Transforming assessment and feedback case study
Using technology to promote feedback dialogue
University of Dundee

Summary
As a result of our InterACT project, students and tutors on a postgraduate medical education programme at the University of Dundee are benefitting from an online, self-evaluative feedback/feed forward process introduced across all courses in parallel with a new assessment structure.

Dundee’s postgraduate medical education programme attracts large numbers of international and UK students to its certificate, diploma and masters’ courses. Students study partially or wholly online, the majority being distance learners who start and complete their courses at times convenient to them. To tackle the isolation often experienced by flexible distance learners, the courses use interactive technologies such as blogs, discussion boards, webinars and wikis as mechanisms for course delivery.

In 2012, with funding from our Assessment and Feedback Programme, attention turned to assessment and feedback. The InterACT project first adjusted the sequence of assessments to increase the potential for formative learning then used institutional technologies to place a system of dialogue, self-evaluation and feed forward at the heart of assignment submission and return processes.

“It is possible to re-engineer assessment and feedback processes in line with best practice evidence in order to promote dialogic feedback, self-review and reflection on feedback with an emphasis on feed forward.”

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Challenge

The literature tells us that one-off, one-way feedback particularly on end-of-module, summative assignments has limited success when it comes to improving the pace and quality of learning. There are a number of reasons for this.

Firstly, over dependence on summative assessment, particularly in a modular system, denies students the opportunity for formative learning by providing feedback too late to improve subsequent work. In addition, the feedback process itself can limit the potential for learning. Students may find it difficult to understand tutors’ feedback yet rarely are there opportunities to seek clarification, still less to enter into a dialogue on points arising from evaluation of their own performance. Students may even become dependent on tutor guidance and fail to develop a capacity to self-regulate. The end result can be a poor return on the effort expended by tutors.

"Without feedback dialogue, teachers may spend considerable time writing assignment feedback which students may not read, understand or use."

Educational theorists such as Gibbs and Simpson, Nicol and Draper in the UK, Chickering and Gamson in the USA and Sadler and Boud in Australia propose an alternative model based on formative assessment and self-regulation. Students, they argue, should have the opportunity to monitor and adjust their own learning through multiple formative assignments that increase “time spent on task” and offer chances to evaluate and reflect on their own and others' work. Dialogue is a vital part of the process. If improvement is to take place, students must develop an understanding of what their learning goals are and how they are performing in relation to them. Conversation with others – peers or tutors – increases the potential for this to occur. However, a tried and tested system is still needed to ensure that feedback dialogue and self-evaluation can become a routine part of assessment and feedback, whether on a distance learning course or in mainstream delivery.

Innovative approach

Restructure

A careful review of evidence from external examiners’ reports and student evaluations, plus evaluation of current practice benchmarked against the Re-engineering Assessment Practices (REAP) educational principles, suggested that a wider, programmatic restructure was first needed so that students could in reality “feed
forward" their learning to subsequent assignments. As a result, the first two compulsory core modules in each course are now assessed by four short assignments developing skills of academic writing and critical thinking and creating opportunities for feed forward. Subsequent modules then use fewer longer assessments to instil the deeper, critical ability required at masters’ level.

**Dialogue and reflection**

Next the project team devised a system to introduce self-evaluation, reflection and dialogue into the routine process of submission, marking and feedback. This engages students and tutors in a sequence of learning-focused activities:

1. Before submitting an assignment, students download a cover page from the virtual learning environment (VLE)
2. Students evaluate the way they have met the assessment criteria on the cover page by identifying how previous feedback has informed their work, then ask for specific feedback if needed
3. Students submit the completed assignment with the cover page
4. Tutors receive an automated alert of submission, mark the assignment and use the cover page to give feedback, responding to any specific queries from students
5. Students receive email alerts that their assignments are ready. These include screencasts and links to prompt them to engage with the next stage
6. Students upload the marked assignment to a personal wiki within the VLE
7. Students reflect on their feedback in the wiki, creating a record which allows tutors and students to track progress over time
8. Dialogue between tutor and student in relation to the assessment and feedback may continue as appropriate

**Technology**

Institutionally supported technologies were used throughout. Readily available through Blackboard®, the university’s VLE, a wiki tool provided by Campuspack™ was a natural choice for the wiki stage of the process given the range of people – administrators as well as tutors and students – who would use it. With an embedded subscribe feature, the system is able to alert students and tutors when either party contributes to the wiki.

As a result of this technology-enabled approach to feedback, students on the medical education courses have opportunities to build new skills, seek as well as receive feedback and discuss and reflect on what they have learned – skills that are particularly valuable for healthcare professionals.
Making it happen

Substantial course redesigns and new systems such as the InterACT process need careful research, piloting and evaluation if they are to maintain the goodwill of tutors and command the confidence of students. In developing the InterACT system, the project team adopted three key approaches:

Principle-led

Adopting a principle-led approach enabled the InterACT team to identify key points from the literature that would provide a focus for their review of past practice and the subsequent redesign. Based on the REAP project principles of good assessment and feedback practice, these were:

- Feedback should be dialogic in nature
- Assessment design should afford opportunities for feedback to be used in future assignments
- Feedback should develop evaluative judgements and monitoring of own work
- Students should be empowered to seek feedback from different sources

The team also used these guiding principles as benchmarks when streamlining the InterACT process in response to tutor and student feedback to ensure that the final product did in fact meet its aims.

“These principles... assume that feedback should progressively enable students to better monitor, evaluate and regulate their own learning, independently of the teacher.”

Visualisation

A mapping exercise enabled tutors on the medical education programme, many of whom work remotely from the institution, to acquire a programmatic view of the assessment diet experienced by students. Assessment timeline diagrams developed by our ESCAPE project at the University of Hertfordshire proved invaluable in this activity. These also enabled tutors to visualise how they could create better opportunities for reflection and feed forward – the “before and after” diagrams shown on page 5 illustrate clearly how the timing and type of assessments can be altered to provide “space” for formative learning, dialogue and feed forward. Different structures are illustrated to meet the needs of different courses and to provide variety. Also visible is the option of clustering assessments to build students’ skills incrementally and to enable them to evaluate their performance against previous achievements.
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Assessment timeline

Assessment timeline developed by the Jisc ESCAPE project and adapted by the University of Dundee. © Mark Russell (2010) and University of Dundee

Support

To support the introduction of the new system, the team created a student-tutor charter which clarifies the expectations that students and tutors should have of one another. They also recognised the need to induct both students and tutors into the new system to ensure its optimal use and to develop the assessment literacies of both parties, focusing in particular on skills of self-evaluation. Technology-supported peer review activities and computer-assisted marking with automated feedback were also introduced, where appropriate, to support the assessment restructuring. Simple, automated email alerts containing screencasts of how to engage with the wiki proved another effective support mechanism.

Impact

Overall, tutors and students value the InterACT process despite the additional time spent in completing it. The small increase of time required (about five minutes per assignment) is offset by reducing the overall number of summative assignments and the satisfaction of seeing learning improve.

Feedback dialogue has proved particularly useful in the early stages of learning. Student engagement with the process increased on the core certificate modules from 30% to 79% in the first four months of the new system, and to 85% in the second four months, following improved induction processes for tutors and students and the introduction of email alerts and screencasts.
“[Before interACT dialogue] was just not a built-in thing, so I think if you were rushed or timid... it would have been a little more intimidating [to email the tutor].”

Student, University of Dundee

Critically for students, the new system has introduced “an element of expectation that there would be some dialogue”. Email prompts to evaluate their own work are helping students to routinely “think critically” about how they approach an assignment; the ability to request feedback about specific issues also means that the agenda is set by the student rather than the tutor – a critical first step towards self-regulation. Tutors find this approach to dialogue “energising” and also comment that the cover page improves the structure of their own feedback. Both students and tutors are experiencing benefits from the programmatic view of progress made possible by accessing feedback on previous assignments in the reflective wiki. These changes in themselves are substantially improving the impact of the feedback process for both parties.

“The feedback process was useful in making me go back and take a further look to ensure I [had] met the set objectives.”

Student, University of Dundee

Lessons learned

The key learning points the project has to share are these:

» Aim for programme-wide consistency on the educational principles that are to drive your assessment and feedback redesign

» Feedback dialogue is perceived by students and staff to add value to learning so justifies any adjustments that need to be made

» Offset the additional time involved in engaging in feedback dialogue by restructuring the overall assessment regime. However, tutors at Dundee have not found this to be as lengthy as first feared

» Use technology to stimulate as well as support dialogue around feedback. Email alerts about the availability of marked assignments can include links to the reflective wiki and screencasts of how to engage

» Introduce and promote assessment literacies to students and staff through induction and staff development sessions. Skills of self-evaluation are needed to engage effectively with the InterACT process and are best established in the early stages of a course
Ensuring sustainability

The InterACT process is now fully integrated in the medical education programme and is self-sustaining. Induction for new students and tutors introduces the aims of the system and focuses on developing skills of self-regulation. Technology is also proving its worth in supporting the new practice – administrative staff have handled fewer technical queries after creating screencasts which are embedded into email alerts to students. Over time, improvements are likely in the quality and impact of feedback as tutors and students acquire greater experience of dialogue, reflection and feed forward as a routine part of the submission and feedback process.

Find out more

Jisc Design Studio: InterACT project

Jisc Design Studio: Visual representation of the InterACT process

Jisc: Guide on feedback and feed forward

Jisc YouTube: Transforming the assessment and feedback landscape – Reconceptualising feedback