Accessible work placements support equity and diversity in engineering

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Social capital, financial status and personal circumstances can impact engineering work placement experiences, leaving some students at a disadvantage, according to new research led by the University of

Technology Sydney (UTS) with The University of Western Australia, Murdoch University and Curtin University.

The report, funded by the National Centre for Student Equity in Higher Education (NCSEHE), recommended universities and industry refine Work Integrated Learning (WIL) practices to better support access, quality and wellbeing for students from disadvantaged backgrounds.

WIL is the main umbrella term used in Australia to describe a range of workplace-based educational experiences that contribute to a degree qualification.

Lead researcher Dr. Natalie Lloyd (Faculty of Engineering and Information and Technology, UTS) said the study examined student engineers' narratives of their WIL placement experiences including access; placement quality; support; development of professional identity; and impact on wellbeing.

"We found WIL wellbeing is negatively affected by a range of stressors including time, commitment and financial pressures, which may be offset by opportunities for learning and impact for some students, although not all," Dr. Lloyd said.

"Students from equity groups, who often face compounding personal and financial challenges, are particularly susceptible to these pressures."

The study found many Australian institutions included compulsory exposure to professional practice, in addition to embedded professional practice experiences, as a course completion requirement for engineering studies.

"This project sought to establish the features of quality engineering WIL placement practices and identify if students' wellbeing was eroded by

stresses, including those that might arise from poor-quality and unpaid placements," Dr. Lloyd said.

The report recommended industry and universities address the access and wellbeing issues associated with increasingly unpaid or underpaid placements. This may be achieved by implementing a minimum "living wage" and providing less intense WIL models if unpaid placements are unavoidable.

Personal background was also found to be a significant factor in accessing WIL placements.

"Women in non-traditional areas (WINTA) and students from non-English speaking backgrounds (NESB) face systemic prejudices and detracting workplace cultures," Dr. Lloyd said.

"Additionally, recruitment and employability are driven by practices that privilege high social capitals and vulnerability is exacerbated by the self-sourced nature of WIL placements."

The report recommended universities consider other disciplinary models and practices, such as those in health and education, to provide equitable access to quality engineering WIL placements.

This could include allocating students to university- and industry-partnered WIL; broadening in-curriculum industry-student engagement; and removing or reducing the "hours" dependent completion hurdle.

Students could also be empowered as co-designers of WIL experiences and policy to support a cultural shift from compliance-driven engagement in WIL to a career curation mindset.

NCSEHE Director Professor Sue Trinidad said in order to achieve

equity and diversity in engineering, it is important that requisite WIL practices are not prohibitive for disadvantaged students.

"This research presents opportunities for universities, industry and students to work together in developing WIL placement programs with a focus on quality, accessibility and effective career development," Professor Trinidad said.

More information: Access, quality and wellbeing in engineering Work Integrated Learning placements. www.ncsehe.edu.au/publications … -learning-placements

Provided by University of Technology, Sydney