Project Report - Online Testing in Blackboard

Joanne Kuzma & Sue Barnes
University of Worcester
(j.kuzma@worc.ac.uk & s.barnes@worc.ac.uk)

Introduction

Worcester Business School (WBS) is currently analyzing a variety of assessment approaches during its revalidation of the Computing and Business programmes. One such assessment approach includes online quizzes with Blackboard's online 'assessment' tool. The lecturers in one module, COMP1112 – Database Applications, used this tool to experiment with online quizzing for a particular assignment. This report begins by outlining some of the current problems with the existing manual based quizzes and then proceeds to discuss our process and the results.

The Current System

Currently, most of the Computing modules that do contain quizzes/tests implement them manually. Quiz questions are physically distributed on paper in seminars and students complete them there. Physical copies of the quiz are then manually graded and the results are fed back to the students. We have identified several areas of concern with this manual process. Firstly, some students may miss a seminar due to illness or other reasons, so they may submit a claim for 'mitigating circumstances'. This causes additional time, effort and paperwork for the students, student advisors and lecturers. Secondly, there is always the chance that paperwork can be lost or misplaced. Thirdly, there can be a delay of up to several weeks between when the students complete a quiz and when it is actually graded and returned to the students. Students do not have instant feedback from their quizzes.

Project Setup

For COMP1112, we had 5 weeks of seminar for a specific computing topic, SQL, and decided to create five weekly quizzes, of which the best three of the five results counted towards the final grade. Next, a set of questions had to be developed. Luckily, the publisher Cengage, had instructor materials for the text used and a test bank of questions was available for each topic. Each question was copied and pasted directly into a general Blackboard question bank. However, it should be noted that some texts from this publisher and others have test bank files that can be directly imported into the Blackboard assessment tool without having to cut and paste each question individually. To augment this set of questions, the lecturers also created other relevant questions from the text. For this module, the lecturers decided to use multiple-choice, true/false and 'fill-in-the-blank' formats for simplicity. However, other formats such as short answer and essay options can be used within Blackboard. We usually had at least 20 questions within each quiz pool and the system would randomly choose 8 of those 20 questions for each student.

The next step in Blackboard was to divide the class into separate groups. We divided the students into two main groups in Blackboard: a) students with disability entitlements and b) students without entitlements. For those students with entitlements, we set the Blackboard conditions to give the students extra time to undertake the quizzes.

Conditional options were used for each of the five quizzes. The most critical one was the condition for the start and end dates/times. Before the module started, the lecturers discussed whether the students would have to take the test during the last half hour of the seminar, or if they should be able to take the quiz during more flexible times and places. In this case, it was decided that requiring students to take the quiz during seminar time ~~caused~~ would be inflexible for those who did miss a seminar, as well as taking up valuable seminar time dedicated to learning. However, this is a situation that may differ, based on the needs of other modules and it may be appropriate to alter plans taking into account different circumstances. For each quiz, the students were able to access the quiz for that week between midnight on Sunday and 23:30 on Tuesday and they were able to take it anywhere they had access to the Internet, including home. Another condition set was that students would not receive their scores and feedback until the end-date/time of the quiz was reached. This condition was set because if 'early' students had instant feedback to the questions and answers, these could very easily be disseminated to students who had not yet taken the quiz.

To get the students prepared for the online quizzes, we set up a practice quiz where they could try the system and submit this practice quiz as often as they wished in order to get used to the system. During the first seminar, we gave students a set of directions and allowed them to practice submitting this quiz.

Findings:

1. *Student preference* – Informal feedback from the students indicated they preferred online quizzes to manual based forms, where the feedback could take several weeks to be returned to them. Although they were hoping for instant feedback and grading, they were content to wait a day or two until the quiz ended and grades were released. After formal student feedback is received, we will review any comments about the quiz and review the implementation.
2. *Issues with some questions* – Although 'fill-in-the-blank' answers usually had several options to take into account spelling differences, some students did come up with alternate correct answers. For example, the answer to one question could have the options of the words 'semi-colon' or 'semi colon.' However, a few students put in the symbol ';' for semi-colon. The Blackboard system marked it as incorrect, but the lecturers were able to go in afterwards and ~~easily~~ correct this.
3. *Reduce grading burden* – There were 110 students enrolled ~~in~~ on this module. If lecturers had to manually collect physical paperwork every week and grade every one manually for five weeks, this would take approximately 5 minutes each for a total of 9 hours of marking and additional administrative time such as dealing with paperwork. Although there was some extra administrative time at the beginning with setting up the Blackboard quizzes, the amount of time saved at the end was considerable, with the entire grading being done automatically.

4. *Objectivity* – Since the Blackboard grading system automatically grades the exam, there is no question regarding non-objectivity such as there would be in an essay-type of exam.

Conclusion

There are many benefits to using online testing tools as opposed to manual tests on paper. However, usage will depend on content of the module. In large classes where the subject is based on more numerical concepts or absolute concepts, this may be a viable solution to a specific overall mark for the module. In our case, 50% of the overall grade for the module was based on these quizzes, while the other 50% was more practical and report-based. Therefore, the students enjoyed a range of different assessment types in COMP1112. Overall, students were pleased with the format of this assessment with the added bonus that it decreased the grading and administrative time for lecturers.