

Case Study: Implementing Active Self-Feedback in Teaching

Paul Baguley, Project Management

Course information

This unit in Project Management was taught by Paul Baguley, a Lecturer in Project Cost Management. Project Management is a mandatory 2nd year unit for undergraduates studying Mechanical or Aerospace engineering. In 2024/2025, the unit was delivered to around 300 students.

Active self-feedback was implemented with a formative activity which aimed to complement the course content with a task relevant for employability and industry experience. Since the application of project management in industry includes extensive use of spreadsheets, students were tasked with updating a similar style of spreadsheet throughout the course.

The task

Students were provided with a template spreadsheet, with each lecture corresponding to its own spreadsheet tab. After each lecture, students were asked to develop their own content into the relevant tab of the spreadsheet, consisting of material relating to the active learning and discussion covered in the lecture. An additional intended goal of this task was to provide students with a portfolio to show to potential employers.

Students were encouraged to make comparisons between their own spreadsheet and a worked example, and generate their own feedback with the following questions:

- How much information have you put in your portfolio?
- Is it too much or too little?
- Have you referenced the information?
- What is the level of utility or use of your spreadsheet in a project?

Comparators

The main comparator was a fully developed example spreadsheet. However, students were encouraged to use a wide variety of sources for further comparison, including:

- Project Management course textbook from Pinto (2020)
- NASA handbooks, for example the NASA cost estimating handbook, <https://www.nasa.gov/ocfo/ppc-corner/nasa-cost-estimating-handbook-ceh/>

- Journal Papers. For example, Cotechmo, Jones, M.B., Webb, P.F., Summers, M.D., and Baguley, P., 2014. COTECHMO: The constructive technology development cost model. *Journal of Cost Analysis and Parametrics*, 7(1), pp.48-69.
- The Engineer industry journal, <https://www.theengineer.co.uk/>
- UK Government website, <https://www.gov.uk/>
- Financial Times accessible from the library

Reflections by teaching staff

The activity was a new introduction to the unit and was not able to be fully integrated into lectures and assessment. Due to this, the activity was limited by low student uptake.

Reflections by students

Informal feedback from individuals showed that engaged students valued the approach.