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IMPROVING TECHNOLOGIC EDUCATION ON THE BASIS OF THE STEAM METHOD

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ABSTRACT

This article provides information about the integration of science in improving the teaching of technology in the system of continuing education, focuses on the relevance of science, defines the integration and application of the STEAM method of a new approach to integrated education.

KEYWORDS: *Integration, Technology, Education, STEM, STEAM STREAM Method.*

INTRODUCTION

The growth rate of economic development of the new Republic of Uzbekistan is highly recognized by the world community. It is also the result of large-scale reforms aimed at the development of science, education reform, and the full support of scientific and innovative activities.The transition to a path of development based on innovation and integration is being accelerated as one of the priorities of the country's economic development.

To do this, the subject (linear) development of curricula for the system of continuing education, the development of certain ideas, concepts, patterns in the minds of students,that is, the prevention of the formation of the form of plates, the integration and study of content-related subjects leads to the effectiveness of educational work[1].

The interactive course of technology education is a system of visual education, which explores the secrets of creating visual skills based on the deepening and expansion of integrative knowledge. The system of visual education is based on different types, forms, methods, objects.

MATERIALS AND METHODS

Technology is an integrative approach to education - it involves interdisciplinary connections. The word integration is Latin and means to restore, to fill, to unite parts as a whole.Integrative education is a study that expands, complements and deepens the content, integrates the study of interdisciplinary specialties[2].

It is known that in the system of general secondary education, the use of an integrated approach in the selection of technology educational content and taking into account its main task, comprehensive human development, life and work, career choice and future career secrets. is to prepare for the study.In the system of continuing education, the selection of the content of education for a particular profession (specialty) on the basis of an integrated approach takes into account the field of production.There are different theories in the organization of the integrative approach today, and we think that it is appropriate to take this direction in education as follows[2].

1. Intra-science integration. It is based on theoretical knowledge and practical skills within a single subject.

2. Interdisciplinary integration. It is based on theoretical knowledge and practical skills in several subjects

3. Integration of subject sciences and methods of its teaching. This creates new theories based on previously learned knowledge.

In the study of interdisciplinary issues in the teaching of general secondary subjects of technology education in general secondary schools, in particular, drawing, painting, physics, mathematics, mother tongue, literature, and ecology The presence of cracks was detected.

The development of modern integrative education is aimed at improving the new state educational standards and curricula of general secondary education, as well as the gradual implementation of STEAM methods.

The STEAM integrated education approach is one of the major trends in global education. It covers math, technology, creativity, engineering and the natural sciences.

The integrated learning process allows for the training of required specialists in engineering, design and modeling. STEAM is integrated learning within a scientific and technological concept based on real-life requirements.

The goal of integrated education is to envision education, society, work, and the world as a whole, and to build sustainable relationships between them.

STEAM educational technology is a new method of teaching school students, which is different from traditional teaching methods. It is designed to teach students four subjects at the same time –subject (Science), technology (Technology), engineering (Engineering), Fine Arts, and Mathematics. STEAM is an integrated learning system for subjects, not for science[3].

STEAM education is the application of scientific and technical knowledge in real life through practical training.

RESULT AND DISCUSSION

How did this educational approach come about?

STEAM education technology is a combination of theory and practice. The abbreviation STEM was first proposed by the American bacteriologist R. Colwell in the 1990s, but has only been in active use since the 2000s.STEM education is a set of educational activities that contribute to the study of technology and engineering, from pre-school education. Based on STEM (science, technology, engineering, mathematics), new variants of this concept have emerged, the most common of which are STEAM (science, technology, engineering, art and mathematics) and STREAM (science, technology, robotics, engineering, digital 'at and mathematics).

Today, STEAM is one of the main trends in world education. With the rapid development of technology, new professions are emerging. The demand for STEM professionals is growing everywhere. According to various estimates, STEAM knowledge is required in 9 out of 10 majors with high growth rates. In particular, by 2018, the demand for specialties such as chemical engineers, software developers, petroleum engineers, computer systems analysts, mechanical engineers, civil engineers, robotics, nuclear medicine engineers, underwater architects, aerospace engineers is expected to increase. STEAM education prepares students for a technologically advanced world. Technology has grown exponentially over the past 60 years.

Examples include the Internet (1960) and GPS technology (1978) to DNA scanning (1984) and of course the iPod (2001) and others. Today, almost everyone uses smart phones. It is impossible to imagine our world without technology. Technology continues to evolve, and STEM skills are at the heart of that development.

The application of the STEAM method in technological education is carried out in the following stages:

1. Mathematics, physics, technology, etc. are studied;

2. The STEAM method identifies a system of knowledge, skills, and competencies that students can acquire;

3. The interdisciplinary task to be done is defined;

4. Evaluation, testing, improvement. Development of a project for the production of products, evaluation system based on the STEAM method;

5. Giving to students an itemsto make different types of things.

So, they use different methods based on queries and projects to solve the problem.

The theme: Sewing the clothes to teapots and embroidering teapots

1.Composition selection

2. Draw a sketch

3. Take measurements

4. Select the thread color

1. Select the type of material

2. Sew the seam type

3. Necessary equipment: needle, thread, material, ruler, colored pencils, paper.

The connection between the STEAM method and sewing clothes teapots and embroidering teapots

1-TABLE

Technology	**Mathematics**	**Engineering**	**Fine art**
They learn the sequence of work, that is, the development of technology.	Measurement and calculation skills will be strengthened	Properties of the material: permeability, wettability design, learn to construct.	They choose the shape, appearance, color, composition

CONCLUSION

Thus, the use of integrative approaches in the training of technology teachers builds engineering skills in students, leading to the improvement of technological knowledge and technological competencies.

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