

## The WebCT Discussion List and How it is Perceived

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### INTRODUCTION

With an increasing emphasis being placed by universities on using technology to enhance students' learning, many universities are using web-based approaches to teaching and learning. It has been argued (Anderson, 1996) that online learning potentially provides meaningful learning activities. O'Malley (1999) argues that often new educational technologies, such as web-based learning, are implemented without any assessment of their impact on students. In many universities in Europe and North America, the use of face-to-face lectures combined with tutorials or workshops is regarded as the preferred, if not the only, delivery medium for materials. That has not been, and is not, the case in Australia. Some Australian universities had been previously designated as centres for distance education. These universities have delivered courses and programs to students, who cannot or choose not to attend face-to-face lectures, through correspondence programs for over 50 years. Using web-based technologies is of great interest to these institutions as it has the potential not only to improve the delivery and enhance students' learning but also to reduce substantially the cost of distance delivery.

According to Slay (1997), problems have emerged in the development of web-based delivery packages and tools because academics have little experience in designing and using this medium of material delivery. These developmental problems can be exacerbated because, as George (1996) argues, the form of delivery can produce particular types of learning behaviours so that web-based delivery is not a neutral medium. As it is not neutral, we, as academics, need to study the impact of the medium and the material on students and this paper is the first in a series that examines students' perceptions of web-based learning materials. O'Malley (1999) argues in his model of student perception that prior educational conditions, perceived characteristics of distance and online learning and characteristics of the student influence the perceived effectiveness of distance learning and online learning. This study uses two of these constructs, perceived characteristics of distance and online learning and characteristics of the student, to investigate how students perceive the effectiveness of an online discussion list used by both distance education students and non-distance students.

As Ataya, Brown, Gorham and Barker (2002) indicate, many universities are offering courses in online learning interfaces like WebCT to simplify course management by providing a centralised location for material and information. They also argue that it simplifies the management of online tests and allows for greater instructor-student and student-student interaction. What remains unclear is whether this increased interaction occurs across all student cohorts and whether this type of interaction via WebCT, such as discussions lists, is perceived by students to be beneficial. This work reports the findings of a study conducted with first year students in an accounting program in a regional Australian university that has extensive experience in distance education. Our initial findings support the proposition that some students, in particular distance students, perceived technologies such as WebCT in a positive light and rural and remote students who usually have little or no interaction with fellow students believed they benefited from using the discussion list. (It should be noted that in 2003, the year after the research reported here, the University where the research was conducted changed from WebCT to Blackboard as its learning management system. The findings reported here relate to WebCT rather than to Blackboard.)

## **FLEXIBLE AND DISTANCE DELIVERY**

In many countries, universities have typically used the lecture method to deliver material and supported this with workshops and tutorial activities. In Australia, because of the enormous distances and relatively small population, education providers at all levels have used alternative methods such as posting out printed materials and tapes. In the past, radio was used to conduct a 'school of the air' (now called 'schools of distance education') for some isolated primary and secondary school students. So distance education is nothing new in Australia and Central Queensland University (CQU) is recognised as expert in this area. CQU, with its headquarters in Rockhampton, Queensland, has been through a metamorphosis similar to that of many tertiary institutions in Australia. Distance education materials have been important to CQU for more than 30 years as CQU commenced as a regional university servicing a regional rural community. Today, it not only services the rural community but also encompasses students in many isolated areas of Australia and across the world.

CQU has a reputation as being one of Australia's most progressive and innovative universities. CQU is what Roberts and Kelly (1999) term a third generation institution as it has international and overseas multi-campus facilities. This has meant that the way students are taught has had to be revised to account for methods other than face-to-face teaching. The Faculty of Business and Law at CQU has been at the forefront of student growth, which has meant that staff have been willing to experiment with varying forms of online assessment that not only meets the University's quality standards but also assists in coping with the huge numbers of enrolled students. The purpose of this study was to ascertain the perceptions of first year students to using WebCT as a delivery medium. This particular paper concentrates on a discussion list as one form of assessment. It was believed that, unless the technology was linked with assessment, students would not venture into using the web and other electronic educational media.

The course that is central to this research, which was conducted in 2002, was Using Accounting for Decision Making, which is a compulsory, first year, first term course for all students studying the Bachelor of Business degree. The course takes a user perspective of accounting information, covering topics such as using Statements of Financial Position, Statements of Financial Performance and Cash Flow Statements to make decisions about investment, budgeting and financing the business. The assessment requirements for all students (internal and external) were that students had three WebCT tests 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 external students were to access the 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 external (or flexible) 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 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. Students were also advised that, should they post more than one offering of a discussion topic and more than two responses, they would be marked on their best offering of a discussion topic and their best two responses to other discussion topics. At the end of the term, the discussions were individually sighted and graded by the lecturer with assistance from a tutor. The course co-ordinator monitored the discussion list and entered the discussion only if students required assistance and direction.

CQU is certainly not unique as universities across the world are taking on many forms of flexible delivery. Distance education is no longer supplied by only a few providers as many universities have had to succumb to the pressures of multi-campus operations and new delivery modes encompassing new technologies (Roberts & Kelly, 1999). With the introduction of web-based technologies, it is possible for all students in a course to access

the same assessment, irrespective of their geographical location. In the CQU experience, it was thought that the use of the technology would be complementary; that is, it would enhance student learning as well as the teacher's management of learning. According to Roberts and Kelly (1999), WebCT makes learning available to all students, including mature aged students and those who are unable to attend the traditional campus, and it can contribute to lifelong learning. In the development of this course, there was also an expectation that WebCT would provide students with a positive experience (Ataya et al., 2002). Hara and Kling (2000) have demonstrated that in some cases students experience distress with communication breakdowns and technical difficulties in non-traditional delivery modes. Nonetheless, Pailing (2002) maintains that e-learning is useful for training large numbers of geographically dispersed people.

## **STUDENTS' PERCEPTIONS**

The introduction of the Internet and email has presented an opportunity to innovate radically the way universities deliver both material and courses. As Reisman, Dear and Edge (2001) point out, the Internet and the World Wide Web lead to multiple strategies for implementing distance learning. At CQU the use of Web-based learning tools such as WebCT is building on a lengthy experience in distance education. Volery and Lord (2000) define distance education as any approach to delivery that replaces the same-time, same-place, face-to-face environment of a classroom. Staff at CQU have gradually developed a suite of techniques to deliver distance education.

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 there were rarely any significant differences between the attitude towards learning and achievement of students in distance and traditional settings. Mariani (2001) stated that new technologies including discussion boards (or lists) could only supplement traditional teaching. The research reported here, however, seeks to clarify the perceptions of students using a collaborative web-based tool. The research asked students, both distance and face-to-face, their perceptions of the utility of a discussion list.

This research is seeking to establish a relationship between perceived characteristics of distance learning and online learning on the one hand, and the characteristics of students on the other, in order to investigate the perceived effectiveness of an online discussion list in assisting learning. This study gathered data on student characteristics such as age (in bands), gender, degree program and enrolment status (full-time, part-time, external, internal). Students' perceptions were elicited through their comments on the questionnaire to answer the question "What did you like or dislike about the discussion list? (please explain)". A discussion list can be described as a web-based communication tool that allows participants to post and reply to messages in threads within topics, without the need for all participants to be connected at the same time (Driscoll, 1998).

Underlying this study is the expectation that, by using a WebCT discussion list as part of the assessment for external students, the students would correspond with one another and not feel as isolated in their remote locations, and learn from the rich experiences of one another. Surprisingly, extensive 'getting to know you' activities rather than straightforward discussion of academic material and content took place. Slay (1997) discusses the role of the Internet in creating a high quality learning environment which encourages effective learning. Students in this study were asked to use the discussion list as a learning tool. The majority of the contributions to the discussion list added to the body of knowledge within the course, with many discussions exploring current issues relating to the topics covered.

Hatch (2001) argues that little literature is available that reflects the students' perceptions. Much of the increase in online learning is in response to the rapid growth in student numbers, the need to reduce costs and more requirements for flexible teaching and learning. It has been clearly shown that any delivery method needs to engage students in the learning. To engage students they need to be consulted; that is, asked questions

about whether they enjoyed the experience, encountered problems and were supported and the appropriateness of the materials and assessments (Hatch, 2001).

## METHOD

All students in the course who were completing degrees in the Faculty of Business and Law (the total population was 951, with 237 of the students being enrolled in the distance mode) were given the opportunity to complete a self-administered questionnaire. Distance students completed an online questionnaire and face-to-face students completed an identical paper-based questionnaire in class. The total number of respondents to the survey was 342 students. Of this number, 55% were females and 43% were males (2% did not indicate gender).

## RESULTS

Female students tended to be more willing to respond to the open-ended questions than males. Of the females who responded, 18% were positive and 17% were negative compared to the males, of whom 13% were positive and 15% were negative. Gender appears to have had little influence on student perceptions.

As can be seen from Figure 1, most students did not respond well to the open-ended question about their perceptions of the usefulness of a web-based discussion list. Of those students responding, 21% were negative and 15% were positive. This work focuses on the positive responses (see Figure 3), and further papers will report other responses. The students responding to this survey were enrolled in different programs, different modes of enrolment and delivery models (see Figures 2 and 6). Most students were full-time, internal students who were not required to use the web-based material but who could access if they wished and who were able to use the discussion list in exactly the same way as external students.

Figure 1: Total responses on discussion list

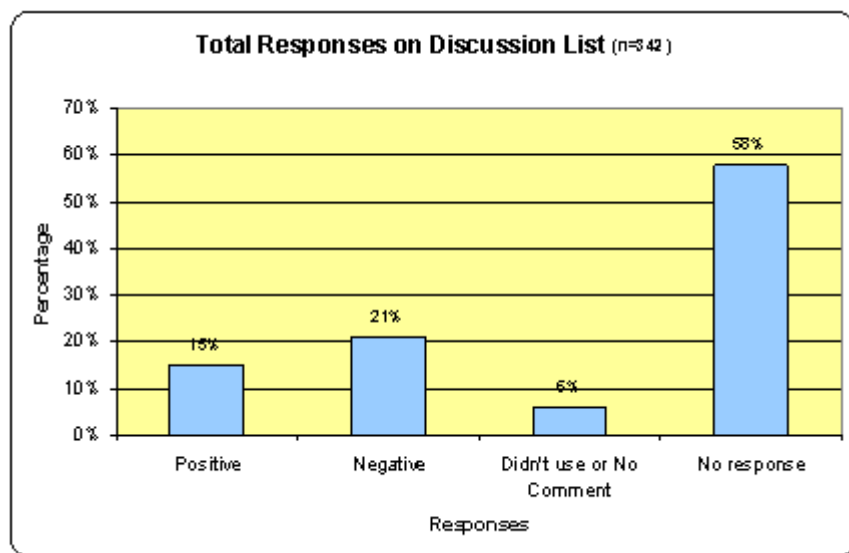
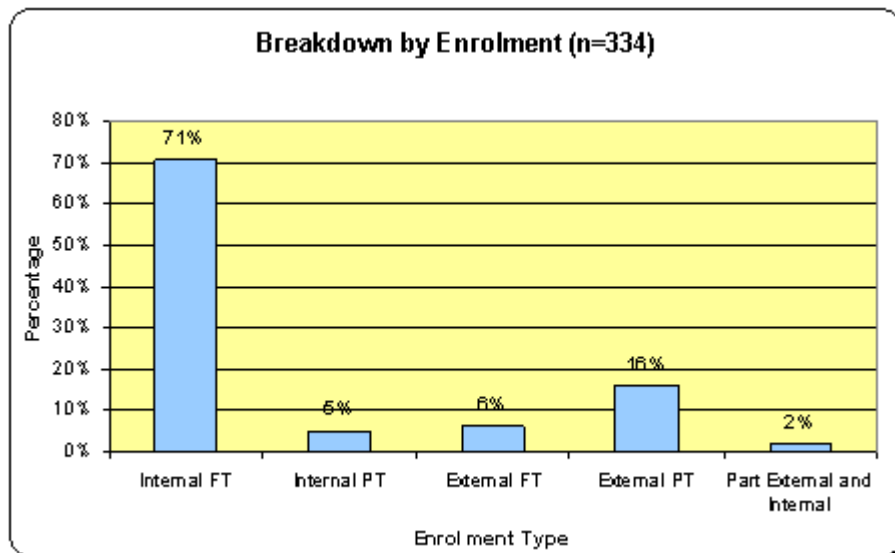


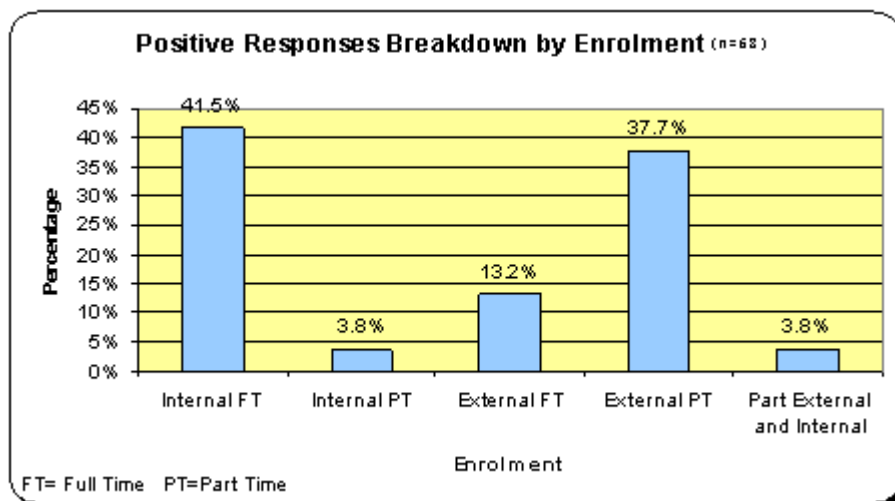
Figure 2: Breakdown by enrolment



(It should be noted that not all respondents answered all questions, including those related to enrolment details, and that in some instances students may have provided more than one answer to a single question.)

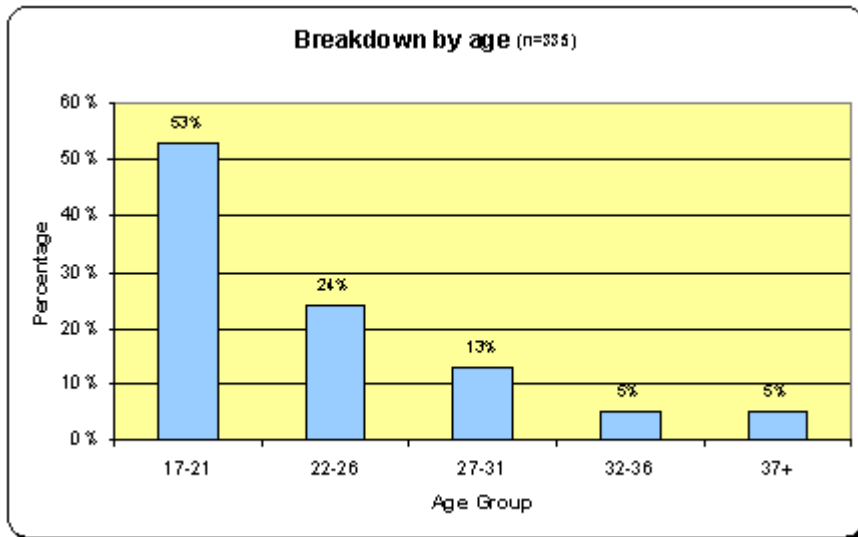
More external students had a negative perception of the discussion list – 13.9% compared with only 2.4% internal. This can be partly explained because it was a requirement that external students used the WebCT material.

Figure 3: Positive responses breakdown by enrolment



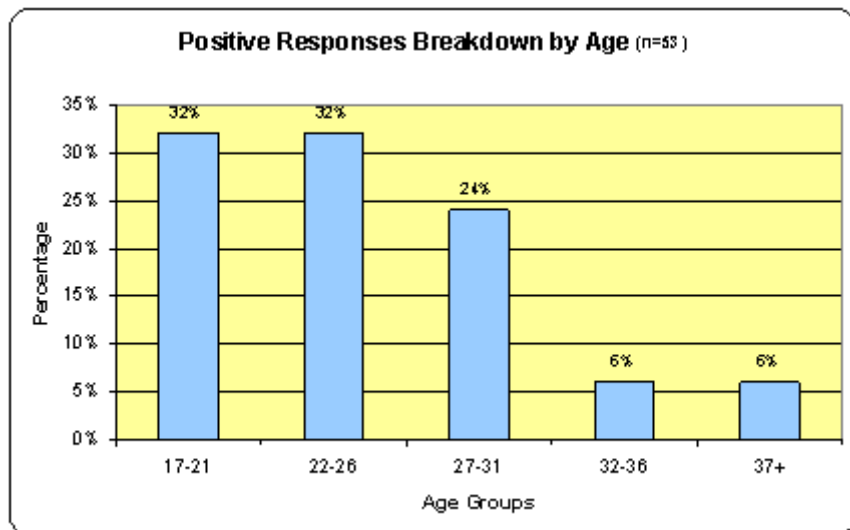
CQU has a substantial number of students who do not enrol directly on completion of their secondary schooling but enrol instead as mature age students. Many of these more mature students complete their degrees externally so they can juggle and hopefully balance their work and family life better while studying externally. Often it is these students who feel isolated from interacting with other students.

Figure 4: Breakdown by age



As can be seen in Figure 4, the 17-21 age group still comprises the largest group of students. Figure 5 shows that younger students tended to have a more positive perception of web-based activities than more mature students.

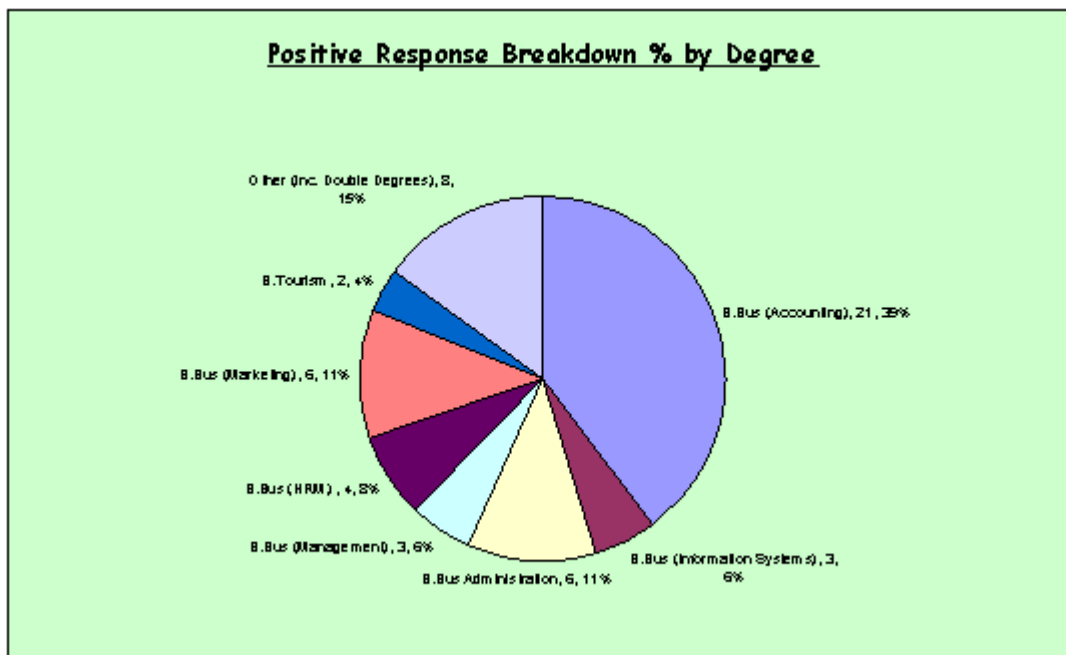
**Figure 5: Positive responses breakdown by age**



It could be argued that younger students have more affinity with using the Internet and are used to using list servers and chat rooms as discussion tools. This is supported by the National Office of Information Economy (2000), which reported that the most common users of the Internet were 18-24 year olds, that in relative terms Australia has the third highest growth of web domain names at 385 (behind Japan and Canada) and that in 2000 Australia had approximately 78 secure servers per million people – second behind the USA with 120 per million people.

It may be expected that enrolment in a degree may show some variations on students' perception of web-based tools. This study examines only business students and does not contain any information technology student majors, and no information technology students were a part of this study. The breakdown by degree is shown in Figure 6.

**Figure 6: Positive response breakdown % by degree**



## DISCUSSION

In analysing the content of what the students liked and disliked about the discussion list, and as noted above, this paper considers only the positive responses, as we are seeking to understand better students' positive perceptions of the delivery medium. The responses can be placed in three categories.

The first category perceived the list as a useful way to share problems and information. Typical comments from internal students included:

- "Good for exchanging ideas"
- "there is a share of info between int. and ext. students"
- "good way to see what other people are having problems with"
- "access to more info that I was not aware of"
- "lets you know what's going on and other students problems"
- "problems others have are similar to mine"
- "get more info and communicate with others".

The external students stated:

- "I like that you can see what other students are having trouble with, you are able to help others with what is concerning them and you can feel at ease that you are not the only one in the same situation"
- "It enables all students, irrespective of location, the ability to support other students and have their answers/queries answered. Very useful when you don't want to continually approach your tutor"
- "to know that you are not the only person that is having trouble with a particular chapter"
- "I like the information given by the discussion list, it's very useful"
- "Great to read others['] opinions about various topics, and understand who is having trouble in which areas".

The second category of responses relates to interaction and communication. Internal students maintained that the discussion list "allows interaction and bouncing ideas with others" and you can "get more info and communicate with others", while the external students also said, "I thought it was a great idea. It was as if other people were talking to you, although I didn't agree with some of the subjects."

The third category of responses reflects on the reduction in isolation, which the researchers expected to be extensively reported. Only two respondents reported a reduction in their sense of isolation. Their comments were: "Liked that it gave some idea of how everyone else was coping with various aspects of the course" and "I liked the fact that we, the students[,] did not feel uncomfortable with the type of questions we asked. As a distance student, the discussion list made me feel less isolated."

One student commented positively about the requirement that distance students had to use the discussion list: "I liked the fact that marks were awarded for participation[;] this did seem to stimulate discussion by forcing/encouraging people (who would otherwise not) [to] participate."

## **CONCLUSION**

The students who responded positively to the use of a web-based discussion list appear to perceive it as a useful tool that enhanced their learning. Surprisingly very few students commented that it reduced the sense of isolation that is commonly expected to be felt by distance education students. This feeling of isolation is worthy of further study as this may be a false assumption and it will be examined in future research as it may be a perceived characteristic of distance learning as described in O'Malley's (1999) model. In terms of students' characteristics and their perception of web-based distance learning, there appears to be very little variation in terms of gender but some variation in terms of age, with younger students having a more positive perception of web-based learning. Other characteristics such as mode of study, enrolment pattern and degree program and major appear to have no influence on students' perceptions. It is worthwhile to report that some students perceived that a discussion list was a useful learning tool that allowed them to share problems and information in a non-threatening, anonymous environment and that some of these students were internal students who were not required to use the discussion list. Students also perceived that the discussion list increased and enhanced interaction and communication; as such, it provides some students with an improved learning experience.

It is not necessary for all students to have a positive perception of a delivery medium to make it worthwhile. It is rarely the case that all students attend and participate in lectures. Many students are uneasy and feel challenged in seminars and workshops yet as teachers we continue to use these media. However, as teachers it is important that we seek new and different ways to deliver learning materials and equally important that we assess and evaluate the effectiveness of different delivery modes and students perceptions of the usefulness of differing modes.

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