

## **Paper 4: Using Online Assessments: A Journey Towards Good Practice**

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## Using online assessments: a journey towards good practice

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### Abstract

*The use of online assessment in higher education, in particular computer mediated assessment (CMA) and online quizzes, has been growing in response to pedagogical and organisational efficiency drivers and with the increasing availability of technology and online assessment software options. However, the use of online assessment is not without pedagogical challenges. The usefulness and reliability of online assessment results relates to the clarity, specificity, and articulation of assessment purposes, goals, and criteria. In achieving effective online assessment, there are certain must haves, including but not limited to assessment instruments that fit the delivery mode, and the online mode is substantially and increasingly learner-centred. Simply transferring assessment instruments from traditional modes to online is no guarantee that either learners will or will not be able to demonstrate learning or that examiners will necessarily be able to verify that students have met learning objectives. Cheating and plagiarism are two frequent, controversial issues arising in the literature and there is a view that the online mode inherently lends itself to both these practices. However, reconceptualising practice and redeveloping techniques can pave the way for an authentic assessment approach which minimizes student academic dishonesty. This presentation briefly describes selected parts of research which investigated online assessment practice in a business faculty at an Australian university and it proposes what might constitute good, sustainable practice and design in university online assessment.*

**Keywords:** online assessment; cheating; collusion; online pedagogy; academic dishonesty

### Introduction

This presentation examines important themes linked to online assessment and appropriate use of this assessment medium in the business faculty of an Australian university. The use of online assessment in higher education has been growing in response to pedagogical and organisational efficiency drivers and with the increasing availability of technology and online assessment software options. However, the use of online assessment is not without its challenges, and some of these challenges warranted investigation. The issue was analysed within a framework of what Faculty participants did and then what the broader university academic community and relevant literature told us.

### The following substantive issues emerge from the existing literature

1. The ‘signature characteristic’ of online delivery is ‘the ability to provide asynchronous, interactive learning’ (Hricko & Howell 2006, p. 2) although there have been a number of

reported benefits for both students and academics together with drawbacks (Dermo 2009; O'Rourke 2010).

2. The development of scholarship and practice has been complicated by the various interchangeable terms in use for online learning (Barker 1999; Graham, Scarborough, & Goodwin 1999; Goodyear 2002; MacDonald 2002; and Twigg 2001).
3. The importance of validity has been raised (Dennick, Wilkinson & Purcell 2009), that is, does the online assessment measure what it is designed to measure, and the 'validation of learning and the verification of student assessment' are significant challenges that are being increasingly focused upon by scholars and practitioners of online assessment (Hricko & Howell 2006, p.17).
4. To achieve effective online assessment, there are certain must haves (Drummond 2003) and the overarching question in the design phase should be 'what is the assessment objective?' (Cook & Jenkins 2010).
5. The usefulness and reliability of online assessment results relates to the clarity, specificity and articulation of assessment purposes, goals and criteria (Conrad & Donaldson 2004).
6. Cheating and plagiarism are two of the most frequent and controversial issues which arise in the literature and there is a view in the literature that online delivery inherently lends itself to cheating and plagiarism. (Hricko & Howell 2006, pp.25, 27).
7. Technological solutions are complex and have limited effectiveness. Current techniques (such as randomization, access control, identification, and content matching software) cannot go much further because they are reactive solutions (Howlett & Hewett 2006).
8. Specifically tailored explanations to students of what does or does not constitute cheating to the type of assessment is the best approach (Whitley & Keith-Spiegel 2002), and moving away from a competitive culture and a sense of evaluative threat reduces the

incentive to cheat (Finn & Frone 2004).

### **Overall methodological approach**

The project set about exploring and describing the extent to which online assessment is used in a business faculty; what measures to address cheating and collusion in online assessment were employed by faculty examiners; and to propose practical and pedagogically beneficial recommendations for future online assessments.

An online survey of faculty academic staff was conducted, of which almost one-third of course examiners (24 of 75) for the selected semester. Six respondents were not using online assessment. Academic staff were invited, by email, to participate and this could be done by them accessing a provided link to the online survey. This was followed up with a reminder email half-way through the survey period.

The survey questions were grouped into three logically sequential sections: the extent of use of online assessment; the objectives in using online assessment; and risk management. The rationale for this categorization was that by asking examiners what they are doing, why they are doing it, and how they address academic risk, it was anticipated that a comprehensive picture of online assessment practice in the faculty would emerge. Overall, the data gave an overview which was a nexus to the theory and which also provided a basis for conducting focus groups to elicit broader comments and perspectives.

Using a common format to conduct three audio-recorded focus groups, which included practitioners from all other Faculties in the university as well as learning and teaching-related sections of the university, the researchers were able to identify some key themes from transcripts of the focus group participants' comments, and arrive at some common understandings.

### **What the participants revealed**

Faculty survey respondents reported mixed results in their use of online assessment although several issues emerged from the data, including concerns about its suitability for assessment purposes, concerns about the extent that academic misconduct can be controlled when using this assessment

medium, and concerns about practical difficulties relating to how the assessment should be configured. Three focus groups, from across the university, reported that the most effective solutions to academic misconduct are pedagogical; that technology is not a solution *per se* but rather it should be part of a set of techniques; and that the current disciplinary regime for academic misconduct is not a sufficient deterrent. Focus group participants also felt that academic misconduct is often activated by students' perceptions that they are unable to cope with workload and/or academic content, and therefore remedies must target this fundamental cause. Another important theme coming out of focus group discussions was the difficulty in arriving at shared meaning across the university. An example of such a difficulty was differences in interpreting and defining the characteristics of online assessment quizzes and CMA tests and interchangeable use of the names of both.

### **Outcomes and conclusions**

Online assessment should be designed specifically for that mode, not simply transferred from offline mode. However, there are a range of views about how the online mode can best be utilized for assessment, and traditional assessment techniques remain the most commonly used. Theory suggests that a paradigm shift is necessary for the transfer from traditional to online assessment to be effective. It also suggests that attempting to transfer traditional techniques to the online mode also transfers the risk management issues to a mode in which it is, arguably, easier for academic dishonesty to occur; reconceptualisation and redesign of assessment forms is necessary. Faculty and university practitioners are finding that initial development of online assessment is labour intensive but there are worthwhile consequential benefits. Online assessment should be designed specifically for that mode, not simply transferred from offline mode.

Online assessment can be used for either formative or summative assessment, but it is arguably more suited to formative assessment. Examiners need to be made aware of the distinction, and they need to determine at the outset which usage is most applicable to their course(s) and the objectives which they are trying to meet. If the intention is to engage students and provide ongoing feedback, then a formative approach is most suited and a level of collusion and collaboration should be expected

tolerated. If the intention is to use the outcomes to grade the students, then a summative approach is most suited and a higher level of security and validity issues will be involved to ensure integrity of the assessment processes.

Online assessment should be viewed as one element in a repertoire of assessment techniques. When online assessment is used for summative assessment purposes, it should be used in combination with other assessment regimens such as written assignments and examinations. When used for 'engagement' purposes, where the Examiner's primary interest is in getting students to engage with or revisit course materials during the semester, the repertoire-approach is less an issue.

The objective of online assessment should be fundamentally pedagogical, not technological, nor staff workload management; i.e., the technology should be a tool in the service of the pedagogy. The study revealed a concern that online assessment had acquired increased popularity as an assessment option because it dispensed with or reduced substantially the need for markers and thereby reduced course costs. The evidence is that online assessment should not merely be transferred from a paper based approach (with multiple choice, true/false etc type questions) and is therefore both time consuming and costly to prepare.

Weighting of online assessment should form a minority proportion of total marks. Where the perceived gains from collusion and other errant student behaviours are substantial, the probability of engaging in these undesirable behaviours is higher if the risk is perceived as being higher by the student, i.e. the higher the value of the online assessment the higher the risk of errant behaviour. One of several useful strategies which target (mis)perceptions is to limit the weighting of online assessment items. The general feeling of the focus groups was that online assessment should not exceed 15% of the overall weighting for a course, although examiners who establish a sound case for exceeding the 15% maximum could be accommodated within their respective discipline areas.

Academic misconduct in online assessment (as in other forms of assessment) should be viewed and managed as a student coping problem; technology can, to a limited extent only assist in reducing but not eliminating academic misconduct. Student coping remedies can be addressed by the creation and maintenance of ongoing dialogues between the examiner and students via activity on discussion

forums, emails etc., though there must be an acceptance that some students choose not to engage regardless of the examiner's endeavours.

Finally, the issue of technology being able to limit academic misconduct is not clear-cut. Online quizzes may limit the opportunity to plagiarise for instance, but they also lend themselves to group involvement/problem-solving, when the intention is typically/historically to assess individual student's familiarity or understanding of course content. Appropriate weighting of assessment should assist in limiting the appeal of group involvement, but an alternative strategy may be to set up online assessment to enable group problem-solving where this aligns with assessment objectives (this 'fits' more readily when the assessment is used primarily for engagement purposes).

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