This eScholar project focused on designing the unit activities, student resources and assessment items in two units to ensure they were aligned with the new state-of-the-art laboratory facilities; and ensuring students were engaged in meaningful learning opportunities.

Prior to GEEP the assessment and lab classes were conducted conventionally with a paper-based lab result recording, report preparation and assessment process.

In preparation to teach at GEEP there was a need to:

- upskill students in conducting lab experiments using specific GEEP software to capture results,
- implement group collaboration strategies to facilitate the sharing of data and group work,
- implement a digital assessment process to foster a paperless lab; and
- improve assessment moderation to ensure equity.

The following strategies were carried out to address the needs.

- Design and development of pre-lab guides and lab manuals outlining experimental procedures.
- Design and development of marking rubrics within Blackboard.
- Up-skilling lab supervisors and instructors.

Instructor satisfaction
Online assignment submission and marking rubrics...

Before...
- Online assignment submission and marking rubrics...

After...
- clear guide
- prompt feedback
- streamlined process

Student satisfaction is clearly evident from responses to a preliminary eVALUate and questionnaire results.

Results

- eVALUate: Learning experience, Assessment tasks, Feedback (100% response rate)
- Questionnaire: Group Journal as a collaboration tool (78%), Blackboard marking rubric as a guide (77%), Preference toward online assignments submission (100%).

Comments

- Well thought out lectures, tutorials and laboratories. Structured in a way that encourages learning.
- The labs were excellent, as with the assignment.
- The labs were really interesting... they really gave the best learning experience. The assignment provided a real-life engineering problem.

Words of Wisdom

- Be prepared to amend your learning design to ensure the workload is balanced for both the students and instructors.
- I recommend using the Blackboard marking rubric as a way of providing useful feedback in minimal time, and the students like it.
- The Group Journal was useful for sharing lab data however students found other social media easier and more effective for collaboration.