



The Teaching-Research Nexus

A guide for academics and policy-makers
in higher education

www.trnexus.edu.au

Examples from Australian universities

Embedding Research Assessment into Undergraduate Construction Management and Property

Associate Professor Patrick Zou
University of New South Wales

Broad discipline area:

Architecture and Building

- Construction Project Management

Year level:

- Second/Third year undergraduate

TRN strategy:

- Build small scale research activities into undergraduate assignments

Teaching and learning context:

- Life-long learning
- Assessment (Assignment)
- Research activity

Brief description of the initiative:

Associate Professor Zou teaches two undergraduate courses in which he has included a research exercise as part of the assessment for the course. *Tall Building Construction (TBC)* and *Construction Techniques (CT)* are taken as core second and third year subjects in the Bachelor of Construction Management and Property program, and have typical enrolment numbers of 70 students in each class.

In these two courses, students learn about a variety of construction processes, methods and techniques employed to construct buildings, together with decision making on what materials and techniques should be used in what sequences. The research project that students are asked to undertake is a group task where students must demonstrate an understanding of the advantages, disadvantages and suitable applications of the different construction processes, techniques and methods and the thinking behind their decision on construction technology and management. A case scenario of a 40-storey tall building with functional requirements from clients, together with ground conditions might be given to the students and they are required to find an optimal solution for its foundation, structure, cladding and interior fit-out. Students are also required to provide construction management decisions on issues such as materials

handling, site management and construction sequences. In order to complete the task, students conduct research individually and in groups. It is a guided process as guidelines and feedback are provided to the students by the lecturer at key milestones. In project management and construction management fields, different problems arise all the time. Decision making and problem solving is a major skill students should acquire. Therefore, during the course Associate Professor Zou makes it explicit to the students that research skills will give them the capability to make good decisions and solve problems in the future. As such, research is seen as a key skill for work in the profession.

For further details:

Patrick Zou

Faculty of the Built Environment

University of New South Wales

p.zou@unsw.edu.au

Handout/Teaching materials:

Available upon request