

CO-CREATING INCLUSIVE SCIENCE CURRICULA WITH STUDENTS AS PARTNERS

Lucy Mercer-Mapstone

Presenting Author: Lucy Mercer-Mapstone (lucy.mercer-mapstone@uts.edu.au)
Faculty of Science, UTS, Sydney NSW, Australia

KEYWORDS: students as partners, inclusive education, diversity

Student cohorts are rapidly diversifying with proportional increases in students from underrepresented minority groups including those defined by race, gender, sexual orientation, religion, family composition, age, and economic status (Higher Education Today, 2018). STEM education is evolving more slowly and barriers faced by students are inequitable with underrepresented students facing greater challenges than their 'traditional' counterparts in achieving academic success (Kuh, O'Donnell, & Schneider, 2017).

One reason cited for these educational inequalities is the normative nature of many curricula in failing to include diverse experiences and ways of knowing (Jester, 2018). Regarding student learning, seeing the omission of their histories from mainstream curricula can lead to feelings of isolation, alienation, & marginalisation, to higher attrition rates, & to increases in inequitable sociodemographic attainment gaps (Magd, 2016; Seidman, 2012; Strayhorn, 2012).

This presentation, including student co-presenters, will share a process of science academics and professional staff partnering with science students in a faculty-wide initiative to make STEM curricula more inclusive & representative of diverse identities. Initial experiences, reflections, and findings from early evaluations will be reported with important implications and recommendations relevant to future teaching and learning initiatives in STEM.

REFERENCES

- Higher Education Today. (2018). Meeting the needs of underserved students. Retrieved 17 May, 2018, from <https://www.higheredtoday.org/policy-research/meeting-needs-underserved-students/>
- Jester, N. (2018). Representation within higher education curricula: contextualising and advocating for feminist digital activism. *Teaching in Higher Education*, 23(5), 606-618. doi: 10.1080/13562517.2018.1465036
- Kuh, G., O'Donnell, K., & Schneider, C. G. (2017). HIPs at Ten. *Change: The Magazine of Higher Learning*, 49(5), 8-16. doi: 10.1080/00091383.2017.1366805
- Magd, N. A. E. (2016). Why is My Curriculum White? - Decolonising the Academy. from <https://www.nusconnect.org.uk/articles/why-is-my-curriculum-white-decolonising-the-academy>
- Seidman, A. (2012). *College Student Retention: Formula for Student Success*. New York: American Council on Education.
- Strayhorn, T. L. (2012). *College Students' Sense of Belonging: A Key to Educational Success for All Students*. Oxfordshire, UK: Routledge.

Proceedings of the Australian Conference on Science and Mathematics Education, The University of Sydney and University of Technology Sydney, 2 - 4 October 2019, page 78, ISBN Number 978-0-9871834-8-4