

ANALYSIS OF STUDENTS CONSTRUCTION COMPETENCES FORMATION

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ABSTRACT:

In this article, you can read an analysis of the current state of formation of design competencies in students in general secondary schools.

Keywords: methods and forms of cognition, induction, deduction, analogy.

INTRODUCTION:

Many factors, such as social, economic, political, ideological, reforms in the country, the rapid development of science and technology, as well as the system of continuing education, including education of secondary school students. requires the organization of classes using modern pedagogical and information technologies on the basis of modern requirements.

It is well-known that the acquisition of knowledge, skills and abilities is a prerequisite for human education. They describe the basic qualities of a person. In didactics, the concept of "knowledge" should be considered in two ways: knowledge as a concept that the student should learn, and knowledge as a concept that he has learned and applied in practice.

The above considerations serve as a guide in defining the current and future priorities of the subject of drawing taught in general secondary schools. Because the science of drawing, by its very nature and purpose, is a practical science that summarizes and integrates all the concrete, natural and socio-economic knowledge and puts it into practice. In this sense, the science of drawing is a key factor in ensuring the unity of theory and practice, allowing students to apply their theoretical knowledge in practice. Almost

all subjects in this science have design competencies. The development of the process of teaching students construction competencies requires a special focus on improving the effectiveness of the course using modern pedagogical and information technologies in the process of teaching students this section.

Construction is a type of activity that focuses on the study of research methods and the creation of any complex object using simpler elements and methods. Taking into account the age of the child, his level of knowledge, skills, using lessons such as manipulation (thematic), pictorial (graphic), symbolic (recording) and speech, the curriculum includes an objective world and its creation. It is possible to enter very complex knowledge. As a result of the study, the child becomes acquainted with the process of planning (algorithmic) activities. In particular, this activity includes task analysis, sketching of the problem (creating a primary model in the plane), spatial model (solution algorithm) and drawing (problem solving program).

In general secondary schools, students gain a thorough knowledge of drawing. In general secondary schools, students' education, general labor, national, cultural knowledge, primary vocational education, initial social and labor relations are formed.

The introduction of geometric changes in general secondary schools helps to strengthen the properties of geometric shapes, to form an idea of space and to get acquainted with three-dimensional figures. All this allows the development of design competencies.

Stage of development of design competencies

1.	Drawing elements	Students will be introduced to graphic writing elements, technical drawings, sketches, different types of projections, and the simplest design tasks.
2.	Laws of organization of the subject environment	students learn about some laws of form formation, color science, material science, their interaction in one object, standards of sensitivity, in a group of objects, get acquainted with examples of their use in practice
3.	Modeling and making of various objects	The knowledge gained in the first and second stages allows students to create projects based on their ideas and implement them in the form of models. At the same time, organizational, collective labor, and creative abilities are formed

Teaching design competencies to the younger generation in the classroom and in extracurricular activities remains a major challenge. Basic design competencies that students should have:

Information on geometric drawings and their types; information on projection drawing and their types; information on mechanical drawings and their types; information on construction drawings and their types (buildings, garages); information on topographic drawings and their types, their methods of work, their characteristics.

Skills and competencies to be developed in the field of drawing:

Students draw, design, and construct an item based on the type of drawings they are interested in, and create an item based on that design, and artistically process the item based on design requirements; students work on several materials at the same time; you can master the

design and construction of items according to the types of drawings. It shows that he has a high level of skill. In the process of mastering design competencies in general secondary schools, students in 7th grade learn about the directions of simple constructions and learn about professions in the process of making elementary, handmade products. In grades 8-9, some of these areas are selected, and design competencies, basics of production, and vocational guidance are taught in accordance with these selected areas.

The following psychological and pedagogical bases should be followed in the formation of design competencies:

- a) Instilling in students an interest in working for the common good;
- (b) Developing students' creative design skills;
- c) Development of the need and necessity of labor; fostering a strong will;
- d) Be appropriate to the mentality and age of the students.

Requirements for the formation of design competencies and their organization in the system:

- 1) Attitude to the process of formation and implementation of a number of constructive tasks in the form of a series of targeted instructions for a particular type of activity: "consider ...", "measure ..." and others.
- 2) The existence of complexes of subjects depending on the particular situation;
- 3) Non-standard presence in the formation of tasks;
- 4) Divide the constructive tasks into three parts depending on the functions and complexity of education;

In order to carry out the above tasks, we recommend the following: a database on the latest achievements of science and technology and their practical significance, as well as the ability to constantly improve it; have a base of pedagogical technologies suitable for the development of design competencies in students; creation of a database on interaction with

various didactic tools (raw materials, technological map, tools, necessary equipment, etc.) corresponding to various design elements and their use in the constructive process (application of knowledge, skills and abilities in practice)) use as educational information; to get acquainted with the scientific basis of new innovative production; have practical skills (measurement, calculation, processing, assembly) based on constructive objects and technological processes; must have a variety of personal qualities, spatial knowledge, painting, applied decorative arts, and design skills necessary to develop various design competencies.

Acquiring such knowledge, skills, and competencies leads to the development of design competencies in students and provides opportunities to apply the acquired knowledge, skills, and competencies to other activities.

The question about the role of the development of design competencies in the classroom and in extracurricular activities in the acquisition of design competencies in the electronic information educational environment of secondary school students can be answered as follows: computers through the set it gives the person working with it the freedom to fully develop their abilities. Now, instead of specializing in one field for the rest of one's life, one has the time to expand one's knowledge in different fields, conduct various researches, and find one's true place in life. Eventually, man becomes the controller of the whole process, not

the machine that collects and processes the data. Therefore, the e-learning environment provides a wide range of opportunities for people to deepen their knowledge and improve their skills by changing their daily lifestyle and way of working.

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