



SEE THE INTEGRATION OF EDUCATION IN CREATIV DESIGN AND ENGINEERING

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<https://doi.org/10.5281/zenodo.7223366>

Abstract; In the article, the organizational-methodical component teaching methods of integrated subjects, increasing students, activity, spatial imagination, application of new pedagogical technologies by integrating engineering graphics and design subjects, new work methods in integration, games, working in pairs, groups, science topics further improvement approach, revealing the foundations of an integrative approach, forming integrative programs are highlighted.

Keywords; Component, spatial imagination, engineering graphics, design, pedagogical technologies, games, integrative approach, integrated program, procedural and consequential synthesis, integrative planes, projection drawing, mechanical enginerring drawing, architecture construction, topographic drawing, drawing geometry.

In the adress of the President of the Republik of Uzbekistan to theto the parliament on December 29.2020, he emphasized that; "We stand by ourselves the great goal of establishing the foundation of the Third Renaissance in our country, and for this will educate the new Khorezms, Berunis, Ibn Sinus, Ulug'beks, Navoi and Baburs." we have to create. In this, first of all, the development of education and training, establishment of a healthy lifestyle, promotion of science and innovation should serve as the main pillars of our national idea.

The teacher must search for integrative forms that ensure the maximum level of activity of each student, especially the development of spatial imagination, create mew integtated visual aids, work on the application of new pedagogical technologies by integrating engineering graphics and design sciences.

For this purpose, in order to use new work metthods, games, working in pairs, in groups, to strengthen the connection of these two subjects directly in original, interesting situations, to create an opportunity to further improve the necessary conditions for the connection of these two subject being integrated, the means of exchange of subjects. This requies making changes to the teaching process that are well thought out and consistent with the entire methodological system. The work of the teacher and the work of the students must be combined with eacch other and become a truly creative activity, only then it creates a feeling of satisfaction on both sides.

Integrative approach - helps to solve the following tasks;

reveals the intellectual potential of students;

identity of students;

forms professional skills;

self- education

creates psychological and pedagogical conditions for self- development.

The organizational- methodical component of integrated subjects includes teaching methods. For example,discussiion iss a form of collective activity thatbhas the educational potential of

engineering and design that arouses a clear interest in the student. Teacher use this form of organizing training sessions. This form of the game is of great importance in the education of the student, because it allows solving many problems of teaching, development and education; develops spatial imagination skills. As the basis of the integrative approach;

Integrative plans,

Integrative purpose,

Integrative tactics,

includes the formation of integrative programs that include integrative tasks and technologies for their implementation.

- Integration- the process of turning the topics of two subjects into a whole. According to this approach, the concept of system leads to the object form of the whole, and the concept of integration defines the process. This view is very common;
- integration- implementation of the integration process of a certain integrated "product", the result of which reflects the time set during the complementation of the topics of the two disciplines;
- integral integrity, which is a synthesis of process and result, are components of integration. According to this approach, in the process of formation, connections, new forms appear, and interaction characteristics are reflected, which ensure the interdependence of system elements.

Every specialist teacher should be able to use the methods of improving teaching methods based on integration, and be able to apply them in practice. In this process, the requirements for the teacher who leads the teaching process through engineering graphics and design integration are as follows:

- knowledge of the concept of science integration and its essence;
- knowledge of the place and role in the implementation of the goal of integrated education
- knowledge of educational and business games through integration;
- knowledge of teaching methods that develop the problems of integrative lesson topics;
- to know how to organize and support independent activities of students in teaching integrated science subjects;
- acquisition of methods of increasing students' independent work skills from integrated science subjects;
- to know and master the methods of teaching on the basis of integrated science topics.

As a conclusion, it should be said that the creative and practical orientation of education in engineering and design includes interdisciplinary relationship (geometric, projection drawing, mechanical drawing, architecture- construction and topographic drawing, drawing geometry, perspective, vivid images and the theory of 8 shades, engineering computer graphics, industrial design, architecture-construction design, clothing design, landscape design, art design, automotive design, aviation design, web design, engineering design, animation design, eco design,) integration can be seen.

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