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LINKING AUSTRALIA'S REMOTE SCHOOLS TO SPACE EDUCATION: A PILOT STUDY

Abstract

The Eyre Peninsula Space Explorers program represents an innovative approach to primary school STEM/space education, integrating the importance of space technologies and space exploration concepts with local contexts. The program was developed for the rural Eyre Peninsula region of South Australia, but its concepts could be adapted for use in other remote areas.

The program aims to inspire young students about the STEM career possibilities within the burgeoning Australian space industry, building on the presence of two established launch sites within the region. Despite the potential economic benefits and job opportunities associated with the space industry, some elements of the local community have expressed resistance to these facilities, and the program was also aimed at alleviating some of these community concerns.

This paper outlines the program's purpose, methodology, and outcomes. The Eyre Peninsula Space Explorers program emphasises the role of space technologies in supporting local industries such as agriculture, fishing, tourism, and mining. Students engage in a design thinking process, tackling local challenges using 3D educational technologies, guided by the enquiry question, "How might we use space technologies to solve problems on the Eyre Peninsula?" Additionally, the program underscores reciprocal benefits, exploring how the Eyre Peninsula can contribute to the broader space industry. To ensure effective implementation, the initiative begins with a teacher professional development course, equipping educators with the confidence and skills needed to deliver space education, focusing on science as a human endeavour, designing STEM learning programs, and teaching design thinking. To address local concerns, community involvement is integral, and the program therefore also features evening information sessions and student showcases to foster a connection between the program and local population.

This paper presents the principal results of the Eyre Peninsula Space Explorers program, delivered in 2023 to fifteen schools within the Eyre Peninsula region, highlighting its impact on student learning, community engagement, and potential avenues for addressing community concerns. The study concludes with a discussion of the program's implications for bridging the gap between space education, local industry, and community involvement, ultimately contributing to a more informed and supportive community for the evolving space sector within the Eyre Peninsula.