

CHAPTER I

INTRODUCTION

The Internet is here to stay. It has had a tremendous impact on the way we live our lives and conduct our everyday business. Even as recently as the early 1990's one would not have imagined being able to instantly communicate with others down the street, across town, across the country, and indeed, around the world with the click on a button, from anywhere and at anytime. Instant access to information from current bank balances, to business hours, to maps that include driving directions are now common, everyday experiences. Additionally, having access to news reports from national and international news reporting agencies from home computers has made the world much smaller, as we can watch live video coverage of events happening around the world.

This same impact is being felt in education, although at a much slower pace than business has experienced. Access to information for research and learning is no longer limited to what is available at the local or university library. Libraries have formed consortia to share resources and now provide full text electronic copy for much of their inventory, making it possible for students to conduct information searches without putting a physical foot inside the library. Additionally, Web-mediated or online instruction is currently the fastest growing sector of distance education (Benke, Bishop, Thompson, Scarafiotti, &

SchWeber, 2004; U. S. Congressional Web-based Education Commission, 2000).

The NCES reports that

In the 12-month 2000–2001 academic year, there were an estimated 3,077,000 enrollments in all distance education courses offered by 2-year and 4-year institutions. There were an estimated 2,876,000 enrollments in college-level, credit-granting distance education courses, with 82 percent of these at the undergraduate level. (Waits & Lewis, 2003, p. 1)

Additionally, Simonson, Smaldino, Albright & Zvacek (2003) state that in 2002, “1,680 institutions offered over 54,000 online courses” (p. 8). One research report indicates online instructors through 2011 can expect online courses to account for up to 73% of their teaching loads (C. J. Bonk, 2001). The College Technology Review reports that in the 2004-2005 academic years, “Two out of three institutions are offering distance learning programs. The percentage of institutions offering accredited degrees in at least one subject through distance learning programs is now 63%, with the most popular disciplines being business and the social sciences” (MDR, 2005, p. 3). Almost all higher educational institutions in the United States offer some form of distance education today (Saba, 2005). He states, “If current trends continue, it will be just a matter of time before distance education becomes the dominant form of teaching and learning” (p. 257).

These technologies have opened the way for correspondence to be carried on in real-time, or not; with one person, or many. This is something that no other technology has been able to do. Thus, computers and the Internet are

being touted as the technology that will change the face of education (Simonson et al., 2003).

Past technology innovations were touted as having the potential to transform education, but failed to do so. Web-based and online education has already demonstrated this potential by increasing access to learning institutions by students who otherwise would not have been able to pursue higher education. Access to web-based and online educational resources has also created a way to fill the need for continuing professional education, training, and creating a generation of lifelong learners. Convenience, access, and flexibility are the hallmarks of online education.

Education is slow to accept any type of change, and Web-based and online education is no exception. Computer-mediated and Web-based education has been, and continues to be, scrutinized because it still labors “with lingering perceptions that it is somehow inferior, unproven, and limited in application relative to traditional classroom instruction” (Sener, 2004, para. 1). Online and web-based courses and programs have had to undergo closer scrutiny and more extensive review that includes comprehensive documentation and financial plans than any face-to-face (F2F) program or course. This produced the No Significant Difference (NSD) phenomenon (Russell, 1999) whereby computer-mediated and online courses were examined and compared with F2F courses to establish equivalent measures of quality (Curran, 1997; Glass, 2003a; Hiltz, Zhang, & Turoff, 2001; Sener, 2004) Two interpretations of the Russell’s NSD compendium

have followed: using technology causes no harm, so students in a F2F classroom have no advantages over those in a technology-mediated classroom. On the opposite side, if it does not help, why use it when it takes more time to develop and uses more resources?

Lockee, Moore & Burton (2001) state that these media comparison studies miss the point because they only compare delivery mechanisms, not instructional strategies or any of the other variables that have an affect on the learning environment. They also point out that these comparison studies “do not test any theoretical foundation-they simply evaluate one instruction delivery technology against another (p. 61). Moskal & Dziuban (2001) add that “obvious outcome comparisons associated with web-based learning and traditional on-campus education may be intuitively appealing, but they do not facilitate responsive programs” (p. 13).

Additionally, many have called into question the assumption that classroom or F2F instruction is the gold standard by which all other instructional environments and strategies must be compared (Conger, 2005; McDonald, 2002; Sener, 2004; Young, 2002).

‘F2F is not the gold standard that it’s held up to be,’ says Chris Dede, professor of learning technologies at Harvard University’s Graduate School of Education. ‘Many people find their voice in distance media in a way that they don’t in F2F sessions,’ he says. A shy student, for instance, might never participate in a classroom environment, but the student might frequently speak up in online forums where students have more time to think before they comment. And not all students learn the same way, Mr. Dede argues, so presenting materials in a range of formats can help make

sure every student is fully engaged in at least some class activities (Young, 2002, A Once-Taboo Idea, paras. 4 - 6).

McDonald (2002) and Sener (2004) agree and argue that using the traditional F2F classroom as the standard that every other type of instruction must meet is truly a low standard.

There are good reasons to move beyond the NSD syndrome to examine web-based and online education in a way that will add to the research and possibly inform practice. In regards to Internet technology, a productive research agenda would examine how best to use the unique capabilities of the technology (Conger, 2005) and to find “what combinations of instructional strategies and delivery media will best produce the desired learning outcomes for the intended audience” (Joy & Garcia, 2001, p. 38). The most recent meta-analysis of empirical research conducted on this subject was published in the Review of Educational Research (Bernard, Abrami, Wade, Borokhovski & Lou, 2004). The reports states that, “Even though the literature is large, it is difficult to draw firm conclusions as to what works and does not work in regard to [Distance Education] DE” (p. 404). The meta-analysis statistics suggest that “many applications of distance education outperform their classroom counterparts and that many perform more poorly” (p. 379). Thus Bernard et al. (2004) suggests that, “we might ask whether there are aspects of design, relating to either medium or method, that are optimal in either or both instructional contexts.” (p. 414) and “It is the examination of the details of research studies that can tell us

the ‘why’” (p. 415). Bernard and his colleagues conclude that “It may just be that at this point in our evolution, and with so many pressing issues to examine as Internet applications of DE proliferate, continuing to compare DE with the classroom without attempting to answer the attendant concerns of “why” and “under what conditions” represents wasted time and effort.” (p. 416).

The Problem Statement

There have been many anecdotal reports about aspects of the online environment that are more effective and/or successful than F2F, but empirical research has up to this point been examining the wrong issues to fill this gap. Online education is a fairly new way to teach and learn, but it has been in existence long enough now for practitioners to start figuring out what works best and what does not. Included in the conversations about the benefits of teaching and learning online are comments about how teaching online has influenced and fundamentally changed teaching in F2F classes. Lastly, recent conversations have also talked about developing a blended learning model that would combine the best of both environments, to maximize the potential of online and retain the benefits of F2F teaching.

Purpose of Study

The purpose of this study is to describe which aspects of course design and/or instruction are more effective and successful in the online environment than in the face-to-face (F2F) classroom to improve student learning experiences, and why and how they impact both students and instructors. The

study will focus on learning effectiveness, access and logistics, faculty satisfaction and student satisfaction.

The following research questions will be examined:

1. Which aspects of course design and/or instruction are more effective and successful in the online learning environment than in the F2F classroom, and why, according to faculty who have been recognized as exemplary online instructors?

2. How do these aspects impact student learning in online courses, and what evidence shows how students are affected?

Importance of Study

As stated above, Web-based and online instruction is growing at a phenomenal rate in higher education and yet there are many administrators and faculty who still do not see the potential of Web-based instruction to improve student learning experiences. This may be attributed to the plethora of Media Comparison Studies (MCS) and the lingering impression that any kind of instruction other than the traditional, on-campus, face-to-face instruction, is inferior. Nevertheless, the use of content management systems, video-conferencing, and web-based instructional components continues to expand. Unfortunately, most of the courses designed for the Web are mere transfers of instructional materials and strategies used in the F2F classroom online. This process promotes the teacher-centered transmission model, instead of redesigning the content to maximize the unique characteristics of the online

learning environment. It will be important to find out which aspects of the online environment are more effective and successful than the F2F environment so that a new generation of high quality courses can be designed and developed. In addition, these findings can assist faculty as they embrace online teaching for its benefits over F2F teaching with confidence, knowing that the benefits are supported by the research. Lastly, this study will inform a blended learning model that takes advantage of the best of both environments and thus provide a template or guide for designing high quality courses that will fill the needs of on and off-campus, resident and non-resident, traditional and non-traditional, lifelong learners.

Methodology

The case study method was used for this study because it is the most appropriate approach to use in answering the research questions of why and how (Yin, 2003). Participants were recruited from nationally recognized exemplary online instructors. Participants were given an initial survey to establish the foundation of data, followed by interviews and observation. Data was gathered, analyzed and reported using the approaches recommended by Merriam (1988) and Yin (2003).

Delimitations

The study has been limited by the following: The participants are ten exemplary instructors in adult and/or higher education who have been recognized through one of four award programs for excellence in online

education, and who have taught both online and F2F in the last year. This study will only identify aspects of effective and successful online education, not F2F.

Definition of Terms

The following operational definitions are used for this study:

Asynchronous -Instruction and/or communication that takes place at anytime, any place, does not require that all participants be online or face-to-face at the same time. It is time and place independent

Blended learning - Instruction that uses the Web for some of the instructional activities and face-to-face for others.

Face-to-face or F2F - Teaching and learning that is conducted in a physical space, in real-time, generally on a campus or in a room that represents a classroom.

Online - Instruction that uses the Web as the technology to conduct all learning activities and communication, at anytime, any place, with no real-time face-to-face instruction conducted.

Synchronous - Instruction and/or communication that take place in real-time requiring that all participants be online or face-to-face at the same time. Can be place independent.

Web-based - Instruction that uses the Web as the technology to conduct some of the learning activities.

Organization of the Chapters

The remainder of the study is organized into five chapters, the bibliography and the appendixes. Chapter Two presents a review of the current literature on quality and effectiveness of online and web-based education. Chapter Three details the research method and design chosen for this study, the procedures for gathering and analyzing the data and the participants. Chapter Four presents the individual case stories of the participants. Chapter Five presents the major themes revealed through cross-case analysis, and Chapter Six includes the discussion of the findings, the conclusion and recommendations of the study. The bibliography and appendixes are provided at the end of the study.

Summary

The introduction provides a general background on the Web and its influences in higher education and provides background for the study's purpose and questions. The problem statement is included along with the purpose and research questions. Delimitations are discussed to provide the boundaries of the study. Operational definitions are provided to help the reader understand terms used in this study. The next chapter covers a review of the relevant literature.