



## COSTABILITY OF IMPLEMENTING STEAM EDUCATION IN MODERN EDUCATION

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### ABOUT ARTICLE

**Key words:** Comprehension, creativity, maps, diagrams, icons, stories, pictures, STEAM education.

**Abstract:** In this article, the many advantages and relevance of STEAM education in today's modern education system are discussed.

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### INTRODUCTION

It is advisable to start the implementation of STEAM education mainly with children of preschool age, because from this age children's thinking begins to develop. Children who do not go to pre-school education organizations can see cases of making different things from clay (pets, cars, household appliances, trees, etc.) at this age children are strongly influenced by environmental processes. That's why children can be seen trying to make things out of clay and imitate them.

In pre-school educational organizations, we can see that they make things based on specific plans. In this, children learn to make different things from plasticine or LEGO toys. Implementation of STEAM education during this period helps the child to develop creativity and logical thinking. [5]

The many benefits and relevance of STEAM education are evident today. But there are significant problems in developing "mastery" of this practical and progressive system. It can be seen that the development and implementation of the program "STEAM education for children of preschool and elementary school age" is the most important issue.

A child's self-awareness and creativity are related to the formation of the subjectivity of a preschool child. However, the concept of "subjectivity" remains difficult for teachers to understand. The age-normative model of child development helps us to identify favorable and unfavorable conditions for normal development[4].

Knowing the age norm not only helps to work with them adequately. Also, the age-normative model of children's development is a pedagogical interpretation of the mental concept of the correct norm of development and analyzes the formation of subjectivity from generality in the mind [3].

A child's activity is manifested in the presence of a clear intention. It is based on the teacher's desire to use the child's appropriate material and record the final result, to independently select samples and copy different materials.

A preschooler is curious about things and events around him. What for? What is this? asks questions like In explaining them, it is important to teach by organizing specific materials (maps, diagrams, icons, stories, pictures, etc.) based on facts and simple causality [4].

Children can choose different professions. Here are some important points to keep in mind:

First, the child should be interested in his future work and not according to the interest of relatives or acquaintances;

Secondly, you need to explain everything to the child when choosing a job, that professions require certain activities, thinking and abilities;

Thirdly, future activities should match personal characteristics.

After that, subjectivity develops in the child's mind, experiences related to self-awareness, feelings and relationships with other people. During this period, prototypes of natural phenomena, the formation of the worldview, the worldview, and the first ideas about the world of people are formed. STEAM education is the most desirable approach to the norm of preschool child development, and the principles of this educational system naturally solve age-related developmental problems.

The child is the most active researcher, experimenter. Many special psychological studies show that a child already 3-5 years old can create new ideas, shapes and designs, a ready-made engineer. With a well-organized educational process, children's interest in understanding the natural world can be transformed into technical creativity, as well as their interest in their future career.

The implementation of STEAM education in preschool education and upbringing is considered the most urgent, it allows children to understand nature, to form a creative approach, to form discoveries by teaching an engineering approach, to shape logical and critical thinking, to understand and apply scientific methods, to understand the basics of design and construction [1, 2 ].

It is advisable to start the implementation of STEAM education mainly from 4-year-old children, because from this age children's thinking begins to develop. Children who do not go to pre-school education organizations can see cases of making different things from clay (pets, cars, household appliances, trees, etc.) at this age children have a strong influence on environmental processes. That's why children can be seen trying to make things out of clay and imitate them.

In pre-school educational organizations, we can see that they make things based on specific plans. In this, children learn to make different things from plasticine or LEGO toys. Implementation of STAEM education during this period helps the child to develop creativity and logical thinking. In order not to let children get bored, it is advisable to teach them to make shapes with different colors and few elements. After a certain time, increasing the number of elements, teaching to make complex objects and creating a project, or teaching to create an object based on ready-made drawings and projects, and then teaching to make another object that is somewhat different and useful from this object, is the implementation of the STEAM education approach in engineering. .

The following different methods can be used to implement this training:

Blended learning;

Webinar method;

Heuristic teaching method.

During the implementation of the STEAM educational approach, it is important to distinguish and develop children according to their interests in which profession they are interested in in the future.

According to the relevant decision of the Cabinet of Ministers, students of the fourth (in the first academic year - fourth-ninth) grades of the republic's general education institutions are admitted to the Presidential schools on the basis of the rating table of capable and talented students in the relevant

STEAM subjects: mathematics, biology, informatics and information technologies, physics, algebra, geometry and chemistry. students who graduated with excellent marks were admitted on a competitive basis.

It should be noted that students in these Presidential schools are planned to be educated using the STEAM educational approach. It also provides for the productive use of free time of students and the organization of various extracurricular clubs and practical application of the theoretical knowledge acquired during the lesson.

Implementation of independent education of students is currently the most important process, and the fact that this process remains unimplemented in most cases does not affect the quality of education. In the experience of countries with a developed educational system, China, Japan, Israel, Singapore, the United States of America, and Russia. dedicated to addressing a current issue through STEAM education.

## REFERENCES

1. Turdiyev Sh.R Matematik modellashtirish postulatları va funksiyalarining turli sohalarda amaliyotga qo'llanilishi // Mug'allim ham yzliksiz bilimlendirio'. - Nekus:2020.
2. Sh.R.Turdiyev Talabalarda kasbiy-amaliy masalalarni yechish ko'nikmalarini shakllantirish O'zMU xabarları №1/4 Toshkent-2016-y. 256-259 bet
3. Стяжин.В.Н. Программные компьютерные средства поддержки математической и спетсиальной подготовки инженера технолога Текст.: автореф. дис. канд. тех. наук наук /В.Н.Стяжин. Волгоград, 2006.
4. Селевко Г.К. Современные образовательные технологии Текст./Г.К. Селевко.М. Народной образования, 1998. - 255 с.
5. Гринева Т.В. Различные подходы к определению категории "математической мышлений" [Текст]/Т.В. Гринева//Мир науки, культуры образования. -2009.- №- 1 - С. 63-167.
6. Turdiyev, S. R. (2022, April). MODELLAR XARAKTERI VA MODELLASHTIRISH JARAYONLARINING TARKIBIY QISMLARI. In E Conference Zone (pp. 136-137).
7. Турдиев, Ш. Р. "РОЛЬ КРЕАТИВНЫХ МЕТОДОВ ОБУЧЕНИЯ МАТЕМАТИКЕ В ПРОФЕССИОНАЛЬНОЙ ПОДГОТОВКЕ СТУДЕНТОВ ВТУЗОВ." SCIENCE AND WORLD 5 (2013): 101.
8. Турдиев, Ш. Р. (2019). ТАЪЛИМ ЖАРАЁНИНИ ТИЗИМЛИ ЁНДАШУВ АСОСИДА ПЕДАГОГИК ТЕХНОЛОГИЯЛАРДАН ФЙДАЛАНГАН ХОЛДА ТАШКИЛ ЭТИШ. Современное образование (Узбекистан), (12 (85)), 31-36.