ACSME 2024 Special Issue 1 – Editorial

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The 2024 Australian Conference on Science and Mathematics Education (ACSME) was held at the University of Canberra, with the conference theme of "Belonging: The centre of the student experience." This is the first of two special issues featuring research and practice presented at ACSME2024. Articles in this issue centre on student belonging and mindsets, and are followed in the second issue by articles focusing on support and success in teaching and learning.

Our cover image features the work of Lindsie Arthur, Iain Walker, Rebekah Anderson and Lisa Godinho, reporting the results of a survey of Bachelor of Science students examining their feelings of belonging and inclusion. The authors offer potential barriers to and facilitators of students' sense of inclusion and highlight that neurodivergent students are overrepresented among those citing interpersonal and structural barriers.

Amy Zhao, Sara Davies, Ava Greenwood and Timothy McIntyre present an article analysing the attitudes and perceptions of students towards computer programming in a first-year interdisciplinary science course. Students showed significant improvement in attitudes towards programming over the semester, regardless of whether they had prior programming experience and irrespective of gender. The authors provide suggestions regarding activities that can lead to successfully improving students' attitudes to computer programming.

Angus Linklater-Steele, Kay Colthorpe and Louise Ainscough examined whether student mindset was associated with learning strategies or academic performance in second-year undergraduate biomedical science students. While mindset did not show a relationship with learning strategies, growth mindsets were associated with higher academic performance than fixed mindsets. The authors also suggest the learning strategies of self-evaluation and record keeping as effective in increasing academic performance. Fostering these learning strategies and growth mindsets in earlier education can be taken as recommendations for improving the success of second-year cohorts when facing academic challenges.

Moving to postgraduate students, Stefan Huth, Susan van de Meene, Aisling McEvoy, Richard Hughes and Lauren May monitored student attitudes to sustainability in a Master of Pharmaceutical Science degree. The authors present their application of sustainability competency frameworks to designing learning and assessment activities in a pharmaceutical context. While these frameworks have rarely been utilised outside of specific sustainability or environmental programs, most students considered sustainability as being relevant to their future careers in pharmaceutical science. Helpful recommendations for learning design are presented.

We thank the presenters, authors and reviewers who contributed to the ACSME 2024 conference and these special issues. We hope this issue serves as a valuable resource to inform and contribute meaningfully to your educational practice.