
ETHICAL CONSIDERATIONS IN PROVIDING DISTANCE EDUCATION IN THE LIGHT OF MASSIFICATION

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ABSTRACT

The massification of higher education has led to a rise in equity related issues in teaching and although institutions have developed policies, few academics have a coherent way of adhering to them. This paper briefly discusses the implications of catering for an increasingly diverse student body and proposes multimodal design as an appropriate response. Case studies are used to support the proposal.

KEYWORDS

Keywords: distance education – non-traditional learners – learning modalities – massification – metacognition

INTRODUCTION

This paper investigates issues relating to the changing nature of providing higher educational courses via distance education (DE), particularly in the context of the ethics involved in delivering these courses via technology enhanced environments. Over recent years there has been an increasing tendency, due to the advances in learning management system (LMS) technology, to shift the delivery of DE courses from printed to electronic form. However, at the same time there has also been a significant increase in the percentage of non-traditional learners entering universities. Such learners include mature age students, part-time students in full-time or part-time paid employment, students from educationally disadvantaged backgrounds (including prisoners) and students for whom English is a second language. Many of these students are choosing to study by DE (Schuetze & Slowey, 2002). In addition, sociologists and pragmatic educators are increasingly noticing that people are learning to learn in different and/or in non-traditional ways (Oblinger & Oblinger, 2005). This realisation parallels the 'massification' of higher education, the process whereby higher education is transformed from an elite to a mass system with a much larger proportion of the population participating (Scott, 1995).

As a greater diversity of people enter higher education there also comes a greater variety of cognitive, generational, cultural and demographic needs that also need to be considered. Many students now come to university somewhat ill-equipped to face the rigours of study and with little way of knowing how to adjust. The need therefore to cater for this diversity has never been greater; demanding new approaches to learning and teaching (Cameron, Shaw, & Arnott, 2002).

The massification of higher education has also created significant ethical challenges. Indeed there is now a literature on the professionalisation of teaching in higher education (Macfarlane, 2004). It is argued that the traditional view of a university academic as a discipline expert with a strong focus on research is no longer adequate. Although academics might be professional in the sense that they are members of a professional body (e.g. in accounting, engineering, law or medicine) or are discipline experts, they must also be professional in the sense that they are cognisant of obligations to students. Students are clients and professionalism incorporates both mastery of an area of knowledge and skill (the traditional view of the university academic) and service from which the client derives benefit (Jarvis, 1983).

Many universities have equity and ethics policies designed to address some of these issues, but it would seem few academics have a coherent way of adhering to these policies, due either to a lack of time, or simply not being aware of the enormity of the issues (Birch & Gardiner, 2005). At least in the Australian context adoption of technology enhanced learning has been *ad hoc* and limited and does not appear to be a coherent response to the ethical implications of massification (Smith, Ling, & Hill, 2006). In addition there is significant research that would suggest that reliance on the more traditional text-based instructional materials supplied by many institutions may inadvertently disadvantage a significant proportion of their students (St Hill, 2000). In fact, this approach could now be considered an unethical way of approaching today's diverse student body, since it is unprofessional in the sense outlined above.

This paper will briefly discuss the implications of catering for an increasingly diverse student body, proposing that one approach to consider is that of multimodal design. This is done whilst acknowledging that there are still significant issues associated with these non-traditional

students accessing technology enhanced learning materials. This paper will then propose that an ethical response to this is twofold. First, by integrating a range of multimodal learning and teaching strategies courses may be able to cater for a wider diversity of students. Second, by giving students the opportunity to discover their preferred approach to learning they can in turn have more confidence in approaching study. This paper will support this by a very brief report on two key findings from a series of much broader research projects conducted at the University of Southern Queensland (USQ) between 2004 to 2006. These studies found that higher levels of student engagement were possible when course materials were designed to cater for students with a diverse range of approaches to their learning.

Delivery model

The USQ is currently the second largest DE provider in Australia, with over 75% of its students (about 16,000) studying in this mode, and with almost 90 nationalities being represented in its student body. At USQ, as with many other institutions in Australia, DE course materials have traditionally been delivered via static print-based packages. However, advances in technology have afforded an opportunity to transfer much of this material to an online and/or CD-based delivery mode. As with other institutions USQ has responded to reduced government funding over the years by also competing globally and by widening access to new types of students (Bridge, 2006).

To give some type of framework to this widening access USQ has been required to develop a range of policies to address many related to diversity. For example, it's policy on learning and teaching states specifically that the learning environment will offer choices in mode of delivery and incorporate a range of learning and teaching strategies to accommodate the diverse needs of its students (USQ, 2006). Further, USQ's Equity in Educational policy states that it is:

“to be proactive in promoting and supporting fair access to higher education opportunities and ensuring that all students have the opportunity to achieve according to their own individual potential.” (USQ, 2007)

Of particular note in this policy are the words, 'ensuring that all students have the opportunity to achieve according to their own individual potential.' This is a principled statement that is consistent with the idea of professionalisation of higher education. However, if an institution is to fully embrace this ethic there are a range of issues that decision makers within the institution

need to consider. For example, they would need to question not only what is sound from a pedagogical point of view, but also the effectiveness of systems through which people learn, as well as alternative and supplementary frameworks for learning (Vissar & Suzuki, 2006, p.236).

Based on the above USQ has been developing its strategy for creating course resources based on a hybridised delivery model known as 'Transmodal delivery'. This is seen as the provision of a resource-rich multimodal learning environment, allowing students the opportunity to access their course content in a combination of ways. This approach does not deny the perceived need to also provide access to print-based resources, and these are provided online (or on CD) in the form of PDF files and made available for purchase from the USQ Bookshop. More importantly, the HTML based environment allows for significant multimedia enhancements to be provided in these environments. This strategy in itself does not deal with the equity issue associated with increased diversity within the student body, but it does provide a platform to allow materials to be developed and delivered as part of an ethical response.

Diversity and growing non-traditional student numbers

Non-traditional learners have grown in prominence and are today a significant consideration when designing DE materials. Schuetze and Slowey (2002) argued:

“Non-traditional students in an elite higher education system were, by definition, a minority. With expansion and change in higher education some non-traditional groups have increased in number arguably to a point where they have come to form a 'new majority' in higher education” (p.313).

This demographic change has caused a significant blurring of the traditional boundaries of how learning materials are supplied (Bridge, 2006) and fundamental questions such as “what to teach and how on earth to teach it” have also been asked (Jochems, van Merriënboer, & Koper, 2004). This situation is further highlighted when we consider the issues associated with the learning styles of non-traditional students, as opposed to those who comfortably work within a read/write learning style and have succeeded at higher education in the past (Sarasin, 1999). Barrington (2004) believes this is a major issue as tertiary institutions privilege certain ways of knowing and focus on a narrow view of the intellect that 'does not always allow for socio-cultural

differences' (p.422). This would suggest, as does Askell-Williams and Lawson (2006), that there is a need to 'represent more fully the diversity and complexity of students' cognitive models about learning' (p.139) within modern curricula. This is a particularly important ethical consideration for it is when 'learners are placed in new situations or have to solve new types of problems that their preferred learning style has a significant influence on their experience and their learning' (Sheard & Lynch, 2003, p.255).

Importantly, as these students learn in different ways, so they may also represent knowledge in different ways, and as performance can be related to how they learn, it may be seen that people can learn more effectively when taught by their preferred approach to learning (Koc, 2005). Baird and Fisher (2005) believe that 'the key to a more just approach is to design learning materials with these non-traditional learning styles in mind, creating content that allows students flexibility whilst also embracing the reality of the neomillennial student' (p.10). Non-traditional learners are USQ's 'bread and butter', thus the following section will investigate some of the issues to be considered when allowing for the different approaches students have to their learning.

Different approaches for different learning modalities

Fundamental then to the design of Transmodal courses are the principles of multimodal design in which 'information (is) presented in multiple modes such as visual and auditory' (Chen & Fu, 2003, p.350). This is based on research demonstrating that students prefer to learn in environments that reflect the cognitive style in which they are most comfortable (Hazari, 2004). Multimodal design makes this possible as information can be presented in ways that utilise multiple sensory channels. Chen and Fu (2003) state that, 'multimodal information presentation makes people feel that it is easy to learn and they can maintain attention, which will benefit the learning process and increase the learning performance' (p.359). This is particularly true when utilising additional multimedia in learning and teaching environments to match students' different learning modalities (Ellis, 2004). For example, when the written word fails to fully communicate a concept, a visual representation can often remedy this problem. Figure 1 presents a simple illustration of this concept. Where 'Representation 1' may cater to a couple of learning modalities, it may not cater to others, so by including 'Representation 2' the other learning modalities may be accommodated.

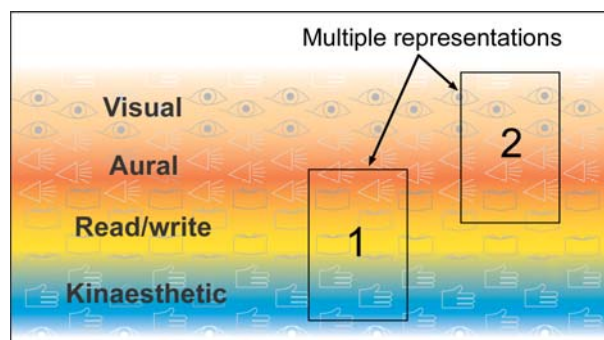


Figure 1. The multiple representation of a concept

Examples of multiple representations may include, using point-form text in conjunction with video or audio, animated diagrams with audio, video presentations, interactive graphs, audio explanations of concepts and still images. Importantly, in these examples the multimedia element presents an additional representation of the information (traditionally in text) in another format. This approach not only caters for a range of different learning styles but it also gives students a choice in how they wish to access the content, and may be considered an ethical response to the needs of non-traditional learners. Jona (2000) asserted that this kind of learner choice represents the paradigm shift that needs to occur in higher education.

Facilitating Metacognition

It has been suggested that when students are aware of their individual strengths and weaknesses as learners they become more motivated to learn (Coffield, Moseley, Hall, & Ecclestone, 2004). The potential of this awareness is that students can then question their long-held behaviours and be taught to monitor their selection and use of a range of strategies to aid their learning (Sadler-Smith, 2001). This strategy has also been shown to increase the confidence and the grades of students by helping them to make the most of the learning opportunities that match their preferred style (Coffield et al., 2004). So, although it has been seen that there is a real need to design learning environments for a range of different learning modalities to aid student cognition, considering issues of students' metacognition is equally necessary. There is therefore, a further aspect that needs to be considered, namely helping individual students become aware of their own preferred approach to learning. Typically this is done by administering to the students some form of learning styles inventory. However, to be effective this should not be seen as a one-off activity, rather it must be part of a holistic approach, one that incorporates a range of support information.

Researching multimodal delivery

The change to a multimodal form of delivery represented a substantial shift in the provision of course at USQ, so it was critical to understand how the students perceived these resources and to find out of how effective the multimedia elements had been. This next section very briefly

Course	Research	N=
ECO2000: Macroeconomics for business and government	S1 – 2004	62
MGT2004: People development	S2 – 2004	108
MKT1001: Introduction to marketing	S1 – 2005	86
MKT2004: Marketing channels	S2 – 2004	31
CMS1000: Communication and scholarship (external only)	S1, 2 & 3 – 2005	188
CMS1000: Communication and scholarship	S1 – 2006	113
Total number of students participating		588

Table 1. Six multimodal courses and when each was researched

reports on two key findings relating to this form of delivery from six broader research projects conducted between 2004 and 2006. A total of 588 students participated in these studies (Table 1). It should be noted that only very limited data can be reported here and only data relating to the use of multimedia enhancements is presented. In the above courses students were asked to indicate the extent to which they agreed or disagreed that the multimedia elements had helped them understand the concepts being represented. Figure 2 shows that between 86% and 64% agreed or strongly agreed with this. It was seen that the students not only found these features helpful to their learning, but in some cases invaluable, as the following comment indicates:

“The advantages are obviously having all those different options available for the different modes of presentation. The explanation of diagrams and stuff like that are invaluable.”

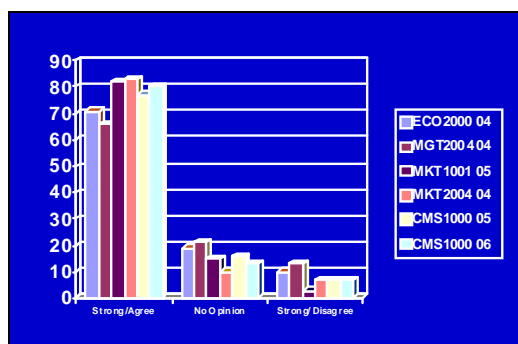


Figure 2. Level of agreement that multimedia features had been helpful.

One feature that generated the most positive comments, from DE students was the use of

audio within the environments, as is highlighted in the following comment:

“... if I had trouble understanding something from the hard copy I’d go and find other means of understanding...mainly the audio...you can interpret things differently when you read it. When you get somebody explaining it to you through the audio it’s like, ‘oh that’s what they mean by it’. You can definitely read things and they can be interpreted in a different way.”

The audio feature also had the added benefit of helping external students feel less isolated. One distance student remarked of the multimedia features:

“I found them extremely helpful - made me feel more a part of the class as well”.

In the comments above lies the essence of what is seen as the advantage of supplying core information in more than one way. That is, the use of multiple representations can aid in making concepts clearer and in so doing enhances the opportunity for learning from the materials, or in the words of one student: *“the more options the better off you are at learning what you are trying to learn”.*

Another form of multimedia enhancement used in the learning environments was using audio enhanced PowerPoint presentations. When students were asked to respond to the statement, *‘The multimedia introductions (using PowerPoint and audio) used for each module; assessment and course overview really helped my understanding of the course content’*, between 80% and 66% agreed this had been the case (Figure 3). Again this weight of positive sentiment is confirmed by student comments, for example, *“Yes. Presenting material in a variety*

of formats and ways facilitates and stimulated my learning”.

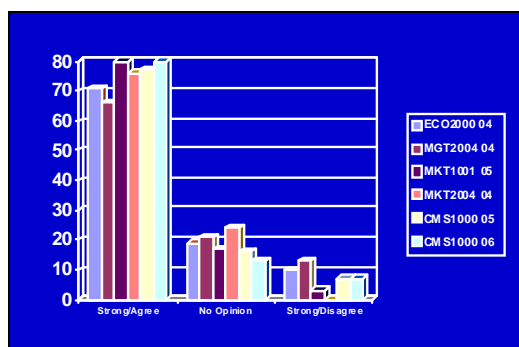


Figure 3. Level of agreement that multimedia introductions had been helpful.

There was an unmistakably strong endorsement of the multimedia enhancements in these courses, though they clearly did not suit everyone. However, the use of multiple representations was seen to help the students' understanding of the course concepts and helped break down some of the perceived barriers to their study. Overall it can be seen that there was a strong acceptance of the use of the multimodal learning environments. In addition, students indicated that they preferred the CD-based version of the materials to the printed learning resources because they could easily access or buy a printed version if they chose. It was seen that the sentiments expressed by the majority of students relating to these environments were highly complementary. Based on the findings of the above studies, the major recommendation would be to cater for a range of different learning modalities by offering alternative representations of key concepts within courses.

CONCLUSION

This paper has demonstrated that there are ethical reasons and pragmatic advantages for students in providing course resources designed to suit a range of different learning modalities and backgrounds. The findings from these research projects investigating multimodal delivery indicate that students had positive attitudes toward, and value, these course materials along with the additional multimedia components. This was primarily achieved by providing a more complete representation of the information being presented, thereby increasing the opportunity of students to engage with their learning materials. Importantly, this was achieved whilst maintaining a balanced environment for more traditional learners, while at the same time integrating a range of multimedia based enhancements for those who learn in non-traditional ways. This paper has argued that

adopting such an approach is an appropriate ethical response to massification and the demand for professionalisation of teaching in higher education that has arisen in response. It is hoped that the discussion provided in this paper may encourage more educators to consider the adoption of a multimodal approach for the purpose of delivering DE courses. However, in doing so there are important issues relating to how the implementation of these new technologies can be best integrated before the full benefits to the learning community can be realised. Ultimately, what this paper is suggesting is that, multimodal design may reduce the impact of providing technology enhanced DE materials to a very diverse and an increasingly non-traditional student body.

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