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STEAM APPROACH IN PRIMARY EDUCATION

Salokhitdinova Navruza Muradulla kizi
Termez University of Economics and service
Doctor of philosophy in Pedagogical Sciences (PhD), Termez (Uzbekistan)
saloxitdinovanavruza@gmail.com

Axmedova Shokhista Bakhtiyor qizi
Termez University of Economics and service
A student of the 2nd level of primary education

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Abstract: This article describes the interdisciplinary relationship between technology and natural sciences in primary education based on the STEAM approach. That is, it is explained how technology and natural sciences enter into an integrative process with each other and how the interdisciplinary connection is illuminated based on the STEAM approach. Naturally, there are many technical and technological problems in production, and it is impossible to increase the efficiency of production without eliminating them.

Keywords: technology, natural sciences, integration, technology, interdisciplinarity, STEAM

Introduction

In the current period, when educational reforms are being implemented in stages, there is a need to put into practice the existing conclusions and recommendations on improving the effectiveness of Education based on the requirements of the quality of Education. In the production of today's personnel in particular, it consists in the formation of competitive, active individuals, that is, specialists, who can adapt to the transition period to a market economy. The issue is a central task in teaching technology, among other subjects. The content of this task, in our opinion, is further clarified in the interaction with the “Natural Sciences”. And if the connection between these subjects is formed on the basis of the STEAM approach, then the understanding of students will be more interesting. STEAM bu — s — science, T — technology, E — engineering, a-art and M-math. In English it will be: natural sciences, technology, engineering, arts and mathematics. These Line are the Mo t popular account in the modern world.

The great thinkers of the East, allomas, in their scientific and educational works, poems and ghazals, in their literary prose, emphasized and glorified honest, creative labor, the sacredness and necessity of professional occupation. Including Ahmad al-Farghani, Imam al-Bukhari, Imam at-Termiziy, Abu Nasr Farabi, Abu Rayhan Beruniy, Abu Ali Ibn Sino, Yusuf Khos Hojib, Ahmad Yassawi, Mahmud Qoshgari, Mahmud Zamakhshari, Shaykh Najmiddin Kubro, Burkhoniddin Marghinani, Mahmud Chagminiy, Bakhovuddin Naqshbandi, Abdurahman Jami, Alisher Navoi, Mirzo Ulugbek and many other allomas in their works, those who expressed creative labor, profession in their works [10; p.156].

M. of the new enlightenment current, which appeared on the territory of Central Asia since the second half of the XIX century.Behbudi, A.Fitrat, H.H.For the first time in their new school, such figures as Niyazi, applied heuristic methods of developing youth creative abilities. In particular, Fitrat emphasizes that mental education is carried out through reading-learning, and distinguishes in IT professional (perfect) intelligence, which is formed by the means of thought and science, endowed by nature [9; p.271).].

Methods

The method described above emphasizes an interdisciplinary approach based on the STEAM framework, integrating Science, Technology, Engineering, Arts, and Mathematics to enhance student learning. The focus is on practical engagement alongside theoretical understanding, encouraging hands-on activities and creativity. By combining "Technology" and "Natural Sciences" education, students are motivated to experiment, build models, and develop independent projects, helping them to absorb and apply knowledge more effectively. This method fosters both intellectual and manual skills, ensuring that learning is adaptable to the fast-changing world, thus improving students' ability to think critically and work independently. The approach aims to better prepare students for university and future careers by merging theory with real-world application.

Result and Discussion

Today, the reforms carried out in the field of education in our republic target a number of tasks in the teaching of all subjects. At the same time, the need to carry out several practical works to further improve the teaching of the classes “technology” and “Natural Sciences”, which are carried out in schools of general secondary education, and the work of guiding students to the profession is evident. In particular, vocational guidance issues require a greater emphasis on improving the teaching of “Technology” in general secondary schools, while through “Natural Sciences”, one can express in connection the upbringing of individuals of each profession who can think and work independently, and not just professional owners. Because, on the basis of these Sciences, the connection between nature and life is understood by the child and helps him to understand. Taking into account this, it is equally desirable that we define the issue of raising a person who can think and work independently as the main criterion for the training of “Technology” and “Natural Sciences”, which are carried out in schools.

The main goal of “Technology”, which is taught in general secondary schools, is to instill in schoolchildren the facets of technological education. That is, it is a learning discipline that consists of the process of mental and physical actions performed by students under the guidance of a teacher of technology, which, as a final result, allows them to acquire knowledge of weapons, tools and processes of Labor and the necessary practical skills and qualifications for the performance of productive labor in a given area, to consciously choose a[3; 4; 5; 6]. And in the lessons of” Natural Sciences", it shows that the organization of practical work of students, including independent and creative activities, directly depends on the teacher's knowledge of this area and pedagogical skills.

What changes will happen in content if we implement interdisciplinary engagement in” technology “and”Natural Sciences " on the basis of the STEAM approach? How does the STEAM approach affect learning performance? Its main idea is that practice is just as important as theoretical knowledge. That is, during learning, we need to work not only with our brain, but also with our hand. Learning only on the walls of the class does not keep pace with the rapidly changing world. The main difference of the STEAM approach is that children use both the brain and their hands to successfully explore a wide variety of topics. They “absorb”the knowledge they receive. STEAM education is not just a teaching method, but a way of thinking [7; p.52].

Conclusion

Compared to traditional teaching methods, the high school STEAM approach encourages children to experiment, build models, independently create music and movies, turn their ideas into reality, and create a final product. It is worth noting that this process is carried out directly in the combination of “Technology” and “Natural Sciences”. Because as part of the STEAM program, these disciplines rely on each other in a state of harmony. In our opinion, such an educational approach allows children to effectively combine theory and practical skills, and also facilitates university admission and further study

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