Studying the level of dialogical speech development in pupils with intellectual disorders as an indicator of their mental health

Abstract. Background. The research was aimed at studying the levels of development of dialogical speech in primary schoolchildren with intellectual disabilities (ID). In accordance with the purpose of the research, the following tasks were implemented: to carry out a theoretical analysis of the research problem; to develop criteria and indicators of the levels of dialogical speech development in younger schoolchildren with intellectual disabilities; to investigate the state and levels of development of dialogical speech in younger schoolchildren with intellectual disabilities in modern educational conditions. Materials and methods. To determine the levels of dialogical speech development, we have created a diagnostic program, criteria, and indicators for the development of dialogical speech in students with ID. Results. According to the results of the study, the high level of development of dialogical speech among primary schoolchildren with ID was not detected, 15.4 % of students showed sufficient level, 39.1 % — average level, 45.5 % had low level. Conclusion. Children with intellectual disabilities experience difficulties in independently formulating questions, choosing the necessary words in answers. In dialogue, younger schoolchildren with ID mostly use short, monotonous lines. Their answers are characterized by poor vocabulary, inaccurate use of words, morphological and syntactic agrammatism. This state of dialogical skills is due to the underdevelopment of coherent speech and basic mental operations such as analysis, synthesis, abstraction, generalization, comparison, systematization; inability to transfer acquired skills to a conversation situation, narrowing of verbal contacts, cognitive passivity. Their speech lacks emotion due to the inability of children with IP to use intonation. Keywords: dialogue; levels of development of dialogical speech; primary schoolchildren with intellectual disabilities; communicative competence

Introduction

One of the most important life competencies of a person is the ability to communicate. Fluency in the state language for primary school children is defined in the State standard of primary education for children with special educational needs [1]. This provides for the active use of the native language in various communicative situations, in particular, in everyday life, in the educational process, cultural life of society, etc. In the standard educational program for children with intellectual disabilities (ID), it is noted that the main goals of the development of oral speech are to teach students to interact orally using alternative means of communication and to build their own statements; to form elementary skills of dialogical and monological speech in order to achieve certain life goals [2].

The development of dialogical speech is an integral part of the process of forming the communicative competence of primary schoolchildren and children with ID. This confirms the relevance of the chosen topic of the article in accordance with modern problems of social integration of students with special educational needs. Speech activity is the subject of study of many researchers. It is being investigated in the field of speech therapy, psychology, linguistics, pedagogy, and physiology. The problem of formation of dialogical speech of primary schoolchildren was considered by scientists in various ways. In particular, the following aspects were
studied: the psychology of the dialogue [3]; the definition of the oral speech, dialogical speech concepts [4]; features of the development of coherent speech of schoolchildren as a component of speech competence [5–8].

Scientists have considered the peculiarities of speech of children with intellectual disabilities [9–13], in particular, the features of connected speech are described; ways of its development as means of communication between people, means of acquiring new knowledge about the surrounding world, expressing one’s desires and emotions; revealed the problem of forming coherent speech of younger schoolchildren with ID using animation therapy [14, 15]. At the same time, the peculiarities of dialogical speech of younger schoolchildren with intellectual disabilities are not sufficiently studied, and its levels have not been investigated. Individual scientists have studied the receptive speech of primary schoolchildren with ID [16, 17].

The problem of the dialogue in literature is considered in the framework of communication. Dialogue is understood as a form of speech, characterized by the exchange of phrases/lines of two or more interlocutors [18–21]. In the dictionary of linguistic terms, dialogue is interpreted as a form of speech that is a conversation between two or more persons [6, 18, 22].

We have generalized the characteristics of the dialogue, defined in theory to develop the correct research methodology: the dialogue is a coherent text containing independent pairs of phrases; the phrase is a special language unit, which is characterized by relative formal-grammatical completeness and relative independence [23]; dialogue is the process of participants’ verbal interaction [5]; dialogue is a form of conversation between two or more people, a pedagogical form of questions and answers between a teacher or students [24]. There is an emotional communication between people in the dialogue, influence on each other through facial expressions, gestures, intonation, and voice timbre; the extent of the dialogue depends on the situation [7, 25].

Directions of development of dialogical speech in primary schoolchildren are enrichment, clarification and activation of vocabulary; ability to use figurative language depending on situation and purpose of statements, expressing thoughts consistently and reasonably; ability to compose and play dialogue; improvement of the grammatical structure of speech; mastering the most important ethical rules of communication [26].

Analysis of literature shows that the coherent speech of children with ID differs significantly from the speech of children with typical development [10, 27–30]. Scientists noted that the expressive features of dialogical speech of students with ID are as follows: lack of understanding of the addressed speech; inability to quickly switch from hearing to active speaking; difficulties in updating dictionary and lexical poverty; a violation of grammatical structure of the phrases; lack of understanding of the emotional state of the interlocutor; rapid communication fatigue; lack of motivation to communicate.

The research was aimed at studying the levels of development of dialogical speech of primary schoolchildren with ID. According to the research aim, the following tasks were implemented: to carry out a theoretical analysis of the research problem; to develop criteria and indicators of the levels of dialogical speech development in primary schoolchildren with ID; to study the state and levels of dialogical speech development in primary schoolchildren with ID in modern educational conditions.

Materials and Methods

Design. Analysis and generalization of theoretical sources; analysis of educational programs for children with ID; pedagogical experiment; quantitative and qualitative processing of research results. In order to determine the levels of development of dialogical speech of students with ID, a pedagogical experiment was conducted. Accordingly, we developed a diagnostic program, which consisted of three series of tasks.

The purpose of the first series of experiment was to establish contact with each child; to create an atmosphere of friendly communication; to identify activity; to research the possibility of understanding the address speech. To achieve this goal, two tasks were proposed. The first is the communicative situation “Let us get acquainted”. The study began with an individual conversation with the child. With the help of casual conversation, we found out ways for younger students to start a conversation with a stranger, maintain it at an elementary level, giving answers to questions. Questions were provided based on the principle of accessibility — from near to far, from simple to complex. The expanded response of a child was stimulated by the words “Tell me more about it”.

The first series also explored the ability to answer questions according to the situation depicted in the picture. In order to do this, children were offered a second task — the picture “At the bird feeder” and instructions: “Look carefully at the picture. Tell me...” Then the children were asked questions about the content of the image: 1. Who is shown at the picture? 2. Where did the children come? 3. What are children doing near the feeder? 4. Who did the girl see in the feeder? 5. Who walked up to the boy? 6. What time of year is depicted? The questions were aimed at both understanding the address speech and understanding it when moving from one situation to another.

Children’s responses to the first and second tasks were evaluated by scores based on the criteria (correctness, accordance with the situation, completeness of the sentence) in such a way:

— the answer to the question is given in an inaccurate form of a word or it is just a random answer, the content of the response does not match the question or situation.

In the second series of the experiment, we studied the ability of children to start the dialogue with an appropriate initiative line from a literary text (a fairy tale). For this purpose, we developed the task “Using an initiative line based on a fairy tale”. Children were asked to listen to an audio record of the fairy tale “Adventures of the ball”, which was filled with the dialogues. The record was provided twice. Be-
fore the first listening of the record, the children were given a task: to choose from all the toys only the characters of this fairy tale. Before the second listening, to choose from the characters of the fairy tale those whose lines a child could voice. After the second listening, the task was holding the chosen toy in hands, address to a teacher on its behalf with the lines that these characters addressed in the fairy tale.

The level of the ability to start the dialogue was assessed according to the following criteria: the speed of the dialogue initiation; compliance of the initiative line with the fairy tale content; focus on conducting the dialogue; the need for help. Children’s responses were evaluated as follows: a student quickly begins the dialogue using the appropriate initiative line from the text of the fairy tale, quickly finds the necessary line to start the dialogue, but has problems with voicing this line, begins to describe the speech situation first, or, without deviating from the topic of the text, begins the dialogue with a line that was not in the text; a student does not find the appropriate initiative line in the text, it is difficult to choose the role to play, there are some mistakes in the line; it is difficult for children to start the dialogue without a teacher’s help; students can’t choose a role without the help of a teacher, they choose a non-initiative line to start a conversation, or don’t understand what to say and refuse to perform a role.

Also in this series, we evaluated the ability of students to conduct the dialogue and maintain a conversation on a specific topic. In order to do this, we used the task “Methodology of incompletely dialogue”. This task allows you to identify how many students can understand the motive of communication, the unity of micromathematics, to orient their utterance into a single significant sphere of speech behavior, predict the next or previous line in the dialogue. To complete this task, a student was asked to talk to a teacher on the phone. Lines stimuli were uttered by an adult, lines reactions — by a child. After each line, a teacher gave a child the opportunity to continue the conversation by himself, and if this did not happen, moved on to the next line.

The criteria for performing this task were the ability to keep a conversation, correctness of speech, expediency of speech lines, accuracy of dictionary selection.

In the third series of the experiment, the ability to make up the dialogue, formulate question lines and answer lines was studied. In order to do this, children were offered the task “Making up the dialogue based on a picture”. The experimenter showed a picture of a girl and a boy, and asked students to come up with what they were talking about.

When developing an experimental program for evaluating the development of dialogical speech, the tasks were compiled in accordance with the age and individual characteristics of students with ID. There was also a need to put children in such conditions in which they could fully demonstrate the existing skills of the dialogue. To ensure the reliability of the research results, tasks were offered to each child individually. The answers were recorded in the special report.

Processing of the results and determining the levels of development of dialogical speech of primary schoolchildren with ID were carried out according to the following criteria and indicators:

- communicability of the child: desire to complete the task, active communication, ease of contact;
- initiative in communication: the ability to start the dialogue using the appropriate initiative line from a literary text (addressing the interlocutor, expressing requests, wishes, motives); the ability to enter into the dialogue, support and complete it;
- independence in the making up the dialogue: ability to express themselves; ability to use help when completing tasks;
- making up own statements: ability to answer questions in full sentences; making correct questions line and answers line, using familiar language material; ability to adhere to the topic of the dialogue; consistency in the sequence of lines; number of lines in the dialogue;
- emotional tone of the dialogue: use of appropriate intonation (surprise, joy, etc.) and non-verbal means of communication (facial expressions, gestures); correct intonation of simple sentences of any kind;
- lexical-semantic: the nature of speech construction (sentences, phrases, words); correct grammatical form; ability to select vocabulary that corresponds to the topic of the dialogue; correct usage of vocabulary; knowledge of speech etiquette, compliance with the rules of communication culture (use of correct forms of address, words expressing a request, wishes in the process of communication, attention to the interlocutor, the order of lines).

Those criteria and indicators are selected based on the analysis of scientific sources, the educational program of the Ukrainian language for students with ID of the 4th grade, state standards for academic achievements of students with ID of the 4th grade.

A general analysis of the results of three series of pedagogical experiments based on the above criteria and indicators gave reasons to distinguish 4 levels of development of dialogical speech of primary schoolchildren with ID, namely: high, sufficient, medium, and low.

Participants

The experimental base for the study were special general education schools of the I—II stages of the Transcarpathian Regional Council: Chaslivtsi, Chertezh, Perekhrestia; Turia Bystra general education schools of the I—III stages, Khust educational and rehabilitation center of Transcarpathian region. In the experiment, 44 students of the 4th grade with mild intellectual disabilities (F70) were involved. For the experiment, we have chosen the children of 4th grade because according to age characteristics, they should have skills of dialogical speech.

Results

According to the results of the first series of diagnostic tasks, one child (2 %) had a high level. The child quickly established contact with the experimenter, showed interest, activity and emotionality when doing the tasks. This child immediately understood the instructions and answered the questions correctly, used a full sentence. 16 % of children showed a sufficient level. Students of this group easily established contact, were quite active and emotional when performing tasks, showed selectively positive interest in the
task. All the questions were answered correctly, consciously, and in a single phrase. For example, when children were asked about their household chores, such answers were given: “to clean the room”, “to wash the dishes”, “to graze the cow”, “to water the flowers”, “to screw the bolts”. 50 % of students showed the average level. They made contact with the experimenter but had an unstable interest in the task. Children needed an encouragement and took part in communication only on the initiative of an adult. The answers to the questions were specific, but in one word. So, when children named who is depicted in the picture, they said: “A squirrel”, “A child”, “A bird”, “A sparrow”, “A girl”. The conversation went poorly, with many long pauses. The children were found to have inaccurate vocabulary, intonation slurring of speech. 32 % of students with a low-level had almost no contact with the experimenter and did not want to answer his questions. These children showed a lack of interest in tasks, they did not show activity and initiative in communication. Simple questions were answered in one word. To the question “What are you wearing today?” Anya M. replied: “A jacket”. Sometimes the responses do not correspond to the content. To the question “What children are doing near the feeder?” Oksana P. replied: “Play”. 13.6 % of children in this group often answered only “Yes” or “No”. 6.8 % of pupils silently nodded their head, pointing at the picture with their hand. There were a narrowness and poverty of vocabulary, morphological and syntactical mistakes in the responses. One of students refused to answer the questions and work at all.

Analysis of the results of the first series of tasks shows that most primary schoolchildren with ID have difficulties in conducting the dialogue. This is due to the inertia of the nervous processes, which makes it difficult to switch from listening to speaking. Children do not understand spoken language because their perception is fragmented and not purposeful. Due to the dominant passivity, students do not show speech activity.

Analysis of the results of the second series of tasks did not find students with a high level of the ability to start the dialogue using an initiative line. 13.6 % of children have this ability at a sufficient level. They found the required lines to start the dialogue, but sometimes they started describing the speech situation first, or they started the dialogue with a line that was not in the text, without deviating from the topic of the text. 34.1 % of students showed the average level. Children hesitated in choosing the role to play, and there were speech mistakes in their responses. It was difficult for children to start the dialogue without a teacher’s help. 52.3 % of students showed a low level of proficiency in the ability to start the dialogue. Children with this level could not choose a role without the help of a teacher. They started a conversation with a non-initiative line, or did not understand what to say at all, or did not know how to express themselves. Children said: “I do not know what to say”, “I do not want to”, “I do not like it” or did not say anything at all. Such results are caused, in particular, by the inability of students with ID to establish cause-and-effect relationships, and by the lack of development of imaginative thinking.

According to the results of the task “Incomplete dialogue”, children with a high level were not identified. 18.2 % of respondents had a sufficient level and were characterized by selective skills. After the explanation, children completed tasks without mistakes or with a small number of them. Students with ID did not deviate from the topic of the dialogue, tried to support and complete it in accordance with the situation of communication, and quickly picked up the right words. Sometimes children used non-verbal means of communication. 38.6 % of pupils with an average level showed such skills: they quickly responded to the teacher’s lines, however, could not maintain the dialogue, because they needed help with making questions and answers. The answers were quite short, for example, to the question “How do you feel?” the children answered: “Already well”, “A little bit ill”, “Could be better”. During the dialogue, students made long pauses, choosing the right words. Certain lines of a teacher were left unanswered. Students hesitated to answer some of the questions, and sometimes needed hints. Speech of children with ID was characterized by one-word lines, stereotypical statements, and formal participation in the dialogue. They did not always adhere to the rules of the dialogue, deviated from its topic. During the dialogue, children were busy with something else, and asked a teacher again. 43.2 % of pupils have a low level. They could maintain the dialogue only by answering questions in the affirmative or negative form, or their answer did not respond to the content of the dialogue. For example, to the question “Did you call a doctor?” children answered: “I don’t know”, “My mother gave me medicine”, “Nothing hurts”. They needed help to continue the dialogue. In their lines, we observed poverty and inaccuracy of language. It was difficult to find the right words to communicate. These children are marked by violations in the structuring of the dialogue, poverty, and inaccuracy of vocabulary. Their active vocabulary was dominated by nouns and verbs. Some students tried to make questions. Some children interrupted a teacher and classmates during the dialogue. Among these children, there were also those who waved their hands violently when talking and did not know how to control their emotions.

Analysis of the results of the second series of the experiment showed that in general all the respondents experienced difficulties in completing tasks. Children with ID were not always able to predict the next line. This was especially clear in the dialogue where a student was supposed to be the initiator. This means that it is difficult for children to predict the next line, even in conditions close to their acquired experience. It is very difficult to constantly move from the position of the speaker to the position of the listener during the dialogue. Children violated the prediction of the content part of the dialogue, especially in cases when the initiating line was absent. It is difficult for children with ID to maintain the dialogue due to insufficient formation of the motivational component of communication, low level of cognitive activity, underdevelopment of logical thinking, and poor speech resources.

In the third series of the experiment, we studied whether children use their skills (the ability to pose questions, formulate lines, compliance with the rules of etiquette) when independently composing dialogues on the situation depicted in the picture. Among the respondents, children with a high level were not identified. Only 11.4 % of students
showed sufficient level. They formulated questions grammatically and meaningfully correct, made meaningful lines, did not deviate from the topic of the dialogue, adhered to its rules and the culture of communication, used formulas of speech etiquette. Students’ phrases contained adjectives, verbs, nouns, and prepositions. The speech was emotional. At the same time, children made minor speech mistakes. Dialogues composed by them were short and contained 1–2 dialogical unities. Students started to compose the dialogue on their own, but they needed help to finish it. The topics of children’s dialogue reflected the content of the image. 31.8% of pupils showed an average level. Children with this level began to compose the dialogue with the help of teacher’s leading questions, they did not show own initiative and predominantly used simple, short sentences, replaced some of their lines with gestures. Students were not always able to formulate their questions correctly. Their lines had separate inaccuracies, isolated grammatism. Students did not always follow the rules of speech etiquette, rarely used words of politeness. 56.8% of primary schoolchildren with ID showed a low level of the ability to compose the dialogue independently. Pupils refused to make up the dialogue, arguing that they do not know what the children at the picture are talking about. They did not make suggestion lines for the story, but listed the objects depicted at the picture: “This is a girl”, “Here is a boy”, “Children”, “Balloons”, “A delicious cake”, and “I want to eat a cake”. Most of the children made unnecessarily long pauses, partially replaced the lines with gestures. They were passive in the dialogue.

Analysis of the task of the third series showed that only 11.4% of children with ID make the dialogues that correspond to the picture. Most respondents had the same problems with the dialogue as in the previous tasks (inability to formulate questions and listen to their interlocutor, monotony of the lines, poverty of speech, low speech activity, etc.). This state of dialogic skills is due to the underdevelopment of coherent speech and imaginative thinking, the inability to transfer the acquired skills to a conversation, insufficient need for communication.

Also, we analyzed the emotional tone of the dialogue. Note: there were no special tasks for training the emotionality in the dialogue. This criterion was analyzed based on the completion of tasks in all series. A high degree of emotionality of the dialogues was not found. 16% of fourth-graders with ID showed a sufficient degree. Dialogues in this group have an emotional tone, students use both verbal and non-verbal means of communication (facial expressions, gestures, eye contact). 41% of children showed an average level. Students adhered to the rules of speech etiquette, used non-verbal means of communication, although it was not always appropriate. Their dialogues were not very emotional, usually it were emotions of surprise or joy. 43% of children showed a low level. Their dialogues were not emotional, nor did they use expressions of surprise or joy.

General analysis of the results of task performance allowed us to determine the levels of dialogical speech development in primary schoolchildren with ID (Fig. 1).

As can be seen from Fig. 1, no child has reached a high level of dialogical speech development. 15.4% of students showed sufficient level, 39.1% — average level, 45.5% — low level. This indicates the need to develop a correction methodology for the development of coherent speech of primary schoolchildren with ID.

Discussion

The results of the study confirm the evidence of many scientists [7, 26–28] regarding certain difficulties in children with intellectual disabilities during dialogical speech [8, 20, 29]. Most of them have problems with automated switching from listening to speaking, understanding spoken speech; they are passive in communication. But we separately detected a violation of the structure of the dialogue, the inability to construct own statements, narrowness and inconsistency of the lexical level of speech, in particular, nouns and verbs prevail in the active dictionary. Children do not listen to the interlocutor, do not know how to formulate questions, use non-verbal means of communication during the conversation. Their speech is emotionally uncontrolled, intonationally impoverished, motivationally unsupported, which leads to a low level of communicative and cognitive activity.

According to the results of the study, the underdevelopment of the language-content component of dialogical speech in children with ID significantly reduces their sociability and, consequently, the mastery of vital social skills necessary for full-fledged education and integration into social relations. The obtained results correlate with the opinions of scientists [9, 21, 30] that the state of children’s speech, including dialogical one, significantly depends on the level of their intelligence and mental operations. It has been confirmed that the speech competence of students with intellectual disabilities needs corrective influence during training.

Conclusions

The results of the study show that primary schoolchildren with ID did not master the dialogical form of communication sufficiently. They have difficulty with dialogical speech, which is due to the inertia of nervous processes. Pupils do not know how to maintain the dialogue, because
it is difficult for them simultaneously to direct cognitive activity to the perception and understanding of the interlocutor’s speech, on the one hand, and to programming and implementing their own utterance, on the other. Children with ID do not understand the addressed speech, because their perception especially in the dialogue is fragmented and impractical. Students do not show speech activity due to the dominant passivity and low motivational component of communication.

Children with ID have difficulties when they have to make their own questions and choose the right words for the answers. They mostly use short repetitive lines in the dialogue. Their responses are characterized by the poverty of vocabulary, incorrect usage of words, morphological and syntactic agrammatism. This state of dialogic skills is due to the underdevelopment of coherent speech and the main mental operations: analysis, synthesis, abstraction, generalization, comparison, systematization; inability to transfer the acquired skills to the conversation situation, the lack of verbal contacts, cognitive passivity. Speech of children with ID is devoid of emotion due to their inability of to use intonation.

The analysis proves that intellectual disabilities affect the quality of dialogical speech. Thus, the peculiarity of speech communication inherent to pupils with ID puts teachers before the need to look for ways to activate dialogical speech of children. Developing the ability and capacity for dialogical communication is one of the educational tasks for this category of children, since it is a social skill that allows to interact with peers and adults, meet intellectual and emotional needs. We see the prospect for further work in the formulation of a correction methodology for the development of dialogical speech of primary schoolchildren with ID.

References


