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CORRECTIONAL-PEDAGOGICAL MODEL AND TECHNOLOGY OF FORMATION OF GEOMETRICAL CONCEPTS IN ELEMENTARY SCHOOL STUDENTS WITH INTELLECTUAL DISABILITIES BASED ON INTERDISCIPLINARITY

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Abstract
The didactic phenomenon of "interdisciplinarity" consists of such a structural structure as knowledge related to one field of science, knowledge related to more than one field of science, and connections of this knowledge (skills) in the teaching process. The unification of knowledge involves the explanation of cause-and-effect relationships, generalization and generation of new generalized knowledge, concretization of common concepts, generalization of related events. In a logically completed form of interdisciplinarity of the special education system, the relationship between the structures of different academic subjects is understood, expressed in a general form.
In the special education system, the educational function of interdisciplinary connections between mathematics and technology is manifested as a means of developing concepts related to the subject of study, helps to master the connections between disciplines and general concepts. The corrective task of the interdisciplinary integration of mathematics and technology in the special education system involves the elimination of secondary defects arising from their primary defects. The educational task of the interdisciplinary integration of mathematics and technology in the special education system implements an educational complex approach to the process of teaching academic subjects to elementary school students with intellectual disabilities. The introduction of the interdisciplinary system of mathematics and technology in the special education system included a number of stages:
 Development of tools and methodical methods for implementation of interdisciplinary connections of mathematics and technology.
 Development of a methodology for preparing and conducting complex forms of teaching mathematics and technology based on interconnections.
 Development of methods for implementation of interdisciplinary connection and evaluation of results in the teaching of mathematics and technology.
 Lesson-to-lesson planning of interdisciplinary connections using the subject and thematic plans.
 Studying a special course and special seminars on the problem of interdisciplinarity.
In particular, strengthening the internal connections of mathematics and technology does not diminish the importance of their interconnections with academic subjects learned early in school. In the teaching of special education, interdisciplinary connections are considered as a didactic principle and as a condition for covering the goals and tasks, content and methods, tools and forms of teaching different educational subjects. The corrective developmental effect developed on the basis of important general didactic laws in special education is based on the complex of corrective education

and is directed to personality development. The special education system is based on the following principles:

- The principle of malfunctioning of analyzers and its compensation;
- The principle of the leading role of education in the development process;
- The principle of taking into account the nearest development zone;
- The principle of taking into account the potential of intellectual students;
- The principle of using a mentally retarded child's conscious and active attitude to work in mathematics;
- The principle of understanding geometrical material and applying it in practical activities;
- Conscious mastering of working methods and being able to apply them in educational practice.

Repetition and strengthening of the acquired concepts in mathematics and technology, provides the formation of skills to independently apply them in unknown situations, in the types of activities in the preparation of proposed new types of items. The choice of teaching methods in the process of educational experience-testing was related to its interdisciplinary content, correctional-developmental orientation, and specific features of the psychophysiological development of elementary school students with intellectual disabilities.

Construction was carried out by students of the 1st grade according to the divided model, and in the 2nd grade according to the undivided model. The teacher offered the simplest constructive tasks. For example, when studying the example of the "Chair" model (1st grade, 3rd quarter), students identified familiar geometric objects and found similar details among the proposed ones during a collective team analysis under the guidance of the teacher. In the second grade, according to the undivided sample, this work was done in the same way. The children selected the necessary parts and used them to reproduce the model.

Parts of different geometric shapes are made of different materials:

- when working with paper - to take a different shape of the created images according to their own imagination (bend, cut, draw lines, cut circles with rounding of corners);
- make volumetric shapes according to imagination and transform them into other shapes (making a ball and making a cube from it by smoothing the edges on the table surface, etc.), choosing and changing shapes from natural materials (getting a spherical shape from a lump by adding plasticine);
- obtaining flat and three-dimensional shapes by combining existing shapes (triangles combined into squares, two

Previously, children created the most complete image of an object with the help of various analyzers (at the preparatory stage, they looked at a natural object, compared it with a model, examined it with a muscle). After selecting and preparing the parts, students constructed a model of the item under the teacher's guidance using guiding questions. There were different options for organizing practical work: an item completely similar to it was made according to the sample; the item is made by changing different colors or sizes of some parts.

Elements of construction are included in each lesson. Application works in the 1st and 2nd quarters of the 1st grade were excluded, because at this stage children have poorly formed images of geometric shapes, they do not know how to get them in practice. Starting from the 2nd quarter of the 1st grade,

students made parts of objects by folding and cutting paper, combining shapes, making, etc. For example, in the 1st grade, it was suggested to make the same shape (square) parts in the 2nd quarter to perform the appliqué "Cell". Students had to bend the shapes and cut them into rectangles and triangles. Construction elements were also used when working with natural materials. Sticks are tied with plasticine to get the necessary shapes (for example, to make a rectangular "Mirror" for the "Spring" composition, to make a hut in the "Golden Fish Tale" composition, join the branches at an angle). To get a more accurate spherical shape, nuts and tubers are combined with plasticine (to make a teddy bear head from tubers).

In the technology lesson, manufacturing methods were used to repeat, strengthen and systematize geometric material. For example, in the generalization lesson on the section "Geometric shapes", 1st grade students used all practical methods of obtaining geometric shapes from different materials (making, folding paper, dividing shapes into parts by passing lines , two forms). In mathematics classes, an initial acquaintance with the methods of working with geometric shapes and drawing-measuring tools took place. In the technology lesson, they are included in practical activities, clarified and strengthened. In the mathematics lesson, the teacher showed children the name of a geometric shape (sphere) and called it ("This is a sphere"), showed models of spheres of different colors and sizes made of different materials. Students were given handouts (plastic and wooden balls of different colors and sizes).

At the request of the teacher, the children took them in their hands, held them, examined them, rolled them on the table. In this, children's attention was drawn to the fact that all these models are balls, regardless of color and size ("Take the balls in your hands. Compare them. How big are they? What are their colors? All shapes differ in color and size , but they are the same shape. All these shapes are spheres"). Pupils received balloons of different colors and sizes from different materials as handouts. The children held them, twirled their fingers around them, rolled them on the table.

Pupils practiced distinguishing balls by shape ("Choose all the same shapes") among several shapes (balls, cubes) offered by the teacher, naming each selected shape ("This is a ball"). . Balloons were chosen by children by name ("Choose all the balloons among these shapes!"). At first, balls of the same color and size as the sample were used for the exercises, and then they were replaced with other types. Practical work was carried out according to the teacher's instructions ("See how I roll a ball. Take plasticine in your hands. Roll it up and make a ball. Take a larger piece of plasticine. Roll it up and make a ball. Compare it with the first ball. Its size what? What about the color? What shape did we make? Roll the balls. They are all different in color and size, but they roll the same").

If the plane shape (circle) is being studied, the children draw its outline in a notebook, cross-line it, and paint its interior. Contours of shapes are made of plasticine, bent from wires.

Later in the mathematics lesson, a large number of exercises were used to distinguish the learned shapes from the surrounding objects ("What is the name of this shape? Look at the objects on the table (an orange, an apple, a tomato, 2 cube-shaped boxes and 1 brush similar box). Name the objects of this shape (ball model). Name the objects that look like a sphere. Find the objects that look like a sphere in the class. Name them. What other objects that look like a sphere do you know?"). For this purpose, for example, when familiarizing with the circle, objects specially selected by the teacher (flat plate, target, round cookies, etc.), objects in the classroom (matchsticks, panels, etc.), objects found in children's daily life (playground in front of the school, round-shaped glass, etc.) were used.

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