



## The Impact of the Steam Approach on Learning Efficiency

**Mirzoyeva Nigora Shavkatjonovna**

Uzbek Finnish pedagogical Institute, Assistant of the Department of pedagogy

**Odilova Khairiniso Ghulam qizi**

Uzbek Finnish pedagogical Institute, 2nd year undergraduates

**Abstract:** *In this article, information about STEAM education, the effectiveness of STEAM education, the importance of the STEAM approach in the educational process, the introduction of STEAM into the educational process and the ways of applying the theory in practice, a brief word about the integration of subjects held.*

**Keywords:** *STEAM, integration, science, education, theory, practice, reading, learning, technology, engineering, art, mind, perception.*

**Introduction.** STEAM education refers to the integration of several disciplines. The main beauty of steam is the importance of practice, like theoretical knowledge. That is, during reading and learning, students are able not only to work the brain, but also to practice the theoretical knowledge gained with their hands. Today, the field of education, like other areas, is developing rapidly. So today one or information laid within the walls of classrooms cannot keep up with the changing world. The main difference between the STEAM approach is that children use both the brain and hands to successfully study different topics.

STEAM education is not only a way of teaching, but also a way of thinking. In the STEAM educational environment, children gain knowledge and immediately learn to use it. Therefore, students understand that when they face life problems in the future, complex issues such as environmental pollution or global climate change, for example, can only be solved by relying on knowledge from different areas. In such a process, it is not considered enough to rely only on knowledge of one topic or one direction.

**Main part.** The STEAM approach is changing our view of education and learning. As a result of focusing on practical ability, students develop their will, flexibility, and learn to collaborate with others. These skills and knowledge constitute the main educational task. So how did this new approach to education come about? This is the logical result of combining theory and practice. STEAM was developed in America. The careers of some school graduates were noticed and decided to combine subjects such as science, technology, engineering and mathematics.

Thus began the formation of the STEM system. STEAM education means the integration of these disciplines. As we see in a separate Way, s – ” Science “ – ” Science “(Natural Sciences), T – ” Technology “ – ” Technology“, E – ” Engineering “ – ” Engineering“, M – ” Mathematics “ – ” Mathematics“, A – ” Art “ - ” Art”. That is, STEAM is said as an abbreviated option, taking the initials of these disciplines. It should also be noted that a-that is, art is then added. Perhaps other areas will be added again depending on the need for training, or another type of training similar to STEAM education can also be created. The reason is that the educational sphere, like other areas, continues to develop. The advantage of STEAM education is many, but the fact that we say that today all educational institutions of the Republic can use it is far from true.



To carry out the educational process on the basis of Zero STEAM education, there must be specially equipped rooms. One of the advantages of this education is the fact that the theoretical knowledge given to children is shown in practice is carried out right there. That is, it requires the ability to apply it in practice once theoretical knowledge is given. As a result, the lesson process will be interesting, children's passion for reading will increase, the knowledge provided will be well stored in memory, and in addition, their skills regarding ways to find solutions to life problems will be formed. The changes in the educational and technical field of the last decades are pleasant, but thus make us feel anxious. With the invention of these new things, there are many new problems that people have never encountered before. Every day, new types of work and even entire professional fields are emerging, so it becomes clear that modern teachers, together with the fact that their teaching knowledge and skills meet the requirements of the times, work in harmony with the Times.

Knowledge will help you find your idea, but true work will make this idea a reality. If we say that the main goal of traditional education is to teach knowledge and use this knowledge to think and create, the STEAM approach teaches us to combine the knowledge we have acquired with real skills. This gives students the opportunity not only to have some ideas, but also to put them into practice and implement them. Only knowledge that can be used in that reality is truly valuable. As long as the knowledge gained is left unused, there is no benefit to anyone from it. Neither to the educator nor to our society. Therefore, the introduction of knowledge obtained in practice is a requirement of today's rapidly developing time. That is why the demand for the STEAM educational program is becoming more and more developed and popular.

**Conclusion.** According to statistics, since 2011, the level of demand for STEAM-professions has increased by 17%, while the demand for ordinary professions has only increased by 9.8%, which indicates that there is a great demand for this educational system around the world. The most famous example of the STEAM approach is the Massachusetts Institute of Technology (MIT). The motto of this World University was taken as “Mens et Manus” (mind and hand). The Massachusetts Institute of Technology has developed STEAM courses to give children the opportunity to learn and introduce the concept of STEAM in advance, and even created STEAM training centers in some educational institutions. In fact, it is advisable to start STEAM education not from school, but from kindergarten. That is, it should be included in the programs of the kindergarten. It is in children of the age of big that the skill of practically independent fulfillment of what they know and learn is formed and develops by school age.

In conclusion, it should be noted that, compared to traditional teaching methods, the STEAM approach in high school encourages children to conduct experiments, build models, independently and create films, translate their ideas into reality and create a final product. This educational approach allows children to effectively combine theory and practical skills and makes it easier to study at university entrance and later stages.

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