

Case Study Title: Acknowledging students' diverse motivations and focus for HE studies through assessment (re) design

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Institution: Glasgow Caledonian University

Subject area: Engineering, moving into Construction

Programme/Course: GA Engineering (Design and Manufacture) for IES3 module; Electrical and Electronic Engineering and Audio Engineering for IoT Systems)

Module/Unit: Integrated Engineering Studies 3 (IES3); IoT Systems 1B (IoT 1B)

SCQF Level: IES3: SCQF9; IoT 1B: SCQF7

Assessment Name: Dual Assignments for Professional Communication

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1. How would you summarise your practice case study?

Based on research into the expectations of industry- and HE-based readers, our case study (re-)designs traditional academic reports to better reflect the requirements of authentic workplace *and* academic reports.

2. Why did you develop or enhance your assessment and what was your rationale?

The assessment (re-)design resulted from a research study, so the rationale is slightly different for the original research and the design process.

Rationale for our research project:

Our interest in fostering workplace communication skills through more authentic assessment arose from a combination of different observations.

One was the evidence on the role communication skills play for graduate employability. They regularly feature highly in research of important employability skills (CMI, 2021), and are included in the competencies required for professional recognition by most industry bodies (Engineering Council. 2020). At the same time there is evidence that employers frequently feel that graduates do not bring a

sufficient level or the right kind of communication skills to their employment directly from university (Ulster University 2021; Kotzee and Johnstone. 2011).

Similarly, there is wide recognition of the importance of teaching not just academic, but professional and academic literacies as part of HE degrees (Canton, Govan and Zahn. 2018; Paretti, McNair and Leydens. 2014).

Anecdotal evidence also suggested that even assignments based on work projects did not significantly change students' mindset from attempting to write them to get a good mark, rather than develop their abilities in communicating with workplace readers. Counter-intuitively this observation also held for work-based students including those doing Graduate Apprenticeships.

A review of relevant literature offered an explanation for these observations: the different purposes of writing in the workplace, where texts are part of a longer workflow, and Higher Education, where they are primarily used in marking (Días et al. 1999). The literature offered insufficient detail on the differences in texts that stemmed from these different purposes. In response we conducted a research project that compared the reactions of industry- and HE-based readers to authentic student reports (Canton and Cowell. 2025).

Rationale for our assessment (re-)design:

The most important results of our research project led to two main changes in the new assessment(s):

- 1) To avoid confusion from unclear purposes for writing, the focus should be clearly on *either* workplace *or* academic readers. This leads to the formulation of dual assignments where each part is created for a specific audience and has to fulfil specific purposes for these readers, which are clearly introduced in a detailed scenario in the brief.
- 2) To ensure students' focus on the purpose(s) of communication, as they would do in the workplace, assessment criteria should explicitly reflect for which purpose(s) readers read a text. This meant we created rubrics that emphasise the effect texts have on their readers and the opportunities they afford, rather than offer checklists of what should be included and how this should be written.

To date this approach has been piloted in 2 modules:

- 1) A project module for SCQF level 9 GA engineering students, where students were asked to produce a report they could hand in to their companies, as well as a rationale for their academic lecturer.
- 2) A more traditional module for FT engineering students (SCQF level 7) where students were asked to identify an organisation or company that could benefit from an Internet of Things project, create a pitch for their project for this organisation and justify the choice of project and pitch in a more traditional academic text.

We are currently exploring implementing a similar assessment for a SCQF level 8 construction module delivered to almost 250 students (FT, PT and GAs).

3. What enhancements or changes did you implement in assessment in making this more innovative, diverse or inclusive of diverse learner cohorts?

The main innovation of the assessment is the focus on fostering workplace communication skills, which can

- increase the transfer between studies and work for GA and PT students
- introduce essential employability skills to traditional FT students without prior industry experience

The changes to the assignments also extend the possibility of using the same project for their work and studies to their assignment for GA and PT students. This can reduce the gap between their studies and their workplace in creating more synergies between both. Increasing the part of their work that can contribute to both domains at the same time can reduce barriers to combining HE and work that can arise from the high demands on students' time, particularly for students with caring responsibilities.

They can also offer a more accessible form of assessment for students who find traditional academic writing challenging. While such dual assignments maintain the need to write, they can increase motivation to develop these skills if students can see immediate relevance to professional practice.

4. What informed your approach to the changes you made, e.g. student feedback, observations of student difficulty, insights from literature or research findings, assessment pass rates etc.?

As described above, the case study was initially informed by anecdotal observations that reflected concerns voiced in the wider literature on graduate skills, particularly in engineering. Assessment (re-)design was then based on the insights gained through our research study (see above) and anecdotal evidence.

5. What key changes have you seen as a result of this change to your assessment practice?

Anecdotal evidence suggests positive impact:

- students felt positive about the relevance of the assessment
- a few GA students reported planning to re-use the workplace text from the assignment for their companies
- GA students performed as well or better as previous cohorts did on the same modules; this was especially visible for students who tended to struggle with more traditional academic assignments on the GA programme
- IoT systems students also performed well
- markers were comfortable with the revised criteria

6. How are you evaluating the effectiveness of these enhancements or changes implemented?

For the academic year 25/26 a formal evaluation of the assessment used for GA students (IES3) was planned, triangulating a pre- and post-assessment survey of students' perception of their writing competencies and experience, marker feedback and employer feedback. A low response rate from students meant that this had to be treated as a pilot that informs a renewed and slightly revised attempt for 26/27. We are also exploring the implications of this change for strengthening teaching for sustainability on this programme of studies.

Following a successful pilot of a pre- / post assignment survey on students' perception of their writing and research competencies as part of IoT Systems, data from the 26/27 cohort is currently under analysis.

7. Tips for practitioners:

For colleagues interested in fostering workplace *and* academic communication:

- Identify which learning outcomes are relevant for your students' lecturers and for their current or future colleagues or employers
- Design assessments in two parts (parallel or serial) which allow students to communicate with one relevant audience at a time, demonstrating only those learning outcomes that are relevant for that audience.
- Provide sufficient contextual detail in the brief for students to identify the priorities of their respective audiences from those scenarios
- Create assessment rubrics that challenge them to translate their knowledge about their audiences into features of texts (or other forms of communication) rather than giving them a checklist of characteristics.

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