

Editorial

Welcome to Volume 24, Issue 4

Welcome to the Special Edition of IJ-ISME on Issues and Opportunities for Rural Science, Technology, Engineering and Mathematics (STEM) Education.

Rural education in Australia poses a fascinating set of challenges that provide opportunities for diverse educational solutions. In this special issue we showcase innovative activities and programs designed to enhance educational access and promote teaching and learning success for rural and regional STEM students and teachers.

The first article of this volume examines the need to support science and STEM learning for both teachers and students in rural and remote schools where face-to-face professional learning opportunities are often limited. Arthur Townsend and co-authors describe the implementation of the Middle Years Astronomy Project at rural and remote sites in Victoria and Western Australia.

The next paper explores the complex issue of transition and retention of students in STEM courses at regional universities. Jackie Reid and colleagues describe a mentoring program designed to assist first-year female students enrolled in STEM disciplines (on and off-campus). Their work helps students be more aware of the challenges of pursuing a career in STEM while also increasing their confidence in making a successful transition to the STEM workplace.

Cid Parissi and colleagues report on the implementation of a tiered program of cultural awareness that aims to increase the numbers of Indigenous health professionals. The program, established in partnership with local Aboriginal communities, focuses on improving the entry and completion numbers of Aboriginal and Torres Strait Islander peoples in the Bachelor of Clinical Science degree. This initiative involves a whole-of-campus approach and incorporates community perspectives to better support the students; it has great potential for a flow-on effect to other programs.

The final paper in this volume addresses the issues of bioscience learning for nursing students, many of whom are located in rural and regional areas. Michael Todorovic and colleagues describe their work in implementing concept-captured video tutorials (CCVTs) in order to build students' conceptual understanding.

In summary, this special edition provides insights into some of the challenges faced by teachers and students in STEM disciplines and provides a snapshot of some exciting initiatives and programs being implemented by educators in an effort to address these challenges. The editorial team would like to thank the authors for contributing their research to this special issue.

Jennifer Cox, Patricia Logan and Susan Rowland
Guest Editors