Helping Students Learn and Monitor Progress: expectations and challenges of formative online testing

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In 2014/2015, I investigated the attitudes towards and suitability of online testing as a tool with potential for supporting students' out-of-class learning.

The 'Why?' Question

We were aware that a growing number of students are assessment-driven, engaging with a module's content intensively only when an assessment deadline is imminent. Although Contract Law already splits the assessment into an in-semester coursework and an end-of-term unseen examination, we were looking for effective and sustainable ways to further encourage early and ongoing engagement with the module's content. As over 250 undergraduates enrol for Contract Law each year, turning to technology seemed a natural step to take.

The Pros and Cons

The possibility of running in-semester online MCTs for formative purposes was particularly appealing. First, online tests allow students to monitor their progress. Second, such tests can be programmed to give students feedback on both correct and incorrect answers. This makes them a useful online learning tool. Third, a test can be set in a way which allows students to re-take it several times. If the bank of questions is large enough, when repeating a test students may be challenged by different questions on the same topic. Fourth, there is no delay between answering questions and receiving feedback. Fifth, the digital nature of this exercise makes the class size irrelevant. Sixth, the flexible, online nature makes it perfect for out-of-class use, whenever students want and from whatever location (Questionmark is not campus or university-network restricted), as long as there is an internet connection. This feature has the potential of stimulating further out-of-class engagement and learning.

Like all instruments the benefits are accompanied by actual and perceived limitations. First, there is a considerable, upfront cost of putting the system in place—both in terms of mastering the use of the platform as well as in actually preparing and setting up the tests for students. Second, MCTs have their limitations. They are considered better fitted for testing knowledge, but less appropriate for testing understanding, synthesis and evaluation.

What's the attitude?

In the course of this project I investigated what students and staff think about the potential and suitability of online testing. I ran two anonymous surveys for students and one anonymous survey for the Law School staff.

The first student survey had a very high response rate of 48% (101 out of 210 students). First, we learned that our students are familiar with multiple choice tests. 90% of respondents said they had been asked to complete such a test in the past, 76% of them online. We also learned that the majority (53%) of students who undertook tests in the past, had not been encouraged to use them to track their progress. This formative capacity of tests was a new feature to most students.

72% of respondents declared that they would like to be assessed by means of a test. Moreover, 96% declared that they would like an opportunity to complete voluntary online tests for formative purposes (with no marks) during the semester. They recognised that such tests can help to track progress, identify gaps in knowledge, and encourage to 'keep on top of work'. Moreover, some students noted that formative testing can encourage regular study ('frequent and informal testing prompts sustained work without stress', 'regular testing encourages regular study')—which is exactly the reason why formative online testing was initially introduced
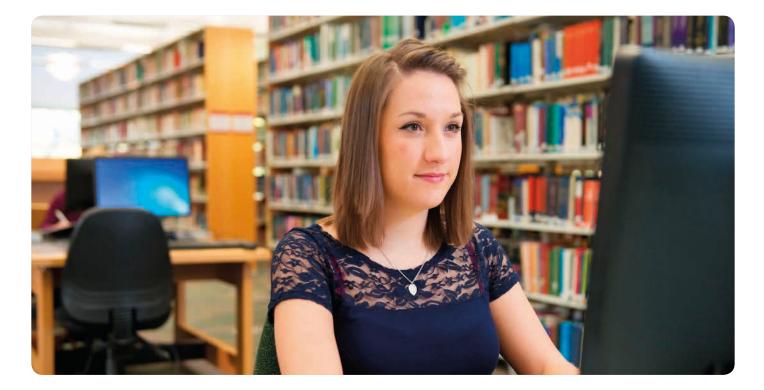

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in this module. 71% of respondents declared that it would be useful to make such formative online tests compulsory. At the same time, some voices were very much assessment-driven, with respondents noting that 'if an assessment does not contribute towards degree classification then it ought not to be compulsory', or even some misconceived, quasi-consumer-focused comments ('we are paying to take this course and should therefore be free to select what opportunities we do or don't take advantage of').

A second survey was conducted mid-semester to investigate what the students' experience was with the MCTs which were progressively made available to them. 47 responses (22%) were received. It transpired that 34% of respondents did not complete a single online test, naming lack of time and not having studied enough as two main reasons for non-engagement. The same reasons were provided by those respondents who completed some, but not all available tests. Interestingly, 53% of those respondents who completed some tests found them at least useful and 53% of them acknowledged that the tests encouraged them to look back to their notes, textbook and / or the case law. Hence, they did stimulate learning.

The staff survey met with a very high response rate of 64% (28 staff members) and revealed that the majority of respondents used some

form of testing in the last three years. Interestingly, tests were used across the whole range of modules. The majority of respondents found multiple choice tests an efficient form of assessment, primarily to test students' knowledge. When asked whether academics in Law should be concerned about the transfer of knowledge in the context of taught courses, all but one respondents answered in the positive.

The Challenges

The introduction of formative online testing involves considerable upfront investment in terms of time and skills development, not to mention the preparation of the tests with feedback although a growing number of publishers are now making MCTs available as teaching aids, facilitating adoption.

What remains a challenge still is encouraging students' engagement with such a formative assessment.

Our experience was that, despite the declared eagerness to use such tests, the actual uptake was limited. Students either did not have time or considered themselves not yet ready to engage with them, despite assurances that they are there to help them learn. One factor which might have discouraged students from completing the MCTs was that we did not use a similar tool for summative assessment. Perhaps introducing a test as a component of the summative assessment, students' engagement would increase. At the same time, it may be that we are already over-simulating students. If that is the case, then keeping such formative tests optional would allow us to meet the needs of those students who are likely to benefit from additional engagement, without putting excessive pressure on those students who already struggle with the various compulsory elements of their studies.

Conclusions

Formative online MCTs are a multi-faceted tool, which can be used to help students learn and monitor their progress. They can constitute a layer of useful support. Their flexibility and potential to provide students with instant, albeit pre-programmed feedback carry considerable potential which is worth unlocking, especially, but not only, in the context of large modules. The surveys demonstrate that MCTs have a useful role to play in those disciplines, such as Law, which are traditionally perceived through a more conservative teaching lens.

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