

STEM Research Paper: STEM Education in the Modernized Classroom

Introduction

Education is an integral pillar in the economy of any nation. According to research analysts, a nation that avails quality education to her citizens paves the way for learners' equipment with vital skills that are significant in not only the nation but also in different industrial sectors. Through quality education, countries engage in effective reduction of unemployment and different expenditure endorsed on different sectors stemming from an educated nation. However, the effectiveness of an education system is dependent on the crucial factor of incorporating different ideas, values, skills and knowledge that is integrated within the learning curriculum. Through this system, the learners are imparted crucial knowledge and skills that positively benefits the society and the education sector. One such a system is the STEM initiative which has significantly gained popularity due to its in-depth functionality and advantageous aspect in diverse spectrum.

STEM education is an initiative program that stands for Science, Technology, Engineering and Mathematics. The four components constitute a significant area in education that defines the integration of different complex attributes to present a rewardable solution to complications or challenges. Through the STEM initiative, classroom is modernized in a unique model due to the increased instances of integrating ideas and aspects that absorbed and exhibited through the independent alignment of subjects and classes. According to Conner (2021), STEM education has developed unique skills and capabilities that enable students to deal with challenging real-life situations in diverse instances. Through this model, a lesson or unit that is based on STEM concepts defines a class that mainly thrives on the objective of finding solutions to real-life challenges

There are numerous global challenges that affect the world today. Among these challenges are climate change, agricultural production, declining energy, resource management, health complications, and biodiversity. These challenges need expert knowledge and special skills that can offer effective solutions to address these problems. One significant way through which the knowledge and skills can be acquired is based on the concept of educative functionalities. The education sector and its constituent form and play a major role in equipping learners with the major skills needed to address different challenges in diverse skills ranging from engineering, technological or mathematical sequences. Because of the increasing global challenges in the world, it becomes crucial for the education sector to adopt an effective initiative program that can effectively offer effective strategies of dealing with the challenges.

One significant model is the STEM education program that is integrated in classrooms to equip learners with the appropriate knowledge to further develop their key skills in science and technology. The new curriculum offers segments that aid in addressing the challenges using the four disciplines through an interdisciplinary spectrum.