[O14] First and final year courses in undergraduate biosciences as teaching-learning environments

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Paper not received in time for publication. Full paper will be distributed at conference.
The central role of feedback is widely acknowledged not only in the literature (see, for example, Gibbs and Simpson, 2005) but also in the time and energy spent in providing it. However, practice has not always been informed by a clear understanding of how feedback can engage students and impact on learning.

The Formative Assessment in Science Teaching (FAST) project has involved science teachers from 17 universities reflecting on how they might modify their assessment practice in order to improve the learning of students. The work has been wide ranging in scope and method but within a common ‘good practice’ framework of 11 conditions that, when met, lead to formative assessment supporting learning. The framework was originally proposed by Gibbs and Simpson (2005) as a means of considering of how assessment promotes learning. It is fully described in several publications (see the FAST Website www.open.ac.uk/science/fdtl for full details).

This presentation will provide a brief overview of the project and will set out the major themes that have emerged within a very disparate set of assessment contexts. The discussion will be illustrated by examples of how the deeper analysis carried out within FAST has forced us to confront major issues in the design of assessment. For example, the role of written feedback has been analysed using a coding tool (previously reported at ISL 2004), to demonstrate that the large majority of such feedback at the Open University and Sheffield Hallam University is focused on justifying marks and is of limited value in guiding future learning. This highlights the gap in discourse between teacher and learner. There are implications for the design of assignments that invite more effective feedback and the briefing of tutors about giving feedback. This analysis is further described in the poster presentation from this conference, ‘Written feedback - Is there any point?’ (Brown and Glover).

REFERENCES

[O16] Headlines from the OLAAF project – effective computer-based assessment

Richard Rayne

The OLAAF work to be presented is covered by the abstract for the posters P22, P23, P25, P27 and P28.
The EFEL (Effective Feedback, Enhanced Learning) is an FDTL4 project being undertaken by De Montfort University, Leicester and Nottingham Trent University as the lead partner. The project builds upon the maximum scores in the ESR for teaching, learning and assessment (TLA) for both the molecular biosciences and organismal biosciences provision at NTU. The project aims to build on this success by trying to ensure that good practice is more widespread than before. It is mainly grounded in raising staff awareness of effective assessment and feedback procedures for staff while at the same time helping students to understand the assessment process more clearly so that they can interact more effectively with it. While there has been a research aspect to EFEL it is unashamedly firmly grounded in everyday practice. A key aspect of the project more recently has been the setting of targets, about which more later.

The assessment and feedback process is complex and many academics do not understand it. Masters of a minute area of science they might be, but the knowledge of the assessment literature of most academics is small. Too often prejudices get in the way of good practice and hence harm student motivation and attainment. EFEL hopes to push some of this weak practice away.

As mentioned before, the assessment and feedback process is a complex one, further confused by any member of academic staff, at best, interpreting any guidelines in a slightly different way from their peers. We have attempted to consider each part of the process (Figure 1) carefully and tried to make improvements in practice at each of the stages.

SETTING TASKS AND TASK-SPECIFIC ASSESSMENT CRITERIA

By asking ‘good’ questions, we usually get ‘good’ answers. Similarly, to elicit an effective response from students the task needs to be explicit, not just in the understanding of the setter, but to the recipient. While there needs to be some debate as to whether too much help might compromise certain learning outcomes, we have worked to help students’ understanding of assessment tasks, particularly at Level 1 and 2 by the production of clear, criteria produced as a part of laboratory or coursework schedules in the form of Task-Specific Assessment Criteria Sheets (TSACSs). Each TSACS is accompanied by a clear indication of the mark allocation for that topic, indicating its importance to the assessment and probably an indication of the time it might be advisable to take on a particular aspect. With students entering programmes at level 1 who are certainly down to the 40th percentile in attainment, if not the 50th, this form of structure, we consider, is important to help...
students understand the nature of the task, as many of the support mechanisms present at A/AS level are no longer in place.

Student feedback on TSACSs has been very positive with the vast majority of students considering them to be useful or very useful.

The EFEL project team decided that there should not be a set format for TSACSs, as the project was developmental and new initiatives were encouraged. The different formats and positions of task-specific criteria on assessment schedules have led some students to consider that they have not received this information when they actually have. The core team are considering whether a set format should be introduced for 2005-2006, the last full year of the project.

EFEL has experimented with a number of different formats for providing feedback to students. Individual students have individual

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Figure 1: The Assessment and Feedback Process

Lecturer sets Task and produces Task-specific Assessment Criteria Sheets (TSACs)

Student sets targets for improvement

Student reads and interacts with feedback

Student considers criteria for the task*

Student considers generic grade criteria*

CARRY OUT TASK

HAND-IN TASK

RECEIVE MARK and/or FEEDBACK

Lecturer marks using task-specific criteria and generic grade criteria

*clear procedures in place
preferences for feedback being just marks, summary comments, detailed comments on the script, two of these or all three. The most productive and useful feedback was considered by students to be where the task-specific criteria are directly related to the feedback on a feedback form. Student views are as seen above right.

When asked about feedback itself, students were quite clear about the do’s and don’ts. They value:

- Constructive criticism
- Help with improving their work
- Where they went ‘wrong’
- Legible feedback
- Encouragement for positive aspects.

They do not value:

- Mark only
- Unconstructive / destructive feedback
- Feedback lacking detail
- Work marked contrary to advice (criteria)
- Illegible feedback

Contrary to much of the literature our students prefer detailed feedback as opposed to prompt feedback. This might become more important as we reduce the number of assessment tasks in 2005-06 and hence the number of times student receive formative and summative feedback.

**GENERIC GRADE RELATED CRITERIA**

Workshops have been developed to explain generic grade criteria to students so that they can better understand what they have to do to produce a first class piece of work, or put another way, what will be the consequences of not citing references or including a discussion that does not fully discuss the results obtained. These workshops have been resourced with generic, exemplar materials taken from students’ work. The effectiveness of these materials is still to be evaluated; will students be able to see the quality of work in the context of investigations they have not undertaken themselves and will more specific exemplar material have to be developed?

**STUDENT INTERACTION WITH FEEDBACK**

Have you ever spent 15 hours marking 30 scientific formal reports and wondered whether any of the students really interact with the feedback? Our data suggests that the vast majority do.
Trainees are given seminar time to read through their work, to interact with the feedforward and then to set targets based on that feedforward. Trials suggest that some students require help in doing this for the first time. The results of this will be presented at the conference with an emphasis on one case study of a student, Somia, who particularly found the exercise worthwhile. She was given effective feedback and used this to enhance her learning. That is EFEL; Effective Feedback, Enhance Learning. These and other data currently being analysed and evaluated will be presented at the conference.

And have you marked the next formal report and made similar comments on the scripts as you made four weeks previously?

**INTERACTION WITH FEEDBACK AND TARGET SETTING**

To attempt to counteract this, EFEL has encouraged students to interact with the feedback, or as the FAST project suggests to feedforward to the next piece of work. Coming from a teacher training background I have been impressed with the potential and actual power of target setting by trainee teachers against the fifty or so ‘Standards’ stipulated by the secretary of State for Education to allow them to gain qualified teacher status (QTS).