Online Learning: Perceptions of Useful and Challenging Characteristics

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Abstract: The student and the instructor may view success in the online environment differently. The focus of this paper is to report those characteristics of online learning that students indicated as facilitating or challenging to their success. The data reported in this study is part of an ongoing study of adult learners' perceptions of useful and challenging characteristics of the online classroom. To guide this research, two primary research questions were investigated: 1) What components of online learning environments do students recognize as helpful in the learning process? and 2) What components of online learning environments do students identify as challenging?

Introduction

What challenges and barriers prevent learners from being successful in the online environment? Are there components which allow them to be more successful? Are their differences between experienced and novice online learners? The purpose of this study was to investigate students' perceived satisfaction, challenges, and helpful components of the online learning environment. The reported study is a continuation of a study on adult learners' perceptions of useful and challenging characteristics.

Literature Review

Online learning is defined as "any learning that uses the Internet to deliver some form of instruction to a learner or learners separated by time, distance, or both" (Dempsey & Van Eck, 2002, p. 283). There are different forms of online learning, such as asynchronous and synchronous online learning. Asynchronous online learning refers to time independent and space independent online learning, while synchronous online learning is time dependent and space independent (Cereijo, Young, & Wilhelm, 2001). Some online learning takes both synchronous and asynchronous forms. The following paragraphs describe a few studies that have been conducted to explore all of these contexts.

A major focus of many studies in web-based learning has been on the promise of online technology, such as reaching new learners from a distance, increasing convenience, and expanding educational opportunities (Hara & Kling, 1999, 2001; Hill, 2002; Hofmann, 2002; Owston, 1997; Rourke, 2001; Schrum, 2000). While these particular areas are important, it is equally important to understand how to best implement the practice of online learning.

Several studies have been conducted that explore the perspective of online learners with specific focus on the strengths and weaknesses of online learning. For example, participants in Petrides' (2002) study felt they thought more deeply when responding in writing, and they reported that reflections occurring as a result of participating in the online class was a positive aspect of the course. Another strength of online course that has been identified in the literature is flexibility (e.g., Petrides, 2002; Schrum, 2002).

Another major focus of research studies of online learning is on the challenges faced by learners in online courses. For example, some studies have identified that lack of immediate feedback to posted questions as a challenge (Petrides, 2002; Hara & Kling, 1999). In these studies, students often felt that the questions would have been resolved immediately in a traditional classroom setting.

Research design

The studies reported above serve as a rationale for the continued research needed in the area of online learning. The purpose of this study was to investigate the components of online learning environments that learners recognized as helpful and those that are challenging. The primary research questions that guided this study were: 1) What are the components of online learning environments that learners recognize as helpful in the learning process? and 2) What are the components of online learning environments that learners identify as challenging?

The study was conducted in two consecutive years. 76 students from a large southern university participated in the first year of implementation. Of the seventy-six learners 67 (88%) were female and 9 (12%) were male. Participants in the first study consisted of 71 learners aged 20 to 50 years. The remaining five were over 50 years of age. The second year included 62 participants from the same university. 55 (88%) of them were female and 7 (12%) were male. The second was similar to the first year in that most of the participants, 56, were in the 20 to 50 year age range. Six of the participants were over 50 years of age.

The reported study utilized quantitative research methods to collect data. The survey consisted of 20 questions covering learner characteristics, perceived challenges, and helpful components of online courses. Multiple methods of analysis were used to inform the results. Survey data was analyzed utilizing SPSS software. The results were analyzed around two major themes: students' perceived helpful components in online learning and students' perceived challenges in online learning.

Results

Year 1 Results

Data analyses indicate several trends in overall components perceived as challenging and helpful in the online learning environment. Participants who had taken more than one online course indicated that the most challenging

component of online courses was technical problems. On the other hand, novice learners found that lack of a sense of community was the most challenging characteristic of online learning. Table 1 displays components of online courses that participants found to be challenging from the perspective of experienced and novice online learners.

Challenging components	Experienced learners	Novice learners
Lack of sense of community	49%	59%
Technical problems	59%	54%
Difficulty understanding goals/objectives of the course	48%	40%
Lack of time	25%	36%

Table 1: Challenging components of experience and novice learners

Participants were also asked to identify helpful components of the online environment. Both experienced and novice learners identified design of the course (86 % and 83% respectively) as the most helpful characteristic of the online environment. Table 2 indicates other helpful components of the online environment as identify by experienced and novice learners.

Helpful components	Experienced learners	Novice learners
Design of the course	86%	83%
Comfort with online technologies	81%	78%
Motivation of the student	76%	77%
Time management	77%	75%

Table 2: Helpful components of experienced and novice learners

Participants in the study were asked to indicate whether they were satisfied or not satisfied with their online learning experience. Challenging and helpful components were then categorized according to perceived satisfaction level. When asked to describe what they found as challenging, satisfied learners indicated technical problems caused them the most difficulty. Participants who were not satisfied with their online learning experience identified a lack of a sense of community (63%) as the most challenging component. Table 3 lists additional challenging components.

Challenging components	Overall satisfied	Overall unsatisfied
Technical problems	60%	54%
Lack of community	43%	90%
Difficulty understanding goals/objectives of the course	43%	63%
Time management	28%	27%

Table 3: Challenging components of satisfied and not satisfied learners

With regards to helpful components, satisfied and unsatisfied learners both identified design of the course as the most helpful component. Table 4 displays the components each group indicated as helpful.

Helpful components	Overall satisfied	Overall unsatisfied
Design of the course	82%	90%
Time management	81%	45%
Comfort with online technologies	81%	63%
Motivation of the student	77%	72%

Table 4: Helpful components of satisfied and not satisfied learners

Year 2 Results

Results of the second implementation of the study indicated that challenging components found by all learners included technical problems (58%), lack of community (40%), time management (16%), and difficulty understanding goals of the course goals (16%). Table 5 displays what experienced learners and novice learners reported to be challenging.

Challenging components	Experienced learners	Novice learners
Technical problems	65%	46%
Lack of a sense of community	40%	42%
Difficulty understanding goals of course	16%	17%
Time management	16%	17%

Table 5: Challenging components of experienced and novice learners

Learners who were experienced and novice to the online environment felt that a well-organized course and clear course objectives were the most helpful characteristics of an online course. Table 6 ranks the components of online courses participants based on what experienced and novice learners ranked as helpful to their success in the online environment.

Experienced learners	Novice learners
1. Well-organized content	1. Well-organized content
2. Clear objectives	2. Clear objectives
3. Comfort with technology	3. Motivation of the student
4. Time management	4. Comfort with technology
5. Motivation of the student	5. Time management

Table 6: Helpful characteristics of experienced and novice learners

The satisfaction level of learners made a difference in what they found as challenging and helpful in the online environment. Technical problems (66%) were found to be the most challenging component among learners who reported overall satisfaction with their online learning experience. In contrast, a lack of sense of community (81%) was found as challenging among learners who reported being unsatisfied with online learning. Table 7 presents challenging components based on satisfied and unsatisfied learners.

Challenging components	Overall satisfied	Overall unsatisfied
Technical problems	68%	36%
Lack of a sense of community	31%	82%
Difficulty understanding goals/objectives of course	9%	55%
Time management	17%	9%

Table 7: Challenging components of satisfied and unsatisfied learners

Learners were also asked to provide characteristics of a helpful online course. Learners who were both satisfied and unsatisfied with online learning felt that a well-organized course was the most helpful component. Table 8 ranks helpful characteristics based on participant satisfaction levels.

Overall satisfied	Overall unsatisfied
1. Well-organized content	1. Well-organized content
2. Clear objectives	2. Clear objectives
3. Motivation of the student	3. Comfort with technology
4. Comfort with technology	4. Time management
5. Time management	5. Motivation of the student

Table 8: Helpful components of satisfied and unsatisfied learners

Discussion and Implications

This study focused on helpful and challenging components as identified by online learners. The results indicated in year 2 of the study were similar to year 1. Results from this study also confirm what other research has shown is important to the success of online learners (e.g., Cereijo, Young, & Wilhelm, 2001). Design of the course was the most helpful component in year 1 whereas a well-organized course was most helpful in year 2. The terminology may be different, however, the sentiment remained unchanged from year 1 to year 2, students are concerned with how courses are planned and implemented. By utilizing models and processes that are process that have been developed for online learning students may increase their acceptance of this model of learning.

It is common to assume that when one is working with that technology, technical problems may occur. The learners in this study identified this as an area of concern. In face-to-face meetings at the beginning of the course, anxiety about technical issues may be resolved. Lack of a sense of community was also identified as a challenging to the online environment. Most people assume that community is going to occur naturally. However, within an online learning environment, a sense of community may not readily form (Hill, 2002). Recognition of this as a concern and implementing strategies to facilitate this process may lower concern in this area.

Conclusion

The use of the Web in courses or for entire learning experiences is likely to continue its growth in the next decade. By understanding students' perspectives of useful and challenging components, designers have the opportunity to create courses that are more suitable for learners. Further, this information will also enable instructors to better implement Web-based courses. Continued exploration of these environments will create improved learning contexts, creating more opportunities for the implementation of best practices with technology for learning.

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