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RETHINKING SPACE – AN OPPORTUNITY FOR SUCCESSFUL SPACE SCIENCE, TECHNOLOGY AND STEM EDUCATION

Abstract

Over the past decades, there has been a paradigm shift towards advancing and inspiring the next generation of space enthusiasts. This is vital to addressing the space skill set, improving awareness and engagement with the space sector. Recognising the opportunities presented by the growing field of Space and the strategic advantages which Space provides, this article adopts an explanatory approach in exploring contrasting predisposition of students and academics towards a successful space science, technology and STEM education. Focus groups are carried out to develop a nuanced understanding of the perceptions of Space as a key connection to ensuring a continuous effort in Space science and technology leading to STEM education with the skills to drive economic developments via science and technology. Relations between the perceptions of Space as a driver for innovation and promoting space related themes and discipline are investigated. Implications for ensuring progressive Space-STEM engagement are discussed. Results indicate that Space has the capacity to influence and bring about an inter-disciplinary approach to STEM education providing a gateway for renewed interest in space-STEM disciplines. The study provides evidence that Space is felt to offer a contemporary and exciting context for science learning which serves as a motivation for STEM education. This article concludes with suggestions on supporting STEM education through space-based activities and research in higher education circles.