

Get Set for Success: An update on the EngCAT project

Lorelle J. Burton^a, David G. Dowling^a, Lydia Kavanagh^b, Liza O'Moore^c, Tim Aubrey^d, David Lowe^e, Janelle Wilkes^f, Rex Glencross-Grant^f, William McBride^g.

University of Southern Queensland^a, Faculty of EAIT University of Queensland^b, School of Civil Engineering University of Queensland^c, University of Technology Sydney^d, Sydney University^e, University of New England^f, University of Newcastle^g

Corresponding Author Email: lorelle.burton@usq.edu.au

OVERVIEW OF THE WORKSHOP

In 2011, the Office for Learning and Teaching (OLT) funded a national project entitled "Get set for success: Using online self-assessments to motivate first year engineering students to engage in and manage their learning". This research project aims to identify factors that lead to success in first year engineering studies. The project will deliver a prototype model of the Engineering Career Appraisal Tool (EngCAT), an online educational resource that enables individuals to self-assess their cognitive (e.g., spatial, mathematical, and technical skills) and non-cognitive (e.g., personality traits, career interests and approaches to learning) abilities.

Initial data have been collected and some initial results are available for the EngCAT project. Commencing engineering students across five Australian universities completed cognitive and non-cognitive tests to help them self-assess their readiness for the programs and to empower them with self-awareness and learning skills.

The tests included:

- Get Set for Success Phase 1: a 52 item multiple choice online quiz that assesses students' maths, physics, chemistry, and spatial abilities.
- Get Set for Success Phase 2: an online set of questionnaires consisting of:
 - International Personality Item Pool (IPIP) – 50 items measuring five factors of personality;
 - Approaches to Study Skills Inventory for Students (ASSIST) – 52 items measuring three approaches to learning; and
 - Interest and Motivation for Studying Engineering – 31 items.

Students received personalised feedback on their test performance.

This workshop will provide participants with an opportunity to learn about these tests, the advantages and disadvantages of the tests, and to work in small groups to discuss the best ways that these tests can be incorporated into first year curricula to provide commencing students with a positive start, and ultimately a successful outcome, to their studies.

ACTIVITIES

The activities which will take place in the workshop are outlined below.

Activity	Explanation	Time
1	Introduction to the Workshop	5 minutes
2	Brief description of the project and progress to date	10 minutes
3	Researchers from each of the 5 participating universities to discuss successes and challenges in the 2012 testing phase.	20 minutes
4	Opportunity for participants to examine the tests used and to discuss key factors that should be included in a national test; participants can draw up some posters in small groups	20 minutes
5	Tables report back on outcomes	15 minutes
6	Discussion and summary of recommendations	15 minutes
7	Workshop close	5 minutes
Total		90 minutes

TARGET AUDIENCE

This workshop will be of particular interest to anyone involved in Engineering Education.

OUTCOMES

The workshop will enable the participants to:

- learn about the set of tests developed for use in this project;
- share experiences about the successes and challenges of the methods used to deploy the tests, particularly relating to student engagement with the tests; and
- explore key lessons learned from 2012 testing that can be used to improve outcomes in 2013 and beyond.

KEYWORDS

First year engineering students, academic success, cognitive abilities, non-cognitive abilities.

PRESENTERS BACKGROUNDS

Prof Lorelle Burton, Associate Dean, Learning and Teaching, and Professor of Psychology, Faculty of Sciences, USQ

Prof David Dowling, Professor in Engineering Education, Faculty of Engineering and Surveying, USQ

A/Prof Lydia Kavanagh, Director of 1st Year Engineering, Faculty of Engineering, Architecture & IT, UQ

Dr Liza O'Moore, School of Civil Engineering, UQ.

A/Prof Tim Aubrey, Associate Dean, Faculty of Engineering and Information Technology, UTS

Prof David Lowe, Associate Dean, Faculty of Engineering and Information Technology, Sydney University.

Dr Janelle Wilkes, School of Environmental and Rural Sciences, UNE

Mr Rex Glencross-Grant, School of Environmental and Rural Sciences, UNE

A/Prof Bill McBride, Assistant Dean Teaching and Learning, School of Engineering, UoN

All presenters have a particular interest in Engineering Education, with a focus on transition into university studies.