

Assessment practices in STEM – A Case study from a Level 3 Bridging to Engineering Programme

Background

The Engineering Technologies team at Otago Polytechnic delivers a Level three Certificate in Foundation Studies (Engineering) which functions as a 'Bridging Programme' for learners wishing to gain entry into the level 6 New Zealand Diploma of Engineering (NZDE) who do not meet the enrolment criteria.

The Bridging Programme was first delivered in 2014 and learners graduating from the programme into the NZDE varied in their success. At the time, several learners commented anecdotally that they felt under-prepared for the workload of the NZDE and struggled with time management. Feedback from NZDE lecturers also indicated that this was an issue. As a result, in the first semester of 2016 significant changes were made to the assessment practices across the Bridging Programme, shifting to a lower weighting/higher frequency model.

Research questions

The project addresses three questions.

1. How does the Bridging Programme assessment practice compare to other assessment practices in low-level STEM contexts?
2. What impact (if any) did the change in assessment practice have on *retention and success* of learners, both in the Bridging Programme and as they carried on (or not) to the NZDE.
3. What impact (if any) did the change in assessment practice have on the *experience* of learners, both in the Bridging Programme and as they carried on (or not) to the NZDE.

Design

The project involves a literature review to give a background to the adapted assessment practice within a low level STEM context, a review of learner results (using OP data and records), and online learner surveys to seek input from learners regarding their experiences.

Findings

This project is still underway and as such only preliminary findings will be presented. The presenter will discuss the reasons behind our assessment change and early findings surrounding this.