THE ONLINE UNIVERSITY: THE STUDENTS' PERSPECTIVE

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Abstract

Online learning has great potential to provide students with meaningful learning (Anderson, 1996), however online learning like any other form of structured learning requires careful design, management and facilitation. The world of virtual education with its variety of learning environments built on the basis of students remote from any physical classroom, promotes a need to establish systems to properly monitor what happens inside these environments so that effective educational strategies can be developed (Benigno & Trentin, 2000).

Online learning at tertiary institutions is designed, developed and reviewed by faculty and there is very little literature that reflects the students' perspective. This paper highlights some of the information gleaned from a study into the students' perspective of online learning, conducted by an online student in the course of his studies, and builds upon a paper on the pilot study, presented previously and titled 'Student Perceptions of Online Education' (Hatch, 2001).

Keywords
Online Learning

Introduction

Bill Gates the Chairman of Microsoft in his book The Road Ahead stated that:

> I expect education of all kinds to improve significantly within the next decade. I believe that information technology will empower people of all ages, both inside and outside the classroom, to learn more easily, enjoyably, and successfully than ever before. (Gates, 1996, p.208)

Over the past twenty years the increased access to computer and communication technologies have had a profound impact on everyday life with even greater impacts in the world of business and education. Technology has become a driver of change opening up new possibilities for the ways in which people interact, communicate, work and study.

This study will look at online learning that is delivered totally online. You receive all your course materials online, access and submit assessments online and communicate with teachers and students online. Is this the way of the future as suggested by Gates (1996) where students will "learn more easily, enjoyably, and successfully than ever before".

Significance of the study

The literature on educational technology is full of conflicting arguments about the merits of the various technologies and methods employed in online learning, and researchers are now questioning the appropriateness and accuracy of much of this early research (Oliver & Omari, 2001). An issue with much of the literature, is that it does not appear to be based on systematic research of online learning and is more anecdotal than systematically empirical or critical (Hara & Kling, 1999), and of the literature that is

based on research, much is based on extremely small numbers of students; Kang (2001) 13 students; Rimmershaw (1999) looked at 5 courses with a total of 54 students, and Weller (2000) 15 students.

In my study I surveyed 194 students from six online courses and used of a mix of quantitative and qualitative research methods. This study has the potential to provide outcomes that are relevant to a cross section of the educational community, from administrators looking at issues of a target audience for online learning, educational developers looking to learn more from how students perceive online learning, teachers and facilitators looking to gain an insight into the students perspective, and students who may themselves be looking at undertaking online learning. This research provides an opportunity to gain a greater understanding of the factors that impact on the students' experiences of online learning and the profile of online students within this Master of Education program.

Aim of the study

This study aims to investigate, describe and improve understanding of the students' attitudes towards their online-based postgraduate course in education, as designed and implemented by this university.

The major question in this study was; what factors impact on students' experiences in studying an online postgraduate course?

I would hypothesize that students' experiences in online learning would be impacted upon differently for each student depending on a variety of factors including; age, gender, computer experience, Internet Access, security measures placed on Internet access, previous educational experience and modes of study, individual motivation, development of working relationships with other students, prior expectations, external pressures such as work and family, and possibly other issues which may come to light during the study. To fully explore these issues a variety of demographic information was important to the study and was collected as part of the student questionnaire.

Review of literature

Over the last few years much has been written about the broad subject of online learning. Much of the literature is technical in nature, providing advice on how to best design web pages and how to implement various Course Authoring Systems, and these have all been discarded as irrelevant to this study. From the literature search the following two categories have been identified as having relevance to this study. Those that fall into the category of underlying issues in Online Learning; Computer-Mediated Communications (CMC), Independent Learning or Student Centred Learning, Collaborative Learning, Interaction, Facilitation of Online Learning, and Social Presence. Those that fall into the second category are those that relate specifically to the student and how they might experience the Online Learning; Student Experiences with Computers, Technology, and Online Learning, and Prior Educational experience.

The last five years has seen a phenomenal growth in the use of CMC, which has resulted in its emergence as a major form of communication that has increasingly impacted on everyday life in industrialised societies (Herring, 1996) and has facilitated the development of improved tools for communication in traditional distance education, while at the same time opening up a whole new field of online distance learning (Benigno & Trentin, 2000).

Some argue that CMC provides for improved communications when compared to face-to-face education (Harasim, Hiltz, Teles & Turoff, 1995; Hiltz, 1994), and may provide the perfect place for discussion, for students who may not participate in discussions in a classroom, as these students often find the online environment less threatening (Horton, 2000). What matters is whether students perceive that the use of CMC will benefit them, while not being too difficult to use (Anderson & Kanuka, 1997) or access.

The literature shows that the use of CMC offers many advantages for the student learning at a distance (Riedl, 1986; Sringam, 2000) in particular the ability of CMC to provide a means for students to bond socially and to provide a means for constructive interaction and collaborative learning (Anderson, 1996).

The move to online learning challanges the whole notion of a teachers work patterns, pedagofical approaches, assessment methods and methods of group, teacher/student and student/student interaction. These changes are not new and have previously been experienced by teachers moving to other methods of distance education (Ellis & Phelps, 1999). These new challenges of online teaching pose problems for even the experienced distance teacher let alone a teacher that has only taught in face-to-face classroom situations and requires significant professional development to be put into place (Ellis, O'Rielly & Debreceny, 1998). Gilly Salmon (2000) in her book e-Moderating highlights the need for teachers to be trained in the skills of online facilitation, the management of discussion forums and the socialisation of students.

The review of the literature highlights the enormous possibilities that online learning presents with the advanced technologies that are available today, however until it is acknowledged that the most important aspect of online learning is the human factor,(the facilitator, the students, and the interaction), then the full potential will not be realised (Spitzer, 2001).

Research methods

This study used a mix of quantitative and qualitative data collected using a student questionnaire delivered by email. There have been numerous examples of research being conducted using mixed methods (Bryman, 1988), with the idea being that a case study using a combination of quantitative and qualitative methods will provide a balance between the strengths and weaknesses of each other (Sudweeks and Simoff, 1999). The use of both quantitative and qualitative research methods on the same research project provides the opportunity to use two differing approaches to look at the same problem or parts of the same problem.

The study is limited in terms of generalisability in that it was conducted in a closed setting of six subjects of a single degree within a single university.

Research setting

This research project is based on data collected from courses in the Master of Education programs at a major Australian regional university. The student population is made up of 194 different students comprising 118 Women and 76 Men, whom have studied between one and six of the six courses that make up this study.

This program is offered entirely by online distance education using the online learning management system Blackboard as the basis for all instruction and communications, and no course materials are provided in a printed form. Students use the Blackboard interface to access all of the course content, assessments, staff information, staff announcements, student resources, help, grades and to communicate with students and staff either via CMC through the discussion boards or via email. Chat facilities are provided by the learning management system, however except on one occasion, these facilities were not used.

The university makes full use of the CMC facility within each subject with various discussion forums set-up; for the students to introduce themselves to the class, as social meeting places, to discuss the course content, to post reflections and assignments to, and as a means of accessing technical support.

Email as a means of surveying students

Research into the use of email to administer a survey questionnaire has supported the concept while also highlighting pitfalls. Advantages of using email include the low cost of development and distribution, its ability to quickly reach those in any part of the world, the ability to identify non-responders, low response time, and ease and convenience for recipients. A disadvantage of email is the lack of anonymity, due to the process by which at least the email address of the sender of the email is displayed on the reply and this may lead to some people not responding. (Sheehan & Hoy, 1999)

A number of studies have been conducted using email as either the sole survey data collection tool or a mix of mail and email as the collection tools, and Sheehan & Hoy (1999) provide a summary of eleven of these. The response rates to email questionnaires, in these eleven studies varies from 75% to a low of 6% with the mean being 38.6% and this rises to 48% if you eliminate the 3 lowest scores of 6%, 8% and

11.3% which were not representative of the balance of the studies. In this study, with a group of mainly graduate students, the response rate after excluding 15 participants who could not be contacted due to their email being returned was 73% or 127 responses, which would be considered acceptable for a study of this nature (Wiersma, 2000).

The issue of ethics in the use of an email questionnaire, in particular the question of informed consent has been considered before (Hesketh, Gosper, Andrews & Sabaz, 1996). The physical act of completing and returning the email has been taken to assume the informed consent of the student.

Design of the Survey Research Instrument

The design of the student survey questionnaire reflects the differing needs of the final use of the data to be collected. Two main types of data are to be collected using the survey; Demographic data so that a true picture can be obtained of the students that are currently undertaking this online education, and Course specific data on the students experiences of online learning within this context.

A pilot study was conducted in late April 2001 with the student questionnaire being emailed to the first 50 students from the list of the entire population of 194 students. This was done to verify the usefulness or otherwise of the questionnaire as a means of collecting data relevant to this study. The pilot study was reported previously in a paper 'Student Perceptions of Online Education' (Hatch, 2001).

Discussion

Profile of an Online Student

The data from this study provides a detailed insight into the profiles of students that studied these online courses. 67% of the students were female, 67% married and 54% had children living at home. 17% were 30 years of age and younger, 32% were 31 to 40 years old, 43% were 41 to 50 and 8% were over 50.

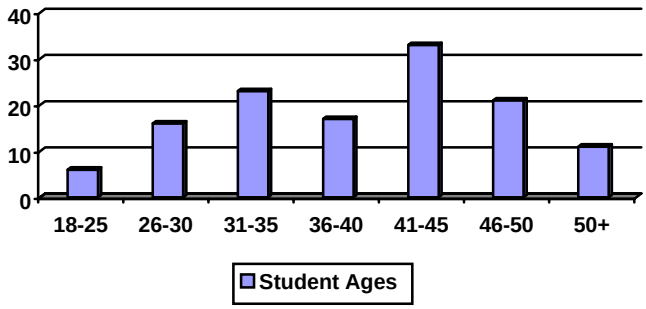

Figure 1: Age of students on the course

All but 5% of the students held prior vocational or higher educational qualifications, with17% holding a vocational certificate or diploma, 81% a Bachelors Degree, 31% a Diploma of Education, 64% a Graduate Certificate or Diploma, 21% a Masters and 4% a Doctorate.

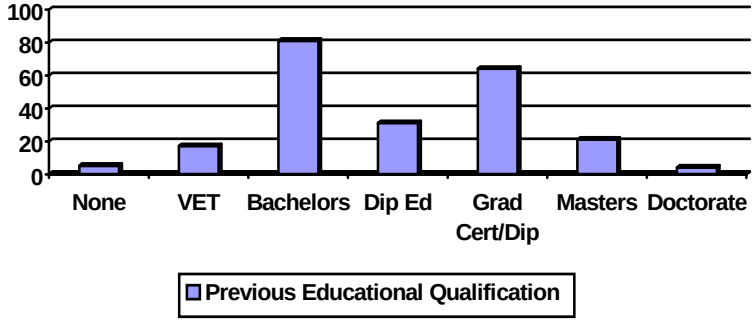

Figure 2: Student qualifications

Online Learning and the introduction of greater flexibility have allowed students to enroll in single subjects without the need to be enrolled in a degree course. It is obvious from the study that students are not generally taking up this option with only 5 of the 127 respondents studying a single subject. 68% of students were studying a Masters Degree and 21% a Graduate Certificate or Diploma, and 7% were Bachelor Degree students.

As part of this expansion into online learning we have seen the creation of a number of alliances between major educational providers resulting in the formation of worldwide specialist online providers such as NextEd and the Universitas 21 consortium. With the establishment of these international educational consortiums students now have the ability to take subjects in their degree from the range of subjects offered by the consortiums members. In this study 92% of the students were enrolled for a degree at the university where the study was based with 6 students studying subjects as part of their degrees at UK universities, 2 at US universities and 2 at other Australian universities.

The vast majority of students had previously studied by a variety of on-campus and distance education modes. 83% of students had studied full-time on-campus, 41% part-time on-campus, 32% by distance that did not include the use of any residential school or communication technologies, 14% by distance with a residential component (Res), 15% by distance with email support, 12% by distance with support through a Web interface, and 12% had studied units totally online (although this number may include units studied as part of the students current degree completed prior to this survey being undertaken).

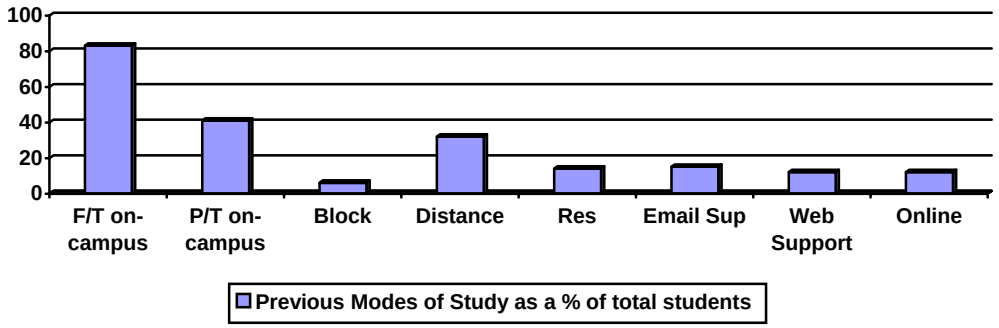

Figure 3: Previous modes of study

One of the reasons for the adoption of online learning by universities has been to facilitate the expansion of services into new markets, whether interstate or overseas. The evidence from the survey is that the university has been very successful in its endeavor to attract overseas students with 51% of the students being resident and born outside of Australia. The student population was born in 18 different counties and is currently resident in 17 different countries. While only 67% of participants live and work in countries where English is the primary language, 84% of participants were born in a primarily English speaking country.

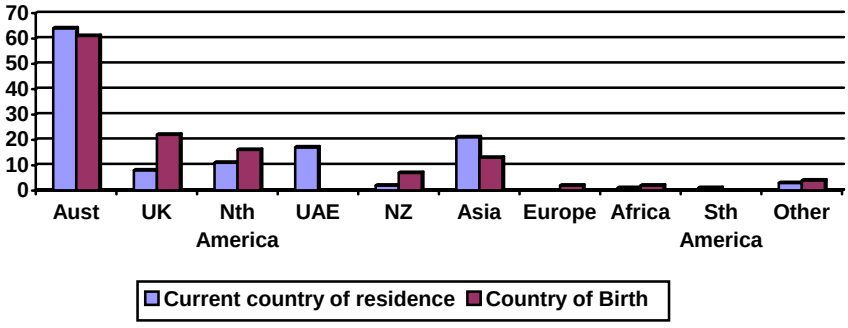

Figure 4: Country of residence and birth

The study showed that 17% of the students access their online learning solely from their workplace, 57% solely from home, with 25% using a mixture of home and work. I had envisaged students accessing online learning by a variety of other means including, university computer labs and libraries, public libraries and possibly Internet Cafes, however only 1 student accessed their course through a university library and 1 through an Internet cafe. The student using the Internet café was a teacher from Africa who had to travel many hours on a bus to find a computer with Internet access. 96% of students used a Windows-based PC, 66% Microsoft's Internet Explorer, and 28% of students had Broadband Internet access.

Study Materials and Reading in an Online Environment

The students were provided with all their study materials and readings for the online courses in HTML format for viewing onscreen or printing. 91% of students indicated that they printed the study material, however 44% said that they would not prefer to have the study materials provided in a printed form, instead preferring to print only those items they wanted. Of the 56% who indicated they would like or maybe like printed materials supplied by the university, 72% indicated they would be prepared to pay an additional charge for this service. Of this group 21% were prepared to pay A$25, 30% A$50, 8% A$100, 13% other amounts such as $10 and 28% consider that a printed version of all materials should be provided to the students out of the standard course fee. Online universities may wish to consider this as an option. A number of students suggested that making the files available in Adobe's Portable Document Format (PDF) file format would make the printing of these documents easier.

Student's reasons for printing all the study materials were varied, but centred around four major themes:

1. The problem of reading onscreen and possible eye strain and damage to eyesight.
2. The need to be able to study the materials when they wanted to and not to be tied to their computer.
3. The cost of Internet access to stay online while documents were displayed and read.
4. The desire to be able to highlight, mark and write comments on study materials.

Discussion Boards

A Discussion Board is a web-based asynchronous communication tool that allows participants to post and reply to messages in threads within topic forums without the need for different users to be connected at the same time (Driscoll, 1998).

In recent years asynchronous communications have developed from text based bulletin boards, to email, and now includes discussion lists, boards and forums, which allow the writer to type messages (Eyman, 1995) that are sent to one or more select people as in the case of email, or posted to lists viewable by all that have access as in the case of discussion boards. The use of online discussion forums has the potential to provide cost effective communications while overcoming the barriers of time and place (Anderson, 1996) and to expand communication in distance education from the one-to-many (teacher to students) and one-to-one (student to teacher) models to a many-to-many model in which all students and teachers can communicate, interact and collaborate in this online world (Benigno and Trentin, 2000). Interaction and sharing of the learning journey is an important feature of education and it is in the interaction that the real learning takes place (Draves, 2000) with education being a two-way street, with the learners contributing ideas and experience, learning from each other and sharing. This is especially so with adult learners who are working in the field.

Alexander Astin in his book Achieving Educational Excellence (1984) set out his Theory of Student Involvement in which he asserted that the effectiveness of learning is dependant on the facilitation of communication and interaction between faculty and students and between students. Astin defined Involvement as " the amount of physical and psychological energy that the student devotes to the academic experience" (p134) and stated that, "The amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in the program" (p 136). Astin's (1984) theory has relevance to the current study, as it would be assumed that students' positive experiences would increase with their increased Involvement in the courses, through the use of Computer-Mediated Communication tools.

The data obtained from the study indicates that over the usual 14 week semester, 3 student did not access the discussion boards at all, 8% only accessed the discussion boards 2 or 3 times during the course, 32% once a week or less, 38% 3 times per week, with the remaining 19% at least every weekday. One student commented that they had "*moved to distance learning to get away from the interaction*". Additional comments on issues that impacted on the use of discussion boards centred on the issue of the number of posting that needed to be read when the class sizes got larger. This was an especially noticeable comment from those with slower Internet access. Another concern with the discussion boards was the fact that much of the communication was irrelevant to the topic at hand. Many students commented on the irrelevant nature of much of the postings. One student said that, "[Discussion Boards are] usually a waste of time, people just chat about anything. I don't read them much", while another student commented that, "I find it frustrating trying to get through them all – especially when they are irrelevant. Feels like a waste of time and effort."

The use of discussion boards holds great promise, but we need to address the issues of access times, number of postings and the need to keep postings on track. These are some of the major skills required by the online teacher.

Course Rating

The students were asked to rate their experience of online learning on a six-point scale of: Excellent, Very Good, Good, Not Good, Bad, and Very Bad. 5 students (4%) choose not to answer the question, while the remaining students answered as follows; Excellent (20%), Very Good (39%), Good (30%), Not Good (5.5%) and Very Bad (1.5%).

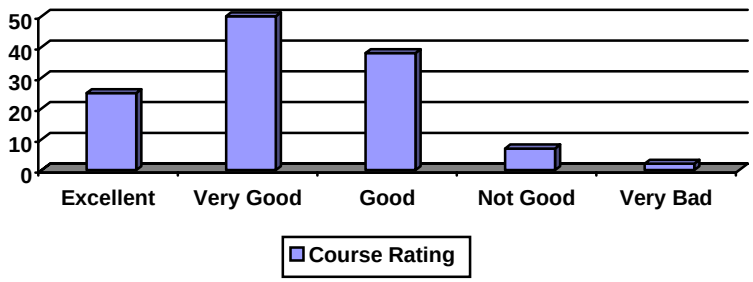

Figure 5: Course rating

Some students added additional comments that indicated that their experiences had varied greatly from subject to subject. These comments included "Yes on average good, some subjects haven't been too good and have brought the average down - some subjects have been excellent", "Depending on the course-Excellent, Not Good, Very Bad", "Certainly not a taught course, students are on their own and in my case completely at sea" and "Found the quality of the course disappointing and dropped out after 3 months". This highlights a lot of inconsistency in the quality of the facilitation of the online learning. Of the six courses that make up this study, no person has facilitated more than one course.

We have all been students and all students have expectations of how education should be presented having been conditioned by their previous educational experiences. Having spent years at school, college and university in traditional face-to-face modes of education, students come to expect lectures, regular contact, instant feedback and to be helped along (Kramer, 2002). When students enter online modes of learning they bring these previous experiences with them and the changed environment of online learning can leave them feeling insecure. Change does not always come easily, and postgraduate students new to online learning may question if they are really being taught and the value of the course to them (Luker, 2000). This may have particular relevance to this study into online learning, due to the fact that it will be the first experience of online learning for many of the students.

From an analysis of the data obtained from the survey, a correlation was found between the Not Good and Very Bad course ratings and the occupation of the participants. Remembering that only a total of 9 participants rated the course Not Good (7), Bad (0) and Very Bad (2), over 60% of these participants listed their occupation as educational developers. This along with some of the additional comments

would point to the courses not meeting the prior expectations of the participants. Additional research would be needed to confirm these issues but it might be assumed that these educational developers felt that they would have designed the learning differently and as such did not live up to their expectations.

Recommendations

Based on the information obtained from this study into online learning there are a number of recommendations for education providers, faculty and staff.

- Course content should be made available to students in either a printed form or in a more convenient format for downloading and printing such as Adobe's PDF file format.
- Discussion boards need to be managed so as to keep the number of postings to manageable levels to ensure that access speed remains at acceptable levels. This could be achieved by archiving older files, keeping class sizes from growing too large, by breaking larger classes into groups and by creating a number of subject specific forums. This may also require a greater emphasis on professional development for teachers moving to online learning environments.
- Further research needs to be carried out into the expectations of prospective online students.

Conclusion

This paper has described my research conducted as part of my Master in Education and has outlined some of the findings gleaned from the study. While this research project is finished the researcher is currently developing similar and more detailed research into the students' perspective of online learning within the VET sector.

The study has already highlighted that students have a different perspective to those of institutions and faculty and that improvements can be made in several areas. It has also indicated that we have a long way to go in the development and facilitation of online learning to cater fully for different experience levels, learning styles and expectations of the students.

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