



STEM Education: A Significant Driver of Education to Boost Economy and National Security

Dr. Binu Thomas

M.A (Sociology) M.A (Tourism & Travel Management) M.Phil, Ph.D, B.Ed

binupng2012@gmail.com

Sikkim University, India

Abstract

STEM fields are significant forces of innovation and development, resulting in modern technology and advances that improve our daily lives. Teaching STEM in school can encourage exploration and curiosity in kids, as well as teach them about the world around them in a fun, hands-on manner. STEM education creates critical thinkers, increases science literacy, and enables the next generation of innovators which will help to inform classroom teaching and learning and enrich learners' out-of-school experiences. With this new movement in education to focus more on STEM, policymakers need to develop strategic future directions for developing STEM education in higher education as a driver of the innovation economy. The main objective of this paper is to propose strategic future directions for developing STEM education in higher education as a driver of an innovation economy based on knowledge, innovations, positive perception of new ideas, and readiness for their practical implementation in various spheres of human activity. The paper will also identify and examine the roles of science and technology in different segments of life such as poverty alleviation, Health, Agriculture, affordable energy, water supply, environmental management, economic growth, rural development, and Education. The paper also observes that the gap between rich and poor countries can largely be attributed to the differences in Technology and the difficulty in their application. It recommends policy options for reaping benefits from science and technology which include among others that the educational system shall emphasize science at all levels and re-orient the entire society towards scientific thinking to develop new technologies and adapt existing ones to improve societal well-being. This paper also outlines the features of STEM education as a national priority, since it is a driver of innovation economy. The results of this study indicate significant, positive effects of STEM education on productivity and focus on improving and promoting STEM programs at the post-secondary level too

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