HIGHER EDUCATION FACULTY: SATISFACTION WITH ONLINE TEACHING

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CHAPTER 1: INTRODUCTION

Statement of Problem

Educational researchers have borrowed from organizational psychology, human resources management, and business administration to define, measure, and interpret the significance of teacher job satisfaction. While a significant body of literature has been created concerning teacher job satisfaction, (Lester, 1988) few researchers have explored the construct of job satisfaction related to faculty participation in Web-based distance education (Maguire, 2005).

Many institutions of higher education are utilizing Web-based distance education for the electronic delivery of courses or entire academic programs (Hanna, 2003; Maguire, 2005; McIssac & Gunawardena, 1996; Phipps & Merisotis, 1999). The United States Congress established The Web-based Education Commission in 1999 to make recommendations for utilizing the educational promise of the Internet, for learners from pre-K through postsecondary education, in the 21st Century. Members of the Commission met with hundreds of experts in education, business and technology, and obtained input from hearings and e-Testimony. The resulting report praised the Internet as an instructional tool and presented a consensus of the findings, which concluded with this statement:

> The question is no longer if the Internet can be used to transform learning in new and powerful ways. The Commission has found it can. Nor is the question should we invest the time, the energy, and the money necessary to fulfill its promise in defining and shaping new learning opportunity. The Commission believes that we should. We all have a role to play. It is time we collectively move the power of the Internet for learning from promise to practice (Web-based Education Commission, 2000, p. 134).

This growth of Web-based distance education has been fostered by the affordability and advancement of computer-based communication technologies, which includes powerful and reasonably priced home computer systems and a rising number of homes with Internet access (Moore, 2003; Omoregie, 1997). Web-based courses increased by 32% during the period from 1995-1998, and distance learning courses and programs doubled (US Department of Education, 1999). Fifty-six percent of all 2-year and 4-year Title IV-eligible, degree-granting institutions offered distance education courses during the 12-month 2000–2001 academic year. The majority of these institutions (90 percent) reported that they offered Web-based courses using asynchronous computer-based instruction as a primary mode of instructional delivery. The estimated enrollments, in all distance education courses offered by these 2-year and 4-year institutions, were over three million (US Department of Education, 2003).

The Sloan Consortium (Sloan-C), a consortium of institutions and organizations funded by the Alfred P. Sloan Foundation, a philanthropic nonprofit institution establish in 1934 by Alfred P. Sloan, former President and Chief Executive Officer of General Motors Corporation, encourages the collaborative sharing of knowledge and effective practices to improve online education in learning effectiveness, access, affordability for learners and providers, student and faculty satisfaction. The 2003 Sloan-C survey, *Sizing the Opportunity: The Quality and Extent of Online Education in the United States, 2002 and 2003*, revealed that over 1.6 million students were studying online in the fall of 2002, and that schools expected that number to grow substantially by the fall of 2003 (Allen & Seaman, 2003). The survey also revealed while institutions of higher education are embracing online education as a delivery method, academic leaders perceived that faculty acceptance of online education was conservative, with a very slim majority of faculty

members at doctoral/research institutions (54.6%) and Master's (55%) accepting the value and legitimacy of online education (Allen & Seaman, 2003).

With the escalating enrollments in Web-based courses, higher education faculty members are increasingly being called on to enhance their courses with online materials or to deliver their courses partially or entirely online (Allen & Seaman, 2005; Connick, 1997; Twigg, 2002). Faculty utilizing instructional technology for delivering their courses via the Internet are also being called on to play diverse and demanding roles and function as change agents that "…Experiment with technology and educational methods and continually upgrade their knowledge and skills" (Porter, 1997, p. 199). To succeed in online learning environments, faculty may be required to function as content experts, learning process design experts, process implementation managers, motivators, mentors, and interpreters (Massy, 1998; Phipps & Merisotis, 1999) in an educational environment characterized by rapidly expanding and changing technologies.

This new culture of any-time, anywhere, Web-based, distance education coupled with rapidly increasing numbers of online courses and enrollments in these online courses (Allen & Seaman, 2005; Wolcott, 2003) has created an exigent need for faculty who can effectively utilize Web-based learning technologies and learner-centered, constructivist approaches, which inform the use of electronic conferencing and collaborative media (Bonk & Dennen, 2003; Relan & Gillani, 1997; Wolcott 2003). Collectively, these trends create a ripe new online habitat for research on learning, and teaching in Web-delivered learning environments (Graham, 2005; Web-based Education Commission, 2000; Khan, 1997, 2001).

Mason (1991) created a research framework that delineated three major online instructor roles: organizational, social, and intellectual. Berge (1995) and Ashton, Roberts, and Teles (1999) utilized Mason's framework in their research. Berge elaborated

on Mason's framework by providing pedagogical suggestions for online instructors, such as suggesting that instructors present conflicting opinions in online courses, and also made social recommendations for online courses, such as suggesting that teachers require their online students to introduce themselves at the beginning of the online course (1995). Bonk, Kirkley, Hara, and Dennen (2001) have since used these frameworks to describe various components of Web-delivered courses and instructor roles in these courses (Bonk & Dennen, 2003). Bonk and Dennen concluded, "…The online instructor must constantly shift between instructional, facilitator, and consultant roles" (2003, p. 338).

These new roles and modes of producing and delivering instruction often result in a public record of faculty pedagogy, and added dimensions of faculty work, which challenge the existing institutional systems for acknowledging and rewarding faculty for their teaching, research, and service (Wolcott, 2003). The Majority of Chief Academic Officers, in institutions of higher education, believes that it takes more effort to teach an online course than a face-to face course (Allen & Seaman, 2005). Online tools such as asynchronous discussion formats and pedagogical practices based on constructivist learning theories are increasingly being utilized to promote student interaction, critique, and collaboration (Bonk & Dennen, 2003). A major cultural change for faculty is underway (Berge, 1998; Truman-Davis, Futch, Thompson & Younekura, 2000; Twigg, 2004) with the utilization of Web-based tools shifting faculty away from "traditional" instructor-led pedagogical practices (Bonk & Dennen, 2003) i.e., the role of domain expert that delivers information via lecture to the role of learning facilitator (Lin, Bransford, Hmelo, Kantor, Hickey, Secuule, Petrosino, Goldman & Cognition and Technology Group at Vanderbilt, 1996).

This cultural change for faculty is further complicated with social pressures, which are demanding accountability for student learning (Hill, 1997; Schank, 1999;

Noone & Swenson, 2001; Popham, 2001; Twigg, 2002). The proliferation of Web-delivered courses and programs is paired with skepticism and concerns about the effectiveness and quality of distance learning courses and programs. In fact, many fear that without face-to-face classroom interactions, students taking courses via distance education are not receiving instruction that is equal in quality to what they would receive in the traditional classrooms (Cyrs, 1997; Khan, 1997, 2001; Moore, Tompson, Quigley, Clark & Goff, 1990; Moore & Kersey 1996; Schank, 1999; Twigg, 2002). However, eighty-two percent of respondents to the Sloan-C 2005 survey, believe that it is no more difficult to evaluate the quality of an online course than one delivered face-to-face.

Inman, Kerwin, and Mayes (1999) reported that after teaching one online course, the majority of instructors were willing to teach another. However, they also found that the majority of instructors rated the quality of the online course they taught as equal or lower in quality than the classes they taught on campus. Allen and Seaman tell us,

> Although online education continues to penetrate into all types of institutions, a relatively stable minority of Chief Academic Officers (28% in 2003 compared with 31% in 2005) continues to believe that their faculty fully accepts the value and legitimacy of online education (2005, p.3).

Research conducted by Olcott and Wright (1995) and Dillon and Walsh (1992) established a need, and laid the groundwork, for studying faculty motivation and participation in distance education. However, faculty issues have been essentially ignored in distance education research until recently (Wolcott, 2003). Omoregie's research suggests that quality of distant education instruction depends, in part, on the attitude of the faculty member (1997). Research conducted by Inman, Kerwin, and Mayes (1999) revealed that instructors had conflicting attitudes about teaching via distance education technologies. Olcott and Wright (1995) asserted that key factors in faculty resistance to distance education "…Has been due in large part to the lack of an institutional support

framework to train, compensate, and reward distance teaching faculty commensurate with those traditional instructional roles" (p.5).

Phipps and Merisotis reviewed major subjects addressed in a range of distance education publications and found that program and course design commanded the most attention in distance education literature and faculty issues received the least amount of attention. They also found that the few publications, which did address faculty issues, were limited to addressing concerns such as professional development, teaching workload, and technical support for faculty engaged in distance learning. Their report explicated a need to conduct in-depth case studies of university based Web-based graduate programs with emphasis on understanding the needs, desires, expectations, hopes, dreams, and frustrations of the program stakeholders, including faculty (Phipps & Merisotis, 1999).

Purpose of the Study

The main purpose of this study is to conduct exploratory qualitative research to investigate online faculty members teaching philosophies and what contributes to or inhibits their satisfaction with online teaching. To meet this purpose, this research will a) explore participant's teaching beliefs and perceptions of elements that contribute or inhibit to their online teaching job satisfaction, b) investigate the relationships among the elements that contribute to or inhibit the participant's perception of job satisfaction; c) provide a structure to better understand elements that contribute to or inhibit online faculty members' job satisfaction.

RESEARCH QUESTIONS

The key questions guiding this inquiry are: (1. What elements contribute to or inhibit satisfaction with online teaching for faculty members? (2. What are the

relationships among the elements that contribute to or inhibit online faculty member's satisfaction with online teaching?

The electronic Web-based background questionnaire will collect information about the study participants such as: contact information, discipline/degree program, gender, age, ethnic group, tenure status, teaching experience, computer use, instructional uses of technology, and teaching philosophy (See Appendix B: Faculty Background Questionnaire).

The interview protocol includes questions, in the first section, about the participant's teaching experience, online course(s), The second section explores barriers to or facilitators of online teaching, and satisfaction with institutional support for faculty members involved in online learning including: developing the online course, technological aspects, professional development and social interactions. participant's satisfaction or dissatisfaction with teaching the online course including overall satisfaction, electronic communications, course activities, and time requirements. The survey concludes by asking what advice the participant would give a faculty member in their discipline or department who was thinking about developing an online course. (See Appendix C: Semi-Structured Interview Protocol.).

Significance of the Study

This study will contribute to an understanding of the factors that contribute to the job satisfaction of higher education faculty members pioneering as teachers in the rapidly expanding and changing Web-based educational environments. The bulk of research on faculty job satisfaction has been conducted among traditional faculty, i.e., those who teach face-to-face, but little is known about what contributes to the job satisfaction of

faculty who are teaching their courses partially or totally online, because few research studies have been conducted to explore the needs, desires, hopes, dreams, and frustrations of online faculty to understand and explore what they think and feel about the factors that can, and do, make them satisfied with their work in Web-based learning environments. This study, therefore, will seek to understand and expand the current knowledge base by utilizing a Constructivist Grounded-Theory approach (Charmaz, 2000) to identify elements and describe relationships among the elements that contribute to, or act as barriers, to the job satisfaction of higher-education faculty members that are teaching online courses.

Possible benefits of this research include contributing to a better understanding of online faculty members and the elements that contribute to or act as barriers to their job satisfaction with online teaching. A better understanding of the elements that contribute to or act as barriers to the job satisfaction of online faculty, could help institutions to identify, plan for, and provide support and services to increase online faculty member's job satisfaction. Additionally, this knowledge could help institutions, which are delivering or considering delivering Web-based courses, to attract, train, and retain talented online instructors so that they can more effectively work with faculty to "...move the power of the Internet for learning from promise to practice" (Web-based Education Commission, 2000, p. 134).

Limitations of the Study

This study seeks to explore elements that contribute to or act as barriers to the job satisfaction of online faculty and the relationships among these elements. Faculty satisfaction can be significantly influenced by the institutional setting in which it does or does not occur. For this reason, the phenomenon of faculty job satisfaction needs to be

studied as it naturally occurs without manipulation or control of variables. Institutions are distinct and complex, as are the online learning environments within these settings. Hence, the data gathered in each setting are very dependent on these contexts. Therefore, the context of each case study will limit the generalizability of the findings. The qualitative researcher utilizes the case study format to provide a thick, rich description of the phenomena encountered in the process of research. This thick description allows the readers to judge the information and make their own decisions about whether or not the themes that emerge from the research can be transferred to their own situations.

CHAPTER II: LITERATURE REVIEW

Background literature related to job satisfaction and dynamics of faculty participation in Web-based distance education is examined, in this chapter, to provide grounding related to the research questions of this study. The review of literature is divided into three sections. The first section defines distance education and examines the use of the World Wide Web (WWW) for delivering Web-delivered distance education. The second section examines the dynamics of pedagogy, attitudes and perceptions, motivation and resistance, institutional incentives and barriers related to faculty participation in Web-delivered distance education. The third section examines the theoretical basis of faculty job satisfaction research.

Distance Education

Globalization and the incorporation of new information and communication technologies, working in tandem, are changing the structure and practice of higher education, blurring the distinctions between distance education and traditional education, changing higher education faculty members' roles, working conditions, and student-faculty relations (Burbules & Callister, 2000).

Ragan (1999) examined the differences between the roles of instructors and students in the conventional classroom and compared these to the same roles in distance educational settings. Ragan posited that new standards, a consequence of rapid technological advances, were forcing educators to re-evaluate teaching and learning,

> Within both the distance education and general education framework, new standards are being defined based on a student-centered curriculum, increased interactive learning, integration of technology into the educational system, and collaborative study activities. Core to these changes is an examination of the fundamental principles of what constitutes quality instructional interaction.

> Without a firm understanding of these principles, decisions are made based on the merits of the technology or methodologies without consideration of the long-term and potential benefit to the student (1999, paragraph 2).

Many theorists make a case against the pedagogy or "grammar of schooling" (Tyack, D., & Tobin, W., 1994) arguing that the passive role of students, as receivers of information being taught and tested on basics of reading, writing, and arithmetic are not as important as learning to think critically and to develop skills which will allow them to function as independent life-long learners in a technologically advanced world (Barron, B., Vye, N., Zech, L., Schwartz, D., Bransford, J., Goldman, S., Pellegrino, J., Morris, J., Garrison, S., & Cantor, R., 1995; Brown, A., Ash, Rutherford, Nakagawa, Gordon, & Campione, 1993; Morrison, D. & Goldberg B., 1996). "Our educational culture-a culture based on the campus, the classroom and teaching in a time specific way-has been in place for several hundred years" (Connick, 1997, p. 9).

Porter foresaw that the opportunities provided by distance education would force traditional institutions to compete with, "companies, institutions, and individuals who previously didn't or couldn't offer high quality instruction" (1997, p. 21). According to the 2004 United States National Technology Plan, *Toward a New Golden Age in American Education: How the Internet, the Law, and Today's Students are Revolutionizing Education*, Porter's predictions were accurate, "In the realm of technology, the educational community is playing catch-up. Industry is far ahead of education. And tech-savvy high school students often are far ahead of their teachers" (2004, p. 45). The plan goes on to describe how technology has forced a turning point for the American educational system,

> All over this country, we see evidence of a new excitement in education, a new determination, and a hunger for change. The technology that has so dramatically changed the world outside our schools is now changing the learning and teaching environment within them. Sometimes the students themselves drive this, born and

> comfortable in the age of the Internet. There has been explosive growth in the availability of online instruction and virtual schools, complementing traditional instruction with high quality courses tailored to the needs of individual students (U.S. Department of Education, Office of Educational Technology, 2004, p. 8-9).

Harasim, Hiltz, Teles, & Turoff (1997) assert that a basic requirement for education in the twenty-first century is to "...Prepare students for participation in a knowledge-based economy in which knowledge will be the most critical resource for social and economic development" (p. 271). They proclaim that the traditional structure of school-based education is no longer viable because students need up-to-date information and a range of expertise, which schools cannot provide. Although distance education has many forms and has been defined in various ways, most definitions acknowledge that the terminology refers to an approach to teaching and learning that utilizes learning resources available outside the conventional face-to-face classroom and that time and/or space separate the learners from the provider and possibly other students (Cyrs, 1997; Moore & Kearsley, 1996).

A large number of the studies have shown that distance courses are not as effective as conventional courses (Phipps & Merisotis, 1999). Thomas Russell, director emeritus of instructional telecommunications at North Carolina State University, examined distance education research studies looking for evidence that distance learning is superior to classroom instruction. Dr. Russell found, after reviewing over four hundred studies, that no matter what media or methods were used the results of the studies showed “no significant difference” (Russell, 2001).

There is also research comparing distance education to conventional instruction, which indicates that teaching and studying at a distance can be as effective as traditional forms of instruction if there are meaningful student-to-student interactions, when the methods and technologies are selected to match the instructional tasks, and when there is

prompt teacher-to-student feedback (Moore et al., Thompson, 1990; Verduin & Clark, 1991; Bachman, 1995; Task Force on Distance Education, 1992).

A common understanding of terminology is a crucial to advancement in any field (Clark & Clark, 1977). Analysis of distance education has been, "characterized by confusion over terminology and by lack of precision on what areas of education were being discussed or what was being excluded" (Keegan, 1996, p. 23). Many terms have been used to describe distance education including: "'Correspondence study', 'home study', 'external studies', 'independent study', 'teaching at a distance', 'off-campus study', 'open learning'…"(Keegan, 1996, p. 23). With so many terms describing distance education, one may wonder where did the term come from and what are the connotations of the different uses of this term?

The English term *distance education* is derived from the following terms: German "fernunterricht," French, "télé-enseignement," and Spanish, "educación a distancia," and predates the use of the term, "independent study" (Moore & Kearsley, 1996, p.24). Distance education has been used as a generic term for the field of education, which included a range of teaching and learning strategies used by "correspondence colleges, open universities, distance departments of conventional colleges or universities and distance training units of corporate providers" ((Keegan, 1996, p.34). "In the United States the term, *distance learning*, has come to be used as a global term for the use of electronic technologies in distance education" (Keegan, 1996, p. 37). Keegan chose to use the term distance education because, "Distance teaching and distance learning are each only half the [educational] process we are seeking to describe" (1996, p. 37). "Distance education is a suitable term to bring together both the teaching and learning elements of this field of education" (Keegan, 1996, p. 38). Burbules and Callister noted that using the term, distance education, interchangeably with the term, online education,

could cause confusion. They pointed out an example of misunderstanding that was caused by using these terms interchangeably in a report by the American Association of University Professors, which set out proposed intellectual property rights for online faculty and then stated, '[D] istance education may apply to both on- and off-campus courses and programs" (Burbules & Callister, 2000, p.275).

Moore and Kearsley (1996) choose a "working definition" of distance education, which will serve as the definition of *distance education* in this research,

> Distance education is planned learning that normally occurs in a different place from teaching and as a result requires special techniques of course design, special instructional techniques, and special methods of communication by electronic and other technology, as well as special organization and administrative arrangements (p. 2).

While the terms WWW, Internet, and online have been defined differently by different individuals, in common usage, these terms are often used interchangeably (e.g. McGreal, 1997). Being *online* means being in direct communication with a remote computer or computer system, which enables communication and the transfer and exchange of information (Chute, Thompson & Hancock, 1999). The Internet originated in 1969 as a U.S. Department of Defense project. This project was taken over in 1986 by the National Science Foundation, which upgraded the Internet in the United States with high-speed, long-distance data lines (Barron, 1999). The first version of the World Wide Web (WWW), or Web, was run in 1990 and made available on the Internet by Tim Berners-Lee and his colleagues in the summer of 1991 (Crossman, 1997). Chute et al. (1999) defined the Web as,

> A virtual library of video, audio, and textual data and information is stored on the computers of the Internet. These data are accessible to anyone with a modem, a personal computer, a way of connecting to the Internet (through a private or public Internet Service Provider, and a computer application program or 'software' called a browser designed to allow a person to explore Web resources (p. 221).

Porter defined the Web as a system that allows access to information on sites all over the world using a standard, common interface to organize and search for information (1997) and Driscoll stated that the Internet was a subset of the WWW through which people could exchange data and communications (1998). Barron differentiated between the Internet and the WWW,

> The Internet is a worldwide telecommunications system that provides connectivity for thousands of other, smaller networks; therefore, the Internet is often referred to as a network of networks. The World Wide Web (first developed in 1991) connects these resources through hypermedia, so you can jump immediately from one document or resource to another with an arrow key or a click of a mouse button (1999).

Confusion about terminology withstanding, the World Wide Web (WWW), or Web is being utilized as a teaching tool or learning environment by a growing number of higher education faculty members.

WEB-DELIVERED DISTANCE EDUCATION

Barron (1998) defines a *Web-enhanced* course as a campus-based course that makes use of the World Wide Web (WWW or Web) and a *Web-delivered* course as one where all course activities take place on the Web. With increased public and institutional access to computers and high-speed Internet connections, Web-enhanced courses are becoming the norm rather than the exception, and Web-delivered distance education course enrollments are exploding (U.S. Department of Education, 1999; 2003). The boundaries between on-campus and "distant" instruction are becoming less defined, and diverse terms such as “Web-based instruction,” (Khan, 1997) “virtual university,” (Schank, 1999) “distributed learning," (Graham, 2006; Oblinger, Barone, & Hawkins, 2001) “electronic learning," (Cisco, 2001; ASTD, 2005) and "blended learning," (Bonk & Graham, 2006; Allen & Seaman, 2003) have emerged to describe Web-enhanced and Web-delivered courses, programs and institutions.

A description of one type of Web-delivered education, “Web-based instruction” (WBI) was offered by Khan,

> Web-based instruction (WBI) is a hypermedia-based instructional program, which utilizes the attributes and resources of the World Wide Web to create a meaningful learning environment where learning is fostered and supported (1997, p. 6).

Relan and Gillani’s definition of WBI was more concerned with strategies and paradigms,

> We define WBI as the application of a repertoire of cognitively oriented instructional strategies implemented within a constructivist (Lebow, 1993; Perkins, 1991) and collaborative learning environment, utilizing the attributes and resources of the World Wide Web (1997, p. 43).

Terminology such as “virtual” defined in the Encyclopedia of Educational Technology as "computer-generated existence” (Hoffman, 2001) and “E-learning” defined by Cisco as “Internet-enabled learning,” (2001) have emerged and also are being utilized to describe electronically delivered or online distance education.

The American Society for Training and Development's online *Learning Circuits Glossary* defines the term, *virtual*, as: "Not concrete or physical. For instance, a completely virtual university does not have actual buildings but instead holds classes over the Internet" (ASTD, 2005). Keegan explained that the “virtual university,” (1996, p. 9) is “based on (electronically) teaching face-to-face at a distance” (p. 9). He explained, “The theoretical analyses of virtual education, however, have not yet been addressed by the literature: is it a subset of distance education or to be regarded as a separate field of educational endeavor?” (Keegan, 1996, p.9)

The ASTD online glossary defines E-learning (electronic learning) as a:

> Term covering a wide set of applications and processes, such as Web-based learning, computer-based learning, virtual classrooms, and digital collaboration. It includes the delivery of content via Internet, intranet/extranet (LAN/WAN),

> audio- and videotape, satellite broadcast, interactive TV, CD-ROM, and more (2005).

Cisco Systems, Inc. a worldwide leader in networking for the Internet claims that, "E-learning will be the great equalizer in the next century, by eliminating barriers of time, distance, and socio-economic status, individuals can now take charge of their own lifelong learning" (2001). Connick stated,

> For the first time in its history, new demographic realities and a formidable new culture are challenging the very foundation of traditional culture. The new culture is based on the power and the dynamic nature of information technology and communication, which combined, allow us to deliver education anywhere, at any time to anyone who needs it (1997, p. 9).

A virtual library of video, audio, and textual data and information is stored on computers and this changing and growing library is daily becoming more and more accessible to anyone with a personal computer, a method of connecting to the Internet through a private or public Internet Service Provider, and a computer application program or 'software' called a browser, which is designed to allow a person to explore Web resources.

The shift from time and location dependent education, and the industrial age educational paradigm based on individualism and competition, to the networked learning environments where learners and faculty can control the pace and time of their participation is causing a concurrent shift in the models of teaching as well as learning. Under the old paradigm, collaboration and exchange among students was considered disruptive or dishonest but in networked learning environments teamwork and collaboration are the most crucial skills (Bonk & Cunningham, 1998). This paradigm shift is being fostered by networked technologies, which provide the means for learners to interact with their peers, experts, and resources around the world.

Networked learning is also causing a shift in faculty roles, "The instructor, armed with a textbook, is no longer the sole resource in the learning experience" (Chute et al., 2003, p. 297). Harasim et al. borrow from Scardamalia and Bereiter (1991) to describe the shift in learner and faculty roles in more detail,

> "Networks enable the teacher to become a facilitator, providing educational structures, and guiding the learner in accessing the data and organizing the information into knowledge. While recognizing the role of authoritative information and teacher guidance, many new network learning systems aim to give learners increased control and agency in the knowledge-building process" (Harasim et al., 1997, p. 272).

A major difference between Web-delivered and conventional education is the way communication between teachers and learners occurs, "The use of technology to carry the messages of teachers and students, rather than relying on face-to-face lecture, discussion and the blackboard, is what makes distance education so novel to most people" (Moore & Kearsley, 1996, p.10). *Synchronous* communication and *asynchronous* communication are terms that have been utilized to define two basic ways of thinking about communication in Web-delivered learning environments.

Asynchronous and Synchronous Communications

Asynchronous communication, often utilized by instructors of Web-delivered courses, provides flexibility to students and teachers by allowing them to participate at different times and from different locations (Connick, 1999). Harasim et al. (1997) cite advantages of asynchronous networked communications such as: ease of linking with international counterparts and control over time and pace of participation, and indicate that the quality of interactions in online courses is enhanced by asynchronous communication due to, “increased opportunities to reflect on the message being received or being composed” (1997, p.273). Harasim et al. also maintain that a major advantage

of online or networked education is the opportunity to participate "actively and frequently [which] is not possible in the time-dependent face-to-face classroom" (p. 273).

Synchronous communication is a term used to describe simultaneous group learning experiences where all parties of the educational endeavor participate at the same time. Another term used to describe synchronous communication is real time. Participants in distance learning environments can achieve real time communication via interactive audio or audio-videoconferencing from a classroom to one or more remote classrooms. These synchronous events require that students attend at a specified time and place. Synchronous communication can also be achieved by the use of television; computer based online chat rooms, and Web-based videoconferences in which students communicate at the same time but from different locations (Connick, 1999).

Computer mediated, "distributed" learning communication technologies now allow high fidelity synchronous real-time conversations, that were once only possible in face-to-face learning situations, and more and more ways of facilitating human interaction online are emerging such as: computer-supported collaboration, instant messaging, virtual communities, computer-supported collaboration, and blogging (Graham, 2006). The Internet, a fast changing and growing learning habitat, is ripe for research on the changing and developing role of the instructor (McIsaac & Gunawardena, 2001).

Online Teaching and Learning

After World War II, the baby boom and the advent of the GI Bill with the return of veterans, hundreds of new higher education institutions were created. Approximately 90 percent of students were between the ages of eighteen and twenty-one for several decades, and then during the 1970's the industrial economy of the United States began to be replaced by a service and information economy. Colleges, in response to societal

needs and demands, began to recruit adults as the number of eighteen year olds began to decline. Only 52 percent of college students were in the eighteen to twenty-one year old group by 1997 (Connick, 1997). The majority of distance learners were over 25 years of age in 1999 and approximately 60% were women, and most had completed some education beyond high school. These students found the ability to learn, at times and places convenient to them, better suited to their educational and training needs than having to attend face-to-face courses (Connick, 1999).

Older or "non-traditional" learners are receptive to distant asynchronous and interactive learning environments, because many of them are struggling to balance the responsibilities of home, work and school. Many advocates for distance education including Chute, et al. are of the opinion that distance-learning courses are ideal for both academic environments and work environments. These advocates see the expansion of distance learning via the WWW as the answer to preparing workers for a lifetime of learning in this technologically driven world, as does Connick,

> As technology explodes and reshapes the workplace, today's job skills will become obsolete, as tomorrows jobs require a completely new set of worker skills. All of these changes require changes in the way workers are trained or re-trained (1999, p. 3).

Online education may not be appropriate for every student, yet at the beginning of the 21st century, students in record numbers are flocking to enroll in online courses and programs. These online courses and programs are expanding exponentially and becoming an integral part of the curriculum at many institutions of higher education (Allen & Seaman, 2005; US Department of Education, 1999) and workplace training environments (Chute et al., 1999). This increase in the number of online students is also increasing the need for faculty members who are willing and able to teach online courses. Some educators view online teaching as a "cultural change" for faculty and stress that

faculty who move to online teaching need to re-conceptualize their ideas about what is effective teaching and what is effective learning (Cini and Bilic, 1999, p. 38). Bonk, Cummings, Hara, Lee and Fischler (2001) described the complexity of Web-based instruction,

> What Web-related decisions do college instructors face? Dozens. Hundreds. Perhaps thousands! There are decisions about the class size, forms of assessments, amount and type of feedback, location of students, and the particular Web courseware system used. Whereas some instructors will want to start using the Web with minor adaptations to their teaching, others will feel comfortable taking extensive risks in building entire courses or programs on the Web (p. 57).

Online education has been described using a variety of terms with entire books devoted to the "Web-based" medium of instruction (Brooks, 1997; Khan, 1997, 2001; Hall, 1997; Driscoll, 1998). Corporate and nonprofit training settings as well as higher education institutions are embracing online education, especially *blended learning*, which was recognized as "the single-greatest unrecognized trend in higher education today" (Young, 2003 p. A33). The American Society for Training and Development in 2003 identified blended learning as one of the top ten trends in education today (Bonk & Graham, 2006). There are many ways to understand and define blended learning such as combining delivery media or instructional modalities (Bersin & Associates, 2003, Orey, 2002); combining instructional methods (Driscoll, 2002; Rossett, 2002); Combining online and face-to-face instruction (Graham, 2006; Rooney, 2003; Ward & LeBranche, 2003). Graham's working definition, "Blended learning systems combine face-to-face instruction with computer mediated instruction" (2006, p. 5) and encompass the combination of two historically separate models of pedagogical practice and learning theory, while focusing on the key role of computer-based technologies.

The Alfred P. Sloan Foundation published this goal for their "Anytime, Anyplace Learning" initiative,

> Our goal is to make available high quality learning, education and training, anytime and anywhere, for those motivated to seek it. Our program is based on Asynchronous Learning Networks (ALN) through which a learner uses Internet access for instructors, classmates, and course materials. (Mayadas, 2004)

The Sloan Consortium (Sloan-C), a consortium of institutions and organizations funded in part by the Alfred P. Sloan Foundation, encourages the collaborative sharing of knowledge and effective practices to improve online education in learning effectiveness, access, affordability for learners and providers, and student and faculty satisfaction. According to Sloan Consortium's 2003, survey of online learning, both students and institutions of higher education are embracing online education. The survey found that 57 percent of academic leaders, "Believe that learning outcomes for online education are equal to or superior to those of face-to-face instruction" (Allen & Seaman, p.3).

The 2004 Sloan-C survey, *Entering the Mainstream: The Quality and Extent of Online Education in the United States, 2003 and 2004,* reveals:

> "The online enrollment projections have been realized, and there is no evidence that enrollments have reached a plateau. Online enrollments continue to grow at rates faster than for the overall student body, and schools expect the rate of growth to further increase (Allen & Seaman, 2004)."

The report indicates that a sizable majority of the institutions agreed that students are as satisfied with online courses as they are with face-to-face offerings and judge the online learning outcomes to be equivalent or superior to face-to-face instruction at most institutions (Allen & Seaman, 2004).

The 2005 Sloan-C survey, *Growing by Degrees: Online Education in the United States, 2005,* indicates that course and program offerings in online education have entered the mainstream of higher education with sixty-five percent of schools offering graduate face-to-face courses also offering graduate courses online and sixty-three percent of schools offering undergraduate face-to-face courses also offering undergraduate courses

online. "Overall online enrollment increased from 1.98 million in 2003 to 2.35 million in 2004...over ten times that projected by the National Center for Educational Statistics for the general postsecondary student population" (Allen & Seaman, 2005, p.3).

Allen and Seaman report that online education is showing wide adoption across post-secondary certificate, associate, bachelors, masters, doctoral, and professional programs. Most discipline areas are represented online with business programs having the highest penetration rates closely followed by liberal arts and sciences, general studies, humanities, computer and information sciences. Survey evidence indicates that a greater proportion of online courses are taught by core faculty than by adjunct faculty, which reputes that claim that has been made by some that moving college programs online would lower course quality and cause core faculty to lose their jobs. However, Allen and Seaman's findings for faculty acceptance of online learning are less clear, with a slim majority of academic leaders agreeing that their faculty accept the value and legitimacy of online education (Allen & Seaman, 2005). This finding leads us to wonder, what dynamics are involved in faculty acceptance and participation in distance learning?

Dynamics of Faculty Participation in Post-Secondary Distance Education

During the early 1990's institutional faculty reward systems in higher education came under scrutiny (Diamond & Adam, 1993). Boyer (1990) raised concerns about the changing roles of the professoriate and the nature of scholarship. Research related to faculty participation in distance education has been primarily focused on two distinctive areas: faculty motivation to participate in distance education and barriers to their participation (Burnham, 1988; Dillon & Walsh, 1992; Maguire, 2004) and faculty attitudes and perceptions toward distance education (Clark, 1993; Olcott & Wright, 1995; Piotrowski & Vodanovich, 2000; Schifter, 2000a & 2000b; Wolcott, 1997). Garrison

(2004) says that creating conceptual models and taxonomies to allow us to better understand the online world that we create and work in is one of the most important tasks of today's distance education researchers and scholars.

Researchers Dillon and Walsh (1992) set the stage for studying faculty motivation and participation in distance education by reviewing twenty-four studies that included findings related to faculty motivation, barriers to participation, and institutional incentives. They concluded: institutions fail to commit to and support distance education, faculty perceives that distance teaching is not rewarded, and intrinsic factors motivate faculty to teach at a distance. While they criticized the literature for failing to have a systems framework, where both professional development and improving the institutional environment for teaching were equally supported, their cited research created a foundation for further inquiry into factors that motivate or inhibit faculty participation in distance education learning initiatives (Wolcott, 2003).

PEDAGOGY AND ONLINE LEARNING

Moore (1996) described distance education as a complex system of institutional, social, technical and individual components and reminded us that online learning can be and should studied from the point of view of the teacher and the pedagogical theories that underpin classroom practice (in Bonk & Graham, 2006). Incorporating pedagogical principles into eLearning has recently emerged as an important and pressing focus for research (Mehanna, 2004).

Many higher education faculty members are finding various ways to incorporate the web in their teaching such as: posting lecture notes and course syllabi, establishing discussion forums, and utilizing article and journal links. Twigg (2000) found that many online courses were moved online and organized the same as face-to-face courses delivered on-campus, utilizing traditional practices such as tape recording of lectures, and

many e-learning tools only provide templates and "...Guidelines for warehousing students and providing static course material" (Bonk & Dennen, 2003, p. 332). According to Bonk & Dennen (2003) today's instructors need new tools to foster critical and creative thinking skills if they are to tap into the new pedagogical frameworks that tap the power of the Internet for learning. Tools for creating rich situations for collaborative knowledge building, reflection, debate, information seeking and sharing, and problem based learning are often overlooked in the design of standard courseware (Bonk & Dennen, 2003).

Many faculty members don't have, or don't make time to find the assistance they need to design rich constructivist learning environments, which have emerged from psychological research (Alexander & Murphy, 1994) as the way to create online learner centered instruction (Bonk & Dennen, 2003). Online and blended learning courses are diverse, as are the varying degrees of effort that is expended when moving face-to face courses online.

"Shovelware" is a term given to content taken from any source that is hastily thrown onto a Web site with little regard to layout, design, or usability (Wikepedia, Whatis.com). While an growing number of faculty are developing different types of online or blended courses, many are shoveling their face-to-face courses or course materials online without knowing about the pedagogical changes that have evolved since the beginning of distance education in the mid-1800's through today's high bandwidth interactive computer technologies (Awalt, 2003; Bonk & Dennen, 2003; Bonk, Graham & Cross, 2006).

Basiel states that constructivism is the dominant theory supporting the design of virtual learning environments (VLEs) and student-centered VLEs are increasingly taking on a problem/project based approach (2006). Table one can be used as a tool to compare and contrast pedagogy in relation to technological changes (Basiel, 2006).

1st Generation Correspondence /Transmission Model (Industrial)	2nd Generation Broadcast model (OU – BBC TV)	3rd Generation Computer Mediated Conferencing	4th Generation Blending of 1-3 generations	5th Generation Artificial Intelligence Managed Learning Environments
> Mass production / high quality content > Course team (instructional designer, graphic artist, editors, manager, etc.) > Behaviorist Learning Theory: scaffolding > Personal self-paced > Sense of isolation > Screen for Paper / email for post > Stand-alone: not taking advantage of the web	> Cognitive learning theory > Limited interaction with tutor > CD-ROM resources Libraries of digital learning objects	> Constructivist learning theory > Individuals as members of learning groups	> VLEs: - Provide retrieval of web content - CMC (computer mediated conferencing) - Locally distributed processes (i.e. – face-to-face inductions)	> Personalized > Intelligent flexible learning model > Automated Frequently Asked Questions > Integrated systems (i.e. database, VLE, Web Video Conferencing) > Semantic web searching (Berners-Lee 2001) (Taylor 2001)

Table 1 eLearning Generations adapted from Garrison 2004 (Garrison, in Basiel, 2006).

Online and blended learning environments are globally being recognized and contemplated as to their impact on learning and the future of education,

> 'The e-learning e-volution in colleges and universities is a pan-Canadian challenge...the potential of e-learning is clear and that we ignore it at our peril...(it requires) a serious commitment to **understanding the very different features of this medium and the ways it can be used most advantageously to impart learning" (Garrison, D. in Basiel, 2006, p. 3).**

However, research conducted by Inman, Kerwin, and Mayes (1999) revealed that instructors had conflicting attitudes about teaching via distance education technologies.

FACULTY ATTITUDES AND PERCEPTIONS

When attitudes are examined in the context of work, references to job satisfaction often surface:

> Job satisfaction straddles several related attitudes. For example, people experience fairly strong affective or emotional responses to such things as remuneration, promotion opportunities, relations with superiors and colleagues

> and the work itself. In turn, these and related factors could be classified as important causal agents in determining job satisfaction" (McKenna, 1994, p. 282-283).

Walsh (1993) investigated University of Oklahoma's faculty member's attitudes and perceptions toward technology-based distance education and drew seven major conclusions:

> 1. Attitudes toward distance education vary across faculty, without regard to age or number of years teaching.
>
> 2. Peers and personal experience influence faculty attitudes toward distance education. Peer influence is reduced when faculty have personal experience with distance education.
>
> 3. Faculty, regardless of attitude (positive or negative) believe their views are similar to those of their colleagues.
>
> 4. Faculty members are greatly concerned about interaction between faculty and students.
>
> 5. Attitudinal difference toward distance education cannot be explained by any single variable. Attitude is comprised of a series of interrelated factors: exposure; peer influence; barriers and incentive to engaging in distance education; need for distance education; and opportunity and support for teaching a distance education course.
>
> 6. Many faculty members exhibit little knowledge concerning distance education.
>
> 7. Faculty, regardless of attitude, believe that training for faculty who teach through distance education is both necessary and insufficient. This was true regardless of level of knowledge about distance education or about training opportunities currently available.

Maguire (2004) selected thirteen studies for a literature review, aimed at providing information and insight to distance education administrators, related to supporting higher education faculty members that are teaching in Web-based learning environments. Her review examined attitudes of faculty members toward teaching in Web-based learning environments and focused on higher education faculty member's

perceptions of motivators and barriers to online teaching. Maguire's review identified, across the thirteen studies, twenty-nine barriers to faculty participation in online education and fifteen motivators. Wolcott defined barriers to faculty motivation and participation in distance education as "(a) factors found in the environment or institutional context and (b) attitudes and perceptions held by individual faculty that deter them from teaching courses by distance" (2003, p. 553).

FACULTY MOTIVATION AND BARRIERS

Encyclopedia Britannica defines motivation as, "Forces acting either on or within a person to initiate behavior. The word motivation is derived from the Latin term motivus (a moving cause), which suggests the activating properties of the processes involved in psychological motivation" (2005). Researchers have tended to view motivational processes as either mechanistic or cognitive. The first of these assumes that motivational processes are automatic; that is, the organism, human or otherwise, need not understand what it is doing in order for the processes to work. This point of view has achieved considerable popularity. Psychological definitions of motivation highlight two types of motivation, intrinsic and extrinsic. Intrinsic motivation is based on personal values and preferences, and is associated with an activity, which is engaged in freely for personal pleasure or satisfaction without the necessity of material rewards or constraints (Deci & Ryan, 1985). Extrinsic motivation is associated with benefits that stem from a source other than the activity, and is based on the expectation of external benefits or rewards (Deci, Vallerand, Pelletier, & Ryan, 1991).

George Elton Mayo carried out experiments on human behavior at the Hawthorne Works of the Western Electric Company in Chicago between 1924 and 1933 and placed an emphasis on the intrinsic nature of work (Miner, 2002). Mayo's research findings have contributed to organizational development in terms of human relations and motivation

theory. Mayo concluded that work is a group activity and that social world of the adult is primarily patterned about work activity. He also concluded that recognition, security, and sense of belonging, influence workers' morale and productivity more than the physical conditions under which they work. In the work environment, group collaboration does not occur by accident; it must be planned and developed. He postulated that if group collaboration is achieved, then human relations within the work environment might reach a cohesion, which resists the disrupting effect of society (Gillespie, 1991).

Frederick Herzberg and associates conducted a comprehensive review of literature related to job attitudes and satisfaction (Herzberg, Mausner, Peterson & Capwell, 1957) and conducted subsequent research to develop the motivation-hygiene theory, which was based initially on two hypotheses:

> 1. The factors that cause positive job attitudes and those that cause negative attitudes are different.
>
> 2. The factors and the performance or personal consequences associated with the sequences of job events that extend over long time periods differ from those associated with sequences of events of short duration (Miner, 2002, p. 165).

From Herzberg's early research related to motivation to work, two lists of factors leading to job satisfaction or dissatisfaction were developed (two-factor theory). One list consisted of factors that contribute job satisfaction, which he called motivation factors. The other was a list of factors that contribute to job dissatisfaction, which he called hygiene factors. The job satisfaction factors, related to personal growth or self-actualization, which he determined contribute to job satisfaction: achievement, verbal recognition, challenging work, responsibility, and advancement. The job dissatisfaction factors, which he determined characterized the work context, were: company administration and policy practices, the technical quality of supervision, interpersonal

relations with supervision, physical working conditions, job security, benefits and salary (Herzberg, 1959). A second book by Herzberg (1966) recommended that industrial relations departments be organized in two formal divisions, one to deal with hygiene factors and one to deal with motivators. The book described man as possessing two sets of basic needs: animal needs related to survival, and self-actualization needs related to realizing his own potential through psychological growth and described individuals who are dominated by one set or another, such as the mentally ill who are fixated on seeking hygiene needs, and high-growth oriented people who experience unhappiness when they are deprived of motivators. The third book by Herzberg (1976) places emphasis on job-enrichment and extends the two-factor theory to develop typologies of normal and abnormal workers (Miner, 2002).

Researchers have examined intrinsic and extrinsic factors that motivate faculty to become involved in distance education (Clark, 1994; Dillon & Walsh, 1992; Lonsdale, 1993; Wolcott, 1997; 2003). Landy (1989) identified five broad classes of theories that attempt to explain motivation in the workplace: comparison, goal-setting, instrumentality, need, and reinforcement theories and found that instrumentality theories have been most useful in explaining motivation and the interrelationships that impact on job satisfaction. Landy explains the logic underlying the instrumentality theories by stating that people decide to engage in activities if the activities provide something of value: "In that sense, the activity is instrumental in achieving some valued outcome" (1989, p. 379).

Many studies based on instrumentality theories have identified intrinsic or personal motives such as self-gratification, opportunity for faculty to improve their own teaching, professional challenge, effectively reaching more students, and providing students with greater access to education. These studies have also revealed that faculty members are more motivated to teach in distance education programs by intrinsic than

extrinsic reasons (Wolcott, 1997; Taylor & White, 1991; Betts, 1998; Bebko, 1998; Halfhill, 1998; Miller & Husman, 1999; Montgomery, 1999; Rockwell, Schauer, Fritz, & Mark, 1999; Schifter, 2000a).

Extrinsic factors such as: university expectations that faculty participate in distance education, departmental requirements to participate in distance education, and department support for distance teaching efforts, were not found to provide strong motivation for faculty participation in Web-delivered distance education programs (Schifter, 2000b). Kirk and Shoemaker (1999), and Betts (1998) reported the possibility of faculty being externally motivated by financial rewards and research has revealed that institutional faculty rewards and incentives do impact on faculty participation in distance education (Clark, 1993; Dillon & Walsh, 1992; Parer, Croker & Shaw, 1988). However, a large body of evidence indicates that faculty members involved in distance education are not moved to teach online for the money (Wolcott, 2003, 1997; Betts, 1998; and Wolcott & Betts, 1999).

Blackburn's and Lawrence's (1995) research on faculty motivation indicates that individual faculty member's desire to participate in a given activity is determined by individual characteristics or "properties" such as age, race/ethnicity, attitudes, aptitudes, self-knowledge and values, and environmental characteristics or "properties" such as resource access, institutional norms, financial status of institution, and faculty composition.

Few institutional rewards exist for the purpose of motivating faculty to teach distance education courses (Wolcott, 1999; Betts, 1998; Clark; 1993; Olcott and Wright, 1995; Dillon and Walsh, 1992; Smith, Eddy, Richards & Dixon, 2000). However, the credibility of the distance learning course or program, "still rests on full-time faculty even if there are small numbers of these faculty who choose to participate in distance

education programs" (O'Quinn and Corry, 2004, p. 14). Diamond (1993), Edgerton (1993), Fairweather (1993) and Mingle (1993) analyzed reward structures such as faculty expectations, workload, and tenure practices. They concluded that academia has typically relied on extrinsic rewards (Lonsdale, 1993) favoring research and providing little recognition for teaching scholarship.

INSTITUTIONAL INCENTIVES AND BARRIERS

Historically, during the 1930's criticisms of academia began to surface (Hutchins, 1936) and continued during the ensuing decades. Holland (1985) portrayed academe in the 1960's and 1970's as bitter episodes in the history of American higher education and during the late 1980's Bloom's book, *The Closing of the American Mind* (1987) fomented considerable public criticism of the American higher education system, in fact "…popular opinion has been coaxed to distrust the college professor and pay scant attention to faculty satisfaction" (Hagedorn, 2000, p. 5). The 1990's ushered in considerable discussion about institutional reward systems, which raised concerns about the changing role of the professoriate and the nature of scholarship (Wolcott, 2003).

Olcott and Wright (1995) asserted that faculty resistance to distance education has mainly the result of lack of institutional support frameworks for training, compensating, and rewarding distance teaching faculty, "Commensurate with those traditional instructional roles" (p.5). Clark (1993) divided barriers to faculty participation in distance education into three major categories: administrative, economic, and technical barriers. Four major barriers to participation of college faculty in online instructional settings were identified by Bonk: time to learn technology, shortages of instructional development grants and stipends, limited recognition by departments and institutions in promotion and tenure decisions, and minimal instructional design support (2001).

Contextual and environmental barriers to faculty participation in distance education, which are associated with the institutional setting, are typically outside of faculty control, and involve poor or nonexistent aspects of institutional support (Wolcott, 2003) such as: lack of rewards (Awalt, 2003; Montgomery, 1999), lack of incentives (Awalt, 2003; Bolduc, 1993; Halfhill, 1998), lack of administrative or technical support (Awalt, 2003; Bebko, 1998; Betts, 1998; Halfhill, 1998; Montgomery, 1999), lack of adequate compensation (Wolcott & Haderlie, 1995), lack of adequate information (Montgomery, 1999), lack of policy or commitment to distance education, (Bebko, 1998; Halfhill, 1998) and lack of training (Awalt, 2003; Bonk, 2001; Schifter, 2000).

The Commission on Institutions of Higher Education (CIHE) in an effort to support best practices among institutions provided a statement of what is considered current best practice in electronically offered distance education degree and certificate programs (2000). The "*best practices*" are divided into five separate components, each of which addresses a particular area of institutional activity relevant to electronically offered degree and certificate programs:

1. Institutional Context and Commitment
2. Curriculum and Instruction
3. Faculty Support
4. Student Support
5. Evaluation and Assessment.

(Commission on Institutions of Higher Education, 2000, p. 2)

The CIHE statement indicated that faculty roles in electronically offered degree and certificate programs are increasingly reorganized and diverse. "For example, the same person may not perform both the tasks of course development and direct instruction

to students. Regardless of who performs which of these tasks, important issues are involved" (2000, p. 9). The CIHE statement details four important faculty support issues:

> 3a. In the development of an electronically offered program, the institution and its participating faculty have considered issues of workload, compensation, ownership of intellectual property resulting from the program, and the implications of program participation for the faculty member's professional evaluation process. This mutual understanding is based on policies and agreements adopted by the parties.
>
> Have decision regarding these matters been made in accordance with institutional or system processes customarily used to address comparable issues?
>
> 3b. The institution provides and ongoing program of appropriate technical, design, and production support for participating faculty members.
>
> What support services are available to those responsible for preparing courses or programs to be offered electronically? What support services are available to those faculty members responsible for working directly with students?
>
> Do participating faculty members consider these services to be appropriate and adequate?
>
> Does the staff include qualified instructional designers? If so, do they have the appropriate role in program and course development?
>
> 3c. The institution provides to those responsible for program development the orientation and training to help them become proficient in the uses of the program's technologies, including potential changes in course design and management.
>
> What orientation and training programs are available? Are there opportunities for ongoing professional development?
>
> Is adequate attention paid to pedagogical changes made possible and desirable when information technologies are employed?
>
> Give the staff available to support electronically offered programs, are the potential changes in course design and management realistically feasible?
>
> Do those involved consider these orientation and training programs to be adequate?

> 3d. The institution provides to those responsible for working directly with the students the orientation and training to help them become proficient in the uses of the technologies for these purposes, including strategies for effective interaction.
>
> What orientation and training programs are available? Are there opportunities for ongoing professional development? Do those involved consider these orientation and training programs to be appropriate and adequate?

Tack & Pattu (1992) recommended that topics of faculty job satisfaction, recruitment, and retention command immediate attention in the face of projections of serious shortages of qualified higher education faculty for the 21st century,

> "Consequently, institutional officials and current faculty in higher education must recognize the factors that lead to job dissatisfaction among faculty and eliminate them; conversely, they must recognize the factors that increase job satisfaction and enhance them" (Tack & Pattu, 1992, p. iii).

Barriers to faculty participation in electronically offered educational programs, coupled with increasing student demands for and enrollments in such programs, create a pressing need to identify factors that contribute to faculty job satisfaction in electronically delivered degree programs to help institution understand how to attract and retain skilled online faculty. Online education is becoming a critical part of institutions long-term strategies with sixty-five percent of higher education institutions using primarily core faculty instead of adjunct faculty to teach their online courses (Allen & Seaman, 2005). Hensel stressed the importance of higher education's faculty's job satisfaction by linking it to our national well-being,

> The well-being of the university depends on its ability to recruit and retain a talented professoriat. Our national well-being depends on our ability to develop a happy, emotionally healthy, and productive next generation (1991, p. 79).

While the concept of job satisfaction is a topic of interest in both non-profit organizations and business, the concept is convoluted and complex and there are few theoretical models to understand, predict or explain job satisfaction (Hagedorn, 2000).

The Construct of Job Satisfaction

Organizational researchers have been intrigued by employee satisfaction with work for decades (Fields, 2002). Locke defined an individual's job satisfaction as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (1976, p.1300). Motowidlo (1996) portrayed job satisfaction as an individual judgment associated with information stored in memory. Consistent with this and other definitions found in organizational literature, Spector suggested that job satisfaction is a general or global affective reaction that individuals have to their work situation and defines job satisfaction as, "the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs" (1997, p.2). Brief expanded Locke's definition to include cognitive as well as affective aspects of job satisfaction, "job satisfaction is an internal state that is expressed by affectively and/or cognitively evaluating an experienced job with some degree of favor or disfavor" (1998, p.86). Brief's definition of *job satisfaction* was selected for this research because this definition broadens the approach to individual job satisfaction to include affective aspects of job satisfaction. Brief's definition is consistent with earlier definitions, but unlike earlier definitions, his definition can easily be expanded to a collective or group level of analysis by changing the wording to, "job satisfaction is a 'shared internal state' that is expressed by affectively and/or cognitively evaluating 'shared job experiences' with some degree of favor or disfavor" (Brief, 1998, p. 86).

Research studies have examined antecedents of job satisfaction, dimensions of job satisfaction, relationships between job satisfaction and outcomes such as retention or productivity. Analysis of job satisfaction at the organizational level has show that organizations with high levels of job satisfaction outperform other organizations (Fields,

2002). Job satisfaction is a multifaceted construct related to employee's feelings about intrinsic and extrinsic job elements (Howard & Fink, 1996). The extent of job satisfaction can be reflected by how well the job meets individual worker's preferential expectations in a mix of features such as autonomy, pay, and promotion (Porter & Steers, 1973). Agho, Mueller and Price (1993) and Pearson (1991) focused on the impact of job satisfaction on employee's absenteeism, commitment, intentions to quit, and turnover and found that unmet employee expectations lead to less job satisfaction and a greater probability of withdrawal behavior. Across studies the proportion of variance in turnover related to levels of satisfaction may be smaller than predicted (Hom & Griffeth, 1991; Lee, Mitchell, Holtom, McDaniel & Hill, 1999). Satisfaction with facets of meaningful work and promotion opportunities were significant predictors of intentions to quit a job (Fields, 2002).

Certain aspects of the work can be determinants of job satisfaction (Arvey, Carter & Buerkley, 1991) such a job level, which is positively correlated with overall job satisfaction, because higher-level jobs tend to have higher pay, better working conditions, more opportunity for promotion, autonomy and responsibility (Fields, 2002). Employee's perceptions about aspects of their work environment such as job content, management climate, and employee influence on work group can also explain job satisfaction. While personal characteristics such as gender, age, educational level did not explain the variance in work satisfaction, beyond the variables describing the job situation (Robie, Ryan, Schmieder, Parra & Smith, 1998).

The differential effects of affective disposition on job satisfaction was tested by Judge and Hulin (1993) and found to be an antecedent to general well-being, which was reciprocally related to job satisfaction. The effects of life satisfaction on job satisfaction

were found to be larger than the effects of job satisfaction on life satisfaction in a longitudinal study conducted by Judge and Watanabe (1993).

Numerous measures of job satisfaction have been developed to measure overall or global job satisfaction or satisfaction with aspects or facets of a job, or a combination of global and facet measures such as Wright and Bonnet's (1992) research that averaged facet measures together to give a global measure. Many studies have utilized one or more of the following measures of job satisfaction: *Overall Job Satisfaction* (Cammann, Fichman, Jenkins & Klesh, 1983; *Job Satisfaction Relative to Expectations* (Bacharach, Bamberger & Conley, 1991); *Minnesota Satisfaction Questionnaire* (Weiss, Dawis, England & Lofquist, 1967); *Job in General Scale* (Ironson, Smith, Brannick, Gibson & Paul, 1989); *Overall Job Satisfaction* (Taylor & Bowers, 1974); *Overall Job Satisfaction* (Judge, Boudreau & Bretz, 1994); *Global Job Satisfaction* (Quinn & Shepard, 1974), modified by Pond & Geyer (1991); *Job Satisfaction Survey* (Spector, 1985); *Job Satisfaction Index* (Schriesheim & Tsui, 1980); *Job Perception Scale* (Hatfield, Robinson & Huseman, 1985); *Overall Job Satisfaction* (Brayfield & Rothe, 1951); *Job Diagnostic Survey* (Hackman & Oldham, 1974); *Job Descriptive Index* (Smith, Kendall & Hulin, 1969), updated by Roznowski, 1989; *Satisfaction with Job Facets* (Andrews & Withey, 1976); *Global Job Satisfaction* (Warr, Cook & Wall, 1979); *Career Satisfaction* (Greenhaus, Parasuraman & Wormley, 1990); *Employee Satisfaction With Influence and Ownership* (Rosen, Klein & Young, 1986); *Satisfaction With Work Schedule Flexibility* (Rothausen, 1994); *Pay Satisfaction Questionnaire* (Heneman & Schwab, 1985); *Index of Organizational Reactions* (Dunham & Smith, 1979); and *Satisfaction With My Supervisor,* Scarpello & Vandenberg, 1987 (Fields, 2002).

Organ and Near (1985) and Brief (1998) raised significant methodological questions about the ability of these conventional measures of job satisfaction to capture

both affective and cognitive evaluations. Organ and Near concluded that conventional measures were cognitively laden (1985). These measures, focused on employee perceptions and attitudes, ask employees to choose pre-selected responses and try to capture meaningful aspects of individual perceptions and the employee's evaluation of these perceptions, which according to Fields, "Is tacit recognition of the difficulty of the task at hand" (2002, p.xxi). The previous list of job satisfaction measures, are validated measures. However, not one of these measures was developed and investigated with higher education faculty members as the sample focus, and not one, with faculty members who are teaching online. My literature reviewed surfaced no research which has examined the relationship between the type of pedagogy used and related that to online faculty members' job satisfaction.

Yet, today more than ever, there is a need to look closely at the issue of faculty job satisfaction according to Tack and Patitu (2000). The need to examine causes and constraints of faculty job satisfaction is combined with what many have called a pedagogical shift for faculty members to shift from lecturing and providing information to serving as facilitators of learning, functioning to help students find and make sense of information (Chute et al., 2003; Harasim et al., 1997; Garrison, 1989; Kearsley, 2000).

FACULTY JOB SATISFACTION

According to Bonk (2001) and Bonk & Dennen (2003) there are key elements that will decrease these common barriers to Web-based learning in college settings: time to learn the technologies, limited recognition of online learning in promotion and tenure decisions. These key elements, which include: providing instructional design and technical support, recognition, facilitating collaboration, and online sharing of pedagogical practices, can also increase the use of Web-based technologies. Tack and Patitu predicted a shortage of perspective college faculty by the year 2000 and urged that

the topic of faculty job satisfaction and making faculty positions more attractive to women and minorities become a high priority. Their research indicated that women faculty members were less satisfied with their positions than male faculty members, because women were being forced to sacrifice more in terms of their personal lives in order to meet the demands of their families and their jobs. Tack and Patitu's findings also indicated that ethnic minority faculty members were less likely to be tenured, had lower salaries than whites, felt isolated and less supported, and often encountered racism and prejudice (1992).

The National Study of Post-Secondary Faculty (NSOPF) is a large nationally representative database compiled by the National Center for Education Statistics (NCES). NSOPF: 1999 and NSOPF: 2004 are the two most comprehensive studies of faculty in postsecondary United States institutions of higher education. The NSOPF was conducted to provide data about faculty to researchers, planners, and policymakers because,

> Faculty are the pivotal resource around which the process and outcomes of postsecondary education revolve. They often determine curriculum content, student performance standards, and the quality of students' preparation for careers. Faculty members perform research and development work upon which this nation's technological and economic advancement depends. Through their public service activities, they make valuable contributions to society. For these reasons, it is essential to understand who they are, what they do, and whether, how, and why they are changing. (NCES, 1999, p. 5)

Hagedorn formulated a conceptual framework of faculty job satisfaction, based in part on Herzberg's two-factor theory, and data which she derived from case studies of various members of community college and higher education institutions, and suggested factors that promote job satisfaction for higher education faculty. Hagedorn derived and validated her conceptual framework using the 1993 National Study of Postsecondary faculty. Hagedorn's (2000) research established, "…that positive college environments produce important positive outcomes for all players, including students" (p. 6).

Hagedorn's Conceptual Framework

The 1999 NSOPF contractor, The Gallup Organization, made the questionnaire available on the World Wide Web and strongly encouraged respondents to complete the Web version. The National Science Foundation and the National Endowment supported the survey research. Hagedorn (2000) utilized the NCES Data Analysis System (DAS), a software application that allows users to produce tables and correlation matrices from NCES data sets, in designing a multiple regression equation to provide evidence of the predictive ability of the mediators in her conceptual framework. The analysis of data from the NSOPF (1993) established validity for her conceptual framework, and the results indicated that the model was highly significant ($p < .0001$). The highly predictive mediators were the work itself, salary, relationships with administrators, student quality and relationships, and institutional climate and culture. Hagedorn's conceptual framework is depicted in Figure 1.

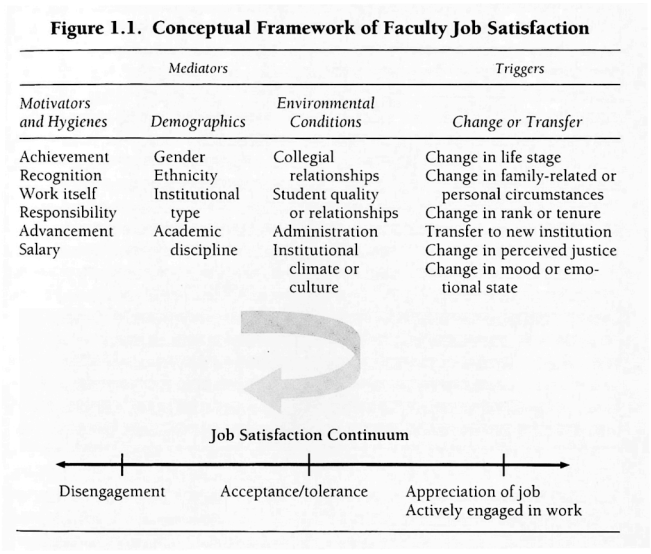

Figure 1. Linda S. Hagedorn's Job Satisfaction Conceptual Framework in *What Contributes to Job Satisfaction Among Faculty and Staff*, 2000, p. 7.

CHAPTER III: METHODOLOGY

The main purpose of this study is to discover elements that contribute to the job satisfaction of online higher education faculty that are teaching online. I will discuss, in this chapter, how the purpose of this study will be achieved. First, I provide an overview of the methodology for this study, in the "Methodological Overview." The second section, “Site and Participant Selection,” describes the rationale for the selection of the setting of the study and the criteria for selection of the study participants. The third section, "Data Sources and Collection,” addresses the data sources and data collection methods. The fourth section, “Data Analysis,” details the specific procedures that will be utilized for analyzing the data collected during the course of this study. The final section, “Trustworthiness,” describes the strategies the researcher will utilize to ensure the trustworthiness of the research.

Methodological Overview

Qualitative methods will be use in this exploratory study to explore interactions related to the common experiences of higher education faculty members that are teaching online courses to understand factors that contribute to the job satisfaction of these faculty members. This study is exploratory because little is known about what constitutes job satisfaction for higher education faculty members that are teaching online courses. Qualitative methods are the best choice for this research because qualitative methods allow the researcher to listen to the views of the research participants, while focusing on the natural setting or context, such as the online program or classroom, in which participants express their views. Qualitative research methods are unsurpassed for

research problems where the variables are unknown and need to be explored (Creswell, 2005). Qualitative methods permit the researcher to approach the fieldwork without being constrained by predetermined categories of analysis, and allows the researcher to study the selected issue in depth and detail, which contributes to the depth, openness, and detail of the qualitative inquiry (Patton, 1990).

This study is situated within a constructivist paradigm where the researcher takes the position that, as Schwandt (1998) states, "…human beings do not find or discover knowledge so much as construct or make it" (p. 237). The constructivist paradigm recognizes the complex nature of the multiple realities and that there is no single, unique "reality" but only individual perspectives. Erlandson, Harris, Skipper and Allen (1993) emphasize that since no two contexts are identical, full generalizability within this paradigm "ignores the unique shaping forces that exist in each context" (p. 17).

A theoretical framework based on the paradigms, and naturalistic strategies of Constructivist *Inquiry* (Guba and Lincoln, 1994) and the perspectives, designs and methods of *Constructivist Grounded Theory* (Charmaz, 2000) was developed to situate the methodology for this research study within the qualitative research literature (see figure 2, p. 48).

CONSTRUCTIVIST INQUIRY

Constructivists believe that the mind is active and constructs knowledge, and that humans do not find or discover knowledge, but rather, make knowledge. Constructivists are committed to the view, "That what we take to be objective knowledge and truth is the result of perspective. Knowledge and truth are created, not discovered by mind" (Schwandt, 1994, p. 236). Constructivism in this research refers to research encompassed within the interpretivist paradigm, constructivism being the belief that the known world has no meaning except for what is attributed to it by individuals. Constructivist research

aims to understand, "The complex world of lived experience from the point of view of those who live it" (Schwandt, 1994, p. 221).

Lincoln & Guba (1985) first discussed their approach to the constructivist paradigm as *naturalistic inquiry* and heralded in the postpositivist era as a challenge to positivism, with naturalistic inquiry being an alternative paradigm to the conventional or scientific paradigm of inquiry. They acknowledge in the preface to their book, *Naturalistic Inquiry*, that the paradigm they presented should not be considered a completed product, "It is more profitably seen as a snapshot in time of a set of emergent ideas" (Lincoln & Guba, 1985, p. 9). True to this vision, in the late 1980's Guba and Lincoln began using the term *constructivism* (1989, p. 19) to describe their methodology (Guba & Lincoln, 1994).

Constructivist inquiry begins with the issues or concerns of the participants and "...Through dialectic of iteration, analysis, critique, reiteration, reanalysis, and leads eventually to a joint (among inquirer and respondents) construction of a case (i.e., findings or outcomes" (Schwandt, 1994, p. 243). The joint constructions that issues from the inquiry can be evaluated for a "fit" with the information or the data it encompasses and the extent that the constructions "work" or provide a credible level of understanding, and the extent to which they have "relevance" and are "modifiable" (Guba and Lincoln, 1989).

Research Paradigm (Underlying belief system or philosophy) *Constructivism*	**Perspective** (Researcher's point-of-view) *Constructivist*	**Research Strategies** (Collection of methods) *Constructivist Inquiry* *Constructivist Grounded-Theory*	**Research Methodology** (Principles and procedures that govern the use of research methods) *Qualitative*	**Research Methods** (Procedures, tools, techniques used to generate data) *Questionnaire* *Semi-structured interview* *Document analysis* *Hermeneutics* Empathetic interaction between researcher and participants Interpretation and interaction.
Generalizability Not a primary goal, made on a case-by-case basis by the reader of the report **Nature of Data** Verbal representations of reality, with a focus on the study of cases and thick description **Data Analysis** Analysis using verbal, visual, and inductive approach **Establishing Trustworthiness** **Credibility** a) Prolonged engagement b) Triangulation (sources, methods, theories) c) Member checks (process & terminal) d) Peer debriefing e) Thick description **Transferability, Dependability & Confirmability** f) A-e above & reflexive journal	**Ontology** (Researcher's assumptions about reality) *Constructivist* *Relativist* *Multiple/Holistic* Multiple realities constructed by individuals. **Epistemology** Relationship between the knower and known, *Subjectivist, Interactive*. Researcher and subject are interdependent.	**Constructivist Inquiry** (Guba & Lincoln, 1994) **Constructivist Grounded-Theory** (Charmaz, 1999 & 2000) *Grounded-Theory* *(Glaser & Strauss, 1967)* *(Strauss & Corbin, 1990, 1998)*	**Data Sources** 1. Electronic open-ended questionnaire 2. Semi-structured interview 3. Additional documents a) Public program & course Records b) Researcher's field notes c) Reflexive journal of researcher **Data Gathering** 6. Audio recording of interview (in person or telephone) & transcription 7. Program and course documents 8. Field notes 9. Reflexive journal **Recursive Data Analysis** 10. Transcription of interview, field notes, reflexive journal 11. Import in to qualitative software program 12. Constant comparative method of coding/and data analysis	**Background Questionnaire** 1. Literature review 2. Develop questionnaire 3. E-mail invitation for participation 4. Stage one electronic background questionnaire data collection 5. Import in to qualitative software program 6. Constant comparative method of coding/and data analysis 7. Contact stage two participants and arrange for follow-up semi-structured interview **Semi-Structured interview** 8. Literature review 9. Develop interview protocol 10. Conduct and record interviews 11. Constant comparative method of coding/and data analysis **Document Storage & Analysis** 12. Obtain & analyze program and course documents (recursive process) 13. Create annotated bibliography and organized storage system for program and course documents 14. Field notes from program and course documents to provide description of context and further identify important issues 15. Import notes, excerpts, quotes, or entire passages into to qualitative software program 16. Constant comparative method of coding/and data analysis

Figure 2. Overview of Research Theoretical Framework

CONSTRUCTIVIST GROUNDED THEORY

Constructivist Grounded Theory stresses flexible strategies, acknowledges participant and researcher roles, and emphasizes the meanings and individual perspectives of the participants, while following Strauss and Corbin's (1998) ideal of developing theory derived from the data gathered and analyzed through the research process (Strauss & Corbin, 1998, p. 12). Grounded theory is a general methodology for developing theory that is grounded in data systematically gathered and analyzed. Theory evolves during actual research, and it does this through continuous interplay between analysis and data collection (Charmaz, 2000).

Charmaz proposed the constructivist approach to Grounded Theory as a philosophical position between the positivist stances of Glasser & Strauss (1967) and Strauss and Corbin (1990) and postmodern researchers who challenge the importance of methods. Glasser, trained in quantitative research and the inductive development of theory; and Strauss, trained in the tradition of qualitative field research evolved the grounded theory approach out of their work with terminally ill patients. Strauss later teamed with community nursing researcher, Julie Corbin and developed a more prescriptive and systematic approach of grounded theory research focusing on predetermined categories and concerns about reliability and validity (Creswell, 2005).

The constructivist approach to grounded theory, proposed by Charmaz, blends the rigor of grounded theory approaches, which offer clear guidelines that can be used to build explanatory frameworks and move each step of the analytic process forward to the development, refinement, and interrelation of concepts, but assumes the relativism of multiple social realties and the co-creation of knowledge by the researcher and participants. Using flexible, heuristic strategies, rather than formulaic procedures

Constructivist Grounded Theory emphasizes action, process, meaning, and emergence within symbolic interactionism, pragmatically accepting an array of sensitizing concepts from other perspectives (Charmaz, 2000). Rich data is drawn from multiple sources such as conversations, formal interviews, public records, organization reports, respondents, and researcher's reflections. Coding begins with the collection of data as does the definition and categorization of data in what Glaser (1992) called the constant comparative method.

Setting

The setting where online faculty work can have significant impact on the phenomenon of job satisfaction as each Web-based course platform is unique and complex. A detailed understanding of the central phenomenon can best be developed by allowing the researcher to focus on the meaning each participant holds related to the construct of job satisfaction by asking general, open questions and collecting data in the environment where each faculty member works. The constructivist/phenomenoenolgical orientation underlies qualitative methods (Guba & Lincoln, 1994; Tashakkori & Teddlie, 1998).

SITE AND PARTICIPANT SELECTION

The selection of the setting and participants for this research is a purposive sampling (Mason, 2002; Patton, 2002) that aims to select groups that display variation on the phenomena under investigation. The sampling is aimed at ensuring that key constituencies are represented and diversity is included, so that the construct of online teaching satisfaction can be explored in detail in the specified context (Ritchie & Lewis, 2003).

The setting of this research will be a large United States university system's online graduate level programs. Representatives of the University system's online support system will be asked to facilitate the sending of an e-mail request for volunteers (see Appendix A: Request for Volunteers). The reasons for choosing the setting for this research include a) all of the online courses are taught by faculty members employed by institutions of higher education, which will allow for extensive investigation of the construct of job satisfaction with online faculty members who teach both traditional and online courses in degree granting institutions of higher education b) the researcher's accessibility to online faculty members c) the researcher's familiarity with the structure and technologies of the institution's graduate online education programs.

During the first stage of this research seventy-five graduate program faculty will be asked, via email, to fill out the consent form indicating their informed consent and willingness to fill out an *Online Faculty Background Questionnaire*. After analysis of the questionnaire data, 12-15 volunteers from various graduate programs and institutions will be selected based on diversity in discipline, program, site location, age, teaching experience, gender, and pedagogical philosophy. The researcher will contact all second stage volunteers to let them know if they will be included the second stage *Semi-Structured Interview* phase of the research. The researcher will then schedule appointments for face-to-face or phone interviews with selected participants. The *Online Faculty Background Questionnaire* is in Appendix B. The interview protocol is in Appendix C: *Online Faculty Semi-Structured Interview* protocol and the consent form is in Appendix D: *Consent Form*.

Data Sources and Collection

The data sources for examining the research questions will include (a) background information collected via the background pre-interview questionnaire, (b) face-to-face or phone interviews with the participants, (c) public online program documents posted on the university's Web site.

Data collection will occur in two stages. Stage one participants will complete the online background questionnaire (approximately 30 minutes). Stage two volunteers will participate in a semi-structured interview (approximately 60 minutes); program documents will be collected and analyzed during the first and second stage. To ensure that the data collected from the stage two semi-structured interview reflects the participant's perspective accurately, the section of the final report, which summarizes data for the individual participant, will be sent to the participant for review, further input, corrections, and clarification.

Data Analysis

To analyze data the researcher will utilize Constructivist Grounded-Theory line-by-line coding procedures proposed by Charmaz (1995; 2000) as well as adapted open coding, axial coding, and selective coding procedures that were proposed by Strauss and Corbin (1998) for developing grounded theory. Data collected from the background questionnaire and from each interview will be followed immediately by importation into the qualitative software program for analysis. As analysis proceeds, the data that emerges from the research will be compared with previous data and will be utilized to guide subsequent data gathering. Action codes will be generated, reviewed, and modified by utilizing the constant comparative methodology described by Charmaz (2000) for comparing different participant's views, situations, actions, accounts and experiences;

comparing each participant's data with previous data by utilizing a time-sensitive approach and comparing each occurrence with previous occurrences; data to category comparison; and category to category comparisons.

The selected software tool is an easy-to-use qualitative data analysis software package for coding, annotating, retrieving and reviewing textual data. The software will be utilized to assist the researcher in managing the large numbers of documents of this research, which have combined numerical and categorical information. The qualitative software provides a wide range of exploratory tools to identify patterns in codings and relationships between assigned codes and other numerical or categorical properties. The tool's Rich-Text format for documents, support for font and paragraph formatting, graphics and tables, is combined with the fact that documents and data may be edited at any time without affecting the existing coding, and imported and exported in numerous file formats (MS Word, WordPerfect, RTF, HTML, MS Access, Excel and more). The software as a research tool has advanced integration features, which will allow the data collected in this research to be seamlessly utilized in future qualitative or mixed methods research. The functionality of the qualitative tool, with other tools for advanced quantitative content analysis, text-mining and statistical analysis, provides for the combination and integration of qualitative and quantitative methods, and enhances, rather than diminish the qualitative Constructivist Grounded-Theory approach of this research.

Some researchers (i.e., Coffey, Holbrook & Atkinson, 1996; Charmaz, 2000; Lonkila, 1995) express concerns about qualitative data analysis computer programs promoting a superficial view of grounded theory, overemphasizing coding, and fostering illusions that interpretative work can proceduralized. They suggest that computer-assisted analysis may dehumanize data analysis (Charmaz, 2000). Charmaz draws from a 1998, personal communication that Yvonna Lincoln sent to her students to support her

reservations about using qualitative software for data analysis, '"Why would you want to engage in work that connects you to the deepest part of human existence and then turn it over to a machine to 'mediate'?"'(Charmaz, 2000, p.520) However, this researcher's technology expertise, and experience with the use of qualitative software (Williams, J.G., 2001; 2002; Wenrick, Youker; Williams & Schneider, 2006) argues that it not the tool, which drives data analysis, but the mind of the researcher. Qualitative software, as a tool in the hand of a capable researcher, will not remove the text from its conceptual origins or the constructions and interpretations of the researcher, or as, "fragments on the screen... take on an existence of their own" (p. 521), as Charmaz (2000) fears, because whole documents, with line-by-line codes are available for viewing or printing via the qualitative software. While I may not spread out my data on a large table, as Lincoln does (Charmaz, 2000, p. 530), I have no qualms about being able to utilize the software as an effective tool for gaining a sense of the whole as well as for assembling the parts. Self-made millionaire and legendary stock trader, Bernard Baruch aptly stated,

> Only as you do know yourself can your brain serve you as a sharp and efficient tool. Know your own failings, passions, and prejudices so you can separate them from what you see (Grant, 1997).

The first procedure for analyzing data gathered will be open coding. The aim of open coding is to discover, name, and categorize phenomena according to general or specific characteristics or attributes of a category and to construct the range along which general properties of a category or construct vary, as well as to define the dimensions of the category or construct. During open coding, data will be broken down line-by-line, closely examined and compared for similarities and differences. Sensitizing concepts, which are the background ideas that offer ways of seeing, organizing and understanding experiences will be utilized and action codes will be developed (Charmaz, 2000). Job satisfaction data that are related in meaning or conceptually similar in nature will be

grouped under categories. Closely examining data for both differences and similarities will allow for fine discrimination and differentiation among categories. Open coding leads to axial coding, which is the process of reassembling data that is broken down into categories or individual constructs during open coding.

During axial coding, the job satisfaction categories or constructs will be related to subcategories of constructs for forming more precise and complete explanations of the phenomena of the research participants' perceptions of job satisfaction. A category may stands for a phenomenon such as a significant job satisfaction mediator or trigger in Hagedorn's conceptual model or new constructs may emerge during the research. Subcategories that emerge will be utilized to answer questions about the phenomenon of online faculty job satisfaction such as the traditional journalistic questions of who, what, when, where and how. Additional questions that emerge will be developed and used in an effort to expand the power of explanation and thick-description. During axial coding the researcher will use the qualitative software for laying out the properties of a construct, the dimensions of a construct, and to identify the actions, interactions, consequences, and variety of conditions and emerging categories or constructs related to the phenomenon of online faculty members' perceptions of job satisfaction. Finally, categories or constructs will be organized through relational statements, all the while searching for cues in the data that denote how major and sub categories or constructs relate to each other.

The last procedure of data analysis is selective coding, which is the process of integrating and refining categories. During selective coding, categories will be organized around central explanatory concepts that represent the main themes that emerge during the research. To integrate the coding process the researcher will utilize techniques such as writing and relating the participant's stories to central facets or elements, using diagrams, and reviewing field-journal notes and the reflexive journal written by the researcher,

throughout the data gathering and analysis process. Once the key concepts are delineated, the researcher will refine the analysis, filling in poorly developed categories and integrating and combining categories to diverge from, validate, or extend the conceptual framework by comparing it to raw data collected during the research and also by presenting the individual summaries to participants for their reactions and input in the process of member-checking.

Trustworthiness

In the scientific or quantitative research paradigms, truth-value is equated with internal validity, "The extent to which observed differences on the dependent variable in an experiment are the result of the independent variable, not some uncontrolled extraneous variable or variables" (Ary, Jacobs & Razavieh, 1996). The corresponding qualitative term for this aspect of rigor is credibility, which Erlandson, Harris, Skipper, & Allen (1993) note, "is essentially its ability to communicate the various constructions of reality in a setting back to the persons who hold them in a form that will be affirmed by them" (p. 40).

To insure credibility of my findings, and to minimize possible distortions that may result from my presence, I will sustain engagement with the research participants to the point of data saturation, all the while using the grounded-theory process of recursive examination of research data, and recording my observations in field notes. Lincoln and Guba (1985) utilized the term "prolonged engagement" (p. 301) to address this aspect of rigor. To address possible distortions that could arise from my involvement with the research participants, I will utilize peer debriefing with a team of disinterested peers, my peer-debriefing team, and a reflexive journal where I will record thoughts, decisions, questions and insights related to the research. During this research, the peer-debriefing

team will review data generation techniques, procedures, and data analysis, which includes confirming or disconfirming emergent themes, and provided editing suggestions for the final research report.

To address distortions that could arise from employment of data-gathering techniques I will carefully record data, and continually scrutinized the data for internal and external consistency utilizing "structural corroboration" (Eisner, 1979, p. 215) and the technique of "triangulation" (Guba & Lincoln, 1985, p. 283) to address truth vale in this research. Eisner first utilized the term structural corroboration to describe,

> "…A process for gathering data or information and using it to establish links that eventually create a whole that is supported by the bits of evidence that constitute it. Evidence is structurally corroborative when pieces of evidence validate each other, the story holds up, the pieces fit, it makes sense, and the facts are consistent" (Eisner, 1979, p. 215).

Lincoln and Guba later (1985) explained that structural corroboration or triangulation of data sources is a matter of crucial importance in qualitative studies. They stressed that the researcher needs to take steps to validate each new piece of information in a research study, against at least one other source. In this research, I will utilize structural collaboration by validating information in one interview with information in subsequent interviews. "A naturalistic study involves an inseparable relationship between data collection and data analysis. An assumption of the naturalistic researcher is that the human instrument is capable of ongoing fine tuning in order to generate the most fertile array of data" (Erlandson et al, 1993). To fine tune data collection and analysis I will utilize the constant comparative method of unitizing the data and assigning categories (Charmaz, 1983, 1995; Glaser, 1978, 1992) to analyze the data gathered during this study.

First, I will prepare the interview transcripts for importation into the software system. Next, the constant comparative method of unitizing the data and assigning

categories involved in making a coding system will began. I will unitize and coded data into categories or factors, which cause participants to have perceived job satisfaction or job dissatisfaction, and define and redefine these factors in a recursive process as I import each new document into the software system. I will unitize all data recursively reviewing previous documents and revising the emerging factors accordingly. In this stage, after the common factors are firmly established, I will arrange and examined the emergent categories for common factors, while recursively defining the emerging categories of factors that contribute to online faculty job satisfaction. After the data generation and the initial unitizing of data is completed, the peer debriefing team, and I will review data and categories. I will then group together the categories of factors discussed at greatest length and recursively code and arrange the constructs in emergent categories and winnow and format this information for audience use. This reconstructive process is the foundation for establishing the credibility of the research.

APPENDICES

Appendix A: Request for Volunteers

Joanne G. Williams, a doctoral candidate at the University of Texas, Austin, in the Department of Curriculum and Instructional, Instructional Technology Program, needs volunteers for her dissertation research study aimed at a better understanding of the pedagogical philosophies of online faculty members and their perceptions about what contributes to or inhibits their job satisfaction. Faculty issues have been largely ignored in distance education research until recently. Institutions of higher education are embracing online instruction, however many academic leaders perceive that faculty acceptance of online education to be conservative. The new modes of producing and delivering instruction often result in added dimensions of faculty work, which challenge the existing institutional systems for acknowledging and rewarding faculty for their teaching, research, and service. Results of this research could help institutions to attract, assist, and retain faculty members for their online distance education programs and may make teaching online a better experience for future online faculty.

Joanne is seeking faculty members who are teaching courses for the Master's Level Programs offered through the University System. During data collection and in the final report identity of faculty members will be kept confidential by replacing names with pseudonyms. Each participant will be asked to complete a short online background questionnaire and to participate in a phone or face-to-face interview, on your campus, which will take approximately one hour. You will be given the opportunity to read the final section of the report that relates to your interview to ensure that the information for

the final report accurately portrays your perspective. You will also receive a copy of the final report.

If you are willing to participate in this study please send Joanne an e-mail at joawilli@utexas.edu.

Appendix B: Online Faculty Background Questionnaire

INSTRUCTOR BACKGROUND INFORMATION

1. First Name _____ **MI** _____ **Last Name** _____

2. Mailing Address _____

3. Office Phone _____

4. Other Phone number(s) where I have permission to contact you:

Home _____ **Mobile** _____

5. E-mail Address _____

6. Institution _____

7. Campus _____

8. Discipline/Degree Program _____

9. Tenure Status

Tenured

On tenure track but not tenured

Not on tenure track

10. Number of years you have been teaching in higher education institutions _____

11. Years of online teaching experience _____

12. How many online courses have you taught prior to teaching online at your present institution

_____

13. How many online courses have you taught online at the institution where you are now working

_____

14. Have you won any awards for your online or face-to-face teaching?

Yes

No

15. If you answered yes to #17 please describe the awards you have won and detail if the award was for an online or face-to-face course

16. What is your Gender?

Male

Female

17. In what year were you born?

19

18. Which race or ethnicity best describes your heritage?

19. What is your native or first language?

20. What other languages do you speak fluently?

Computer Use

How much experience have you had with each of the following types of computer operating systems? [Drop down menu: None, A little, Moderate Amount, Very Experienced, and Expert]

21. Unix

22. Linux

23. Windows

24. Apple Computer

25. Which of the above do you use at home? (drop down menu items from 19-23)

26. Which of the above do use at work? (drop down menu items from 19-23)

For how many years, if at all, have you had a computer at your home?

An Internet Connection? If you don't have a computer or Internet Connection please select 0.

27. Computer at home **years (drop down menu 0-40)**

28. Home Internet connection - **years (drop down menu 0-30)**

Teaching Philosophy

The following paragraphs describe two different faculty member's online courses, Dr. Ray and Dr. Green. Answer each question below the course descriptions by checking the box under the column that best answers the question for you.

Dr. Ray's online course Web-site has a copy of the course syllabus and a series of lecture notes that can be downloaded and printed by the students. Students are expected to view a video-tape of each of Dr. Ray's lectures, and read the course textbook. Students take online quizzes as specified in the syllabus and a final examination over the course lectures and readings. Students are allowed to e-mail questions related to the lecture content to Dr. Ray, which he answers within one week.	**Dr. Green's online course Web-site asks students to solve problems and create projects. The online materials include a map of the course with project submission deadlines and grading criteria, which includes a rubric for each project. Students grade themselves and their peers on collaborative group participation, must write reflective papers, and participate in regular online chat and question and answer sessions with Dr. Green.**

	Definitely Dr. Ray's	**Tend Towards Dr. Rays**	**Can't Decide**	**Tend Towards Dr. Greens**	**Definitely Dr. Greens**
29. Which type of course are you more comfortable teaching?					
30. What type of course do you think most students prefer to take?					
31. From which type of course do you think students gain more knowledge?					
32. From which type of course do think students gain more useful skills?					

Higher Education faculty members have described very different teaching philosophies. For each of the following pairs of statements, check the box that best shows how closely your own beliefs are to each of the statements in a given pair.

33. "I mainly see myself as a facilitator. I try to provide opportunities and resources to my students"		**"That's all nice, but students really won't learn the subject unless you go over the material in a structured way. It's my job to explain, to show students how to do the work, and to assign specific practice."**

34. "The most important part of instruction is the content of the curriculum. That content is the judgment about what students need to know and be able to do."		**"The most important part of instruction is that it encourages "sense-making" or thinking among students. Content is secondary."**
35. "It is critical for students to become interested in doing academic work-interest and effort is more important than the particular subject-matter that they are working on."		**"While student motivation is certainly useful, it should not drive what students study. It is more important that students learn the skills I have outlined in my course syllabus."**

(Note: Selected Modified Computer Use Questions and Selected Modified Teaching Philosophy Questions from Teaching, Learning and Computing: 1998 A National Survey of Schools and Teachers Describing Their

Best Practices, Teaching Philosophies, and Uses of Technology, with permission from the author: Henry J. Becker, University of California, Irvine) ***Include copy of e-mail permission in appendix.***

Appendix C: Online Faculty Semi-Structured Interview

INTRODUCTION:

What you share in this interview will be kept confidential. You may be identified in the study report in a way that will not reveal your individual identity such as, "a college of education tenure-track faculty member said," or "an adjunct engineering faculty member said," so please tell me what you really think and feel; this will be the most helpful in trying to find out how to improve things for online faculty members in the future. I will be tape recording the interview to try to make sure that we have an accurate record of your views and I also will be taking a few notes for the same purpose.

Do you agree to allow me to tape-record this interview?

If NO: I will now turn off the audio recorder

I will then ask for permission to take notes and continue with the interview protocol

If YES: Thank you, I will proceed with the interview

INTERVIEW INFORMATION

Date of interview: **Time**: from_____to_____

First Name: **MI**: **Last Name**::

TEACHING ONLINE OVERALL SATISFACTION OR DISSATISFACTION

1. In what ways are you satisfied as a faculty member teaching an online course at _____ (institution)?

2. In what ways are you dissatisfied as a faculty member teaching an online course at _____ (institution)?

ONLINE COURSE(S) INFORMATION

(probe responses)

3. Which course or courses have you developed and/or taught online?

**Probe for each one*

-previously offered before development for online?

-when developed?

-how was it developed?

-specific times the course was offered?

4. Why have/are you teaching this (these) course(s) online?

Choose the <u>one that has been taught most often</u> or has <u>otherwise been pre-chosen as the focus for the rest of the interview.</u>

5. Course name number and sections:

6. How many times have you offered this course online?

7. Asynchronous media used: *[If applicable]*

8. Synchronous media used: *[If applicable]*

9. Do you have any face-to-face meetings with students enrolled in this course? y/n

a. If yes, how often do you meet during the semester? _____

b. The purpose of each face-to-face meeting?

10. Number of students completing the last offering of online class:

11. Number of students withdrawing from the last offering of online class

Ideal Online Learning Classroom

12. Describe the ideal online learning classroom.

13. Based on that description how do you feel you are doing on moving to creating the ideal online learning classroom for _____(discipline/course)?

Online Students

14. Are there changes in the composition of students taking your online classes vs. campus-based classes?

- such as those from other countries taking the course, age etc.?

- if so, how has this affected your feeling of satisfaction in relation to teaching the online course vs. the face-to-face course (if applicable)?

15. Do you think those students in your online sections online courses learn more or more, or less than students in your face-to-face classes (if applicable) ?

-probe for each response- why?

Online Interactions

16. How do you feel about interacting with your students online using technological communication tools such as the conferencing system, email, chats, etc. ?

-how have your experiences have changed over time?

17. How does this compare with communicating face-to-face with student?

-how have your experiences have changed over time?

18. Have you had to change your teaching personality or teaching style to fit the online environment?

-If yes, in what ways?

-how do you feel about this?

-how have your experiences have changed over time?

Online Course Activities

19. Consider the various assignments or weekly activities that you include in your course. Do these activities result primarily in

-individual student work?

-small group work?

-whole class activities?

20. How satisfied are you with the (each response from question 22) _____ activities in your online course?

Satisfaction with Time Spent

21. Describe your feelings about the amount of time that you spend teaching this online course?

-preparation?

-communicating with students?

-grading and other ancillary activities?

-would you say that in total you spent more time than you would have on a face-to face class? (if applicable)

-estimate the number of hours each week you would normally spend if you taught this course face-to-face? (if applicable)

-estimate the number of hours each week you spend teaching this course online? (if applicable)

PROFESSIONAL DEVELOPMENT AND SOCIAL INTERACTIONS

19. In what ways has online teaching impacted your interactions with other faculty members, and interactions about your courses?

-such as by comparing your course to others on the Web, or exchanging ideas?

20. Has online teaching affected your own professional development?

-if so, in what ways?

-how has this impacted on your feelings of satisfaction as a faculty member at _____

(institution).

21. Has online teaching affected your relationships with _____ (department) or_____ (institution) administrators?

-if so, how?

-how has this impacted on your feelings of satisfaction as a faculty member at _____ (institution).

SATISFACTION WITH INSTITUTIONAL SUPPORT

Developing the online course

25. Describe the assistance that you were offered by _____ *(name of institution) to* help you develop and teach this online course? [interviewer lists]

-funding

-resources

-advice

-technological support

-other

26. Describe your satisfaction with the following resources that you told me were offered to you.

-go over each item listed in question 12 probing for satisfaction with each

27. What assistance would have made developing this online course a more satisfying experience for you?

Technological aspects

28. Are you satisfied with the reliability or response time or other aspects of the course tools and course management systems you are using for your class?

-if yes, describe the reliability, response time, or other aspects of the course tools and course management system(s) that contributed to your feelings of satisfaction.

- if no, describe your dissatisfaction with the reliability, response time, or other aspects of the course tools and course management system(s) and how this impacted the effective and efficient operation of your online course.

29. Are you satisfied with current course platform/software and hardware being used to teach the online course?

-if yes please describe the features of the software & hardware that are satisfactory

-if no please describe the features of the software & hardware and other features that are unsatisfactory and what you would like to see available

30. Describe your feelings about the technology support for

-the computer software/courseware used for the online course

-computer hardware and other technology used for your online course

31. What would have made you more satisfied with the support for?

-the computer software/courseware used for the online course?

-computer hardware and other technology used for your online course?

BARRIERS & FACILITATORS TO ONLINE TEACHING

32. What are the barriers to your teaching of online courses at _____ (institution)?

33. What are the facilitators to your teaching online courses at _____ (institution)?

ADVICE

34. What advice would you give to a faculty member in your department who is thinking of trying to develop and deliver an online course?

35. Is there anything you would like to add about what contributes to your satisfaction as with teaching online for _____ (name of institution)?

CLOSING THE INTERVIEW

THANK YOU VERY MUCH FOR YOUR PARTICIPATION. I will be transcribing this interview and providing you a summary of the interview, for clarification and/or further input. Would you prefer that I provide your copy:

- via e-mail?

-postal mail?

-both.

If you have any further thoughts before you receive the summary, please feel free to email me at joawilli@mail.utexas.edu or via phone at 512.619.2803.

-send follow up postal thank you card/gift with my e-mail address, address, mobile phone number

RESEARCHER'S INTERVIEW NOTES

A. Comments about the conduct, tone, progression of the interview etc.

-was participant comfortable and forthcoming, reticent, hostile etc?

-were there interruptions or other events that changed the pace or effectiveness of the interview?

-what are my feelings & perceptions about the person I interviewed and the interview conduct, tone, progression etc.?

-what else occurs/emerges as a result of this interview?

B. Comments on interview protocol

-problems encountered, any thing I would possibly change before I use this protocol again

Appendix D: Consent Form

What Contributes to and Inhibits Job Satisfaction for Online Higher Education Faculty: An Exploratory Study

Dear Faculty Member,

You are invited to participate in an exploratory research project. My name is Joanne G. Williams, and I am currently a doctoral candidate at the University of Texas, Austin, in the Department of Curriculum and Instruction, Instructional Technology Program. While a significant body of literature has been created concerning teacher job satisfaction, few researchers have explored the construct of job satisfaction related to faculty participation in Web-based distance education. The purpose of this research project is to better understand online faculty members and their perceptions about what contributes to or inhibits their job satisfaction with online teaching. This research will occur in two stages:

(1) During the first phase you will complete a Web-based questionnaire, which is being used to gather background information about your, your computer use, and teaching beliefs. (approximately 30 minutes). During the first stage of the study you will be asked if you are willing to participate in the second stage.

(2) During the second stage you will participate in a face-to-face or telephone interview (approximately 60 minutes). I will audio tape the interview.

The data collected from the background questionnaire and the interview will be compiled into a report and your identity will not be revealed. I will replace your name with a pseudonym during coding and in the final report to insure confidentiality. The digital audio files will be coded with the pseudonym and will be kept secured in a locked file cabinet. I will be transcribing the audio files, and they will not be used for any other

purpose without your written consent. At the conclusion of this study, the audio files will be kept in a locked filing cabinet for possible future analysis. Your participation in this study will be confidential, and there are no foreseeable risks or discomforts. Your responses will not be linked to your name in any written or verbal report of this research project. To ensure that data collected during the interview accurately reflects the participant's perceptions, the section of the final report, which summarizes data collected from you, will be sent to you for review, further input, corrections, and clarification.

Possible benefits of this research include contributing to a better understanding of online faculty members' computer use, pedagogical philosophies, and elements that contribute to or act as barriers to their job satisfaction. This information could help institutions to identify, plan for, and provide support and services to increase online faculty member's job satisfaction. Additionally, this knowledge could help institutions, which are delivering or considering delivering Web-based courses, to attract, train, and retain talented online instructors.

If you have any questions about this study you can contact me by e-mail, joawill@mail.utexas.edu or by telephone at 512-619-2803. This research report will be submitted as a final project for my dissertation study at the University of Texas at Austin. My advising professor for this study is Paul E. Resta, Ph.D., and he can be reached at 512-471-4014, by e-mail, resta@mail.utexas.edu, or in writing at: The University of Texas at Austin, Learning Technology Center, College of Education, 1 University Station D5900, Austin, TX 78712. A copy of this consent form will be sent to your e-mail address to confirm your participation in the study.

Your signature indicates that you have read the information in this letter and have decided to participate in this study. You may withdraw from this study at any time. Please notify me verbally or in writing if you decide to withdraw from this study. Making

a decision not to participate will not affect your relationship with the University of Texas System or your home campus. If you have questions or would like to read your interview summaries or a copy of the report, please contact me via telephone (512-619-2803) or via email at joawilli@mail.utexas.edu. If you are willing to participate please type your name and date in the space provided, save the document on your computer, and send the saved document as an attachment in an e-mail to me and keep a copy for your records.

I agree to participate in the study.

Name of Participant: _____

Date:_____

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