

Research in Engineering Education Symposium & Australasian Association for Engineering Education Conference 5 - 8 December, 2021 - Perth, WA



WORKSHOP

Current best practice, support mechanisms and experiences of project-based learning

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WORKSHOP MODE

Hybrid during Perth business hours

OVERVIEW OF WORKSHOP

The importance of integrating tasks that are relevant to graduate practice into the engineering curriculum has been widely recognised. One key approach is project-based learning; however, there are significant barriers to improvement and wider adoption of practice-based approaches—including (but not limited to) the cost of scaling up projects for large cohorts, appropriately qualified teaching staff, organisational structures—which can lead to inauthentic approaches and staff attrition.

The team has received an AAEE engineering education grant to identify current best practice and support mechanisms for project-based learning. The project will provide greater clarity to teaching staff on what best practice in project-based learning is and what support they ought to seek from their T&L leadership for their project-based learning courses. The purpose of the workshop is to share and discuss preliminary data from the team's project and provide an opportunity to share experiences of running project-based learning.

ACTIVITIES

Group-facilitated discussion around experiences of teaching via project-based learning will be conducted. Exemplars of project-based learning practice and support mechanisms for successful project-based learning will be provided by workshop facilitators and followed by semi-structured group facilitated discussions.

TARGET AUDIENCE

Australasian collaborators who are involved or interested in project-based learning. No prior knowledge is needed to participate. Please note that artefacts generated from discussions will be used toward our study and, because of the way in which the workshop artefacts will be generated, the research team will not be able to withdraw or destroy individual participant responses. Our Participant Information Statement with further information on the study and Consent Form for participation are available at:

https://unsw-my.sharepoint.com/:f:/g/personal/z3519343_ad_unsw_edu_au/Eho0uIdwDj9ElfXuDRwXtyABM4-8--TYU6lzY33Ba9Q8yw

OUTCOMES

Participants will:

- Gain a wider understanding of exemplar practice in Australasian project-based learning
- Discuss support mechanisms required for successful, authentic project-based learning
- Share experiences of running project-based learning

KEYWORDS

Project based learning, support, academic capacity

PRESENTERS' BACKGROUNDS

All presenters have experience in teaching project-based learning units and thus have a clear understanding of the variability of experiences and support, as well as the challenges associated with running PjBL units. Dr Sarah Grundy teaches design units across first-fourth year in chemical engineering at UNSW. Dr Guien Miao has taught a project-based first-year unit at the University of Sydney. Dr Nick Brown teaches engineering practice through project-based learning at RMIT University. Dr Marina Belkina is a member of a project-based learning working group at WSU. Dr Tom Goldfinch teaches project-based units across first-fourth year at the University of Sydney.