

TEACHING FOR DIVERSITY AND EQUITY IN STEM: IN PRACTICE

Reva Ramiah^a, Lisa Godinho^b, Joanne Castelli^c, Angela Ziebell^d, Stephen George-Williams^e

Workshop Facilitators: Reva Ramiah (reva.ramiah@curtin.edu.au), Lisa Godinho (lisa.godinho@unimelb.edu.au), Joanne Castelli (joanne.castelli@uwa.edu.au), Angela Ziebell (angela.ziebell@monash.edu), Stephen George-Williams (stephen.george-williams@sydney.edu.au)

^aFaculty of Science and Engineering, Curtin University, Bentley, WA 6102, Australia

^bSchool of BioSciences, The University of Melbourne, Melbourne, VIC 3010, Australia

^cEducational Enhancement Unit, The University of Western Australia, Perth, WA 6009, Australia

^dSchool of Life and Environmental Sciences, Deakin University, Burwood, VIC, 3125, Australia

^eSchool of Chemistry, The University of Sydney, Sydney, NSW, 2006, Australia

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Diverse teams more effectively solve problems (Reynolds & Lewis, 2017), and are therefore critical for STEM research and innovation. Yet, tertiary STEM cohorts still do not represent our diverse Australian society (Fisher, Thompson & Brookes, 2020). Despite targeted efforts providing access for a broader demographic (Tertiary Education Quality and Standards Agency, 2015; TEQSA), there remains significant participation gaps for students from traditionally marginalised cohorts (students with a disability, gender diverse, or culturally and linguistically diverse students) (Lowrie, Downes & Leonard, 2017). Providing greater access will not rectify this imbalance if the learning experiences universities offer exclude or limit the success of these students.

The global pandemic has disrupted higher education; with significant impact on student wellbeing and the potential to exacerbate inequities (Dodd et al., 2021). However, as STEM educators this disruption can be an opportunity to reform our STEM curricula, not just for new delivery modes, but for diverse student cohorts.

Catering for diversity is not a new concept in tertiary education. It has been core to transition pedagogy, which ask that “academics...leverage the curriculum and its delivery...to make equitably explicit the implicit rules and expectations of disciplinary engagement and success.” (Kift, 2015). The educational research is arguably done, but as academics, do we have the capacity to implement equitable and inclusive STEM education?

This workshop will make the implicit explicit as together we discuss, deconstruct, and reconstruct ‘standard’ tertiary STEM classes to give participants practical experience applying the principles of inclusive teaching through curriculum design.

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