STEAM EDUCATION IS ONE OF THE MAIN TRENDS IN THE WORLD

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Annotation: In this article, in the framework of the introduction of dynamically developing technologies in all areas of human activity, modern approaches, future specialists need comprehensive education and knowledge from various fields of technology, science and engineering, such tasks are widely used in preschool education. Tasks to be performed through the STEAM program are highlighted.

Keywords: STEM education, technology, design, method, science, engineering, mathematics, robotics, folk crafts.

INTRODUCTION

Preschool education is considered the fundamental stage of the continuous education system - to ensure the development of the child's personality in all aspects, to realize his abilities, to form the skills necessary for studying, continuous education and successful schooling. consists of preparation for winter. The development of the curriculum "State requirements for the development of children of primary and preschool age" and "First Step" created wide opportunities for the effective implementation of preschool education in the continuous education system. In the curriculum, it is noted that it is important to take into account the characteristics and needs of children with their own characteristics when creating a developmental environment in a preschool educational institution.

We know that the program of measures to further improve the public education system of the Republic of Uzbekistan in 2018-2021 approved by the decision of the President of the Republic of Uzbekistan No. ", section II, paragraph 11 - improvement of the new state educational standards and curricula of general secondary education and at the same time the gradual implementation of STEM (science, technology, engineering and mathematics) education is defined. In this process, it is essential that pedagogues, teachers, students, parents, and others be aware of international research on STEM education and have the skills to apply it in practice.

Innovative technologies have become an integral part of modern society. In modern schools, robot design, modeling and design work are taking a leading place. The fact that more technical education is required to increase the competitiveness of our country is one of the urgent problems. Today, STEM education enables the training of highly qualified specialists who will greatly contribute to the development of society and the state.

In fact, the modern education system, unlike traditional education, is a mixed environment that allows to show how the learned scientific-theoretical and methodical method can be applied in everyday life. Along with math and physics, students learn robotics and programming. In this process, students personally see the results of their knowledge gained from concrete and natural sciences in practice. The importance of STEM education is that the low quality of education in the field of real science, insufficient material and technical base, weak motivation of teachers and students - all these are the biggest problems of the education system.

The world today is not the same as yesterday, and tomorrow will not be the same as today. Dynamically developing technologies are introduced in all spheres of human activity. 65% of today's children take occupations that do not exist today. Future specialists will need comprehensive education and knowledge from various fields of technology, science and engineering. We can perform such tasks through the STEAM program, which is widely used in preschool education. STEAM enables our children - inventors, the future generation of discoverers, to conduct research as a scientist, to form technology, to design as an engineer, to create as an artist, to think analytically as a mathematician through play. Today, STEAM-education is developing as one of the main trends in the world and is based on the integration of five areas into a single educational scheme in the application of the practical approach. The conditions of such education are its continuity and the development of children's ability to communicate in groups, where they gather ideas and exchange ideas. Therefore, the main educational program includes the following; Includes Lego-technologies, children's studies and logical thinking development modules.

Our country, which is developing step by step, requires the training of highly qualified specialists in various fields of education in the field of high technologies. In this regard, STEAM education is at the forefront today. This will help to develop the technological process in the future and cover the need for scientific and engineering personnel in our country.

STEAM educational technology is a new method of teaching schoolchildren, which is different from traditional teaching methods. It is designed to teach students simultaneously in four subjects: Science, Technology, Engineering, Art, and Math. STEAM is an integrated system of learning by subject rather than by subject.

STEAM education is understood as the application of scientific and technical knowledge in real life with the help of practical training. With the organization of studies based on the "STEAM" educational program in presidential schools, students in grades 9-11 have the opportunity to get individual knowledge by choosing certain subjects depending on their interest, fundamentally different from general education schools. is different. Because one of the main tasks of the President's schools is the in-depth teaching of natural and concrete sciences, students' assimilation of innovative

knowledge, revealing and development of their intellectual, scientific and creative potential.

Textbooks and study guides related to the STEAM approach have been published by Cambridge University Press, including Oxford University Press and Collins. The main advantage of the curriculum offered by Cambridge is the emphasis on the formation of relevant modern knowledge and skills in students based on the principles of the global labor market.

In addition to local teachers who are qualified to teach students these subjects, foreign teachers also give lessons in cooperation. Work is carried out in cooperation with the recruiting companies "Teachaway" (Canada) and "TIC Recruitment" (Great Britain), which have many years of experience in the recruitment of highly qualified foreign specialists.

The term STEAM was first introduced into the school curriculum in the United States, aimed at developing students' competencies in scientific and technical fields. Later, this direction was expanded and additional letters were added to the term. In particular, adding "R" - robotics to it, adding STREM to it, adding "A" - art to it, it started to be called STEAM. The demand of today's time is putting a big task before the world education. This should prepare students to live in society. First of all, it is necessary to form in the student the characteristics related to professions that work with rapidly changing information. Acquiring, processing, and applying information forms the foundation of a STEM education program.

STEAM education is based on a design-based approach to learning and creative inquiry. Such a search is carried out in research works related to acquiring knowledge in the process of practical activity, reusing them in practice, that is, creating various constructions in games, using elements of technical creativity. STEM education directly connects student development to the outside world. It is known that the science of technology is constantly used in our daily life, and engineering is a profession that is reflected in houses, roads, bridges and machinery, and our daily activities are more or less connected with mathematical calculations. The STEAM educational approach allows students to systematically study the world, logically observe the processes taking place around them, understand their interrelationship, and discover new, unusual and interesting things for themselves. By waiting for something new, it develops curiosity in the reader. Identifying an interesting problem for himself, developing an algorithm for finding its solution, critically evaluating its results, leads to the formation of an engineering style of thinking. Forms the skills of team work. All this creates the basis for the student's development to rise to a higher level and to choose the right profession in the future.

CONCLUSION

Creative and innovative approaches to projects. STEAM education consists of six stages: question (task), discussions, design, construction, testing and improvement. These steps are the basis of a systematic project approach. In turn, cooperation or joint use of various opportunities is the basis of creativity. Thus, at the same time, the use of science and technology in children can create new innovations. A healthy socio-spiritual environment that is rationally organized encourages children to search, show initiative and show their creative abilities. In this case, educators must have a clear idea of how the child's development is progressing, and for this, it is necessary to constantly monitor them. As a supplement to STEAM school programs, it is worth noting that STEAM programs increase the interest of students aged 7-14 in regular activities.

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