DEVELOPING THE CREATIVE ABILITIES OF VISUALLY IMPAIRED STUDENTS THROUGH LOGICAL TASKS AS A PEDAGOGICAL PROBLEM

Abdiyev Husan

2nd year doctoral student in the specialty of Pedagogical Theory and History of Pedagogical Teachings of the National University of Uzbekistan named after Mirzo Ulugbek

Annotation: *This article discusses the study of the development of creative abilities in visually impaired students as a topical pedagogical problem. In particular, the theoretical and practical aspects of activating thinking, stimulating creativity, and strengthening students' cognitive activity through logical tasks are analyzed.*

Keywords*: special education, visual impairment, creative abilities, logical tasks, thinking, pedagogical problem.*

INTRODUCTION

In the modern education system, the comprehensive development of children with special needs, in particular, students with visual impairments, is one of the urgent pedagogical issues. In order to activate their cognitive activity, develop their creative abilities, and adapt to social life, it is necessary to effectively use various methodological tools. From this point of view, organizing classes based on logical tasks is considered an important pedagogical problem in forming the breadth of thinking, independent thinking, and creativity of students with visual impairments.

Logical tasks play a special role in the educational process not only in increasing the level of students' knowledge acquisition, but also in developing their thinking and forming their creative abilities. Through logical exercises, the student gains a deeper understanding of environmental phenomena, has the opportunity to analyze, compare, generalize, and correlate them. This process, along with the development of logical thinking, forms the skills of independent decision-making, problem-solving, and creation of new knowledge.

From a pedagogical point of view, logical tasks perform several important tasks:

Activating cognitive activity. In the process of completing logical tasks, students engage in active intellectual search. This turns them from passive learners into active creators of knowledge.

Developing mental operations. Logical tasks form mental processes such as analysis, synthesis, comparison, generalization, and identification of logical connections. Such exercises help not only in mastering academic subjects, but also in making rational decisions in real life situations.

Stimulating creative thinking. Logical tasks can often have several solutions. This develops students' skills in searching for new approaches, thinking unconventionally, and making creative decisions.

Enhancing learning motivation. Interesting logical tasks increase students' interest in learning activities. As a result, they enjoy the process of acquiring knowledge, which increases the effectiveness of education.

Developing social and communicative skills. Solving logical tasks in a team develops a culture of cooperation, exchange of ideas, justification of one's own opinion and listening to others.

Logical tasks are of particular importance for students with visual impairments. Due to their limited visual perception capabilities, cognitive activity through logical exercises develops mainly through hearing, intuition and imagination. Thus, logical tasks expand their abstract thinking, strengthen their creative approach to problem situations and contribute to the conscious acquisition of knowledge.

Logical tasks can also be applied to situations that students encounter in their daily lives. For example, planning daily activities, making choices, choosing the right path, and using a logical approach to solving problems are vital. Therefore, such tasks serve to form not only knowledge, but also life competencies in the educational process.

Logical tasks in the educational process not only activate the process of acquiring knowledge for students, but also develop their thinking and form their creative abilities. Many educators and psychologists have put forward their scientific views on this.

According to L.S. Vygotsky's concept of the "zone of proximal development", a student can complete more complex tasks with the help of adults or peers, and in this process his cognitive activity rises. Logical tasks perform precisely such a pedagogical task, acting as a bridge between the student's existing knowledge and new knowledge.

J. Piaget's theory of cognitive development emphasizes that students' thinking gradually moves from concrete operations to abstract thinking. Logical tasks direct students to search for logical connections in problem situations, thereby forming abstract thinking in them.

A.N. Leontiev's activity theory emphasizes that the human cognitive process is carried out through activity. Logical tasks direct students' activities to solve problem situations, and in this they acquire new knowledge on the basis of practical activity.

The pedagogical significance of logical tasks is manifested in several main aspects:

Development of cognitive activity. In the process of completing logical tasks, students form mental operations such as analysis, synthesis, generalization,

comparison. This increases their intellectual activity and makes the process of mastering conscious.

Stimulation of creative thinking. Often, logical tasks have several solutions. This encourages the student to look for unusual approaches and think creatively. Guilford's research on creative thinking also noted that logical tasks are an important factor in developing creativity.

Strengthening learning motivation. Interesting and unusual logical problems encourage students to be active, enlivening the learning process. According to the self-determination theory developed by Deci and Ryan, a person's intrinsic motivation is strengthened through independence, demonstration of abilities, and social cooperation. Logic tasks satisfy these three factors.

Formation of life competencies. Logical tasks develop rational decision-making, diverse solutions to problems, and strategic thinking not only in mastering subjects, but also in everyday life.

Creating opportunities for students with special needs. For students with visual impairments, logical tasks are an important methodological tool that expands abstract thinking, develops imagination and verbal thinking. Relief, tactile or sound logical exercises serve to deepen their understanding of knowledge and form creative abilities.

Thus, logical tasks create a wide range of opportunities for the intellectual, creative, and personal development of students in the pedagogical process. They are of particular importance as an effective tool that activates the educational process, reveals personal potential, and prepares students for life.

The creative abilities of students with visual impairments are important in their intellectual and personal development and require special attention in the educational process. Creativity is understood as the ability to create new ideas, find unusual solutions, interpret existing knowledge in new ways, and apply an original approach to problem situations. This process occurs with its own characteristics in children with special needs, especially those with visual impairments.

Developing the creative potential of students with visual impairments is an important pedagogical task in the educational process. Because creative abilities serve as a key factor in their personal self-expression, active participation in social life, and the manifestation of their intellectual potential. In this process, it is necessary to pay more attention to the following aspects:

Development of imagination and fantasy.

In children with visual impairments, imagination is often based on hearing, touch, and kinesthetic perception. Therefore, creative tasks should be aimed at activating their imagination and creating unusual images. For example, audio stories, sound games, and exercises based on sensory experience can be effective tools.

Practical activities and the use of tactile perception.

Relief forms, special models, manual labor activities are the main tools for developing creativity. Students are involved in creative activities by modeling objects, making new shapes from different materials.

Verbal-logical activities.

Speech and logical thinking are one of the main areas of development of creativity in children with visual impairments. The process of verbally solving problem situations, weaving stories, and searching for different solutions to logical problems increases the breadth of their thinking.

Creating a creative environment.

The student should have the opportunity to think freely and try new ideas. For this, the teacher should pay special attention to supporting students, appreciating their initiatives, and encouraging even small creative achievements.

Using art and cultural media.

Music, theater, literary work, and stage performances provide ample opportunities for developing creative abilities. In this process, students express themselves through art and develop their aesthetic taste.

Ensuring social integration.

When students with visual impairments engage in creative activities with their peers, they develop self-confidence, communication culture, and collective creativity skills. This accelerates the process of social adaptation.

Use of technologies.

Modern information technologies, special computer programs, audio and braille devices create new opportunities for students with visual impairments to develop creativity.

The methodological foundations of using logical tasks when working with students with visual impairments are determined taking into account the specific characteristics of the educational process, the individual capabilities and psychological needs of students. The effective use of such tasks includes the following areas:

1. Basis for didactic principles

The principle of adaptation. Logical tasks should be presented in a form that students can understand and perform without limiting their visual capabilities. For example, using relief shapes, acoustic signs, or tactile materials.

The principle of consistency and gradualness. Following the principle of transition from simple to complex serves the gradual development of students' thinking. First, short and simple logical tasks (for example, finding pairs, comparing), and then complex problem tasks (for example, constructing a sequence, explaining cause and effect) should be given.

The principle of activity and independence. Each task should direct the student to think independently and find a new solution. This contributes to the formation of creative abilities.

2. Taking into account the capabilities of students

Students with visual impairments have a higher level of hearing, imagination and tactile sensations. Therefore:

verbal presentation of tasks, use of audio materials;

use of relief drawings, special constructive models;

creating the opportunity to touch and compare objects with hands is methodologically effective.

3. Forms of organization of tasks

Individual work. Assigning tasks adapted to each student based on their abilities.

Pair work. Students learn to cooperate by asking each other questions and analyzing their answers.

Team discussion. Discussing logical tasks in class and comparing different solutions engages students in social communication.

4. Types of logical tasks

Comparison tasks. Finding common and different aspects between two objects or phenomena.

Creating a sequence. Placing events or numbers in the correct order.

Determining cause-and-effect relationships. Answering questions such as “Why?”, “How?”, “Why?”

Problems of increasing complexity. For example, combinatorial tasks, simple arithmetic puzzles, word logic puzzles.

5. Ensuring a creative approach

Tasks should not be focused only on finding a logical solution, but should also encourage creative search. For example:

encouraging students to find multiple solutions to a task;

directing students to formulate new questions or problems based on the task;

requiring students to interpret solutions in different ways.

6. Reflection and Evaluation

After completing the tasks, their solution and the process of their implementation are discussed. Students learn to self-control by expressing their thoughts and evaluating the approaches of others. In this case, it is important for the teacher to use positive encouragement, praise, and constructive analysis.

In this way, the methodology of using logical tasks not only develops the thinking of students with visual impairments, but also directs them to creative research, social communication, and independent decision-making.

Practical examples

1. Comparison tasks

The student is given various relief shapes (for example, a triangle and a rectangle).

Task: To hold them in your hand, say how many sides they have, explain their similarities and differences.

The audio text describes two situations:

When it rains, a person carries an umbrella.

On a sunny day, a person walks without an umbrella.

Question: Find the common and different signs in these two situations.

2. Creating a sequence

Mathematical example: The teacher says the numbers to the student orally: “2, 4, 6, …”.

Task: Which number comes next? (8).

Sequence of events: The audio text says the following:

To bake bread, first the dough is kneaded.

Then the dough rises.

Then it must be put in the oven and baked.

Question: Arrange these events in the correct order.

3. Determining cause and effect

Task: “If the light goes out, the room becomes dark. If the light comes on, the room becomes bright.”

Question: What caused the light to turn on or off?

Task: “The river freezes in winter because the air gets colder.”

Question: What causes the river to freeze?

4. Puzzles

“I come at night, I disappear during the day. Who am I?”

(Answer: The moon or the star).

“There are 3 eggs in a pot. If it takes 5 minutes to cook each one, how long will it take to cook them all?”

(Answer: 5 minutes, because they cook at the same time).

5. Creative tasks

The student is given a set of relief shapes (circle, rectangle, triangle).

Task: Using these shapes, let them create a new object image in their imagination and express it verbally. For example: “A circle is the sun, a rectangle is a house, a triangle is a roof”.

The teacher begins a logical sequence:

“If there is a tree, then there will be leaves. If there are leaves, then…”

Task: The student must continue according to his creative idea.

6. Team task

The teacher gives the following riddle to the students in the group:

“Three friends - Aziz, Bekzod and Dilorom came to the garden. Aziz picked an apple, Bekzod picked a pear. What did Dilorom pick?”

(Answer: Dilorom came to the garden - this is also the answer).

During the discussion, students express various assumptions, which stimulates creative thinking.

Such practical tasks expand the students' imagination, activate their hearing and thinking, and strengthen their creative thinking. Their regular use gives effective results in the development of creative abilities.

Conclusion

The development of creative abilities in students with visual impairments is considered an urgent pedagogical problem. The use of logical tasks in this process serves as an effective methodological tool.

Logical tasks activate students' thinking processes, form the skills of understanding cause-and-effect relationships, generalizing, comparing and drawing conclusions. They also develop the ability to creatively search, find unusual solutions, make independent decisions and work in a team.

Methodologically, it is important to use logical tasks based on the principles of gradualness, adaptation, demonstrativeness and creativity. Practical examples show that organizing such tasks in individual, pair and team forms increases students' motivation for learning, expands speech activity and facilitates social adaptation.

Therefore, the purposeful and systematic use of logical tasks is one of the effective pedagogical solutions for developing the creative abilities of students with visual impairments.

REFERENCES:

1. Vygotskiy L.S. Defektologiya asoslari. — Moskva: Pedagogika, 1997.
2. Zankov L.V. Maxsus pedagogika va psixologiya masalalari. — Moskva, 2000.
3. G‘oziev E. Umumiy psixologiya. — Toshkent: O‘zbekiston Milliy Ensiklopediyasi, 2010.
4. Jo‘rayev R. Maxsus ta’lim metodikasi. — Toshkent: Fan, 2018.
5. O‘zbekiston Respublikasi Prezidentining “Nogironligi bo‘lgan shaxslarni qo‘llab-quvvatlash tizimini yanada takomillashtirish chora-tadbirlari to‘g‘risida”gi qarorlari.