

# ACADEMIC VOICES ON REALISING DIVERSITY, EQUITY, AND INCLUSION FOR SYSTEMIC CHANGE IN AUSTRALIAN STEM HIGHER EDUCATION

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Enabling the participation and success of marginalised cohorts for equity in STEM education requires systemic and transformative change (Harkavy et.al., 2015). Efforts to widen participation, especially with respect to gender in Australian STEM higher education and employment have been underway for more than a decade. Yet, even for women in STEM, desired outcomes are far from being achieved (Australia Department of Industry, Science, Energy and Resources, 2021). What then of other historically underrepresented equity groups such as people with disabilities, people of Indigenous descent, or those that intersect or sit outside our monitored equity categories? Whilst Universal Design for Learning (UDL) is often proposed as a panacea for better participation outcomes in higher education institutions, there needs to be an understanding of systemic and contextual factors that will enable STEM faculty to implement UDL or other inclusive frameworks in their practice. Factors such as institutional culture and academics' capacity to recognise personal implicit biases and assumptions greatly impact the success of inclusive learning and teaching approaches (Fuentes et al., 2020; Kumashiro, 2002). Further, as STEM academics are themselves under institutional constraints and power structures beyond their control, it is necessary to take a critical perspective of the context to understand how systemic factors perpetuate the underrepresentation of equity groups in STEM. This presentation will offer insights from a national level study into the opportunities and challenges that are present in the Australian STEM higher education context to facilitate transformational change for better participation.

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