Evaluation: WebCT and the Student Experience

Debbi Weaver\textsuperscript{a}, Chenicheri Sid Nair\textsuperscript{b} and Christine Spratt\textsuperscript{c}

\textsuperscript{a} Centre for Learning and Teaching Support, Monash University, Australia; \textsuperscript{b} Centre for Higher Education Quality, Monash University, Australia; \textsuperscript{c} School of Nursing and Midwifery, University of Tasmania, Australia

This paper presents findings from an institutional online survey investigating the use of WebCT by students in their learning and teaching at a large Australian University. The survey was designed to ascertain how WebCT was being used, what support services were being utilized, and to determine what areas, if any, needed improvement. Based on anecdotal evidence, it was expected that most student comments would relate to technical and infrastructure issues, but instead, the survey elicited responses primarily on how WebCT was used in teaching and learning, indicating that quality control is a major issue for the University. Generally, students were positive about their use of WebCT and appear to have little trouble in using the technology. Student opinions appear to reflect more the use of the technology made by teaching staff - students who have experienced a well-designed unit rich with resources, timely feedback and good interaction with staff reporting a positive experience with the technology. However, there were equally negative responses from students about poorly designed sites, little or no feedback from staff, outdated information and broken links. The findings in this paper have implications for teaching and learning with technology and the way in which tertiary institutions support students using such technology.

Introduction

Traditionally, university education was carried out face to face. While open and distance learning strategies had used various forms of available technologies in the post-WW2 period to enable various forms of ‘correspondence education’, since the 1960s the revolution in information technology has changed the face of tertiary education. There is increasing reliance on information technology to complete educational qualifications; this has resulted in the university ‘fitting around’ or accommodating the working lives of students who rely on paid employment to pursue their studies (McInnis, James & Hartley, 2000). In the 21\textsuperscript{st} century the increasing use of Learning Management Systems (LMS) across higher education institutions has, in theory at least, provided the potential for rich learning environments built on social constructivist theories to be available for all students, both on-campus and those studying at a distance (Stacey, 1999). There is now a large literature that explores the characteristics of ‘good’ online teaching (Chickering & Ehrmann, 1996; Gerbic & Stacey, 2003, Harrington, Oliver & Reeves, 2003; Oliver, 2003). It is our contention that we don’t know the extent to which these principles are being applied across an institution.

Clearly, over the years, the higher education sector has accepted that it is a service industry and must re-evaluate its approach by placing greater emphasis on meeting the expectations and needs of its customers; that is students (Cheng & Tam, 1997). In addition, it is now common for universities to be subjected to quality reviews in which universities are required...
to demonstrate that they have adequate procedures to ensure quality for their students in teaching and their learning environments. Contemporary research consistently confirms a strong correlation between classroom environments, learning and satisfaction (Fraser, 1994, 1998; Griffiths, 2001; Nair & Fisher, 2001; Suarez, Pias, Membiela & Dapfa, 1998; Templeton & Jensen, 1993; Whiffen & Kalivada, 2001). Although the precise nature of a quality educational environment can be debated, much progress has been made in conceptualising, assessing and researching its characteristics and effects on student learning. Research over the last four decades has recognised that students’ and teachers’ perceptions are important parameters of the social and psychological aspects of the learning environments of school classrooms (Fraser, 1994, 1998; Ramsden, 1991; Templeton & Jensen, 1993). Recently, Ramsden (1994) has reminded us that the student learning research tells us about the importance of intellectual challenge, clear goals, creating an environment where they take responsibility for their own learning, encouraging co-operation between students, concern and respect for students as learners and people, understand what students have learnt and what they still need to learn, giving a lot of feedback on learning, continuously monitoring the effects of one's teaching in order to improve it, seeing teaching as a conversation or dialogue rather than a transmission process, and understanding teaching as a process of enabling learners, rather than a set of recipes.

Moreover, the way in which quality learning, and indeed quality online learning, occurs is heavily reliant on quality teaching and teachers personal conceptions of teaching and learning (Ramsden, 1991, 1992, 1994).

Significance

WebCT at Monash University was initially implemented as an institution-wide centrally supported Learning Management System (LMS) in late 2001. Over the last four years, there has been an exponential rise in the number of academic users of WebCT and the number of active WebCT units across the University (Weaver, 2003). This adoption rate has been mostly voluntary in the University and the majority of users have restricted their engagement to the delivery of online lecture notes and basic communication avenues.

A study like the one reported here can shed light on improving the quality of online classroom and general learning environments for students at the higher level of education. The wealth of information obtained from other studies suggests that it could be of value for tertiary educators to gain a fuller understanding of students’ perceptions of their online learning environments. Further, this study also has broad implications to institutional planning, infrastructure and resources for units that are taught and supported with a Learning Management System.

Since the initial project implementation in late 2001, there has not been an in-depth investigation of the use of WebCT at Monash University. The significance of this project is that it presents findings that could have implications on both teaching and learning with technology and the way in which tertiary institutions support students using such technology. Further, the study is significant in that if tertiary educators have a clear understanding of students’ learning environments they can implement changes to achieve more positive environments and thus foster better teaching and learning.

Method

A survey methodology was chosen and descriptive statistical analysis undertaken. The survey aimed to gauge student perceptions of their use of WebCT. We were most interested in investigating:
• what features of WebCT were being used in teaching and learning, and the experiences of students using these features;
• which areas need improvement or further investigation; and,
• potential strategies in the pedagogical applications of WebCT to assure quality improvement in online learning environments.

The survey design sought biographical information, and consisted of 56 quantitative items on using a Likert scale to determine student usage of WebCT and perceptions of support in using WebCT. The survey also gathered qualitative feedback in the areas where support could be improved and features added to further support WebCT usage. Two thousand five hundred (2500) students participated in this online study.

Student Perceptions: Key Findings

Generally, student perceptions were positive with respect to the use of WebCT at Monash (Table 1). Despite known technical issues with very specific versions of browsers and plugins being required to access the LMS, student feedback suggests that these problems were minor, with most students reporting coping with these problems early in their experience.

Table 1: Difficulties reported in learning to use WebCT

<table>
<thead>
<tr>
<th>Difficulty</th>
<th>Number</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Difficulties</td>
<td>59</td>
<td>4.5</td>
</tr>
<tr>
<td>Minor Difficulties</td>
<td>334</td>
<td>25.5</td>
</tr>
<tr>
<td>Generally easy to learn</td>
<td>675</td>
<td>51.6</td>
</tr>
<tr>
<td>Always easy to learn</td>
<td>240</td>
<td>18.4</td>
</tr>
</tbody>
</table>

Though the perceptions in general were positive, student feedback has also brought to light important challenges for Monash University. These challenges deal with the quality of the online sites, including teaching quality (appropriate teaching activities, level of interaction and feedback) and the use of technology (broken links, outdated information).

Student responses suggest that experiences have been a composite of positive and negative experiences. Student opinions reflect the use of the technology made by their lecturers in terms of well-designed units rich with resources, timely feedback and good interaction with teaching staff as ‘positive learning experiences’.

Students reported poorly designed sites as those that had little or no interaction with or feedback from staff, and outdated information and broken links to resources, for example as measures of a negative experience. Many of these negative experiences are detailed comprehensively by students in their qualitative comments; for example:

“It works well when the lecturer wants to make it work well. …”

“Content was not always up to date or complete.”

“Most of the tools mentioned would be useful, but have not been used by our course designers.”

“The calendar is only useful if it is current. If the calendar is from the previous year, then it is extremely unhelpful.”

Though students showed a keen interest in using the LMS at Monash, student comments were indicative of areas that they believed, would need improvement. Areas outlined by students included general access to their lecture notes (both for printing and saving files), and timely feedback on their progress. One key area highlighted by students was the poor use or lack of use by staff of the available features of the technology, rather than problems with using the technology itself.
An area of key interest in this project was to determine the use of existing support resources to learn how to use WebCT. Student feedback indicated that 50% of students learnt how to use WebCT by themselves (Table 2), with a further 23% receiving an introduction from their lecturer or tutor. Interestingly, only 31% of students were aware of the existence of the central helpdesk (provided by the Centre for Learning and Teaching Support), with even less being aware of existing online student resources. Most students were aware of the existence of ITS and Faculty helpdesks, which still leaves a large proportion of students who were unaware of the available support services.

Table 2: Resources utilised by students to learn WebCT

<table>
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<tr>
<th>Resource</th>
<th>Number</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worked it out myself as I went</td>
<td>969</td>
<td>50.9</td>
</tr>
<tr>
<td>My lecturer or tutor provided an introduction to the unit</td>
<td>439</td>
<td>23.1</td>
</tr>
<tr>
<td>Other students helped me to get started</td>
<td>162</td>
<td>8.5</td>
</tr>
<tr>
<td>Consulted online resources</td>
<td>91</td>
<td>4.8</td>
</tr>
<tr>
<td>Lecturer or tutor helped me to get started</td>
<td>89</td>
<td>4.7</td>
</tr>
<tr>
<td>Completed a preliminary online exercise</td>
<td>70</td>
<td>3.7</td>
</tr>
<tr>
<td>Other</td>
<td>49</td>
<td>2.6</td>
</tr>
<tr>
<td>Consulted helpdesk staff</td>
<td>33</td>
<td>1.7</td>
</tr>
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Open-ended responses highlighted student training as an area that needed addressing by the University. Supporting this, the data also suggests that in many cases students were unaware of built-in features in WebCT or how to use the existing tools effectively. Students who did receive an introduction to their unit’s WebCT site, in most cases from their lecturer, appeared to find the technology easier to use, and appeared clearer on what was expected from them.

Discussion of Findings

Overwhelmingly, student comments highlighted that they perceived a lack of quality of online teaching at Monash. Students also perceived a lack of engagement by academic staff with their online teaching. The open-ended responses generally focussed on the poorly developed or maintained sites rather than on the lack of a site for their unit of study. At Monash, the inclusion of an online component to the design of a unit (subject) is not a compulsory requirement for the teaching of that unit. However, in some areas of the University, the inclusion of an online component has been mandated, sometimes through the policy of Faculty Teaching and Learning Committees. Student responses suggest that in these circumstances, the online experience was less satisfactory than when online teaching was a choice of the lecturer. A possible solution to this ‘problem’ area could be to provide increased support to the staff who are teaching mandated units. This could ensure the highest quality of teaching and learning could be attained through the quality cycle of the University.

The data from this project clearly supports an expansive literature in tertiary teaching that suggests the quality of instruction is a primary determinant of a positive learning environment (see for example, Biggs, 1999; Oliver, 2003; Laurillard, 2004). In light of the strong student response regarding the poor quality of much of the online teaching at Monash University, further strategies to encourage improved online teaching must be considered. Like most Australian universities, Monash aspires to continuous quality improvement of its learning environments. Through its institutional policy frameworks, Monash has made transparent a commitment to improving both the quality of teaching and the student learning experience of WebCT. Recent initiatives to progress this agenda includes the ‘Unit Innovation Grants’, institutional showcases of exemplar sites (e.g. Designing Electronic Learning & Teaching Approaches [DELTA], Brack, Samarawickrema, & Benson, 2005), and a new Monash Award
for Online Teaching. However, we suggest that these initiatives are more likely to attract interest from the ‘early adopters’ of technology, whereas the major challenge is encouraging more interaction from the ‘mainstream majority’ of staff. Monash has also recently embarked on enacting guidelines that will reflect specific quality standards for its online teaching sites.

The results of the survey highlighted that students are often unaware of the features in WebCT as well as how best to use the existing features effectively. Further the data also suggest that students are also largely unaware of the existing support services available to them. In light of these findings, it is clear that to make a difference to the quality of student learning in online environments requires the essential components of good teaching (Ramsden, 1994). This study suggests the following ingredients in a successful recipe:

- academic staff introducing the use of WebCT in lectures or general tutorials at the beginning of each term;
- student training as a component of WebCT units. The existing central Helpdesk staff provide this service on request from academic staff, but report their services are currently under-utilised;
- training of academics who teach such units; and,
- ongoing seminars, presentations and staff development workshops to help demonstrate different strategies used by staff to engage students in online teaching.

Conclusions

This study highlights the need to provide support, both for staff in developing their online teaching activities and in their interactions with students, and for students in learning how to effectively use the technology to aid their learning. The need to ensure both staff and students are aware of the available services is also identified. The study also highlights particular characteristics that the students have identified as ‘markers’ of a quality online learning environment however, further research is necessary to gain in-depth data on the issues that have been raised by students and staff. This study supports the developing research in online learning environments that has identified ‘what counts for quality’ in teaching and learning online. The development, implementation, evaluation and importantly the sustainability of quality in online teaching are major challenges for universities as they attempt to compete in the global marketplace.

Notes on Contributors

Debbi Weaver is an academic staff developer in the Higher Education Development Unit of the Centre for Learning and Teaching Support at Monash University. She is responsible for providing professional development to academic staff in all aspects of teaching with technology. Debbi has a background in the educational design and evaluation of interactive multimedia teaching packages for undergraduate medical and biomedical science students.

Chenicheri Sid Nair is Quality Adviser with the Centre of Higher Education Quality at Monash University. Currently, he heads the evaluation section for the Centre. His research work lies in the areas of quality in the Australian Higher Education system, classroom and school environments.

Christine Spratt is currently Senior Lecturer (Quality Assurance: Academic Programs) in the School of Nursing & Midwifery at the University of Tasmania. She has eclectic interests in tertiary pedagogy, educational research methodologies and research interests in simulated
learning, interaction in online learning environments and the nature of academic work in the contemporary academy.

Address for correspondence. Dr. Chenicheri Sid Nair, Centre for Higher Education Quality, Monash University, Australia. Email: sid.nair@adm.monash.edu.au

References


