FROM THEIR EYES:
A STUDENTS' PERSPECTIVE ON THE BENEFITS AND CHALLENGES OF ONLINE COURSES IN A GRADUATE EDUCATION DEGREE PROGRAM

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ABSTRACT

This paper reports on one aspect of a larger study to examine the benefits and challenges with implementation of graduate degree program in education that has been offered online since 2009. Participants in the study identified instructors' course content knowledge and skills with online pedagogy as the strongest contributors to the success of online courses, while acknowledging that their own skills with online learning platforms had an influence on their sense of satisfaction with online learning. Results of this study highlight the importance of proper preparation for teaching in an online format in a graduate education context.

Key words: *online learning, benefits and challenges of online learning, students' perspectives*

1. Introduction

It is now over two decades since the first use of online lectures was recorded. In 1993, William D. Graziadei used online lectures for course delivery (Cross, 2004). The term "e-learning" first appeared in the academic literature in 1998 (Cross, 2004) and is broadly understood to include internet enabled learning addressing: content delivery, management of the learning experience; and, networking among a community of learners which includes content developers and experts (Cisco, 1999). Since the first use of online learning opportunities, universities have made increased use of this approach, having a tremendous impact on how instructors think about, plan, deliver, and evaluate these courses. The rapid development of technological features such as visual aids, video, audio, interactive multimedia and the Internet has influenced options for how courses, especially those offered to adult learners, are made available. E-learning options appeal to students and there are many obvious economic advantages for institutions to include e-learning and fully online courses for a student population. Worldwide access is an advantage of online courses, providing convenient accommodation to a global and diverse population of students. Today, a student can engage in an online course from any location and be guaranteed of similar experiences to other participants if they have the suitable technology needed for the course.

Seamless technology integration and borderless networks for mobile course access have made it possible for universities to create and expand courses that are available to a global student population (Boettcher & Conrad, 2004). As many universities move toward an increased use of e-learning and online courses as a method of course delivery, some researchers have traced the evolution of online learning to create a picture of the past, current, and future trends (Cook & Sonnenberg, 2014) of the influence of mobile technology on course delivery options.

Bower and Christensen (1995) and Rosenbloom and Spencer (1996) have examined the evolution of technology as a teaching tool by identifying phases of innovations. They suggest that the period from 2010 to the present has been a "disruptive phase" (Cook et al, p.173), when the use of technology for instruction has helped to create a new market (for online learning) and disrupt the existing, historical market for face-to-face learning, citing the flexibility, portability, and speed of wireless mobile technology as assets for the success of this disruption. The disruptive phase has changed the way humans collect and retain information (Arsham, 2002) and has become a "major channel for communication around the world" (Cook & Sonnenberg, 2014, p.174). Razek & Bardesi (2013), identified the way that users of online courses view the various ways that students use online materials to respond to their own learning preferences by identifying students as agents, nomads, keepers, or analysts (p. 183).

It may be that the use of various forms of e-learning and the offering of online courses increases the efficiency of the teaching process by allowing for breadth and flexibility in the resources that students access. It is also possible that online courses, with their reliance on visual supports to communicate with students, may appeal to learners with different learning styles. There is no doubt that the convenience of online courses is appealing. They allow students and their instructors to manage their interaction time and their physical learning environment in unprecedented ways. Yet, research into the effectiveness of such courses is still in its infancy. While a body of literature is evolving to suggest models for online learning (Maynes & Hatt, 2013) and to explore the perceptions of online course instructors about the best approaches to online learning and the value of such courses, there is relatively little in the literature about the value and challenges of these courses from the perspective of the participating students.

This study reports on one aspect of a larger study (Maynes & Hatt, 2014) that examines the perceptions of students who are participating in the acquisition of a Graduate Education Degree through a small university in northern Canada. While a large percentage of these students are teachers or have acquired certification to teach but have not yet worked in a classroom setting full time, some are also students from other work situations (e.g., human resources, training facilities, etc.) that may have an educational mandate and therefore value the focus of an advanced Education degree.

2. Literature Review

It seems common in the research literature that attempts to identify the benefits and challenges of online learning from either the instructor's or the students' perception is achieved by collecting data through online surveys. Smith and Glass (1987) state that the "fundamental purpose of survey research is to describe the characteristics or variables in populations by directly examining samples"(p.226). Implicit in this description of the role of survey research is the notion that different samples of survey participants will provide different insights into the issues under investigation. Variables such as location, duration, course structure, number of online courses taken, delivery options, course platforms, etc. could have strong influences on the outcome of any survey into the students' perceptions of the benefits and challenges of their courses. With this caution in mind, we consider the literature about this topic.

In a survey of 41 graduate adolescents taking an online course, Burns (2013) found that, although students reported mostly positive experiences, they also had some misgivings about the social aspects involved in online learning. This group of students found that courses offered online may not live up to their expectations, and despite their appreciation of the convenience of these courses, had some reservations about courses that were not necessarily conducive to their learning. The limited number of survey prompts (5) in this survey may have hindered its applicability across sites and styles of courses, even though the majority of the 41 respondents said that they would take the course again and recommend it to others.

Since the year 2000, several studies, conducted to examine the comparative value of face-to-face versus online courses, have found that students perceive that they can learn equally well in either learning context (Navarro & Showmaker, 2000; Neuhauser, 2002; Wyatt, 2005; Braun, 2008; LaPointe & Reisetter, 2008; Kirtman, 2009). An important aspect of examining the effectiveness of any course is a consideration of the students' learning. A meta-analysis was conducted by doctoral students and colleagues at the University of British Columbia to synthesize research about online learning achievement. Works published between 1995 and 2004, comparing student achievement in online distance education and face-to-face education at the post-secondary level, were analyzed by the research team (Jahng, Krug, & Zhang, n.d). The purpose of this study was to investigate how the development of technology contributed to student achievement in online distance education within that ten-year span. By comparing effect size of student achievement related to these two approaches, researchers showed no significant difference in students' learning between the two settings (d = .023, k = 20, N = 1617, p = 0.640). That is, post-secondary students who learned via online courses were found to have learned as well as those who learned via face-to-face courses. However, this same meta-analysis also discovered that previous studies that had used a pre-test to determine levels of student achievement prior to the courses, identified online distance learning courses as the option for learning that produced the highest levels of student achievement. The differences in achievement in this sub-group of studies were analyzed and showed significantly higher levels of student achievement when learning was acquired through online courses (d = 0.211, k = 9, N = 631, p < 0.05) even though there was no difference for prior knowledge between the two approaches to learning (d = 0.0813, k=9, N=631, p>0.05). This finding suggests that making students aware of their own learning related to course objectives may have a positive influence on their perception of the value of the upcoming online course(s).

Prior research has also shown some positive responses among students to online learning when it is perceived to be as effective as direct instruction in face-to-face venues (Legutko, 2007). This is an important aspect of assessing the value of online courses as students have determined that the quality of online course instruction is the most valued aspect of their online experience (Yang & Durrington, 2010). Other highly valued aspects of the online experience for learning are its convenience in allowing students to pursue other responsibilities (Braun, 2008; Northrup, 2002; Swan, Shea, Frederickson, Pickett, Pelz, & Maher, 2000) and students' ability to build and sustain a community of learnership among online participants via peer interactions (Mc Greal & Elliott, 2004; Palloff & Pratt, 1999; Kirtman, 2009).

Previous research indicates that the platform and the instructional tools used to present an online course influences students' perceptions of the effectiveness of the course. Good use of online instructional tools makes the online learning environment effective (Lao & Gonzales, 2005). Keller & Cernerud (2002) examined the perceived benefits of online learning among 150 participants with 2 years of e-learning experience and found that the strategy for implementing online courses and e-learning was more important to students' perceptions of the course effectiveness than other predictive variables such as gender, age, previous knowledge of computers, attitudes to new technology, or, students' learning styles. This finding was supported by a later study by Huma (2012) where the vast majority of students reported very positive experiences with online learning components of campus-based programs, irrespective of age, gender, or nationality.

A study of e-learning implementation in the Sri Lankan private higher education sector (Gunawardana, 2005) was undertaken with the goal of developing an e-learning model to guide implementation. This study defined e-learning as the use of information technology adopted in the learning process and included delivery of course content through electronic means (Cross, 2004; Bhattacharya & Sharma, 2007). In the same country, researchers sought to identify the views of the country's University Grants Commission (UGC) about the essential conditions needed to implement and commit to a full adoption of e-learning for post-secondary learning environments. This study concluded that 5 critical conditions must be met for e-learning success, including: 1) reduction in the digital divide in population groups within the country; 2) developing digital education centres; 3) a continuation and sustainment of telecommunications supported by the increase in market competition; 4) the deregulation of ICT policies; and 5) e-readiness and computer literacy across the population. While some countries may be further along this continuum toward the *disruptive phase* of the use of technology for online learning, the 5 conditions identified in this study are integral in any context to ensuring a smooth implementation of an effective learning environment.

While previous studies have identified many considerations for developing effective online instruction from the perspective of many stakeholder groups, it seemed advisable to consider the opinions of our online course participants in relation to identified concerns and approaches. To achieve this goal, our general research question was, "What perceptions can we glean from current participants of our online graduate programs to influence implementation decisions?"

3. Methods

Participants

There were 44 graduate student participants in this study. The invitation to participate in this study was issued to all enrolled students (N=234) in the graduate education programs. Forty-four elected to participate and complete the online survey.

The survey was uploaded on Blackboard, which is the same course shell used for online courses in the institution. The survey was online for six weeks between February 15th until March 31st, 2014. Potential participants were reminded through Blackboard announcements each week until participant saturation was reached. Among those who elected to participate in the survey, there were 12 males and 32 females. Participant age range data were collected to determine any trends. Among the participants there were: 7 participants under 25 years old, 18 between 26 and 35, 12 between 36 and 45, 6 between 46 and 55, and 1 over 55.

Demographic data related to the number of online courses each survey participant had taken to date were also collected. Among the 44 participants, there were 16 respondents who had taken 2 or 3 online courses, 20 who had taken 4 – 6 online courses, 6 who had taken between 7 and 10, and 2 who had taken over 10 online courses.

Methods

Previous research had already been completed at the institution to determine the perceptions of online course instructors who taught in these programs (Authors, 2013). Based on knowledge of the ideas and concepts that were uncovered in that research, the principal investigator (PI) for the first study developed a series of survey questions to examine student perceptions of the online courses they had experienced. Survey research was chosen as the methodology because the researchers had an interest in identifying trends in this population of students (Smith & Glass, 1987) since the online approach was relatively new to the institution, with first online course offerings being available in 2009. This data was collected in the fifth year of implementation of this online format.

The survey contained 7 demographic questions and 91 questions that reflected opportunities to express opinions to a statement. These 91 questions were followed by a Likert scale, showing five options, ranging from *strongly agree (1)* to *strongly disagree (5)*. Statements were written as positive affirmations so lower numbers indicated relative agreement with each statement. The 91 non-demographic questions were divided into 6 thematic sections, including: 1) course preferences; 2) pedagogy; 3) language; 4) technology; 5) community of learnership; and 6) overall satisfaction. Each thematic section concluded with an opportunity for participants to write an overall qualitative comment about the questionnaire themes. Table 1 shows the number of Likert style prompts that were included in each section of the survey.

Table 1 Survey Question Breakdown by Themes

Survey Themes	Demographics	Course Preferences	Pedagogy	Language	Technology	Community of Learnership	Overall Satisfaction
Number of Survey Prompts Related to the Theme	7	9	33	17	20	8	4

The entire survey was expected to require approximately 40 minutes to complete. Participants could exit and reenter the survey if it was not completed in one session. Access to the survey was available once participants had read and accepted a Letter of Informed Consent that formed the initial page of the online site.

4. Results

In examining the results of this study, we first considered any trends that might be evident in the data when we considered the demographic data and related it to the opinions that were expressed under the 6 themes of the survey. There were no significant gender differences on any of the variables. Age did not correlate significantly with the majority of the variables, and even though a few negative correlations were significant, they were all quite weak.

Similarly, there were no significant differences in responses to the 6 themes among the age and gender groups of participants based on number of online courses taken on most of the variables. However, significant differences $(F (2,39) = 4.558, p = .017)$ were found on question #8 within the course preferences section among those who had taken 2 to 3 online courses $(M = 3.00, SD = .82)$ and those who had taken 7 to 10 online courses $(M = 2.00, SD = .89)$, and between those who took 4 to 6 $(M = 3.00, SD = .65)$ and those who took 7 to 10 online courses. It appears that those students who had taken the largest number of online courses (7-10) were increasingly dissatisfied with the online environment. However, this conclusion must be viewed cautiously because of the relatively low number of participants who had completed 7 to 10 online courses.

Next, we examined each of the 6 categories of responses in the survey and calculated means and standard deviations for responses in each category separately (Table 2). This analysis helped us determine our graduate students' perceptions of the strengths and areas for improvement of various aspects of the overall online learning experience.

Table 2 Means and Standard Deviations of the 6 Categories in the Survey

Category	Mean (M)	Standard Deviation (SD)
Course preferences	2.57	0.66
Pedagogy	1.98	0.48
Language	1.96	0.38
Technology	2.11	0.57
Community of learnership	2.21	0.44
Overall satisfaction	1.93	0.87

Interestingly, the category of course preferences did not yield the expected results. Many of the survey prompts in this category focused on issues related to the convenience of taking online courses (e.g., flexible time, no need to travel, etc.). Even though previous studies had found this to be a major appeal of online courses, our results indicate that this group of graduate students was not drawn to online courses because of factors related to convenience.

The survey prompts that related to pedagogy focused almost exclusively on the idea of instructor actions that promoted and supported effective learning in an online environment. This group of graduate students felt that their instructors were effective in this aspect of engagement in online learning and that the success of their learning in this environment was directly attributable to the instructors' skills and efforts.

This survey group also found that the communication efforts made by their instructors relating to expectations and feedback were effective in their courses. They felt that the course outlines were clear, identified the expectations for both assignments and online discussions clearly, and comments and directions regarding course assignments were well identified in both written directions and in online discussions.

Similarly, this group of participants felt that the technology they had to use to participate in their online courses was appropriate for the task of effective online learning. They felt comfortable with the technology and with the supports that were made available to them to ensure effective engagement in the courses. They felt that the features of the online platform (Blackboard) allowed them to engage in the course, complete required assignments, and get appropriate feedback as each course progressed.

Participants in this survey felt only moderately positive about the quality and value of the online interactions they shared with other course participants. This category of questions focused on perceptions of the value of an online community of learnership and the possible contributions of such community relationships to an individuals' learning and personal growth. This is an interesting result in that other categories revealed that participants found it easy to interact with others online. It may be, however, that they find these interactions only moderately valuable.

The final category of the survey focused on participants' overall perceptions of their satisfaction with online courses in the program. The prompt queried overall satisfaction, intentions to take additional online courses, satisfaction with instructional quality online, and perceptions that the online course workload was reasonable. In this category of the survey, our graduate participants were positive about the overall online experience.

To probe our findings further, we isolated variables across themes that might account for the participants' selections on the survey. From this analysis process, 8 variables were identified and examined. These variables included: 1) the environment created by the instructor and the course pedagogy; 2) the professional challenge created by the instructor and the course pedagogy; 3) clear and organized instructions, expectations, and objectives and language; 4) shared responsibility for learning and the course pedagogy; 5) the professor's knowledge and the course pedagogy; 6) clarity of the professor's evaluation and the course pedagogy; 7) the online nature of the course and the course pedagogy; and, 8) the students' technical skills and the technology used in the course. These variables were chosen because they all showed levels of significance that bore further investigation. It is interesting to note that 7 of the 8 significant variables in this study related to the participants' perceptions of the course instructor's pedagogical choices.

We examined only those correlations with levels of significance at or above $r = 0.700$, which indicates moderate to strong significant correlations. In this group of items, there was a strong correlation between perceptions of the instructional environment created by the online course instructor and the perceptions of the professional challenge induced by a course ($r = .730$, $p = .000$, $n = 44$). That is, effective instructional environments were a precondition of having a course that was challenging.

Participants also indicated a strong connection between the instructional environment that was created online and the clarity of instructional materials that were provided and used during the course, including clarity of assignments and feedback ($r = .713$, $p = .000$, $n = 43$). Similarly, participants indicated a correlation between their ability to experience sharing of learning (student to student and student to instructor) to be connected to their perception of the knowledgeable stature of their online instructors ($r = .750$, $p = .000$, $n = 43$). They also indicated a strong correlation between the course instructor's evaluation of their online work and their perceptions of overall satisfaction with learning in an online environment ($r = .739$, $p = .000$, $n = 44$). It is clear from these correlations that online course participants in this group felt that the quality of their online experiences has been directly attributable to their course instructors' skills and efforts.

It is also interesting to note that students' perceptions of their own skills with the technology needed to engage in online learning is perceived as a factor related to their perceptions of success in an online learning environment ($r = .796$, $p = .000$, $n = 44$) and their overall satisfaction with online learning courses ($r = .769$, $p = .000$, $n = 44$).

5. Conclusions and Discussion

This study of online learning in a graduate environment in a small northern community in Canada has given valuable information about students' perceptions of this relatively new mode of course delivery in this institution. It is clear from our results that two key themes have emerged. First, our online graduate students are relatively happy with the quality and delivery of the online courses they have experienced. Second, while they may recognize that their own comfort with online course technology may influence their satisfaction with the online course route, they feel very strongly that most of the factors that influence online course success are attributable to the course instructor's knowledge of their subject and skills with teaching that subject online. This finding reflects earlier research showing that the quality of online course instruction was the most valued aspect of students' online experience (Yang & Durrington, 2010).

These findings are important because they can help institutions plan for further success in offering courses online. While it may be difficult to influence a professor's knowledge of the subject, these findings certainly reinforce the idea that it is critical to assign well-informed instructors to teach online courses. In our institution, professors have the opportunity to identify their interest in teaching online and may select this mode for instruction or may opt out of online instruction all together. This may be a way to continue implementation as it is evident that comfort with online teaching matters to how well it is perceived to be executed. Our findings also indicate that, as online courses continue to be developed and offered more widely in institutions, it will be critically important to support new instructor's development of online skills in two areas.

First, online instructors will need support in developing their technological skills to be able to manage the online aspects of the course smoothly and to be able to help less confident students navigate through the course platform. Stability in the course platform that has been chosen to mount these online courses will be critical to ensuring growing confidence among instructors. Similarly, it seems that assigning a "go to" person to provide technical support for each online instructor would ensure that instructors' skills continue to develop and expand to make optimal use of the features of any online platform.

Second, online instructors may need pedagogical guidance to help them adapt face-to-face learning experiences to an online environment and/or develop new learning experiences best suited to an online environment. While many online instructors may either post lectures online and expect students to view these as the instructor talks, others may assign readings and engage in discussions about a topic rather than provide all of the input in lecture format. While our study did not examine the level of these approaches that were experienced by this group of respondents, it may be that their responses were markedly different if they experienced one approach to online teaching more frequently than the other. It may, therefore, be helpful to new online instructors if they had opportunities to examine various models for online course delivery and had online sample courses to analyze as part of their pre-planning and online training. Of course, reading widely about the features of effective online learning would be of benefit to any new online course instructor and ultimately to the instructor's students.

6. Limitations

This study represents the first effort to examine the students' perceptions of the online graduate program in this institution since its inception in 2009. The authors have also undertaken research to examine the experienced online instructors' perceptions of what they do to ensure that their online courses are well received and meet high standards for effective learning (Authors, 2013; Authors, 2014). However, the response group in this study is relatively small (N=44) and may not adequately represent the views of those who chose not to participate in the study. It will be valuable for the institution if further study of students' perceptions was undertaken and if consideration was given to methods that could ensure stronger participant levels in the research.

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