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MAIN TASKS OF TEACHING GEOMETRY AT SECONDARY SCHOOL

Key words: *logical thinking, spatial imagination, sophism, geometric shapes, picture issue.*
Annotation: *in this paper we investigated the main tasks of teaching the geometry subject at school, and therefore the developing mathematical and logical sophism of students and their stages of spatial imagination.*

In general, secondary education the teaching of discipline is based on description of its theoretical fundamentals. In particular, the geometry disciplines its basic concepts and the relationship between the theoretical explanations. Each theoretical source, design, practical training and a solving tasks with the minds of the students to ability to appear. Every action involved in this process has its place, necessity and importance. Drawing is one of the most important operations in the geometry science. By drawing a diagram, one is formed to understand and imagine the theoretical concepts given in the geometry and to have knowledge about its place in daily life. during the process of drawing there appears student things about the connection between the theoretical science concepts and real-life.

The main tasks of teaching geometry at school are:
1) study of spatial forms of the space, their properties;
2) training of students to develop spatial imagination;
3) training of students to teach logical thinking;
4) learned knowledge in everyday life can formation and development potential;
5) training of students to teach independent thinking.

Geometry understand the logical structure of science students at one of the most important weaknesses, and acsioms a basic understanding of the meaning of their existence rare to find a connection with the subject and objects (analog) cannot imagine. For the development of logical thinking ability of students' sophism (nonsense, that seems to be formally correct that false idea from the) with the help of selection is the most important issue. For example, sophism only drawing with the help of the drawings can not believe conclusion. For example, the tree equilateral triangles.

The problem solving: this sophism addressed the issue as follows: let us take a free triangle, for example ABC (Figure 1.2.1 below). The B bisectors have a corner by the A and C perpendicular said. They are defined by the point of intersection O. From O points to the direction AB, OD and BC provide OE perpendicular. Obviously, AOD and COE right-angle triangles equal. Therefore, the ∠DAO = =∠ECO ва ∠OAC = ∠OCA, because the AOC equilateral triangle.

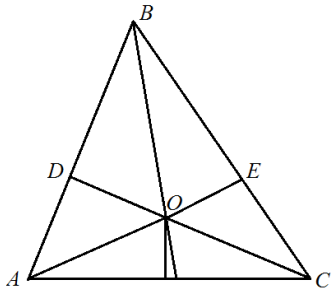

Figure 1.2.1.

As a result, ∠BAC = ∠DAO + ∠OAC =∠ECO + ∠OCA=∠BCA is true.

Thus, the BAC corner angle and BCA are equal, therefore to ABC equilateral triangle. Thus, all three corner angles are the equilateral. The mistake here is in the drawing. Finding mistakes in problem solving increases student's ability to think logically. The spatial forms and imagination, objects can be understood and learn by well-developed things. At the same time, we know of "Space imagine" removed the same geometric shapes and space image of a passive case, for example, students at the drawings on the whiteboard, drawing its elements using the letters one by one to describe, understand, but active (earlier image occurring in the surrounding environment around us at the subject, the body formed in the minds of the reader) and the geometric concept of space with the help of a new constructive form of salt and bring to those of many geometric problems.

The experiments have shown that the reason why spatial imagination is not sufficiently developed in birds is that we can say the following:

1. The geometry lessons are often not demonstrative, resulting in students not being able to fully visualize geometric shapes, especially spatial objects;
2. The geometric concepts about the formation of a vision that represents drawings often look the same, instead of voluntary and draw a rectangle drawn in rectangular or square, circle any point on the central line of incision point cross between parallelepiped is always on duty in the form of a parallelepiped, they replace an equilateral polygon by drawing a regular polygon. They cannot understand the difference between equilateral and regular polygons;
3. Teacher training, and to prove to cope with the issues and make a run on the issues, calculated on the prefer to solve issues;
4. The geometry classes students studying in existence with the concept of common analogue of the subject of the track, the link between not provide, given the knowledge of the subject and body several pieces, we shape or figure friendly to distinguish them due to the fact that space to convey the blind a business and geometric forms the ability to differentiate does not develop;

5. During the course of modern computer technology, image, reflecting the special programs of sacrifice and suffer.

The teacher should work with the students' step by step on a continuous basis and develop their spatial imagination well. We believe that it is advisable for the teacher to work in the following stages:
1) Spatial forms with the teaching of students earlier introducing you need to go. In general, secondary schools, the period of acquaintance of students with geometric shapes is carried out in primary and 5-6 grades. At the same time, students cross the corner, triangle, rectangle, square, circle, circle, cube, the closure will have an idea about the settings parallelepiped ball. Because introducing the space forms only with the help of image, form, design and models, but constantly stopped in existence around common objects analogy;
2) The correct use of visual aids in the teaching process. Teaching students to draw and make visual aids is important in this case.

First of all, the teacher must be very demanding of himself, and then of the drawings and figures made by the students. First students need to be taught to draw a shape image using a compass and a ruler, and then to draw it correctly without any tools. This is where properly designed, planning, detection, tracking ability. Misrepresentation of geometric shapes creates a misconception in students about the concept being studied, so the drawing must be drawn accurately and clearly. But requiring the student to take a creative approach, that is, to fill in the picture without giving it completely, also increases their interest. For example, if students are given a picture of a parallelepiped and asked to fill it with a diagonal section or a line connecting the centers of their adjacent sides, etc., they will have a better idea of it:
1) Has a positive effect on the development of spatial imagination of students, if in the process of teaching covers all the issues of calculation, construction, and proof of the selected issues;
2) The use of modern information technology in the teaching process, especially the depiction of spatial objects using special programs, students develop spatial imagination as a result of being able to see these concepts in 3D and see each element or section in different colors;
3) The pictorial issues we study also play an important role in the development of space imagination.

Descriptive issues (figures, pictures, diagrams and tables, graphs of real connections) are given in different forms. Once they are translated into mathematical language and a solution is found, it is necessary to evaluate and interpret it again in relation to real conditions. Students will be able to make a complete observation based on the given image, i.e. they will be able to determine the type of shape given, the name of the geometric element, the position of the point based on the image. They can divide a given shape into several parts using analysis, generalize given shapes using synthesis, describe an analog of a given shape, make a given image look convenient to solve a problem. This situation, in addition to the development of spatial imagination in students, also contributes to the development of their scientific and basic competencies.

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