

ACSME 2020 Special Issue - Editorial

Special Issue Guest Editors:

Assoc Prof Puspha Sinnayah^a and Dr Deborah Jackson^b

^aFirst Year College, Victoria University, Melbourne VIC 8001, Australia

^bDepartment of Mathematics and Statistics, College of Science, Health and Engineering, La Trobe University, Bundoora, VIC 3086, Australia

The 2020 Australian Conference of Science and Mathematics Education (ACSME) was held online due to the COVID-19 epidemic with the theme: “A science education for uncertain times.” This special issue of the International Journal of Innovation in Science and Mathematics Education (IJISME), consisting of six papers, is rich in the discussion of a range of issues, including thoughtful detail of the enhancement of teaching practices in the face of the current COVID-19 challenges. Twenty-five authors and co-authors, from a variety of disciplines, contributed to this edition.

Some authors detail how they have adapted to the current COVID-19 circumstances and how their innovations and modifications have impacted students. These range from implementation of instructional videos, conceptual understanding and self-efficacy for first-year physics students, student perception and experience of online topographical first-year anatomy laboratory classes using Zoom technology, and discussion of the transition of mathematics and statistics support “in a room” to “via Zoom” and its implications for students. Also included in this edition is a paper on the insights into student cognition using creative exercises as an evaluation tool in undergraduate first-year organic chemistry, and a paper on an Australian perspective on integrating cultural competence into science teaching via cultural accountability. Furthermore, we have included a discussion paper outlining short-term and long-term responses to COVID-19 in the context of quality assurance, quality improvement and scholarship requirements for curricula, which was supported by an inaugural Australian Council of Deans of Science (ACDS) Teaching Fellowship.

We hope these papers inspire you to strengthen your own educational research activities and engage in, and write papers about, your scholarly teaching and learning practices, particularly in these changing times where the generation of new ideas and innovative practices has become a necessity for quality education of our science graduates.