

ENABLING STEM OPPORTUNITIES FOR DEVELOPING COUNTRIES CHILDREN THROUGH INNOVATIVE, COST-EFFECTIVE STEM CURRICULUM

Usama Kalim 1^a, Yohana Kifel Meknon 2^b, Francis Stonier 3^c

Contact Author: Usama Kalim (ukalim94@gmail.com)

^{a,b,c} Faculty of Education, Southwest University, Chongqing, China 400715

THEME:

STEM education policy & practice; STEM education and sustainability

BACKGROUND AND AIMS

The economic growth of any country is linked with education. STEM education is a modern-day approach from developed countries to educate the pupils and prepare them for the 21st century needs. The developed countries are encouraging creative and technological innovations through STEM education. These countries will be able to utilize new technologies to increase productivity and sustain economic growth. Different researchers worldwide highlighted the significance of STEM education for the future. This type of education fosters pupils' critical thinking and problem-solving abilities, which enables their creative and innovative thinking. This set of abilities prepares them for 21st-century jobs. In the era of technological innovation, youth who possess these skills will be able to uplift the country's economy through innovation and science.

Despite the increasing focus from developed countries on STEM, the developing countries still struggle to integrate STEM into their education system. The developing world is still trying to cope with the basic challenges, and despite realizing the importance of STEM, not been able to make any significant efforts in this regard. This paper highlights the recent trends of STEM education in developing countries' through extant review of the literature and propose strategies that how STEM education can be applied effectively in developing economies.

METHODOLOGY

The study reviews the recent literature in developing world context to identify the recent trends related to STEM. The financial aspects related to STEM cost has been analyzed using government data and educational reports of developing and developed world for comparison. Implications and strategies for developing world countries have been drawn based of reviewed work.

RESULTS AND CONCLUSIONS

The review of literature highlights that recent trend of STEM in developing world is limited to describing its benefits for economy and nation development and its impact on pupil success. However, it does not propose strategies to implement STEM education in developing economies efficiently. The reports data also highlights the difference of budget available for schools in developing world as compare to developed world, which is very wide. Therefore there is need to work on innovative and cost-effective curriculum which can make it possible for the developing world to overcome the financial challenges. The study proposes various strategies to implement STEM education in developing economies efficiently.