

ONLINE LEARNING:
STUDENT PERCEPTIONS OF VARIABLES
THAT IMPACT LEARNING PERFORMANCE

by

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PREVIEW

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University of Nebraska, 2007

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Over the past decade there has been an increasing amount of emphasis in higher education to restructure the learning environment in a way that is more learner-centered and encourages students to take a more active role in their learning. Furthermore, university professors are being encouraged to incorporate instructional strategies to support a learner-centered approach through the use of innovative technologies that promote active engagement through Internet applications. With the rapid growth in the number of online courses and student enrollments it is necessary to study the potential impact on student performance. In an effort to explore this concept further, this study examined student perceptions of variables that impact their learning performance in online learning. In addition, a qualitative study of research provided a base of knowledge from which assumptions and suggestions could be formulated.

This study presented a set of four positions. The propositions were: (1) By focusing on the promotion and integration of satisfactory faculty-student interaction in online courses students institutions will realize an increase in student satisfaction.

(2) Providing learner preparation assistance to students that promotes the development of time management skills will enable students to be more successful in online courses. (3) Incorporating asynchronous and synchronous forms of communication in online courses will lead to a greater sense of community. (4) Providing activities that promote a sense of community does not ensure that students will make a connection with the university. Students often initiate contact for resources based on their individual personal or academic needs.

The results of this study may assist online course developers and instructors in the design, development, and implementation of online teaching and learning techniques. In addition, support personnel who assist with the development of coursework, as well as support services and professional development may benefit in a way that helps them to develop strategies to meet students' needs.

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DEDICATION

This work is dedicated to my husband Sammie and my daughters Heather, Victoria, and Whitney - the four people who give true joy and meaning to my life.

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CHAPTER 1

INTRODUCTION

In early 1996, the Institute for Higher Education Policy (IHEP) published an extensive analysis of research studies pertaining to the effectiveness of distance learning in higher education (Phipps & Merisotis, 1999). Commissioned by the American Federation of Teachers and the National Education Association, the review sought to evaluate critically the methodology and findings of research pertaining to distance education, to identify key areas in need of additional research, and to identify and discuss important implications of the research.

Among the findings noted was the absence of original research that explains or predicts distance learning phenomena (Phipps & Merisotis, 1999, p.11-12). Moreover, their analysis revealed the importance of creating a program of research for online learning that is based on theory (Phipps & Merisotis, 1999). Thus, a clarion call for the development of conceptual frameworks in the distance literature has been established (Alavi & Leidner, 2001; Arbaugh & Duray, 2001).

In light of the analysis, the rapid growth in electronic enrollments and the increased expenditures provided for distance education, it is important to conduct research that analyzes student perceptions in order to help us determine areas in which support services or professional development can be designed in order to better serve the needs of online students. The study synthesized the findings of a study conducted at a rural four- year institution in order to evaluate and identify professional development and student service needs. The vehicle for this analysis was a qualitative literature review and student interviews.

Statement of the Problem

At many universities, the effectiveness of online teaching and learning has not been well researched prior to adoption. It was noted by Goodwin (1993) that the Internet is accepted by students and faculty as a way to deliver instruction at the postsecondary level. Research supports the correlation linking students' satisfaction and success. However, as indicated by Yellen (1998), students may experience frustration which could decrease performance levels. Huang (2002) stated, "Gaining insights into how students perceive their experiences with online courses and what factors influence their perceptions on learning are crucial for distance educators" (p.1).

To better understand how these learning technologies impact perceptions of learning, a study was conducted at a rural state university in the southern part of the United States. The site for this study was comprised primarily of off-campus students who commute to the main campus, attend classes at a satellite campus, or take courses online. Seventy-nine percent of the total student population was in this category. The students are on average 24 years of age. In order to eliminate some of the barriers encountered in trying to reach students in the rural, ten parish service area, the university employed distance education technologies.

The purpose for conducting this study was to better understand how distance learning students describe technologies and how they perceive the effect of learning technologies on learning performance at one rural university.

Research Questions

The following research questions were addressed:

1. What factors contribute most to student success in online courses?
2. What factors contribute to a student's decision to enroll in distance education classes?
3. What teaching methods have the most impact on student satisfaction?
4. What barriers do students encounter that impact success?
5. What factors contribute to the development of a sense of community for online students?

Definition of Terms

The following definitions as provided by eLearners (2007) are applicable to this study.

asynchronous communication: non-synchronous, two-way communication in which there is a delay between when a message is sent and when it is actually received. In distance learning, asynchronous communication most often take the form of email (e.g. your professor emails you with feedback on an assignment), voicemail (e.g. you leave a message for your professor on his/her office phone), and discussion boards (e.g. you post a reply to a classmate's question in a threaded class discussion.) (eLearners, 2007).

asynchronous learning: learning event where interaction is delayed over time. This allows learners to participate according to their schedule, and be geographically separate from the instructor. Could be in the form of a correspondence course or e-learning.

Interaction can take use various technologies like threaded discussion. Contrast with *synchronous* (eLearners, 2007).

broadband: as opposed to the connection speeds and capacity that one can obtain over a phone line with a modem, a broadband connection can accommodate the rapid transfer of large amounts or packets of information. Generally, Internet connections provided by cable or DSL are broadband. Most distance learning courses will recommend that you have a broadband connection (eLearners, 2007).

chat: when two or more users communicate in real-time by typing messages which are sent instantly within the chat room or instant messaging program. In distance learning, a chat may be used for a class discussion, or so that students may ask the instructor questions or receive feedback from an instructor as a group (eLearners, 2007).

cohort: a cohort is a group of students that move together through an educational program. Cohorts allow a small number of learners, usually starting courses at the same time, to take a group of core classes over a period of time. However, students in a cohort may not necessarily progress through the program at the same rate or graduate at the same time. Cohorts can be very beneficial, because students can get to know each other really well and provide a supportive learning environment for each other (eLearners, 2007).

computer-based training: (also called computer-based instruction) training or instruction where a computer program provides motivation and feedback in place on a live instructor. CBT can be delivered via CD-ROM, LAN or Internet. Creation is done by teams of people including instructional designers, and often has high development costs (eLearners, 2007).

course management system: also shortened to "CMS." The software, usually web-based, used by colleges and universities, as well as corporations and government, that facilitates distance learning by centralizing the development, management, and distribution of instructional-related information and materials. A CMS provides faculty with a set of tools that allows the easy creation of course content - syllabi, course modules, lecture notes, assignments, tests and quizzes, etc. - and is the framework in which they teach and manage the class. To an online student, a CMS is simply the vehicle by which you, the instructor, and your fellow learners interact using asynchronous discussion boards and live chat tools; access course information and materials, submit assignments, check your grades, etc. (eLearners, 2007).

distance education: (also called distance learning) the formal process of distance learning. This term has traditionally implied the higher education level, but can include K-12 education, as well as continuing education (eLearners, 2007).

e-Learning: any learning that utilizes a network (LAN, WAN or Internet) for delivery, interaction, or facilitation. This would include distributed learning, distance learning (other than pure correspondence), CBT delivered over a network, and WBT . Can be synchronous, asynchronous , instructor-led or computer-based or a combination (eLearners, 2007).

Instant messenger: also shortened to "IM." Software that lists a user's buddy list (who may consist of friends, family, co-workers, classmates, etc.) who are also online and enables users to exchange text-based messages. Some instant messenger programs also include voice chat, file transfer, and other applications. Popular instant messaging programs are available for free by ICQ, AOL, Yahoo!, and MSN. IM may be used in

distance learning to facilitate communication between two students or between a learner and his or her instructor (eLearners, 2007).

internet service provider: also shortened to "ISP." A company that provides Internet access to consumers and businesses, usually for a monthly fee. Services include e-mail, the World Wide Web, FTP, newsgroups, etc. Popular ISPs include America Online, Earthlink, CompuServe (eLearners, 2007).

netiquette: informal rules of conduct for how to behave on the Internet. For example, in a distance learning course, it is poor netiquette is to use ALL CAPITAL LETTERS in a messages, as this is the equivalent of shouting (eLearners, 2007).

non-traditional student: also called "adult student", "adult learner", "re-entry student", or "returning student." According to the National Center for Education Statistics (NCES), a non-traditional student has one or more of the following characteristics: delays enrollment (does not entering postsecondary education right after high school); attends part time; works full time (35 hours a week or more); is financially independent for purposes of determining eligibility for financial aid; has dependents other than a spouse (usually children, but sometimes others); is a single parent; or does not have a high school diploma (has completed high school with a GED or other nontraditional diploma or has not finished high school) (eLearners, 2007).

online learning: e-Learning delivered over the Internet (as opposed to a local or wide area network) (eLearners, 2007).

synchronous communication: live, real-time communication. Examples include a conversation at the grocery store, phoning your children to say hello when you're

traveling on business, instant messaging or chatting in an AOL chat room. Contrast with *asynchronous* (eLearners, 2007).

synchronous learning: any learning event where interaction happens simultaneously in real-time. This requires that learners attend class at its scheduled time. Could be held in a traditional classroom, or delivered via distributed or e-Learning technologies (eLearners, 2007).

threaded discussion: a common feature of distance learning that allows students to interact with their classmates and instructor. A threaded discussion is a series of messages on a particular topic posted in a discussion forum. A threaded discussion is asynchronous, not fixed in time or space, so students can log on at any time from any Internet-enabled computer to seek clarification for issues they encounter in their coursework, to discuss topics raised in class, or to initiate new discussions on related topics. A good online discussion has the same effect of group or in-class discussion, in which students build on one another's perspectives to gain a deeper understanding of the materials (eLearners, 2007).

Virtual: simulated or conceptual, not physical in nature. In distance learning, the term "virtual classroom" refers to the online environment in which students and instructors interact (eLearners, 2007).

This intent of this study was to better understand how learning technologies affect distance students' perceptions of learning performance. The results may have implications for determining areas of change.

Assumptions

Participants in this study have overcome personal and professional barriers and have chosen to participate in distance education because it presented a viable option for them. These students were expected to be able to provide reasoned responses to the questions and to suggest factors that might enhance and/or prohibit successful completion of a program offered through a distance system.

Delimitations

Locke, Spirduso, and Silverman stated, “Delimitations describe the populations to which generalizations may be safely made. The generalizability of the study is a function of the subject sample and the analysis employed” (p. 28).

Qualitative research provides a particular set of views from a small purposive sample. The research involved interviews with students enrolled in online courses at a rural southern university. Students were selected to reflect the demographic characteristics of the student population.

1. This study only considered a single, four-year, not-for-profit University.
2. The study was limited to students enrolled in undergraduate online courses and did not include graduate students.
3. The study was limited to enrollment during the spring 2006 semester at a single, four-year, not-for-profit University.

Limitations

Locke, Spirduso, and Silverman also stated, “Limitations, as used in the context of a research proposal, refer to limiting conditions or restrictive weaknesses. There are times when all factors cannot be controlled as part of a study design” (p. 28).

The most important limitation of qualitative research is that the findings cannot be directly generalized to the larger population being studied. The research involved the section of 15 undergraduate students that had taken 4 or more online courses. Students were selected to reflect the demographic characteristics of the online student population.

1. The sample size and selection prevented generalization to populations.
2. Purposeful selection prevented generalization to populations.

PREVIEW

Chapter 2

LITERATURE REVIEW

Introduction

Online classrooms are considered the future of education. The increase in availability of computer technology and the acceptance of online degrees has prompted this attitude.

Online courses are defined as those in which the instructor interacts with students using the Internet, but there are no face-to-face class meetings (McEwen, 2001). In today's increasingly competitive educational market, the appeal of online education is understandable. Colleges and universities began their venture into online education with the intent of serving students who otherwise would be unable physically to attend classes in traditional brick-and-mortar classrooms (Bonk, 2001; Owston, 1997). Specific populations of such initiatives included those living in rural areas whose situational circumstances prevented them from relocating, those who found it difficult to manage jobs/family along with conventional classes, and those whose jobs imposed frequent travel requirements or extensive hours (Symonds, 2001). Some universities employed online education as an opportunity to increase student enrollment (and profits) at the expense of the competition, particularly out-of-state institutions (Boehle, 2000; Bonk, 2001; Owston, 1997); others saw this as a superior alternative to compressed video or written correspondence courses.

Institutions recognize that online courses can serve the existing study body. In fact, approximately 50% of U.S. major universities offer online courses or use the Internet to augment traditional classes (Symonds, 2001). For example, the University of

Colorado found that the majority of online students were from the Denver metro area and that many of the same students who enrolled in online courses also attended classes in person on the UC-Denver campus at the same time (Boehle, 2000). Waits and Lewis (2003, p.4) stated, “During the 2000-2001 academic year, 56% of two-year and four-year institutions offered distance education courses for any level or audience.” These data represented an increase of 12% when compared to 1997-1998 and a 23% increase when compared to 1994-1995. These data indicated that there were more than three million students enrolled in more than 127, 000 courses in 2000-2001. Growth is expected, and it was predicted by Waits and Lewis that many institutions that had not yet begun offering distance learning courses planned to do so over the next three years. Draves (2002) indicated that 50% of all learning will take place online and this will include all facets to include education, business, and industry.

Learning at a distance extends beyond the realm of educational institutions. The corporate community and the U.S. military have engaged distance education. The use of electronic resources can be documented. Not only is training a key element for its use, but both corporate entities and the military have recognized the value and benefit of flexibility, cost efficiency, opportunities for customization, and a greater degree of control over the quality and consistency of teaching materials (Bittner, 2000; Kaeter, 2000; Symonds, 2001; Urdan & Weggen, 2000).

Learner Characteristics

Learners attracted by the flexibility and the learning environment have very specific characteristics. Brown (1998) indicated that these students are self-motivated and are capable of working independently. Brown (1998) defined the demographics of the

students as being older and married with children. These students were also described as those that have many responsibilities as they pursue education. Institutions have found, however, that the typical profile of a distance learning student is changing. Included in this shift are the needs of these students.

According to Oblinger, Barone, & Hawkins (2001), there are different groups of learners. There are the corporate learners that seek out educational opportunities in order to sustain or improve their skills. Another group is referred to as the professional enhancement learners who view additional education as a tool for advancing or changing careers. A third group, called degree-completion adult learners, are older and may not have had the opportunity to complete a degree in previous years. They use this opportunity to go back to school to complete a degree but are balancing work and family as they pursue their educational goals. Another set, referred to as the college experience learners, resemble that of the typical or traditional college student. They are generally students who are 18-24 years of age, live on campus, and are growing socially as well as academically. For this group, social and academic growth is important. Other groups include what Oblinger, Barone, and Hawkins (2001) refer to as pre-college (K-12). These individuals are typically advanced students that are seeking educational advancement prior to entering a post-secondary institution. Some learners are in need of remediation or test preparation. These individuals may need to improve test scores or have an opportunity to enroll in an alternate program. The last group is referred to as the recreational learner. These individuals seek out learning as a hobby or for individual satisfaction. Distance education is attractive to students for many reasons. Phipps & Merisotis (1999, p. 11-12) stated, "Distance education provides some students with

access to courses when they would not have been able to otherwise participate.” There are other reasons as well. According to Chorp (2000), “Distance learners are those who don't have access to programs, employees who work during scheduled class hours, homebound individuals, self-motivated individuals who want to take courses for self-knowledge or advancement, or those who are unable or unwilling to attend class” (p. 10). According to Powell, McGuire and Crawford (1999), more than 40% of new admissions at Athabasca University were students concurrently enrolled at other educational institutions. This represents an increase when compared to 1989 when there were only 17%. The authors stated:

Students in conventional universities are increasingly faced with balancing work, family and financial demands and as a result they are taking longer to complete their programs of study and are making use of a variety of institutions to meet their specific programmatic needs. (p.1)

Powell, McGuire, and Crawford (1999) continued, “As a consequence profiles of conventional university and distance-education students are looking increasingly similar” (p. 2). Noel Levitz (2006) conducted a study that included over 34,000 students from 78 institutions. The data represented online students’ responses collected over a three-year period from 2003-2006. The participant demographic included female, Caucasians who were taking online classes full-time. The majority of the participants was taking undergraduate courses and was working full time. The study indicated that more than 50% were married, planned to complete their degrees online, and were taking fewer than six credit hours. The majority was also new to online learning but planned to complete a post baccalaureate degree. The authors noted regarding the fact that the characteristics