Informal Feedback: Feedback via Participation
CASE EXAMPLES

Case Example 1

Introducing group work in Engineering (UK)

In a postgraduate Mechanical Engineering module a tutor had noted that students were having difficulties in using research data and literature in their discussions and judgements. He decided to address this using an informal learning task in which students would work in groups. Students were split into groups of three in the class and each group was given two research papers (relating to the modelling of a manufacturing process such as bulge-forming, tube-drawing or rolling). The students were asked to play the role of consultants who provide modelling services for industry. They had to use only the information in their given papers to consider a decision regarding the viability of tendering to model that process.

Before the group task started, however, the lecturer spent another session preparing students for peer learning. He offered them a clear rationale and alerted students to views of 'what was in it for them'. He discussed the ways in which engineers frequently need to work in research teams, and gave examples of the ways in which he had personally benefited from discussing ideas with colleagues. He also asked along some students from the year above, who had been very enthusiastic about peer learning, to offer their advice and talk about their views of the benefits. He drew out stories about situations (positive and negative) that commonly arise, together with strategies for dealing with them. He briefly outlined a model about how groups form, outlining the stages of forming, storming, norming and performing (Tuckman and Jenson, 1977). Finally, he included the students in negotiating some ground rules for working in groups.

When the students were asked to start working together on the consultancy task, the lecturer tried to be explicit about what students were expected to do and what might constitute an effective discussion of the particular papers. He gave them pointers, advising them to identify particular key factors such as appropriate techniques, process data availability, customer expectations, project deliverables and so on. Each group was given forty minutes in the class to reach a point where they were required to give a brief (approximately eight-minute) verbal summary of their discussion to the rest of the class. In this way the lecturer encouraged his students to grapple together with authentic and relevant tasks so that they could see for themselves the extent to which they and others were able to draw upon literature to make informed engineering decisions.

Whilst students were working he was able to spend time dropping in on discussions and prompting students to consider new angles in their discussions. The lecturer felt that his students' discussions achieved a deeper level than they would have had he simply told them to 'talk together' to decide a tender.

Sambell, K., McDowell, L. and Montgomery, C. (2013) 'Designing opportunities for informal feedback.' In *Assessment for Learning in Higher Education*. London & New York: Routledge. p. 113
Reproduced here by permission of the author and publisher

Case Example 2

Clickers in the science classroom (University of Colorado, Boulder, USA)

The first of these videos introduces the use of clickers in university science classrooms and presents a range of comments by faculty and students on their experiences. The second outlines research findings on clickers as a form of interactive engagement, reviewing evidence of the impact of well-designed clicker use on the quality of students' learning.

Chasteen, S. (2009). *Students and Teachers Speak: Clickers in the Science Classroom.* (Video, 5 mins). https://www.youtube.com/watch?v=tpAEx2abKBQ; Clickers in the Classroom: *The Research. Do clickers help students learn?* (Video, 7½ mins). (University of Colorado, Boulder). *Video.* https://www.youtube.com/watch?v=PxKHXyVtVIA

Case Example 3

Interactive clicker questions in Physics (University of Edinburgh, UK)

A practice-focused case study of curriculum redesign in a large-enrolment introductory physics course. The course has been 'flipped' or inverted, with the result that content and material are delivered to students for self-study in advance of lectures, via a combination of home-grown electronic course materials, textbook reading and external web resources. Subsequent lectures focus on problems students are still having after self-study of the material, which have been self-reported by them as part of a weekly reading quiz assignment. Lectures are therefore transformed from sessions for transmission or initial presentation of information, to guided discussion sessions, with a particular focus on peer instruction techniques and discussion, facilitated by extensive use of clicker questions.

Bates, S. & Galloway, R. (2012). 'The inverted classroom in a large enrolment introductory physics course: a case study.' *Proceedings of the Higher Education STEM Learning & Teaching Conference* DOI: 10.11120/stem.hea.2012.071

Group summaries of a set reading in a lecture session (UK)

In a lecture theatre, 90+ students worked collaboratively in groups to construct a 500-word summary of an academic article in relation to a question the lecturer had posed. Groups then fed their main points into a plenary discussion, from which the tutor created on-screen a collective document which pulled together their ideas and addressed the question appropriately. p. 29

Sambell, K. (2011) *Rethinking Feedback: an Assessment for Learning Perspective.* Bristol: ESCalate, Higher Education Academy, Education Subject Centre. p. 29. Available to download at http://escalate.ac.uk/8410

Replacing traditional lectures with interactive discussions (UK)

An introductory theory module took the form of small-scale student activities and dialogic teaching, rather than the delivery of information. Students were required to collect, discuss and gradually learn to analyse data from the 'real world' in an effort to offer them an authentic academic experience which would help them perceive the relevance of the theories being studied by applying them to material they had gathered from their own local environments. Traditional lectures with over 100 students were replaced by interactive discussions about the activities students had undertaken. A series of related activities required students to gather material for analysis and discussion as part of a semester-long project which they would write up for their assignment.

Sambell, K. (2011) *Rethinking Feedback: an Assessment for Learning Perspective.* Bristol: ESCalate, Higher Education Academy, Education Subject Centre. pp. 29-31. Available to download at http://escalate.ac.uk/8410

Student and teacher discussion of exemplars in Law (University of Sydney/University of Western Sydney, Australia)

This study investigated the usefulness of exemplars (anonymised examples of past student work), in-class student marking and teacher-led interactive discussion of exemplars for guiding students in their learning and completion of an assessment task in an introduction to Law module. Quantitative and qualitative results showed a higher level of student achievement in classes where the teacher explained why assignment exemplars were graded in the way they were, in contrast to classes where there was either little or no teacher-led discussion, or where there was teacher-led discussion but it was focused on students' errors in the exemplar assignments.

Hendry, G., Bromberger, N. & Armstrong, S. (2012). Implementing standards-based assessment effectively: incorporating discussion of exemplars into classroom teaching. *Assessm & Eval in Higher Educ*, 37.2, pp. 149-161