Improvement of Visually Impaired Children’s Interest in the Development of Oral Speech

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Abstract: The article reveals the experimental aspects of the study and development of coherent speech in visually impaired primary school children. In the article, coherent speech is understood as a form of consecutive, logically-stated, compositionally-interconnected segments of speech production, with a well-thought-out plan and meaningful content. The article shows the possibilities of visually impaired children to reflect in coherent speech information that is perceived through impaired vision, processed and analyzed. The role and importance of preparatory work on the development of visual perception and visual representation for the purpose of development of the coherent speech of visually impaired schoolchildren are described. The conditions for improving the interest of visually impaired schoolchildren in participating in remedial games and exercises for the development of ideas about the world and, thus, the development of coherent speech in the form of retelling or compiling different stories are described. The types and forms of remedial classes for the development of coherent speech of visually impaired schoolchildren are substantiated. The role and significance of the “fairy tale model” or the process of modeling a sequence of related fairy tales or stories are described.

Index Terms: coherent speech, descriptive stories, remedial educational process, visually impaired schoolchildren.

I. INTRODUCTION

Coherent oral speech is considered here as a complex of interconnected, consecutive, logically and meaningfully complete speech rows articulated randomly or at the direction of a teacher on a pre-defined topic or a topic suggested by a schoolchild [1].

Visually impaired children are children with reduced visual acuity ranging from 0.2 to 0.04 for a better seeing eye with glasses correction. Reduced visual acuity occurs as a result of various eye diseases that lead to disorders of the refraction of the optical media of the eye.

Visually impaired schoolchildren can be taught under the conditions of inclusive education or in specialized boarding schools. In our case, children are instructed in boarding schools and receive special-needs education over a prolonged time period. Therefore, in primary school, intensive remedial work with visually impaired children is carried out, both in speech development and in the formation of clear visual ideas about the outside world. The remedial pedagogical process is organized by visual impairment teachers, defectologists and speech therapists. In addition, the development of individual abilities and implementation of personal potential is the most important task of the implementation of social justice [2, p. 41].

One of the important conditions for optimizing the interest of visually impaired children in studying includes the formation of their concrete-figurative base in the process of special organization of work on enrichment, systematization, correction of sensory experience. The formation of the sensory experience of visually impaired children takes place through ways and techniques of perceptual activity. At the same time, clear and constant requirements of a psychologist and defectologist regarding the order in which subjects are examined, the choice of an appropriate cognitive position by schoolchildren, a preliminary discussion of forthcoming actions, assessment by a teacher and children's self-assessment of their results are of great importance [3].

Good conditions for the development of perception and ideas about the surrounding reality are created in the process of joint activity in the form of game activities. It is necessary for test subjects to act according to plan, explain their actions, analyze the results achieved by them and make conclusions, i.e. game and practice activities should be filled with intellectual content. Subject-practical activity, as well as game activity, is a necessary means and condition for the remedial-educational process, as it allows schoolchildren to be aware of the necessity and interconnection of practical, intellectual and sensory actions [4].

The formation of full-fledged ideas of children with visual impairment about the surrounding reality is most fully implemented in the process of purposeful excursions, where children learn to see and interpret the perceived. The activation of cognitive activity is contributed by a guideline, which involves the use of past experience and establishment of cause-effect and other relationships between observed objects at the given moment or at another time, as well as the use of literary texts [1].

II. METHODS

A. General Description

In the process of studying and developing coherent oral speech of visually impaired schoolchildren, a complex of different research methods was implemented. In particular, the article reveals only a small aspect of the study. Therefore,
we consider only some methods. The didactic method of visualization and the practical method for the consistent formation of representations, the texts modeling method for optimizing verbal memory are of particular notice.

The special organization of the sensory experience of visually impaired children is considered as a necessary stage in their preparation for the full assimilation of verbal material [4]. Phased work involves a certain sequence of introducing schoolchildren to interaction with academic material and it is necessary to reflect the logic of the latter, as well as to take into account the peculiarities of educational and cognitive activity of younger schoolchildren and the need for pedagogical regulation of their educational activities.

B. Algorithm
There are the following steps:
- forming an active cognitive attitude;
- actualizing sensory experience and knowledge;
- determining the goals and objectives of upcoming activities;
- forming ideas about the objects of activity on the basis of teaching children methods, techniques and order of perceptual actions;
- obtaining data about the quality of knowledge acquired by children and about learning cognitive actions by enhancing their reproductive activities [3].

Many studies emphasize the significance and didactic feasibility of using algorithmization, special prescriptions that regulate the order in which schoolchildren assimilate academic material. Thus, T.I. Golovina considered the use of algorithmic prescriptions in teaching the compilation of coherent oral stories and their analysis. In addition, T.P. Sviridyuk offered to use planning in teaching visually impaired children to use hint objects [3].

Based on the data of the psychological and psycholinguistic study of the process of assimilating coherent monologic speech, we have presumed that the optimal effect in speech development of children with visual and intellectual impairment can be achieved under the following conditions:
- elimination of coherent speech disorders is based on the maximum possible simultaneous activation of cognitive and speech activity;
- independent speech activities are combined with the purposeful psychological-pedagogical impact on correction of the content and the process of coherent speech building.

The material that does not affect children’s feelings will not be well received and assimilated; only emerging interest will cause a child to penetrate into the meaning of a text and draw attention to expressive means of a language. Therefore, in the course of the experiment, we have suggested recommendations for the development of coherent oral speech, taking into account all the listed conditions for obtaining the optimal remedial and improvement effect in speech development of children with visual and intellectual impairment.

The development of schoolchildren’s coherent speech included a certain work sequence in terms of observations and subject-practical activities. This sequence was determined by the state of intelligence of children with complex developmental disorders.

III. RESULTS
The direction of remedial work were defined including the development of mental functions (perception, ideas, logical thinking, etc.), the development of coherent speech (dialogues, verbal presentations of a series of pictures or a single-plot picture or a topic, writing stories on read tales, topics, writing descriptive stories, etc.) [1]. The preparatory stage, which included the development of the cognitive activity, was carried out at the beginning of the work. The development of cognitive activity was conducted in a comprehensive manner. A special educational psychologist, a defectologist and a teacher working in this class were involved. Each of them worked and prepared the schoolchildren to produce connected stories. The speech therapist, teacher-defectologist and class teacher took part in the development of speech also aimed at preparing for the production of coherent utterances. During remedial classes, the teacher developed an interest in retelling and compiling coherent texts.

The children learned to identify objects using didactic aids, correctly name their colors by means of comparison with a sample. With severe visual impairment, didactic aids were made by hand, by sticking relief images onto thick paper, by selecting a contour for tactile perception. With residual vision, skills to distinguish clear color contrasts were used. The developed knowledge, as well as relevant mental and practical skills, served as the basis for the formation of versatile concrete ideas about objects and phenomena of the surrounding reality.

Organized schoolchildren’s activities aimed to examine and familiarize themselves with variants of colors, shapes, sizes of objects and their location in space were the main form of training.

The work on the development of ideas about color began with a special presentation of color samples and their names to a child. Initially, ideas about basic colors were consolidated. After that, a comparison of colors that the children most often confused because of visual impairment was made.

The work on the development of sensory standards implied the organization of practical activities of the schoolchildren to distinguish between the studied colors and shades: selection by sample, selection to the background, grouping by color, design and application based on color, laying out patterns, drawing up an ornament from a mosaic, etc.

In studying sizes and shapes of objects, the ability to see both in real situations was developed. In the process of specially organized practical activity, the schoolchildren acquired a diverse experience of differentiating spatial signs and positions of objects and their parts relative to each other. At first, ideas about the overall sizes of objects defined by the words “large” and “small” were specified.

Ideas about the height, length and width of objects were given. Knowledge and ideas of the children about the size of objects were specified, expanded and deepened during subsequent classes.
In teaching, various types of productive activities were widely used, including applications. Learning about shape was carried out in the process of cutting out thick colored paper along the selected contour of the parts for applications. During the implementation of practical actions with various forms children accumulated such spatial representations as "top" and "bottom", "middle", "right" and "left", "front" and "back", etc.

Much attention was paid to proper differentiation of the right and left hands, directions of movement from left to right and vice versa, from the top downwards, etc. Verbal designation of spatial relationships was assimilated through practical activities performed by the children.

The ability to observe the phenomena of the surrounding world and describe them was developed in the children with visual and intellectual impairment initially in the process of analyzing and comparing objects during excursions, educational walks and demonstration of subjects studied in class. With the help of questions and instructions, the experimenter directed observation and examination within a certain sequence of perceived objects.

The combination of direct observations with practical work developed cognitive interest among the schoolchildren with visual impairment, which was the basis for the development of their curiosity. Knowledge gained by the students during observations, excursions and purposeful walks was deepened and summarized in subsequent classes in the development of speech and acquaintance with the outside world.

Excursions and educational walks in the countryside were of great importance in the development of cognitive activity and speech. They allowed the schoolchildren to create a concrete-sensual basis for forming ideas about the world around them.

IV. DISCUSSION

In order to specify ideas about particular objects of the surrounding world, the defectologists arranged remedial classes. In these classes, the visually impaired children learned to single out essential features of objects, to separate them from minor features and to carry out a thorough analysis of objects studied. Objects were examined in a specific sequence: clarifying questions were asked to characterize objects as a whole, then the main parts of objects were distinguished (for example, a trunk or crown of a tree) and it was suggested to talk about their properties. Further, smaller parts of objects were singled out (for example, leaves, petals, seeds), their characteristics were given. Finally, the schoolchildren spoke about an object as a whole once again.

The suggested types of work helped to carry out a comparative analysis of objects based on visual materials.

Teaching a purposeful, consecutive analysis of objects and phenomena of the surrounding reality contributed to accumulating a set of specific ideas and enriched vocabulary of the visually impaired schoolchildren. Alongside the task to form ideas about particular objects, the task of teaching the children a verbal generalization of these categories was solved, that is, the ability to classify objects into separate categories on the basis of a highlighted essential feature.

Taking into account the obtained experimental data about individual typological features of the development of coherent oral speech, remedial work that was conducted during the academic year dealt with various speech aspects.

The game, which was based on the verbalization of pantomime, was used. Such a game was fruitful and useful for the visually impaired schoolchildren because it required correlating visual image with paralinguistic (gesture, posture, facial expressions) and language means. It developed a natural transition from the object-image code of internal speech to the verbal code.

The schoolchildren were offered to find mismatches between a text and its illustration, as well as words and phrases that were not suitable in meaning, and to replace them with the most appropriate ones.

Illustrations were selected taking into account visual impairments: for low visual acuity - enlarged images and for children with visual field disorders - smaller images.

These games allowed the children to be prepared for the development of search activities by focusing on the choice of linguistic means appropriate both semantically and syntactically.

Making models for convenient retelling was the next stage of the work.

At the beginning of work with a completed model, it was clarified which icon on a model indicated a character, what an item of a model meant. The children told an entire tale using a model that contributed to a better understanding of events, helped to trace and build the logic of the plot.

The children told tales following prepared models. In this task, a model was a clear schematic plan, which could be filled with any content, original plot. The final stage of the fairy tale modeling work involved contests and quizzes, which suggested the following tasks:

- give a title to the fairy tale according to the model;
- make up a fairy tale based on the suggested model;
- choose from all figurines-replacements the ones that are necessary for the fairy tale;
- make a model of the suggested fairy tale.

The children were taught to solve fairy-tale tasks, which enabled them to invent their own fairy tales in an appropriate manner.

The children learned to retell based on plot pictures, prepared models and three-dimensional images of characters.

For example, the following tasks were suggested: continue the story started by a teacher, that is, it was necessary to think over the composition (main event and completion) of a story, then, the same task was given under other conditions. For example, a schoolchild acted as a television announcer, while other children listened to his/her writing. A child also independently constructed the composition and thought through the verbal form to invent a story or a fairy tale on a given topic.

During the experimental learning, as the speech abilities of the children improved, the system of forming coherent speech began to include tasks for compiling small stories on a topic from personal and collective experience. Such tasks were introduced in the classes on the basis of school activities, matinees, excursions, leisure
activities, as well as observations during walks, community service, etc. These activities were organized by the educators under the guidance and control of a defectologist using the techniques of playing up situations in roles.

Further, skills of independent description in such games as “Shop” and “Riddles” were formed.

The next stage included independent story-making on any topic. A certain scheme or sequence of description or narration, necessary means of communication and connection between phrases were suggested. Classes were held in a game form. Games involved dramatization of familiar fairy tales. In this case, we didn’t deal with prepared performances with roles learned in advance, but with games that implied improvised dialogues and monologues of actors.

To develop abilities to produce coherent oral utterances, the children learned to create collective oral stories on any topic. Often this type of work is used by a class teacher in the synthesis of observations for a certain period of time of the year. For example, stories are compiled on the themes “Spring”, “It is time for leaf fall”, “Golden Autumn”, “New Year”, “Vacations”, etc.

In the course of making collective stories, each schoolchild was given a task to suggest his/her own answer that was different from others. They were offered to clarify and supplement the previous answer, to say the same more expressively, more beautifully, more fully, build his/her own answer more correctly, in a different way. The children began to consciously approach the production of their own utterances; they understood that the same thought can be expressed in different words.

During the work on a story about conducted observations, in practical activities or by a picture, the schoolchildren with visual impairments developed the ability to evaluate their own utterances and classmates’ responses, which contributed to the development of their conscious desire to talk about what they saw as accurately, fully and logically as possible.

Further, the children were taught to make descriptive stories. The aim of such classes was to develop skills to make descriptive stories of single objects, objects by a picture and natural phenomena. For instance, they described cucumbers, tomatoes, carrots, potatoes, sugar beets within the topic “Vegetables”. Moreover, the children learned to compare vegetables in color, size, taste and tactile sensations; they made descriptive stories based on questions, plans and schemes.

During the work, algorithms in the form of a guideline-plan were used to examine objects.

To make descriptive stories the following topics were offered: pets, wild animals, houseplants, flowers, transport and footwear.

The methods of examining objects were the same as with examining objects of the plant world. Using the principles of a complex impact in the model of remedial work, participation of various specialists (special educational psychologist, defectologist and teacher) and the development of coherent speech in different types of stories, as well as consideration of the structure of the disorder, individual and differentiated approaches and the principle of visual demonstrations allow optimizing the process of the development of coherent speech in visually impaired schoolchildren.

V. CONCLUSION

According to the results of the experiment, there has been a significant increase in indicators in terms of the development of the main structural components of coherent speech in visually impaired schoolchildren. This implies better speech consistency, logic, content and accuracy in using words. All methods demonstrated positive changes. Thus, the number of stories corresponding to the average level was observed in 10% of cases, whereas in the ascertaining experiment, there were no such stories at all. The number of low-level stories after the formative experiment increased significantly from 20% to 50%. Differences are significant at p-value ≤ 0.05. The analysis of the stories based on interesting events from one’s own life also showed the redistribution of coherent speech levels of test subjects towards improving the quality of the stories, their consistency and logic. The number of low-level stories was halved.

The results of the conducted research prove the fact that younger schoolchildren with visual impairments have the potential opportunities to improve the cognitive sphere and coherent speech, which requires particular means, methods, principles, conditions, time and a specific model of the development of coherent speech taking into account the peculiarities of visual perception and oral speech specifics.

The implementation of the model of remedial work contributed to the purposeful training of schoolchildren with visual impairment allowing them to properly relate their thoughts.

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REFERENCES