THE IMPORTANCE OF THE STEAM APPROACH IN STUDENTS' LEARNING PROCESS

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Anotatsiya: Maqolada O'zbekistonda ta'lim jarayonida olib borilayotgan islohotlarda STEAM yondashuvning muhim bo'lgan hususiyatlari, ta'limdagi o'rni va yetuk kadrlarni tayyorlashdagi asosiy ahamiyatiga qaratilgan ma'lumotlar ko'rsatib o'tilgan.
Kalit so'zlar: STEAM yondashuv, ta'lim sifati, fanlar o'rtasidagi bog'liqlik, loyihalar ustida ishlash, muammolarni ijodiy hal qilish, ijodiy fikrlash.
Аннотатсия: В статье указаны важные особенности подхода Steam в реформировании образовательного процесса в Узбекистане, его роль в образовании и основное значение в подготовке зрелых кадров.
Ключевые слова: STEAM подход, качество образования, взаимосвязь между дисциплинами, работа над проектами, творческое решение проблем, творческое мышление.
Annotation: The article highlights the important features of the STEAM approach in the reforms carried out in the educational process in Uzbekistan, its role in education and its main importance in the training of mature personnel.
Keywords: STEAM approach, quality of Education, connection between disciplines, work on projects, creative problem solving, creative thinking.

The STEAM approach is gaining increasing importance in the reforms being carried out in the educational process in Uzbekistan. As part of the state's reforms aimed at improving the quality of education and training specialists who meet modern requirements, the STEAM approach is being used in the following areas:

Curriculum Update: School curricula are being focused on integrating STEAM subjects. New subjects and courses are being introduced that demonstrate the connections between subjects and develop students' practical skills. For example, subjects such as robotics, 3D modeling, and programming basics are being introduced into the curriculum.

STEAM learning centers and labs: STEAM learning centers and state-of-the-art labs are opening across the country, where students have the opportunity to conduct hands-on activities, work on projects, and put their knowledge into practice.

Teacher training: Teachers are being involved in special training and courses to learn teaching methods based on the STEAM approach. They are being trained to work with new technologies, communicate effectively with students, and teach project-based teaching methods.

Project-based learning: Project-based learning is increasingly being emphasized in education. Students are required to work independently or in teams on projects that address real-world problems. This helps them develop problem-solving, creative thinking, and teamwork skills.

Use of technology: The use of modern technologies in the educational process is increasing, including computers, interactive whiteboards, robots, 3D printers, and other equipment. This speeds up the acquisition of knowledge by students and makes the learning process more interesting.

International cooperation: Uzbekistan is developing cooperation with international organizations and countries in the field of STEAM education. Foreign experts are being attracted to exchange experience and learn new technologies and methods.

The STEAM approach is an educational method that aims to engage students and develop their 21st century skills by integrating Science, Technology, Engineering, Arts, and Mathematics. This approach allows students to acquire knowledge not only in a theoretical way, but also in a practical way, by solving real-world problems.

The STEAM approach has the following key features:

• Interdisciplinary: The STEAM approach allows for the connection between different disciplines. This helps students see problems from different angles and find creative solutions to them.

• Practicality: STEAM projects allow students to apply their knowledge in real-world situations. This helps them gain a deeper understanding of the subject they are studying and apply it later in life.

• Problem Solving: The STEAM approach focuses on teaching students to solve real-world problems. This includes teaching them to identify problems, analyze them, and find creative solutions to them.

• Creativity: The STEAM approach encourages students to express themselves creatively. This allows them to develop different ideas, create new things, and experiment in areas that interest them.

• Use of technology: The STEAM approach encourages students to use technology. This allows them to learn new technologies, apply them to their own purposes, and equip themselves with 21st century skills.

The STEAM approach has a number of advantages that are inherent in modern education today, which are listed below:

Engaging students: STEAM projects make learning fun and engaging for students.

Improving learning outcomes: STEAM projects help improve students' academic outcomes.

Adult Life Readiness: STEAM projects equip students with skills that are relevant to the job market.

Innovative Thinking: STEAM projects encourage students to think innovatively and solve problems in new ways.

Ways to implement the STEAM approach:

STEAM Clubs: Establish STEAM clubs in schools and encourage students to work on projects that interest them.

STEAM Projects: Encourage students to work on STEAM-related projects and allow them to put their knowledge into practice.

STEAM curricula: Implementing STEAM-related curricula in schools.

STEAM events: Organizing STEAM-related events, such as competitions, exhibitions, and conferences.

In conclusion, we can say that the STEAM approach is an important educational approach that can help students develop 21st century skills. It allows them to apply knowledge, develop creative thinking, and problem-solving skills, which will prepare them to become successful professionals in the future. Thus, the STEAM approach plays an important role in the framework of educational reforms in Uzbekistan. However, for this approach to be effectively implemented, additional resources, teacher training, and further adaptation of curricula are needed.

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