of the important components of the TAN-Soderberg method is the “Circle”. O. Chebotariova notes that “Circle” should be held every morning at the beginning of the school day (8-15 minutes depending on the situation). “Circle” can be conducted by both the teacher and his assistant ([1]). Due to daily rituals, a number of tasks are performed, namely:

1) formation of social skills and abilities, which is a prerequisite for successful socialization: ask, listen, give an answer, wait one’s turn, do not interrupt each other, sympathize, empathize, the ability to keep in memory information about another person, etc.;

3) deepening ideas and consolidating knowledge about the surrounding world: seasons, months of the year, days of the week, natural phenomena;

4) formation of understanding and sense of time: formation of ideas about age changes (date of birth, transition to the next grade); orientation in time (use of the calendar, defining the date); correlation of personal life events with real time (yesterday, today, tomorrow) ([1]).

The next component of this method is the compilation of TAN-stories. To start any activity, including learning new vocabulary, a child needs motivation. Illustrated photos, which the child uses when referring to his own experience, are the motivation that stimulates the child to communicative action. They are the reason for starting a conversation about this or that incident, situation that happened in the child’s life, causes positive emotions and is directly important, relevant for the child right now, at this time. It can be a family holiday, for example, a birthday, an interesting vacation, a gift that caused a lot of emotions, or the purchase of a thing for family use. Working with a photo album for speech development consists of several stages from creation to presentation ([5]).

The first stage is organizational-preparatory, during which the teacher can conduct excursions to the school square or park to take photos of junior schoolchildren (or parents who receive assignments for the holidays). Parents are also invited to take pictures of their children during interesting events and holidays ([11]).

At the second stage, selection of photos for the album, parents together with the child choose those photo cards that evoked the greatest number of positive emotions in the child. The main thing in the selection of photo cards is that the child should be depicted in the photo in an activity, in motion. Photos should encourage the child to speak, arouse interest, foster a desire to tell friends, the teacher about what he saw, what he did ([5]).

During the third stage, the story, an album is compiled from the selected photos in such a way that next to each photo there is a place to record the child’s own statement. Signatures are made in a variety of convenient ways: they are written by hand, printed or glued from a set of letters. Viewing photos is an extraordinary event, children become talkative and communicative, because everyone wants to tell their story or be heard by others ([5]).
The fourth stage is presentation of one’s own TAN-history. During this stage children tell stories from a photo album. For example, after the vacation, pupils bring photo albums and present them in “Circle”, telling how they spent the vacation, where they were, what they saw, etc. [5]. The third component of the TAN method – exercises-games are used for the purpose of consolidating speech material, both by the teacher and his assistant. These games are very popular with children and are simple and interesting to play at home together with parents [11].

The next component of the TAN-Soderberg method is reading with a global method, which should be used in pedagogical activities from the first day of schooling of children with ASD. Learning “reading” and speaking is the goal of this exercise. The essence of the exercise is that words are selected, cards are made with words, names of things, people that are important to the junior schoolchildren and evoke positive emotions in them. Cards must be created in two copies. Learning begins with studying (memorizing) some concepts. So, the first topic was proper names (later – surnames), they included such topics as: family, school supplies, animals, vegetables, fruits. Junior schoolchildren learn to match cards, find similar words and remember them. Vocabulary cards are the best way to learn to speak and improve articulation [11]. The main techniques of working with the method of global reading are ratio, selection, name.

Thus, at the initial stages of literacy training in native language classes in a special school, it is appropriate to use the TAN-Soderberg method, with the help of which all concepts are visualized, at the same time images, photos are used to understand the meaning of words, the meaning of a phrase or to fix images of many objects. In this case, it is necessary to use cards on which only objects are depicted, then single words and words with a picture. We note that, in our opinion, the leading component of the TAN-Soderberg method is reading using a global method.

**The practical recommendations for using the TAN-Soderberg global reading method**, Implementation of this method in the practice of the teacher’s work should be preceded by propaedeutic work, namely the stage of teaching global reading turned out to be the final one. The first grade teacher should follow the stages of preparatory work according to T. Teleshenko:

1. Primary contact (establishing a friendly trusting relationship between the specialist and the child).
2. Primary learning skills (development of learning motivation skills).
3. Work on the pointing gesture and “YES”, “NO” gestures (teaching the child to correctly use the “yes” – “no” gestures and the pointing gesture).
4. Teaching global reading (teaching to read words) [11].

Studying the experience of theoreticians and practitioners working with junior schoolchildren with ASD using the TAN-Soderberg global reading method, we developed practical recommendations for the application of the specified method. First grade should have a “My School Day” changing screen as part of the TAN-Soderberg Global Reading Method. The screen should be a plastic sheet of A4 format, on which information records are attached with the help of stickers: season, month, day of the week; yesterday, today, tomorrow; timetable. Cards with variable information lie next to the screen in a box. The school day should start with changing the information on the screen. Junior schoolchildren take turns unpinning the card
with outdated information and replacing it with a new one. To reinforce knowledge and help in the search for information, a desk flip calendar is used, which has the date and month, as well as the lesson schedule, printed in block letters.

Correlating the sound of a word and its graphic image, junior schoolchildren with ASD link them into a single meaningful chain. Gradually, learning letters and mastering reading, they transfer the acquired skills to a new plane, realize the possibility of reading an already familiar word. This process is a practice of using TAN-exercises on global reading.

When teaching a child with ASD the unity of the information field with all educational fields is very important. That is why the teacher discusses with parents the topic from which the work on teaching children with ASD begins with the TAN-Soderberg global reading method. The first topic for learning words, which is most often chosen by the teacher together with parents, is “My family”, the second is “Vegetables”.

Prepared pictures of vegetables that are familiar to children are chosen without a background and without any notes. All pictures are printed in duplicate. In addition, cards with the names of vegetables are being prepared, made in black printed text and in duplicate. This lexical topic is studied for about a month.

Based on the study of a certain lexical topic, the child forms an idea about the surrounding world; he is taught how to compose TAN-stories. Teachers repeat the material based on a series of exercises. Junior schoolchildren study poems, compose sentences, highlight new words in sentences, texts. A necessary condition is memorization of a TAN-story, study of key words from a TAN-story (lexical topic) using TAN-exercises.

Using the method of global reading at the beginning of teaching children with ASD lead to the creation of a holistic view of words and phrases and learning to read meaningfully, creating motivation to read. In addition to school education according to a certain method, it is important that parents support the work of teachers and study the material at home, for example, repeat and memorize new words by correlating them with real objects, play appropriate TAN games, etc.

To teach “global reading” of words, the following educational material is used, selected according to four topics: “My family”; “Favorite food”; “Animals”; “Food for animals”. Images (photographs) selected for these topics are put in four envelopes. Together with the photos (pictures) in the envelopes there are cards with words (a photo of a child and the word “I”, a picture with an image of juice and the word “juice”, etc.). Small-size photos (pictures) (a square with sides of 5-7 cm) and cards with words (a narrow strip 7-10 cm long) are used. The smaller the size of the material used, the stronger it concentrates the attention of the child with ASD. Small pictures and cards easily fit in a child’s hand, and all educational material is mixed in the field of vision.

The first envelope should contain a photo of the child and one photo of each member of his family: mom, dad, sister, brother, grandmother, grandfather, etc., and the words that denote them: “I”, “mom”, “dad” and others. If the child addressed the sister by her name, the envelope should contain a sign with her name; if he is used to call his grandmother “grandma”, the envelope should contain exactly this word that is more familiar to the child.
In the envelope “Favorite food” are collected pictures of those products that the child and his family members like. Items are selected that are denoted by short words (one- or two-syllable): “cheese”, “juice”, “tea”, “cake”, “bread”, “cake”, “soup”, “nut”, “pie”, etc. These words, without changing their case endings, can be entered into sentences, which is important for the next stage of work (when teaching a child global reading of phrases).

In the third and fourth envelopes, drawings or photographs of popular animals (domestic and wild) and what they eat should be collected. The names of the objects presented in the pictures are chosen that are easier to read and more familiar to the child: “teddy-bear” instead of a bear, “puppy” instead of a dog, etc. The number of photos (pictures) in the envelope initially does not exceed 5-6. Their number is gradually increasing.

A child with ASD tends to focus not on the semantic, but on the formal, most often visual features of the subject material. For example, a child can correctly match words to pictures, focusing not on the graphic image of the words, but on the color in which they were written. Therefore, all words must be written in the same size and shape on the cards in the same color. To organize the attention of an autistic child, the elements of “global reading” should be used already when forming the prerequisites for educational behavior. During this period, it is important to keep an autistic child at the table, in an educational situation, to form “learning behavior” in him.

Due to stereotypes and fears characteristic of an autistic child, it is difficult to focus his attention on new, unfamiliar material. He does not look at unfamiliar pictures, does not listen to an adult when it comes to something insignificant for him. But when a child sees himself, his mother, father, and relatives in photographs, he involuntarily focuses his attention on them.

Thus, learning begins with the envelope “My Family”, on the material of which the child learns to find the right picture (photo), with the help of the teacher, put a card with the word under it and follow the teacher’s instructions: “give”, “show”, “read”, etc.

Next, when “global reading” is already used directly for teaching reading, it is important to form a certain sequence of actions in the pupil:

- choose from a number of pictures (photos) the one named by an adult;
- correctly put the word denoting it next to the picture;
- point to the picture and the word with the hand folded in a pointing gesture and read it;
- remove the picture representing the word in the envelope.

Until the child masters this sequence, the adult controls the child’s attention step by step. If this is not done, the child can perform the task mechanically without thinking about it. Therefore, after the child traced with his index finger and read the word, the teacher asks him once again to “name what he had read”. The junior schoolchildren can simply name the word without looking at it, if he was not distracted and worked consciously. If the attention is distracted, the teacher’s question again concentrates the child on the task.

At this stage of work, the child not only learns to read words and understand what they mean, but also to plan his actions. It is often difficult for a pupil with ASD...
to master “global reading” not so much because of affective problems, but because of the impossibility of independent arbitrary planning characteristic of autism. A child’s performance of the entire sequence of tasks forms a certain algorithm of actions. If such an algorithm is not developed, it is almost impossible to achieve the final result – independent reading of words. If the child independently or with minimal support from an adult performs the required sequence of actions and reads the words, one should immediately proceed to studying the second envelope.

With stereotyping and self-stimulation characteristic of junior schoolchildren with autism, matching words to pictures incorrectly can become their favorite pastime. In order to avoid such a situation, it is necessary to explain to the child that “reading confusions is very fun in the game, but there is no time for this in class”, and ask him to “put the words in order” as soon as possible, adding at the same time why “it is better to do it this way”.

It is necessary to anticipate possible complications, for this it is necessary to: ensure the maximum meaningfulness of mastering each new skill; limit oneself to the minimal mastering of each “intermediate” skill (in relation to the main result – mastering reading), and move on to the next one, since the thorough study of each “intermediate” skill provokes the autistic child’s tendency to stereotyping and self-stimulation.

By the end of this stage, the child masters the global reading of 25-30 words and generalizing concepts “My family”, “Food”, “Animals”, “Animal food”. Note that vocabulary accumulation through “global reading” in working with a child with ASD can have negative consequences. Junior schoolchildren easily remember a large number of words denoting objects related to different categories, but at the same time it becomes almost impossible to move on to reading phrases. With their characteristic stereotyping, children with ASD willingly add them to their “collection”, calling it “reading”, and it will not work out otherwise. In fact, the lesson turns into self-stimulation for children, and it is not possible to convey the meaning of reading to them, to explain why we read. In order to avoid such a situation, the teacher, at the first opportunity, should move with junior schoolchildren with ASD to global reading of short phrases tied to their personal experience.

At this stage, certain skills are formed, which should be evaluated, e.g. the ability to match the words presented in four thematic envelopes with pictures and read these words. This skill is considered formed when the child visually recognizes the word, correlates it with the corresponding picture, reads the word independently, but the teacher helps him manipulate the learning material.

The second skill is to perform tasks according to a well-established algorithm: from choosing a picture to reading the word that denotes it. This skill is considered formed when the child independently, without the help of an adult, reproduces the necessary sequence of actions and reads the word.

The next stage of global reading is learning to read phrases (combining familiar nouns with the help of verbs). As soon as the child has learned the global reading of words, one should move on to reading short phrases that use words already familiar to junior schoolchildren with ASD.

The teacher’s task at this stage of work is to teach an autistic child meaningful reading and independent construction of simple short phrases on familiar material using the already mastered “global reading” method.
The verbs “love” and “like” written on separate cards are added to the usual educational material. These verbs become the semantic centers of the phrases that the child learns to compose. The junior schoolchildren is invited to put his own photo, the word “like” and a picture of his favorite product in a row. The word “I” is placed under the child’s photo, and the word, for example, “juice” is placed under the image of the product. Then, with the help of the teacher, the child reads: “I like juice”. Visual support ensures that the child understands the read phrase. Next, the pupil should ask the question: “What else do you like?”. Based on the results of the answer, he is offered to replace the picture with the image of his favorite product (and mark its word) and read the resulting phrase, for example: “I like a cake”.

While reading the phrase, the adult encourages the child to trace the words with the index finger. This simple method helps the child to manage his own attention and not lose a line while reading. To avoid formal, mechanical reading, after each read phrase, the teacher asks the student the question: “What do you like?” or “Who likes it?”. After learning to say and read phrases about things he likes, a pupil with ASD can easily form phrases about things his family likes by working with the contents of the envelopes “My Family” and “Favorite Food” using the verb “like”.

When repeating tasks, a child with autism may be characterized by stereotypy, that is, he tends to make the same phrases in an unchanged form. So, for example, with the word “mom” the child always builds the same phrase: “Mom likes tea”. In order to avoid such manifestations, after the child composes and reads the first sentence independently, the teacher encourages him to make changes, to vary the favorite products of each family member, bringing to the child’s mind that “Mom likes both tea and coffee, and cheese”. The pupil should compose and read several phrases about what each member of his family likes (“Dad likes bread”, “Sister likes jam”, etc.).

Next, envelopes “Animals” and “Animal food” are taken to work. As a rule, by this point, a child with ASD has already mastered the necessary sequence of actions, and can independently and meaningfully choose pictures, build and read a phrase. At this stage, formation of the necessary skills and their consolidation is checked.

The main techniques used in the work are matching cards: word for word; choosing the indicated word at the request of an adult, matching word to picture, independent naming of cards with the word.

Conclusions. Thus, the use of the “global reading” method for teaching junior schoolchildren with ASD makes it possible to quickly teach a child to read words meaningfully, independently compose from familiar words and read short phrases. In addition, this technique has a positive effect on the development of the cognitive sphere, development of language and speech, prevention of signs of dyslexia and dysgraphia, enhancing motivation and interest in reading.

References:


