The challenge of flexible and non-traditional learning and teaching methods: Best practice in every situation?

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Abstract

The development, delivery and assessment of large, introductory, undergraduate courses that include a mixed cohort of internal and distance, and domestic and international, students is challenging at any time. However, alternative and flexible delivery approaches have been heralded by many as the solutions to the issues that this complexity produces. This paper examines this claim by analysing the experiences of students involved in three large, introductory courses, each utilising a different form of non-traditional methods of teaching and learning, to analyse whether it is beneficial in all cases. The analysed courses covered the three different disciplines of accounting, law and management. This research offers lessons for course facilitators and course developers alike, and demonstrates that accepting the challenge and embracing these forms of delivery and assessment as a replacement of traditional methods is not always appropriate. Instead, the findings suggest that these approaches offer real benefits to some students in particular situations and therefore should be viewed as worthwhile supplements to offer all students more flexibility and the opportunity to enhance their tertiary education experience by encouraging and supporting self-directed and independent learning skills.

Introduction

Large undergraduate courses in any university offer a challenge to those involved in both their development and their delivery, to ensure that the best possible learning outcomes are achieved in the most efficient way possible. When these students represent a combination of internal and distance students, and domestic and international, students, the challenge to achieve these outcomes becomes even more complex.

This paper analyses three non-traditional delivery and assessment approaches which have been utilised with large undergraduate classes, in order to identify their effectiveness and to make recommendations about their use as part of best practice delivery.

Online and technology-based modes of study have often been used for distance students in the university environment; however, it has more recently been identified as a useful addition to classroom-based, traditional teaching methods (Light, Nesbitt, Light, & Burns, 2000). This research analyses the involvement of all students across three undergraduate courses with a total cohort in each course of approximately one thousand students.

Firstly, the literature in relation to distributed and distance learning and student attitudes is briefly considered. Then we describe each of the three courses from three different disciplines, management, law and accounting, and the three different forms of alternative delivery used, along with an outline of the numbers and demographics of the students studied in this research. The engagement of students in each of the three alternative methods of delivery is then analysed to identify rates of take-up and involvement and students' reactions generally to the use of non-traditional forms of delivery and assessment. Finally, based on this analysis and observations, a number of conclusions are drawn to provide those involved in the design and delivery of large undergraduate courses with an opportunity to consider these alternative approaches within the framework of a broader teaching and learning strategy.

Literature review

Literature in the field of distributed learning via the Internet, web-enabled courses versus face-to-face delivery and other general topics relating to the use of web-based technology is growing at a rapid rate. The amount of research addressing web-based delivery as a supplement to or a replacement of face-to-face delivery is also growing. A number of researchers have reported that whilst the delivery of online courses enhances student learning in some respects, they also caution against using the technology without adequate regard for the learning outcomes being sought (Buckley, 2003; Lawther & Walker, 2001; Willett, 2002). Expressed another way, there remains a number of researchers warning that the teaching should drive the technology and not *vice versa* (Petrides, 2002).

According to MacGregor (2001), studies of students' attitudes towards early forms of distance education indicated that students typically preferred the traditional classroom. She also pointed out that research by Savard, Mitchell, Abrami and Corso (1995) on computer-mediated communication in distance learning showed that there were rarely any significant differences between the attitude towards learning and achievement of students in distance and internal settings. Mariani (2001) pointed out that new technologies including discussion boards (or lists) could only supplement traditional teaching.

Smith and Ferguson (2002) identify that a large amount can be gained from online delivery: the encouragement of deeper levels of discussion; the ability to consider responses owing to the asynchronous nature of the medium; and the minimisation (if not the elimination) of the power differential between student and teacher. However, Smith and Ferguson (2002) also warn that with these benefits come a number of disadvantages, including the potential technology failures, the lack of face-to-face and therefore interpersonal cues and, from the instructor's viewpoint, a

great deal of time and effort in converting traditional text-based content to information suitable for online delivery. Overall, it is suggested that, even though delivery online offers new challenges, it is often viewed as worthwhile by those on both sides—the learners and the facilitators (Smith & Ferguson, 2002).

Participants

The courses being researched are all introductory, core, undergraduate courses in the Faculty of Business and Law at Central Queensland University. This study intentionally chose courses from the three different disciplines of management, law and accounting, utilising three different forms of alternative delivery and/or assessment in order to analyse the students' engagement and reactions. As these courses are all offered at an introductory level, it is noted that many of the students may have been enrolled in more than one of these courses during the term being studied. The structure of each of the courses is described in this section, along with an overview of the non-traditional teaching and/or assessment method which has been adopted. In addition, the section provides the details of the sample group being studied.

Management course

The management course involves the study of individuals, groups and organisations. It is offered both internally and in the distance mode, and students are provided with a choice of five different assessment methods regardless of their mode of study. This choice ranges from entirely online assessment, to entirely offline assessment, with a number of mixes of online and offline. Because the course was designed in this way, it was intended that students would be able to determine how they are assessed depending on their individual learning styles, preferences and time commitments, hence making it a flexible approach to assessment.

Table 1 provides the demographics relating to the students studying this course during the chosen term.

Table 1: Management course composition

Total students enrolled		942
Mode of study	Internal	724
	Distance	218
Location of students	Offshore	89
	Australia	853

Law course

The law course introduces the students to the Australian legal system and specialises in the area of contract law. The ultimate aim is to foster an appreciation of the relevance of the law in our everyday lives, to enable the students to recognise when a legal issue has arisen and to be capable of finding and applying the relevant law. This is law for non-lawyers and, as such, the constant challenge is how to make it less daunting, more accessible and even fun, while at the same time promoting the fact that law is not just for lawyers.

It is imperative that teachers are proactive and develop study programs that tap into the potential of available and effective resources. One such resource is Microsoft Producer, which enables users to combine audio or video with Microsoft PowerPoint slides and to produce lectures online. These lectures were employed to enhance the learning experience of the students and to develop upon the range of printed and web-based study materials already supplied. This resource is cost effective and, even for the technologically challenged, relatively easy to use. Moreover, it was chosen because of the availability of support from within the Faculty. On the basis of the adage of "keep it simple, stupid", a voiceover was made to accompany each individual PowerPoint slide. Students may listen to the whole lecture, to individual slides or to repeat slides if necessary for clarification.

In this course, the internal students have face-to-face contact on a weekly basis with a local lecturer, and therefore it was primarily with the distance students in mind that online lectures were introduced. Students were asked to provide feedback on a voluntary basis during the course of the term, and therefore it may be assumed that those making most use of this facility were the ones who responded. Table 2 provides the demographics relating to the students studying this course during the chosen term.

Table 2: Law course composition

Total students enrolled		1155
Mode of study	Internal	935
	Distance	220
Location of students	Offshore	82
	Australia	1073

Accounting course

The accounting course is a practical course which introduces students to the accounting financial statements, analysing those statements and making decisions based on that analysis. Students are also introduced to a basic understanding of budgeting and finance. In Using Accounting for Decision Making, the assessment requirements for all students (internal and distance) included three tests using WebCT (the university's then online learning management system) worth 10% each, a spreadsheet assignment (worth 10%) and a final examination worth 50%. The requirements for a further 10% of the total were that internal students had to participate in weekly tutorials and distance students were to access a WebCT discussion list. It is also important to note that all pieces of assessment were compulsory and that failure to produce any piece of assessment would disqualify the students from obtaining a passing grade. The internal students were encouraged to access the discussion list but no marks for participation were allocated to them for this activity. The distance students were required to post to the discussion list at least three offerings throughout the term. They were expected to offer at least one topic to stimulate discussion and to make at least two responses to different topics by other students. A grade was allocated based on the quality of the discussion topic and the quality of the response made to other discussion topics. The course coordinator monitored the discussion list and entered the discussion only if students required assistance and direction. It was expected that, as WebCT was available to teaching staff, it would be challenging and useful from a teacher's perspective to incorporate it into the students' learning. Table 3 provides the demographics relating to the students studying this course during the chosen term.

Table 3: Accounting course composition

Total students enrolled		951
Mode of study	Internal	714
	Distance	237
Location of students	Offshore	119
	Australia	832

Findings

A number of key findings in relation to the delivery of material, the assessment of students and interaction and engagement can be identified in relation to the analysis of the teaching methods studied.

Material delivery

The online law lectures were utilised to enhance the learning process and to assess students' perceptions, with two principal aims being to trial a new resource and to develop flexible and non-traditional learning. Each of these aims has been analysed and findings provided.

Trialling a new resource

As is often the case with technology, there were hiccups. The main problem for many students initially was the lack of soundtrack accompanying the online lectures. This was remedied by the technician providing a "Solving the no audio" help page. Other problems particular to some students were easily dealt with, and the internal students were also used as a sounding board insofar as it was possible to ask in the weekly lecture how readily they accessed the online presentations. Clearly it is important to react in a timely manner to problems encountered and our Faculty requires that we respond to students within 24 hours. It was heartening that students were willing to keep trying if they initially met with problems, or that they were prepared to persevere with ancient and slow computers rather than not listen to the soundtrack at all. Students described the presentations as a great innovation, congratulated the university on taking the initiative and said that the resource was an excellent study tool.

Flexible and non-traditional learning

Most of our students no longer have the luxury of just being students but need to work too; this is all the more true of the distance students, who are obliged to juggle many commitments. As distance students do miss out on the interaction and stimulation of a lecture, the use of the online presentations was an attempt in part to overcome this.

Feedback in this area was positive, with students saying that the lectures were a very welcome change from the traditional package; they embraced the flexibility (even listening in the car) and the chance to feel involved, describing it as just like being in the lecture theatre. One student commented that they found the presentations relaxing after a hard day's work, which raises the question of what they actually did at work. Overall, the response was encouraging, especially as many students made the point that this was their first year of study and that the online lectures eliminated feelings of isolation. A common response was to ask for lectures in other disciplines to be delivered in this way.

Assessment

In relation to the management course offering a range of assessment modes, the assumptions were that students would make decisions based upon their individual learning styles and circumstances. There was, however, an overwhelming majority who chose to undertake the assessment option offered of 100% online quizzes.

The different assessment options offered were:

Option A—14 online tests with results of the best 10 counted toward the final grade
Option B—7 online tests with results of the best 5 counted, in addition to 2 essays
Option C—1 large online test in addition to 2 essays
Option D—2 large online tests
Option E—4 essays

The take-up of these different assessment options is shown in Table 4, which illustrates also the take-up across internal and distance students, as it is often assumed that distance students take the most advantage of online delivery options.

Table 4: Assessment option choices for the management course

	Option A	**Option B**	**Option C**	**Option D**	**Option E**	**No choice – withdrew**
Total Students (942)	827 (87.8%)	14 (1.5%)	3 (0.3%)	7 (0.7%)	37 (3.9%)	52 (5.5%)
Mode of study – internal (724)	649 (90.0%)	8 (1.1%)	2 (0.2%)	4 (0.5%)	20 (2.8%)	41 (5.7%)
Mode of study – distance (218)	178 (81.7%)	6 (2.8%)	1 (0.5%)	3 (1.4%)	18 (8.3%)	12 (5.5%)

As indicated in Table 4, it was the internal students who more often chose the online options, with the distance students being almost three times more likely than internal students to choose the only option offered totally offline. Based upon discussions with students undertaking each of the options and monitoring of discussion lists, a number of reasons can be proposed for this overwhelming use by internal students of the online assessment methods, and the higher numbers of distance students selecting the offline option. Firstly, a larger number of smaller pieces of assessment appealed to many of the students. Option A offers the largest number of tests (all only 15 minutes), and therefore students believe that it is a useful way to ensure consistency of study across the term. The fact that more distance students selected the offline option can be attributed to a number of factors**.** Firstly, many of them were new to the university environment and this was the first time that they had been offered online assessment. Those who were unsure opted for the more traditional essays in preference to the newer (for them) online assessment. It is suggested that, as the internal students have some face-to-face contact with lecturers and tutors, even if the technology is new to them, they realise that they have a support system should they experience difficulties, and the lecturer offers personal encouragement to adopt the online assessment methods.

Finally, the feedback at the end of term from students on their experience of using these online assessment methods is also useful. They reported that the benefits to them included a feeling of flexibility in both the choice of assessment (although it would appear that the large majority make the same choice) and the ability to

schedule their tests to suit their own circumstances (within the timeframes set for each test). They did, however, also feel that at times frustration with system issues (such as network outages and technology freezing) detracted from this experience. They also expressed a desire to receive more feedback on their incorrect responses. At this stage, this feedback is not given in any detail to students in order to maintain the integrity of the test bank.

Interaction and engagement

All students in the first-year accounting course were given the opportunity to complete a self-administered questionnaire. Distance students completed an online questionnaire and internal students completed a paper-based questionnaire in class. The total number of respondents to the survey was 342 students: of this number, 189 were females and 146 were males (7 did not indicate their gender). One question in the survey for accounting students asked "Did using WebCT contribute positively or negatively to your learning in Using Accounting for Decision Making?" The responses from the students can be found in Table 5. With 65% of students responding positively, it may be deduced that there are some real benefits for students in embracing the online technologies such as WebCT. Again, technological problems were one of the main reasons offered for negative experiences.

Table 5: Responses relating to the impact of WebCT

Response	Number of responses	Percentage
Positive	224	65%
Negative	10	3%
Positive and negative	4	1%
Unsure	9	3%
Neither	14	4%
No response	81	24%
Total	**342**	

Conclusion

An important contemporary issue facing most teachers in tertiary education is how to address the ever changing demands of our work, which include the development, delivery and assessment of large, multicampus, introductory, undergraduate courses, and the paramount importance of developing and enhancing our students' learning experience and setting them on the journey of self-direction. These challenges face all teachers, across all disciplines and, as our use of non-traditional methods in three disciplines shows, there are lessons to be learnt in the continuous development and practice of online delivery.

There are two key lessons for teachers and course developers from the results of this research. Firstly, it offers to some students an alternative to traditional forms of teaching and assessing, but it was also quite clear that these methods should be viewed as complementary to traditional forms of teaching. This research would indicate that investing too much time and resources into these methods to the detriment of others may in fact be counterproductive. Therefore, it is important that both course developers and facilitators consider the learning needs first, and determine the methods (technology-based or not) as the means to an end and not simply an end in itself. There is evidence to show that there were benefits for

students regardless of which of the three applications of technology was used, but this should not be viewed as a reason to discard more traditional methods entirely. Secondly, despite universities considering flexible approaches entirely for distance students only, each of the three methods employed was seen as useful for both internal and distance students alike. However, these alternatives in relation to delivery, interaction and assessment appear to offer the distance students more opportunity for engagement than would normally be the case.

Even though this research has begun to explore alternative delivery and assessment methods, there is still much more to be investigated. Whilst we have considered at a basic level internal and distance students, future research will focus more heavily upon the different tools and the differences in utilisation by internal and distance students. Secondly, this research also raises further questions about the perceptions of students regarding the delivery of forms of assessment either online or face-to-face, and the benefits and drawbacks of each of these methods.

In summary, faced with the plethora of resources now available, not all such resources will necessarily be effective, but we need to trial them and to assess student feedback and utilisation in order to make informed decisions. As we flounder in the sea of global competition and mass market education, it is important to remain sane and to enjoy our work. We refuse therefore to cling to the wreckage but instead invite you to share our experiences, learn from them as we did and move on together.

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