Review for Session Topic: Writing for Scientists

Commentary on:

**Hamer "Laboratory Reports, Reflective Essays,
and the Contributing Student Approach"**

**Taylor "Integrating Feedforward on academic writing
into an undergraduate science course"**

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LABORATORY REPORTS, REFLECTIVE ESSAYS, & THE CONTRIBUTING STUDENT APPROACH

This paper recounts the introduction of reflective essays as a component of a course which already features innovative teaching practice. The course is at first year level and is taught as part of a software engineering degree. Cohort size for the course is relatively small.

This case study demonstrates excellent practice in formative assessment – incorporating reflection, peer dialogue, opportunities to close the gap, positive motivation, and high quality feedback information for tutor and students alike.

A key feature of this case study is the simplicity of the approach – by providing time for reflection, the tutor has encouraged the learners to adopt a mature approach to their learning. By building peer dialogue into the activity, the process does not become too much of a burden for the tutor. Finally, the process generates information and outputs which can be used to influence subsequent delivery of the course.

It is interesting to consider the role of the technology supporting this intervention. The intervention described here utilises a wiki to support the submission, review and subsequent collaborative summary. A wiki provides a most convenient and transparent mechanism for managing a large number of documents and users, allowing an easily accessible record of the lab session.

QUESTIONS

- What was the impetus for the introduction of reflective essays?

- Where is the primary benefit of the second round of reflection (group reflection): is it designed specifically to help those students directly involved, or is it designed to provide an output for the individual labs to sit alongside the other student contributed content?

- Would an entirely paper based approach, or even one mediated by email have been practical?

- Would the reflective essay approach would work so well if the class were not already following a 'contributing student' approach?

- Is there any evidence of an appetite from the students for this type of intervention in other courses? (Is the contributing student approach used elsewhere within this degree course?)

- Has there been any longitudinal study which follows students through later years to see if they continue to adopt a reflective attitude to their study in subsequent years?

- Is there any evidence of the reflective skill being used out with the course (i.e. do other tutors also complain that they get reflective essays when they wanted more formal technical reports?).

- What other interventions are planned for this course?

INTEGRATING FEEDFORWARD ON ACADEMIC WRITING INTO AN UNDERGRADUATE SCIENCE COURSE

This paper forms the second of two case studies under the topic of 'Writing for Scientists'. In this instance, the case study relates to a specific unit on 'Writing in Biology' which all first year biology students at the University of Sydney must take.

In this course, the students participate in a series of linked activities which take them through a writing task – preparation, writing itself, feedback and reflection. The learners participate in group tasks and receive feedback both from their peers and from staff members. A second writing task provides the opportunity for the learners to apply their new skills and knowledge to another piece of work. The course has been running for some time and has been refined in light of the tutor's own experience of what benefits the student.

The emphasis on feedback and reflection once again demonstrates excellent formative assessment practice. The students generate their own criteria for marking reports, which means that they are engaging with the assessment process and understand what is expected of them.

The face-to-face sessions are augmented by an online forum which seeks to provide an additional opportunity for further feedback and discussion. A fall off in use of the discussion forum over the last few years is seen as evidence that improvements to the course have addressed the key problems that the students experience.

A key difference between this case study and that provided by Hamer is the scale of the course. Up to 1600 students can be registered on this course and such numbers pose key challenges to the course organisers. Not least is the problem of consistency, indeed the authors report that it is essential to apply the marking criteria consistently if (as is typically the case) a different staff member marks the draft and final submission.

QUESTIONS

- Has the use of 'copyfind' to analyse the efforts made by students to improve their drafts provided any insight into how the learners are utilising the feedback provided?

- With numbers such as those seen here, would it ever be practical to design a more authentic version of the task where the students wrote up real lab reports in this way (basically combining the design here with that of Hamer).

- Does the poor participation in the discussion forum indicate that the course has been improved to the point where this additional opportunity for communication is no longer needed.

- Have other options (cf Answer Gardens) for collecting and answering questions been investigated?

This work has been made available as part of the REAP International Online Conference 29-31 May 2007.

Please reference this work as: