

## Using a blogging tool to assess online discussions: an integrated assessment approach

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This paper presents a summary of an experimental assessment design in a fully online undergraduate course. It details a task design relating to assessing discussion forum contributions and how lessons learnt from the original design have impacted on the current course design. From a task that often resulted in 2500 posts across a semester – impossible to read and assess in a fair and equitable manner to the combined design offered today. The task is equitable and manageable with the aim of building students' capability as active learners.

Keywords: online discussion, blog, peer review, self review, assessment strategy

Online discussion forums have been widely used to support learning and teaching activities in Higher Education. Today, educators are more aware of the varied affordances of online discussions, in particular, the opportunities they offer to build students' knowledge and capacities for the future, such as digital literacy, communication skills, critical and reflective thinking skills. While some teachers focus on how to engage and motivate students to participate in online discussions, the course, which will be reported in the paper, faced a new challenge – the unexpected high online participation volume posed threat to desired learning goals and the fairness of marking.

When current task design cannot meet the requirements of learning and teaching, changes to the assessment are expected to take place in order to effectively improve students' learning experience and, meanwhile, keep the task manageable and sustainable. Advices on task design and assessment strategies for online discussions are made available by experienced teachers and educators. Strategies that are focused on student-centred learning have been reported as successful in practice, including having students as moderators (Ashcroft & McAlpine, 2004) and encouraging students to nominate their posts based on given criteria (Wozniak & Silveira, 2004). Rubrics are adopted to facilitate a well informed and effectively communicated learning and assessing process, which include the use of informative marking rubrics (Nandi, Chang & Balbo, 2009), performance based clarifications for assessing effectiveness of contributions (Edelstein, & Edwards, 2002), criterion-based discussion assessment (McNamara & Burton, 2010) and the adoption of holistic and analytic scoring tools (Hazari, 2004). It is also strongly recommended that interactions should not be the only focus when designing an online discussion task. Tasks that facilitate cognitive presence are more likely to encourage students to adopt deep learning strategies (Garrison & Cleveland-Innes, 2005).

By combining what were recommended in the literature and what needed to be addressed in practice, a new assessment design was developed. It is to build a learning task that is equitable and manageable with the aim of building students' capability as active learners.

### Background

Undergraduate students at the University of New South Wales are required to complete two General Education courses as an integral part of their studies. The courses must be taken externally to the student's Faculty. The purpose of this requirement is to encourage students to expand their learning beyond their chosen discipline and take a more flexible and active role in their own education. The General Education course discussed in this paper is offered by the School of Mining Engineering. The rationale for this course is to provide a broad overview of the impact mining has had on the Australian physical, social and economic environment. It targets students from diverse academic backgrounds, who are interested in mining but have little or no prior knowledge of the topic.

The course was one of the first General Education courses to be offered fully online, first via WebCT and later via Blackboard over a period of 12 weeks. Currently, it runs three times per year with an average enrolment of 150 students in each semester. Apart from current teaching materials, the course offers stimulating learning activities, ranging from multimedia learning modules, class polls, online discussions, group projects to quizzes and essays, for both formative and summative purposes. Online discussion is undertaken throughout the semester and is attributed 15% of the total assessment mark. The extensive use of online discussion facilities is to address the following aligned learning outcomes across all the General Education courses:

- To enable students to evaluate arguments and information
- To provide structured opportunities for students from disparate disciplines to interact co-operatively within a learning situation
- To provide an environment in which students are able to experience the benefits of moving beyond the knowledge boundaries of a single discipline and explore cross and interdisciplinary connections.

In addition, online discussion provides the opportunity for students to form an online learning community through the promotion of student engagement in evidence-based discussion and debate.

Each week, students are given a specific topic to discuss. Instead of relying on personal beliefs or opinions based on the popular media, students are expected to post their considered understandings and evidence-supported opinions on the forum. It is envisaged that material posted on the forum will stimulate interest in researching a topic to a greater extent, leading to the development of the final writing task that requires students to demonstrate their research skills, skills of filtering fact from opinion and writing skills.

Soon after the course was introduced in the online format, students' contributions for the discussion were much greater than expected. Both students' intrinsic interests in a General Education subject and the controversial nature of many mining topics - for example, questions like *would you support electricity generation from Nuclear Power being developed in Australia?* – contributed to heated lengthy discussions. It was soon discovered that this course could have in the vicinity of 2,500 posts over the period of the 12-week semester. This inevitably led to another question – how could teachers fairly and efficiently assess the large volume of student discussions?

## **Issues associated with the original assessment design**

Originally, the assessment strategy involved allocation of a participation mark based on quantity of posts, which acted as a replacement for a tutorial attendance sheet in the face-to-face learning environment. Later, it switched focus from the quantity of students' contributions to the quality. Specifically, students were required to contribute at least ten meaningful and evidence-based posts across the semester. Marking criteria were made available to students at the beginning of the semester.

There were two major issues that arose from this model of assessment. The first issue was related to marking load. Due to resource constraints, only one lecturer was responsible for marking all the assessment tasks. The lecturer spent enormous time and effort on locating each individual student's contributions and then skim-reading the discussion thread in order to make an academic judgment on the quality of the post. Due to the growing volume of posts and conflicted marking time with the final essay task, the marking process for the discussion task became unmanageable. At times, the lecturer had no choice but to delay the release of marks, which resulted in student complaints.

The second issue was related to an uneven distribution in the quality of students' discussions. Some students rushed into the discussion board in the later stages of the course and posted to meet the minimum requirements of the assessment task, instead of engaging in meaningful and considered discussion. Some students still posted opinions from anecdotal experiences or used simple expressions to merely agree or disagree, rather than engage with the thread post. In some cases students made excessive posts, in the hope that the lecturer would go through their work and identify the best posts. This issue was not only identified by the lecturer but also observed by fellow students who reported it in their course satisfaction survey.

## New assessment design and its pedagogical and managerial benefits

The new two-step approach aims to foster an *assessment as learning* environment in which students gain autonomy and take initiative. Criteria on quality of discussions are used as scaffolds that are designed to improve students' understandings and performance rather than rules for awarding or deducting marks. Instead of presenting everything they have done and waiting passively for the lecturer to select and mark, students are required to pro-actively make their own selections and articulate reasons for their decisions. A blogging tool is used as the platform for students to post their reflections. Details of the new assessment design are as displayed in the table below.

**Table 1: Assessment descriptions for each of the component tasks – information for students**

|   |   |
|---|---|
| For this task, you are required to contribute at least <b>ten</b> discussion posts on graded forums and write at least <b>three</b> blogs based on your reflections on the class discussions. |   |
| 5%  | Step 1: By the end of week 6 of this course, you need to have:<br>posted at least <b>five</b> posts in total on graded forums, <b>and</b> contributed at least <b>one</b> blog post to the online Participation Blog<br><i>Select one post contributed by your fellow students from graded forums, which you think is of a good standard, and explain why</i>             |
| 10%   | Step 2: By the end of week 12 of this course, you need to have:<br>posted at least another <b>five</b> posts in total on graded forums, <b>and</b> contributed <b>two</b> blog posts to the online Participation Blog<br><i>Select one thread post and one response post contributed by yourself from graded forums, and explain why they are your best contributions</i> |

The purpose of step one is to promote and enhance a collaborative learning environment by encouraging students to review and learn from each other's work. It is also to help the learning community to be engaged in the process and build a consensus on the criteria. During this period, students are required to make online contributions and participate in discussions as well as reflect on and select from their peers' work.

The purpose of step two is to encourage students to apply what they have learnt from the peer review process to conducting an effective self-evaluation. After synthesising fellow students' discussion post together with marks and feedback from the teaching staff in the mid-term, students are expected to gain a better understanding of what constitutes a good online discussion. With this improved understanding, students continue to make online contributions on the forum. By the end of semester, they are expected to make selections from and write evidence-based reflective posts on their own work.

The blogging tool is used to provide a suitable platform for students to post their reflections. It is to separate the assessable reflective posts, from the actual non-assessable discussions. This provides students with more time to concentrate on the quality and relevance of their discussion posts. The public nature of the blog helps students to gain self-confidence when their posts are selected by peers. It helps to minimise plagiarism because students are required to make their self-selected post available to the cohort.

Another benefit brought by the new design is that the marking load for the lecturer is significantly reduced. The lecturer is no longer required to follow all discussions, which may exceed 2,500 posts, in order to ensure the fairness and reliability of the marking. Instead, he needs to read 450 blog posts, which are in fairly similar format. The marking period for blog posts is divided into two - one is due by mid term and another one is due by the end of the term - which also effectively helps to distribute the marking load across the semester and provide additional feedback to the student.

## Implementation and findings

The new assessment structure was first trialed in 2011. On the Blackboard course, a special content page was dedicated to the task. The criteria on good discussions were displayed as the first item on the

page, posing as learning guides for students. The link to discussion forums was the second item and the third one was the link to the blog with a recommended writing template.

Students reported no confusion on how to complete the task and what needed to be done. The numbers of discussion posts was reduced slightly but the quality of discussions was improved significantly in a more evenly distributed way. Students spontaneously interacted with each other not only on the discussion board but also on the blog.

After the first trial, the lecturer gave very positive feedback in terms of improved quality of online discussions and largely reduced marking load. The number of student complaints about poor quality of discussion posts and delayed return of marks was significantly reduced.

The new assessment design has successfully addressed the desired learning outcomes of General Education courses. It helps to promote students' enthusiasm and curiosity for learning, guides them to be active learners, engages them in the assessment process and develops their abilities to make evidence-based judgments. The design also takes marking efficacy and efficiency into consideration, making the assessment task manageable for teachers.

The design, now, has been trialed in several mainstream courses in the School. More empirical studies will be conducted in order to investigate further on the effectiveness of the assessment design and its impact on students' learning.

## Implications

More and more technologies have been introduced into the field of learning and teaching in order to help students to build capacities for the future. Along with benefits and opportunities, challenges and associated issues are also emerging. As a result, educators need to be more aware of pedagogical implications of technologies and take a more holistic approach on task design rather than being restricted by particular technologies. Assessment design is considered as a dynamic process. It is to ensure that the desired learning outcomes will be addressed without compromise whilst maintaining a manageable and sustainable, assessment task.

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