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FEATURES OF TEACHING STUDENTS WITH SEVERE SPEECH DISORDERS AT THE SECOND STAGE OF GENERAL SECONDARY EDUCATION

Відомості про автора: Свиридович Ірина, кандидат педагогічних наук, доцент кафедри спеціальної педагогіки Закладу освіти “Білоруський державний педагогічний університет імені Максима Танка”; Яковенко Сергій, кандидат педагогічних наук, доцент, декан факультету доуніверситетської підготовки Закладу освіти “Білоруський державний педагогічний університет імені Максима Танка”; Летецька Наталія, магістр, викладач кафедри методики викладання інтегрованих шкільних курсів Закладу освіти “Білоруський державний педагогічний університет імені Максима Танка”.

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.Свиридович І., Яковенко С., Летецька Н. Особенности навчання учнів з тяжкими порушеннями мовлення на другому

етапі загальної середньої освіти. На сучасному етапі становлення освітньої парадигми в Республіці Білорусь ідеї інтегрованого навчання дітей з тяжкими порушеннями мовлення є найбільш актуальними. Учні цієї групи досить різноманітні за своїми пізнавальними можливостями і мовленнєвими відхиленнями. Загальний недорозвиток мовлення, який спостерігається у дітей з тяжкими мовленнєвими порушеннями, накладає свій відбиток на всю їхню психічну структуру і призводить до відставання в пізнавальній сфері, становленні особистісних якостей, обмеженні інтелектуальної активності і самостійності. Розширення практики інтегрованого навчання, а в подальшому – інклюзивної освіти, актуалізує завдання підготовки майбутніх педагогів до роботи в нових професійних умовах.

Стаття присвячена пошуку шляхів вирішення проблеми активізації навчально-пізнавальної діяльності учнів з тяжкими порушеннями мовлення на другому ступені загальної середньої освіти. Розвиток особистості цієї групи учнів розглядається як основний критерій ефективного навчального процесу. Ставиться акцент, що навчальна діяльність є провідним фактором розвитку і виховання учнів у випадку, якщо вона є цілісною визначеною системою. Відмічається, що на сьогодні в рамках компетентісного підходу до навчання фізики, як і інших предметів, вже недостатньо включення в зміст уроків запитань академічного, наукового спрямування. Необхідно, щоб педагог ставив перед дітьми реальні проблеми, які відповідають безпосередньо їхнім інтересам і оточуючій дійсності. А головне – щоб ці проблеми були для них особистісно значущими. Результати оволодіння учнями з тяжкими порушеннями мовлення доступними і життєво важливими компетенціями повинні оцінюватись і контролюватись як не менш важливі, а ніж академічні досягнення.

Розглядаються методичні умови (адаптація навчального матеріалу з урахуванням особливостей розвитку учнів, організація індивідуального і диференційованого підходу, алгоритмізація діяльності під час роботи над тією чи іншою темою, зв'язок теми, яка вивчається, з реальними життєвими ситуація тощо) і особливості корекційно-розвивальної роботи педагогів у процесі засвоєння понять при вивченні предметів фізико-математичного циклу. При цьому учні виступають одночасно як об'єкти і суб'єкти навчальної діяльності, від яких залежить кінцевий результат навчання – якість знань і рівень розвитку особистісних якостей.

Ключові слова: учні, тяжкі порушення мовлення, навчальна і пізнавальна діяльність, мотивація, поняття.

Sviridovich I., Yakovenko S., Letetskaya N. Features of teaching students with severe speech disorders at the second stage of general secondary education. At present, the ideas of integrated education and upbringing of children with severe speech disorders (hereinafter referred to as SSD) are in great demand in the Republic of Belarus. The students of this category are very diverse in their speech and cognitive abilities. The primary general underdevelopment of speech observed by SSD is reflected in the child's psyche which is manifested in the lag in the development of cognitive activity, slow formation of the main structural components of personality, restriction of cognitive activity and independence. The expansion of practice of integrated training and education, and in the future – inclusive education, actualizes the task of preparing teachers to work in new professional conditions.

The article is devoted to the search for ways to solve the problem of enhancing the educational and cognitive activity of students with severe speech disorders at the second stage of general secondary education.

The development of students personality is considered as the main criterion of the educational process effectiveness. The emphasis is put on that educational activity is a leading factor in the development and education of students, if it acts as an integrity, as a certain system.

It is noted that today, within the framework of the competence-based approach to teaching physics, like other subjects, it is no longer enough to include academic, scientific issues in the content of lessons. It is necessary that the teacher also poses real problems to the students that correspond directly to their interests and the reality surrounding them. And the main thing is that these problems are personally significant for them. The results of assimilation of accessible and useful life competencies by students with SSD should be monitored and evaluated as no less important than academic achievements.

Methodological conditions are considered (adaptation of educational material, taking into account the peculiarities of students' development, implementation of an individual and differentiated approach, algorithmization of activities when working on a particular topic; the connection of the topic under study with real life situations, etc.) and the peculiarities of the teachers correctional and developmental work in the process of mastering subjects concepts of the physical and mathematical cycle.

At the same time, students act simultaneously as objects and subjects of educational activity on which the final result of learning depends - the quality of knowledge and the level of personal qualities development.

Key words: students, severe speech disorders, educational and cognitive activity, motivation, concepts.

Relevance. Modern textbooks and workbooks for the students of general secondary education institutions are characterized by a large amount of information, its scientific nature, complexity of grammatical structures in the sentences. They contain a significant number of facts, concepts, laws and theories, formulas and graphs. All this makes it more difficult for the students with SSD to master program material in academic subjects. In this regard, the problem of enhancing the educational and cognitive activity of students considered category becomes urgent.

Main material. The difficulties faced by students with SSD in mastering physical concepts are of different nature. Some of them are caused by peculiarities of their speech development, others - by dialectical nature of the concept as a form of thinking and didactic inconsistency of its content, third – by discrepancy between everyday ideas of students and the content of corresponding scientific concepts, and fourth – by shortcomings of existing programs and textbooks. At the same time, students with SSD have the following specific features of mastering concepts: mechanical memorization of physical definitions; fragmentary assimilation of the material when the student cannot separate essential features from non-essential ones; confusion of physical concepts, their assimilation; inability to apply acquired knowledge in the process of solving problems (or in practice), etc.

The peculiarity of speech and cognitive development of students with SSD determines specifics of their training in physics. In this regard, the problem of activating educational and cognitive activity of the considered category of students is brought to the fore.

One of the conditions for activation of educational and cognitive activity of students with SSD is adaptation and modification of educational material taking into account needs and characteristics of their development, as well as development of necessary educational and didactic materials. At the same time, the process of adapting the content of education should include the following areas of activity of the teacher: analysis and selection of content, structuring and redistribution of educational material, selection of methodological techniques and teaching tools [3; 4].

Adaptation and modification of teaching material in physics for students with SSD involves the use of techniques taking into account the

features that prevent them from fully mastering their knowledge and skills. These techniques include:

- paraphrasing, simplifying some sections of the text; highlighting (underlining) semantic reference points of educational material;
- differentiated study of the material depending on the nature of speech disorder;
- presentation of physical formulations in simple language or simplification of grammatical constructions, definitions and terms;
- replacing tasks with similar ones, but with simpler content, when it becomes clear to the students;
- preparation of reference notes, translation of the text into graphic (schematic) language - is carried out at the initial stages by the teacher, then by students themselves under supervision of the teacher;
- reducing the amount of educational material at the expense of secondary theoretical information while maintaining the leading concepts and the algorithm of actions;
- reducing the requirements for participation in the work (complete only some parts of the tasks);
- providing the opportunities for practical application of the knowledge and skills formed by studying the topic, etc.

Selecting the content of educational material for students with SSD, special attention should be paid to the development of their life skills which implies: activation of cognitive interest in the surrounding world; assistance to the child in understanding what is happening around him, in working out life experience; formation of the ability to apply the acquired knowledge in everyday life [2].

When teaching students with SSD, the teacher should take into account their characteristic low educational motivation and cognitive activity. In this regard, the importance of special methods of stimulating educational and cognitive activity of such students and their motivation increases. The solution of these problems in physics lessons will be facilitated by: the use of different entertaining teaching techniques, clarity, situations of surprise, conducting experiments; recognition of the child's achievements by the teacher; reliance on personal experience of students, on familiar life situations; creating contradictions between the known and the unknown, actively using a partially searchable or (heuristic) method of teaching; providing students with the opportunity to personally choose the task (in terms of content, quantity, complexity); showing the significance of teaching material and introducing the "comic effect" of ignorance of the subject in the situations where this knowledge is needed, etc.

In educational activity process students with SSD experience difficulties not only in acquisition of knowledge, skills and abilities, but also in mastering methods of educational actions. They have underdevelopment of the ability to navigate the task, plan and control its implementation, they show low activity and independence. Therefore, it is necessary to specifically and purposefully form students' educational activity skills of working together on the task. The teacher should conduct special work on the formation of students' ability to organize activities independently, the ability to identify the incomprehensible and request the teacher's help as well as to assist students in understanding the difficulties that arise. At the same time, it is necessary to use the techniques that allow students with SSD to master the methods of educational actions and corresponding skills. The teacher's work in this direction includes:

- splitting the material, highlighting the stages of the task for students (the teacher's help is required when moving from one part to another);
- selection of the tasks that are adequate to the capabilities of students, which allows them to ensure independence of educational activities;
- providing differentiated assistance to students when performing the tasks of the same complexity, without focusing on participation of the teacher;
- selection of a number of the tasks that are similar in content which makes it possible to reduce the teacher's assistance in the process of orienting students in the task gradually, planning and implementing self-control by acquiring necessary experience;
- selection of a group of the tasks with gradually increasing complexity (the first task should be simple so that students can complete it, followed by more complex exercises; you can use special dual tasks: the first is available to the student and prepares the basis for solving the next, more complex task;
- preparing a ready-made plan or reference table for the student to use when answering questions;
- help in drawing up a reference plan for the main question or the topic of the lesson (first, the student prepares a plan with the help of the teacher, and then-independently);
- construction of structural and logical schemes of studied material;
- formation of students' skills to choose an answer from several options, to prove and argue their choice.

The use of various types of supports, algorithms for completing the task allows student with SSD to organize their own activities, not to lose the essence of the task, to bring it to the end, to give a verbal report on the work done. At the same time, an important place in learning process is given to metered pedagogical assistance of various types: stimulating, guiding,

teaching. Gradual reduction of its volume, variability of repetition and consolidation of the material contribute to the development of independent learning activities in children with SSD, the formation of their ability to apply the acquired experience in new conditions.

It should be noted that in the process of teaching students with SSD special attention is paid to the formation of their ability to work with educational text. The difficulties that these students experience in mastering the curriculum are due to the peculiarities of their textual activity. Researchers note an insufficient level of their independence, weak speech regulation, a decrease in the rate of receiving and processing information, and a limited vocabulary [1; 3]. A violation of perception of complex grammatical and syntactic constructions by students with SSD makes it difficult for them to assimilate educational material — they can hardly understand cumbersome hierarchy of structural and logical connections of a scientific text (especially in physics). In the process of reading students make a large number of mistakes, because of the lack of the development of reading techniques they do not catch the meaning of the text. A low level of textual competence leads to formal assimilation of educational material by students with SSD [1]. Therefore, the need for purposeful formation of their skills in processing and producing textual information is actualized.

When explaining educational material to the students with typical development who can work with educational text independently the teacher only needs to use an oral story. For students with SSD this approach is unacceptable, purposeful work with the text should be organized for them constantly, at each lesson. First of all, this applies to the study of physics course which is characterized by a large volume of material. Simply reading one paragraph of the textbook by students with SSD can take up the entire lesson, and there is no time left for other types of educational work. The way out of this situation is the use of selective reading techniques, text modeling, when the teacher focuses the students' attention on significant provisions of educational material. As a result, children gradually begin to divide the text into parts choosing the main thing, to formulate conclusions. All this creates the basis for further independent activity of students with SSD in the classroom, as well as in the preparation of homework.

For successful assimilation of educational material, the constant monitoring by the teacher is necessary. He should establish the level of perception and understanding of the text read by students (the ability to highlight obvious and hidden signs of the phenomena described in the text, compare facts, make assumptions, draw conclusions). If the student can not reproduce the meaning of what he read in his own words, tell about his

activities, then you need to continue working on the development of his speech skills and verbal and logical thinking.

An important part of physics lesson is completing the tasks in the workbooks. In them, students briefly write down the plans for future answers, draw reference tables, graphic models and diagrams. For students with SSD the workbook becomes a kind of reference summary, allowing them to perceive and apply knowledge in a concentrated and accessible form. Simultaneous work with the textbook and the workbook helps to systematize and structure knowledge on the topic, to identify necessary and sufficient conditions for the use of a particular material, contributes to activation of educational activity, speech and thinking of students.

Students with SSD are often unable to comprehend the terms and definitions that the authors of physics textbooks offer them. One of disadvantages of mastering physical concepts is that students often use them in their educational practice, in the process of solving problems, but they cannot distinguish the content of the concept in speech. Actually coping with the task, children can not tell about how they acted and why they did so, and not otherwise. Retelling the material in own words and using it in solving practical problems, building arguments, generalizations and conclusions occur with considerable difficulties. This disadvantage is very significant since reality of each concept is manifested in speech, arises on the basis of words and language terms. Words and terms act as "carriers" of concepts, and their essential features are defined in speech [5].

If the student cannot correctly pronounce or write the name of the concept, give it a definition and thereby indicate its essential features, then he has not learned it. Therefore, special attention should be paid to activating speech activity of students with SSD through appropriate techniques: answering questions; building a linear story (based on plans of various degrees of expansion, syntactic models, graphic schemes, etc.); reproducing the content in the wake of analysis; drawing up a plan and preparing materials for statements on the teacher's assignment; motivation to report on the work done; analysis of the problem and ways to solve it; selection of the correct answer from the proposed ones and its justification; mutual verification, search and correction of errors, etc. The use of various visual supports helps to organize coherent speech of students, leads them away from primitive utterances, makes them turn to the vocabulary and syntax characteristic of scientific style.

Sufficient time should also be devoted to understanding the definitions of concepts and the wording of laws. So that the memorization of the wording of a particular concept is not mechanical, the teacher can offer students to correlate the incomprehensible with the understandable -

personal experience (new material is compared with the known); images (this purpose is served by visual means of presenting the material); context (the material is presented in a certain system); lexical variants (the same subject-conceptual content can be conveyed in different words). Paraphrasing, simplifying, changing verbal form of presentation of the material and reinforcing it with the appropriate images are the most important techniques aimed at achieving an understanding of the content of educational subject by students with SSD.

Visual support in the form of tables with a "duty" dictionary is posted on the board and makes it easier to memorize terms. At the same time, it is especially important that the same terms are included in different educational situations: they are pronounced by the teacher and students, written in notebooks, used in solving problems, performing laboratory work. Visual supports allow to activate memory of students, prevent confusion of scientific terms with everyday words, assimilate their spelling, help in case of difficulties in pronouncing. Such methods of working on the terms as filling in simple tables, establishing the correspondence, correct the sequence, eliminating unnecessary concepts, drawing simple schemes, mnemonic techniques, etc. are also effective. It is also advisable to activate the studied terms in the speech of students with SSD.

In order to stimulate educational and cognitive activity of students with SSD, both general pedagogical methods and teaching techniques, as well as specific ones that provide correctional and developmental orientation of pedagogical process (they help to more fully perceive, retain and process educational material in a form accessible to students), are used in the lesson. For example, the techniques that ensure the accessibility of perception of educational information: preliminary activation and refinement of images-representations; reliance on everyday experience of the student; maximum concretization of speech; reformulation of the tasks; clarifying the questions; splitting the material into parts and studying them in small portions with subsequent generalization; including the studied objects in a variety of situations and connections; activating attention, etc. [6].

When selecting the tasks for students with SSD, the teacher should be guided by the principles of personality-oriented approach. There are often situations in the classroom when the students of the same class work on the material of varying complexity. Therefore, the teacher should select the material taking into account level differentiation, determine an individual program of studying the material for each student, especially for those who are not available to the full scope of requirements. In addition, the formation of certain knowledge and skills of students with SSD should be carried out on a diagnostic basis.

Based on the analysis of psychological and pedagogical literature and the results of our own research, we highlight the following methodological conditions (recommendations) for activation of educational and cognitive activity of students with SSD in the process of assimilation of concepts in the study of subjects of physical and mathematical cycle.

1. Preliminary preparation, creation of the necessary base for upcoming activities of students with SSD. As such, the basis is life experience of children, their daily observations and previously learned concepts. So, for example, the basis for the formation of the concept of "moment of force" is the students' observations of the work of various machines and mechanisms, as well as the concepts of "mechanical movement", "path", "force", "work of force" that they have previously learned. At the same time, the attention of students with SSD should be focused on the key features that will form the basis for perception of new material.

2. Special organization of orientation in the task (activities for the analysis and synthesis of the task, the selection of adequate experience of students with SSD). The difficulties of students in educational process may be due to the lack of the knowledge necessary for assimilation of educational material. Therefore, it is important for the teacher to establish the level of initial knowledge (ideas) of the students about a particular concept. If this knowledge is infallible, it should be based on it; if there are errors in the assimilation of the concept, they should be eliminated. Only after that, it is possible to continue working on this concept or rely on it when forming a new concept.

3. Taking into account the specifics of the content of educational material, the level of development of thinking, basic ideas and knowledge of students with SSD when choosing the method of forming concepts. The organization of students' mental activity can take place in an inductive or deductive way [5]. The inductive method allows students to make generalizations based on the analysis of the facts and phenomena known to them from their own observations (from the concrete to the abstract). This is done, for example, when forming the concepts of "friction", "melting", "flat mirror", when analyzing the concepts that have no analogues in life experience of students, for example, when studying physical concepts of "diffusion", "chaotic motion", "thermal expansion".

Forming a number of concepts, it is impossible to rely on sensory-concrete perception (for example, "electromotive force", "magnetic flux", "electron", "photon", "mass defect"). In such cases, the deductive method is used (from the abstract to the concrete). It is based on the fact that students have a certain amount of knowledge and are prepared to assimilate the

concepts through verbal generalized instructions without first analyzing specific facts. In the minds of students, the data of sensory-concrete perception have already been processed and generalized by the time of the formation of generalizing concepts.

The peculiarities of verbal and logical thinking of students with SSD limit the possibility of using the deductive method of forming a concept, it should be implemented at a later stage of training, initially giving preference to the inductive method.

4. Activation of cognitive activity of students with SSD at all the stages of the formation of new knowledge. An important role is played by the creation of problematic situations, contradictions between the known and the unknown. The teacher puts the problem before the students, helps them to divide it into auxiliary links that are available for understanding, and outline the steps to find a solution. As a result of a joint analysis of situations, students come to the conclusion that their existing knowledge is not enough to explain new facts (phenomena, properties of bodies, laws, etc.) or to solve a practical problem.

5. Careful planning and regulation of the activities of students with SSD. It is important that the teacher's speech is accessible to perception: he should dissect detailed instructions, if possible, "show" the educational material to the students, and not explain it in words. It is necessary to organize step-by-step planning of lessons using visual supports (algorithms of actions, various plans, reference notes, etc.), as well as monitoring the correctness of the actions performed by the students.

6. Organization of a system of the tasks of different levels of complexity for application of acquired knowledge and skills at all the stages of mastering educational material [5]. This can be done only with the help of a specially designed system of exercises performed under the teacher's guidance and independently. This system includes: initial acquaintance with the concept, identification of its essential features (working with the textbook, a reference summary, observation, experiment, construction and analysis of graphs); clarification of the features of the concept (working with the textbook on explaining the material by the teacher and demonstrating experiments, exercises on varying non-essential features of the concept); differentiation of the concept (comparing the features of the formed concept with the features of the previously learned concepts); establishing the links and relationships of this concept with other concepts (experiment, construction and analysis of graphs, structural and logical schemes); classification of the concept (drawing up classification schemes and tables); concretization of the concepts (working with handouts; analysis

of the examples from everyday experience and observations); application of the concept (solving various kinds of educational tasks of cognitive nature).

Conclusions. Formation of physical concepts by students with SSD comply with generally accepted approaches, but due to their characteristics has a number of specific features. The methodology of work in teaching physics to students with SSD should be submitted to the following requirements: adapt the content of the educational material taking into account the capabilities of students; implement individual and differentiated approaches; appropriately repeat previously acquired knowledge; widely use various means of visualization and algorithmization of activities when working on a particular topic; think through the system of independent work of students, taking into account their individual capabilities; link the topic under study with practical activities of children and real life situations; increase the level of the development of students' speech. The approaches to teaching students with SSD presented by us can be used by teachers in the framework of teaching other academic subjects.

References

1. **Gribova O.E.** (2014). Formation of text competence in adolescents with general speech underdevelopment / O.E. Gribova. M.: Lenand, 320 p.
2. **Konopleva A.N.** (2010). Methodology of conducting lessons on a competence basis / A.N. Konopleva, T.L. Leshchinskaya, T.V. Lisovskaya // Special education. №1. P.23-30.
3. **Organization** of special educational conditions for children with disabilities in educational institutions: methodological recommendations (2012) / E.V. Samsonova [et al.]; ex. ed. S. V. Alekhina. M.: MSPPU, 92 p.
4. **Sirotyuk A.L.** (2001). Correction of learning and development of schoolchildren / A. L. Sirotyuk. M.: PC Sphere, 2001. 118 p.
5. **Usova A.V.** (1986). Formation of scientific concepts in schoolchildren in the learning process / A. V. Usova. M.: Pedagogy, 176 p.
6. **Yakovenko S.V.** (2017). Activation of educational and cognitive activity of students with severe speech disorders in physics lessons / S.V. Jakovenko, I.A. Sviridovich // Personality, intelligence, metacognition: research approaches and educational practices: materials of the II International scientific-practical conference, Kaluga, Russia, April 20–22, 2017 / Kaluga State University named after K.E. Tsiolkovsky; ed.: E.I. Gorbacheva [et al.]. Kaluga: ACF Polytop, P.416-424.

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