Perceived Organizational Support for Online Education and its Association with Motivation,

Commitment, and Satisfaction: A Study of Online Teaching Faculty and Organizational

Leaders

A Dissertation

Presented in Partial Fulfillment of the Requirements for the

Degree of Doctor of Philosophy

with a

Major in Education

in the

College of Graduate Studies

University of Idaho

by

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May 2015

Authorization to Submit Dissertation

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a Major in Education and titled "Perceived Organizational Support for Online Education and

its Association with Motivation, Commitment and Satisfaction: A Study of Online Teaching

Faculty and Organizational Leaders," has been reviewed in final form. Permission, as

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Abstract

Problem: Online educational organizations demands highly qualified online teaching faculty who are motivated, committed and satisfied. Little research exists that examines faculty and organizational leaders' perceptions of organizational supports for online education and how that relationship is consistent with organizational support theory. Organizational support theory (Eisenberger, Huntington, Hutchison, & Sowa, 1986) considers the development, nature, and outcomes of perceived organizational support (POS) and forms the theoretical framework for this study.

Research Questions: Are online faculty perceptions of instructional support different from that of organizational leaders of online programs, and, is there a significant predictive relationship between faculty perception of organizational support and motivation, commitment, and satisfaction associated with online education.

Research Method: The study methodology involved a survey based cross-sectional descriptive research design.

Data Collection and Analysis: Participants were selected through a simple random selection process from the population of faculty teaching online courses during fall 2014 at five land grant universities in the northwest region of the United States and the department chairs and/or deans of these faculty. Online faculty and organizational leader's perceptions toward nine organizational support constructs were analyzed using an independent samples t-test ($\alpha = .05$).

Findings: Seven of the nine organizational constructs were found to be statistically different with online faculty perceiving lower organizational support with an average of about .7 points different on a seven point scale. A multiple linear regression was used to determine

the relationship between the nine organizational constructs and faculty commitment, motivation and satisfaction. Incentives, online pedagogy assessment, rewards, course conversion, and technology training were found to be significant predictors for online faculty commitment, motivation, and satisfaction.

Conclusions/Recommendations: Those who teach within the virtual environment need the assistance of the organization to provide the necessary organizational support so they can effectively teach online. These supports include appropriate rewards, incentives, and assessment of work as well as proper technology, personnel support, and opportunities for professional development. With an understanding of these supports, focused efforts to provide support that improve faculty commitment, motivation, and satisfaction will lead to higher quality work and reduces employee turnover.

Acknowledgements

First and foremost, I would like to express my deepest gratitude and appreciation for my major professor Dr. Allen Kitchel, without whose extraordinary effort and generous help this dissertation would not be possible. His foresight and expertise guided and challenged me through the dissertation writing process. Thank you for your patience in guiding me through the process of countless suggestions and modification that my work required. You were able to keep me motivated and on track through some difficult times. It has been an honor to work with you on this project.

Special thanks go to the members of my dissertation committee members Dr. Royce Kimmons, Dr. Anne Kern, and Dr. John Cannon for their valuable comments and suggestions.

I would also like to thank Jasek Maselko for his statistical expertise and guidance.

This journey would not have been possible without the steadfast support of my family and friends. I am thankful for the many prayers, words of encouragement, and dinners for my family that helped me through this process. I am grateful to have so many people who share a genuine interest in my successes.

Dedication

I dedicate this dissertation to my mom, LouAnn Provost. Without her support and

encouragement, I would never have started, or completed, this process. I love and

appreciate all that you have done for me and the example you set.

I also dedicate this to my children, Kylie and Cody Bancroft. Through the long hours that I

spent working on this document while they were patiently waiting and supporting this

endeavor, I truly appreciate you. I am excited to just be your mom again.

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Chapter 1: Introduction

The objective of this chapter is to provide background information about online education, introduce the chosen theoretical framework, present the statement of the problem, and review the purpose of the study. The research questions and the hypothesis will then be presented followed by a discussion of the significance of the research project. The final sections include the study limitations, delimitations, and definition of terms.

Online education has become a standard delivery option for higher education institutions, as well as a popular choice for many students. Online enrollment for higher education institutions in the United States, defined by students taking at least one online course during the school year, has increased from 9.6% of total enrollments in 2002 to 33.5% in 2012 (Allen & Seaman, 2014). In order to adequately support efforts to address this trend, educational leaders of these postsecondary programs will need to recruit faculty members willing and able to teach in the online environment (Hixon, Buckenmeyer, Barczyk, Feldman, & Zamojski, 2012).

Educational leaders of higher education institutions must provide leadership in the use and efficacy of online education as they seek to incorporate this unique delivery model to grow their institutions, while simultaneously seeking to minimize the cost of physical expansion (Lesht & Windes, 2011; Mitchell, 2009; Orr, Williams, & Pennington, 2009). The leadership they provide is fundamental to the success of online education programs (East, LaMendola, & Alter, 2014). Educational leaders contribute to this success in many ways; most importantly is the role they play in the selection of online teaching faculty and the type of professional development program offered to their faculty. According to Hixon, Buckenmeyer, Barczyk, Feldman, and Zamojski (2012), educational leaders need to

understand the unique knowledge and skill sets needed by online instructors and support staff to meet the challenge of providing high quality online programs. Husmann and Miller (2001) indicated that educational leaders should ensure that faculty have a clear understanding of online pedagogy and the differences from face-to-face teaching, and are able to incorporate appropriate technologies into their online instruction. Those who teach online can also benefit from support for course design, training in the use of applications and teaching methods, and technological infrastructure (Bolliger & Wasilik, 2009; Lee, 2002).

Although educational leaders play an important role in the success of an online program, it is the online course instructor who ultimately must implement the delivery of the curriculum. According to Meyer (2006), faculty are essential in the movement to online education. As those on the "front lines" of online course delivery, online instructors can contribute to best practices for online delivery through sharing of their instructional successes, failures, challenges and obstacles.

Effective online delivery requires more from those involved than just knowledge of online pedagogical best practices. Instructors must also maintain high levels of motivation, commitment, and satisfaction in order to be most effective. These traits are also essential for organizational leaders to be effective. Positively perceived organization supports may influence these constructs for both employees, through increased job satisfaction and heightened positive mood, and employers, through increased commitment and performance and reduced turnover (Rhoades & Eisenberger, 2002). Ultimately, motivation, commitment, and satisfaction are important characteristics that have been shown to be positively associated with successful online programs.

Background

Online education has grown in part due to the increasing number of fully online programs that are available to students. Creating engaging and valuable online courses for these programs, whether it is a new offering or an online version of an existing face-to-face course, requires additional time for faculty to conceptualize, develop and deliver as compared to a traditional course. Meyer (2006) discussed this increased time requirement as a concern because faculty time is the most constraining resource for an institution. Besides time considerations, other important factors for online instruction include new methods of course design, innovative ways to include interaction among course participants, and instructor preparation and support (Crawford-Ferre & Wiest, 2012). Course design should focus on both course content and delivery of instruction (Paul & Cochran, 2013). Incentives and rewards that might help to increase faculty participation with online programs include compensation for developing online courses as a subject matter expert, compensation for teaching online courses, providing release time, including fringe benefits, and including online teaching accomplishments for tenure and promotion evaluation (Oomen-Early & Murphy, 2009; Paul & Cochran, 2013; Wolcott & Betts, 1999).

Organizational support for programs that address faculty needs in a comprehensive and ongoing fashion is a prerequisite for successful online program development and growth (Wiesenmayer, Kupczynski, & Ice, 2008). In order to address the needs of faculty, barriers should to be taken into account. Some of the existing barriers to online education include lack of organizational supports, lack of faculty acceptance, lack of student discipline to engage in the online instruction, lower retention rates, and lack of acceptance of online coursework by potential employers. The research literature provides a number of

recommendations for addressing these barriers. Organizational leaders should have a clear understanding of factors such as cost, accessibility, faculty concerns, and academic facilitation that prohibit or permit the implementation of technology-based distance education (Owusu-Ansah, Neill, & Haralson, 2011). To facilitate the development and teaching of online courses, institutions need to provide appropriate organizational leadership, direction, and staff to assist with paperwork and other hurdles (Paul & Cochran, 2013). An instructional design team can be an organizational support that is critical in alleviating faculty anxiety and producing satisfactory student outcomes that meet the needs for accreditation agencies, certification, or higher education standards (Hoffmann & Dudjak, 2012; Paul & Cochran, 2013). Throughout the process, online faculty need to keep pace with technology and continue to find ways to increase the richness of their course offering and should have the desire to experiment with instructional technology in order to continuously improve the quality of their online courses (Paul & Cochran, 2013).

Theoretical Framework

Organizational support theory, as espoused by Eisenberger, Huntington, Hutchison, and Sowa (1986), considers the development, nature, and outcomes of perceived organizational support (POS) and forms the theoretical framework for this study. According to organizational support theory, POS can meet socio-emotional needs and is used by employees to infer the organization's readiness to reward the employee's increased efforts. Workers are seen to act in accordance with the norm of reciprocity, trading their effort and dedication to the organization for POS and its promise of future benefits. According to Eisenberger et al. (1986), POS represents employee beliefs about "the extent to which the organization values their contributions and cares about their well-being" (p. 501). POS

suggests an increase in employee attachment to the organization also increases the expectancy that greater work effort will be rewarded.

Favorable treatment of employees by their employer results in a positive attitude of the employee toward the organization. The positive attitude or emotional link to the organization, results in behaviors by employees that benefit the organization. This cycle then repeats itself (Hutchison, 1997). Hutchison's study indicated that employees distinguish between actions taken by management (i.e., organizational dependability), supervisors (i.e., perceived supervisory support), and the organization (i.e., perceived organizational support) as a whole. Overall job satisfaction and POS are strongly related but distinct constructs (Eisenberger, Cummings, Armeli, & Lynch, 1997). Job conditions that are readily controlled by the employer are more strongly related to favorable POS than job conditions that the employer has little control over. Examples of conditions that are perceived as readily controlled by the employer include fringe benefits, physical working conditions, training opportunities, and recognition of good work. Shore and Shore (1995) state that "Organizational actions which are interpreted by the employee to be symbolic of appreciation and recognition, such as praise, pay increases, promotions, and participation in decision making, contribute to perceptions of organizational support" (p. 149). They then discuss employees' guarded perspective, stating:

> Employees recognize that there is an inherent risk to them in the exchange relationship with their employer, because (1) the employee is the less powerful partner in the exchange, (2) there is often times a delay inherent in employer fulfillment of obligations, and (3) multiple agents may influence whether obligations are fulfilled. (Shore & Shore, 1995, p. 150)

Organizational behavior researchers have consistently found that one's perception of how their organization supports their work highly influences their job motivation and commitment. In turn, motivation and commitment lead to improved work performance (Eisenberger et al., 1986; Shore & Shore, 1995). Through an understanding of this relationship, organizations may be able to shift their resources in ways that increase employee satisfaction and overall productivity (Armstrong-Stassen & Ursel, 2009; Eisenberger et al., 1997; Shore, Tetrick, Lynch, & Barksdale, 2006). Although organizational support theory is most commonly associated with business and industry, its tenants are applicable for educational organizations as well.

Organizational support theory represents a theoretical framework addressing the relationship between perceived organizational support (POS) and employee behaviors, attitudes and beliefs. The theory provided this study a lens and perspective through which online faculty's and organizational leaders' perspectives could be investigated. Of interest is the extent to which a reciprocal relationship exists, in some form of a reciprocal exchange agreement in which the organization supports the faculty in their role as online educators. And, in return, online faculty maintain high levels of motivation and commitment to the organization. "The fulfillment of employee obligations creates the perception that the organization is obligated to reward him or her for behavior which is consistent with organizational goals" (Shore & Shore, 1995, p. 149).

Statement of the Problem

POS has been studied in many different organizations, but little is known about POS among higher education faculty who teach online. An employee's perception of organizational support is reciprocated with an emotional bonding to the organization (i.e.,

commitment), which is followed by behaviors that are valued by the organization

(Hutchison, 1997). These behaviors are rewarded with treatments that tell the employee

they are valued by their organization. POS is correlated with job performance, with

mediating effects of job satisfaction, positive mood, and commitment (Guan, et al., 2014).

Higher education organizations, through organizational leaders who actively seek to increase

POS can increase job performance, as well as motivation, satisfaction, and commitment for

their faculty.

Studies investigating improvement of online education at higher educational

institutions have consistently identified differences between administrators' and faculty's

perceptions of their institutions (Brooks, 2003; Husmann & Miller, 2001; Lee, 2002;

Schifter, 2002). However, there is limited research that has investigated these perceptions as

they relate to perceived organizational support (POS). The perceptions of faculty and

organizational leaders represent the extent of perceived organizational support (POS) that

exists. The significance of POS for online programs can be better understood through its

relationship to faculty motivation, commitment, and satisfaction. An enhanced

understanding of these constructs may inform how and to what extent the perceived

organizational support theory, as articulated by Eisenberger, Huntington, Hutchison, and

Sowa, applies to educational organizations and online programs, and could assist

organizational leaders of online education programs and online teaching faculty to better

develop and deliver online programs.

Purpose of the Study

The purpose of this study was (a) to investigate the relationship between online

faculty perceptions of instructional support and that of organizational leaders of online

programs, and (b) to examine the relationship between faculty and organizational leaders'
perception of organizational support and motivation, commitment, and satisfaction
associated with online education.

Research Questions and Hypothesis

Lee (2000) investigated instructional support for distance education among higher
education institutions. Figure 1 depicts the primary constructs of Lee's 2000 study. These
constructs were also the focus of this study.

Figure 1. Construct Variables

Predictor Variables   Dependent Variables

Course Design
Course Conversion
Technology Training
Online Pedagogy   Commitment
Online Pedagogy Assessment Motivation
Instructors' Technology Needs Satisfaction
Rewards
Incentives
Personnel Support

Figure 1. Visual representation of construct variables for research questions.

The findings from the 2000 study indicated the perceptions of the faculty were quite
different from those of administrators on all of the variables related to instructional support
and faculty motivation and commitment. Recommendations from the study indicated that
future research should include different types of institutions. This study expanded upon the
work of Lee (2000) and was guided by the following research objectives and questions.

Research objective. Describe the demographic and background characteristics of
online faculty and online organizational leaders employed at land grant institutions in the
northwest region of the United States.

Research question 1. Are there differences between online faculty perceptions and organizational leaders perceptions of instructional support in online education with regard to: (a) course design, (b) course conversion, (c) technology training, (d) online pedagogy, (e) online pedagogy assessment, (f) instructors' technology needs, (g) rewards, (h) incentives, and (i) personnel support?

H1$_0$: Online teaching faculty and organizational leaders do not differ in perceived organizational support as it relates to (a) course design, (b) course conversion, (c) technology training, (d) online pedagogy, (e) online pedagogy assessment, (f) instructors' technology needs, (g) rewards, (h) incentives, and (i) personnel support as measured by two independent-samples *t-test*. Also stated as H1$_0$: $\mu_{faculty} = \mu_{leaders}$.

H1$_a$: Online teaching faculty and organizational leaders differ in perceived organizational support as it relates to (a) course design, (b) course conversion, (c) technology training, (d) online pedagogy, (e) online pedagogy assessment, (f) instructors' technology needs, (g) rewards, (h) incentives, and (i) personnel support as measured by two independent-samples *t-test*. Also stated as H1$_a$: $\mu_{faculty} \neq \mu_{leaders}$.

Research question 2. What is the relationship between perceived organizational support constructs and online faculty commitment, motivation, and satisfaction?

H2a$_0$: Perceptions of organizational support constructs do not significantly predict commitment of online teaching faculty. Also stated as H2a$_0$: $\beta_a = \beta_b = \beta_c = \beta_d = \beta_e = \beta_f = \beta_g = \beta_h = \beta_i = 0$

H2a$_a$: Commitment of online faculty is affected by perceived organizational

support as measured by a multiple regression analysis. Also stated as H2a$_a$: At least

one $\beta \neq 0$

H2b$_o$: Perceptions of organizational support constructs do not significantly

predict motivation of online teaching faculty. Also stated as H2b$_o$: $\beta_a = \beta_b = \beta_c = \beta_d$

$= \beta_e = \beta_f = \beta_g = \beta_h = \beta_i = 0$

H2b$_a$: Motivation of online faculty is affected by perceived organizational

support as measured by a multiple regression analysis. Also stated as H2b$_a$: At least

one $\beta \neq 0$

H2c$_o$: Perceptions of organizational support constructs do not significantly

predict satisfaction of online teaching faculty. Also stated as H2c$_o$: $\beta_a = \beta_b = \beta_c = \beta_d$

$= \beta_e = \beta_f = \beta_g = \beta_h = \beta_i = 0$

H2c$_a$: Satisfaction of online faculty is affected by perceived organizational

support as measured by a multiple regression analysis. Also stated as H2c$_a$: At least

one $\beta \neq 0$

Significance of the Study

Employees who perceived that their organization values them appear to have a

stronger level of commitment, satisfaction, and motivation to their organization (Guan, et

al., 2014). Rhoades and Eisenberger (2002) found POS to have a strong relationship with

commitment, job satisfaction, positive mood, desire to remain with the organization, and

lower turnover intensions. Guan, et al. (2014) found improving commitment, satisfaction,

and motivation could increase POS for faculty members. Gaining an understanding of how

the instructional support constructs relate to commitment, satisfaction, and motivation will assist higher educational institutions support their online teaching faculty.

A problem cannot be resolved until the nature of the problem is understood by those with the power to act on the resolution. If perceptions about instructional support for online education differ between administrators and online teaching faculty at higher education institutions, it is possible that faculty may not receive the appropriate amount and type of instructional support they need to teach effectively at a distance. Thus it is essential for administrators to understand how faculty members perceive the instructional support that is provided and how their perceptions differ from those of the administrators.

Limited research has been conducted using POS in an educational setting. This study will expand on Lee's 2000 study in order to better understand the elements that affect online education today and determine if changes in the perceptions of online teaching faculty have occurred over the last 14 years. Many changes have occurred to online education since Lee's 2000 study. These changes include new technologies such as Web 2.0, innovative resources for pedagogy and course design for online education, and more faculty involvement in online learning. The study was designed to investigate the role of instructional support constructs as they relate to instructor commitment, satisfaction, and motivation and to identify whether there were perceptual differences between faculty and administrators.

Limitations of the Research Methods

Limitations to a study concern influences that are outside of the researcher's control. This study explored elements which online teaching faculty feel are important and the extent to which they received organizational support. The following are limitations to this study:

1. The context of the research is land grant universities providing online education in northwestern United States. The results of the study should be interpreted within the context.

2. The study was conducted with cross-sectional data which was collected only once. Any conclusions of the study should be further investigated through study replication with subjects from a different population.

3. Limited to those online faculty and their administrators employed during fall of 2014.

4. This study examined the perceived support for online instruction and not the actual quality of instruction for online faculty.

5. The perception of organizational leaders are limited to the department chair and/or dean of online faculty.

Delimitations

Delimitations refer to the boundaries set by the researcher. The following are delimitations to this study:

- Since the investigation will focus specifically on faculty who teach online, there may be no direct indication of how well administrative support may be working in other areas of academia.

Definition of Terms

Asynchronous Learning: Leaning that has a delay in the timing of interaction between the instructor and the student (Fullerton, Carr, & Avery, 2003).

Distance Education: "The process of providing instruction when student and instructors are separated by physical distance or time and supported by communications technologies such as computers, televisions, or videotaping" (Fullerton et al., 2003, p. 473).

Faculty Development: A structured program in which specific activities are offered to help faculty members develop their abilities to become more efficient and effective teachers (Ja'afar, 2012).

Faculty Training: Programs, activities, and practices that aim to improve the instructional competence of individual faculty members. Faculty training is a sub-concept of instructional support (Lee, 2000).

Instructional Support: Support that a higher education institutions provides faculty members to improve their course and teaching. Instructional support includes areas related to course teaching such as media support, instructional design support, and research assistance. It will usually come from people who have specialties in certain areas in which faculty members need training or assistance to conduct their teaching effectively. Specialists include instructional designers, editors, technicians, graphic designers, radio and/or television producers, teaching assistants, and librarians (Lee, 2000).

Learning Management System: A Web-based system that allows instructors and/or students to share materials, submit and return assignments, and communicate online (Lonn & Teasley, 2009). A typical learning management system is a Web-based system that includes a number of synchronous and asynchronous tools to support both learning and administrative functions (Black, Beck, Dawson, Jinks, & DiPietro, 2007).

Online Education: A combination of content and instructional methods delivered by media elements, such as words or graphics, using computers and other mobile devices and

the World Wide Web or other Web-based educational technologies (Clark & Mayer, 2011).

For the purpose of this research, online education or training is identified as an online means

by which students learn and faculty teach. Students and faculty may or may not be

geographically separated in order to take advantage of online education. Online education is

a sub-concept of distance education.

   Online Pedagogy: According to Merriam-Webster's Collegiate Online Dictionary,

the definition of pedagogy is the art, science, or profession of teaching (e.g., "Pedagogy",

n.d., para. 1). Online pedagogy is a student-centered approach instead of at teacher centered

approach (Schifter, 2002). Three important pedagogical elements include instructional

planning using course management software, interaction, and reflective teaching (Picciano,

2006).

   Online Program: A set of courses that are similar and necessary to complete a

specific program or degree.

   Virtual: Being on or simulated on a computer or computer network; occurring or

existing primarily online; of, relating to, or existing within a virtual reality (e.g., "Virtual,"

n.d., para. 4).

Chapter 2: Review of the Literature

The objective of this literature review is to provide a background to the problem, examine the body of research literature concerning online education and the issues for faculty and educational leaders, and examine the need for further study of organizational support for the online teaching faculty at postsecondary institutions. An overview of online education is discussed first and then a section on students who enroll in online courses is presented. This is followed by a review of issues facing online teaching faculty. The role of educational leaders is then discussed. The final sections provide a critical analysis and summary of the literature that support the argument for the need and value of this study.

Online Education

Online education ranges from Web-enhanced courses to fully online courses. Allen and Seaman (2013) classify online courses based on the percent of content that is delivered online. Web facilitated or enhanced courses contain up to 29% of the content delivered online. Blended or hybrid courses contain 30% to 79% while fully online courses consist of more than 80% of the course content delivered online.

Allen and Seaman began studying online education in the United States during the fall of 2002 by surveying chief academic officers across the nation's colleges and universities. Their research continues as online education keeps expanding at a steady rate. The number of postsecondary students taking at least one online course during the school year has increased from 1.6 million in the fall of 2002 to 7.1 million in the fall of 2012. This rise represents a compound annual growth rate of 16.1%. For a comparison, during the same period the annual growth rate for the overall increase of the higher education student body had an annual growth rate of 2.5% (Allen & Seaman, 2014). To meet the growing

demand of online education, many schools have increased their online offerings by including complete online programs. Between 2002 and 2012, private nonprofit institutions had the greatest increase in online offerings by doubling the programs that are offered completely online from 22.1% in 2002 to 48.4% in 2012 (Allen & Seaman, 2014).

Allen and Seaman (2014) examined the increase in the number of online course offerings and found that building and delivering online courses that seek to mirror existing face-to-face courses places additional demands on the faculty who teach them. In 2013, 44.6% of chief academic officers agreed that online courses require more time and effort from faculty than traditional face-to-face courses. This is an increase over the 2006 findings where only 40.7% of academic leaders agreed. Despite the increase, over half of the chief academic officers are *Neutral* or *Disagree* that developing online courses require more from instructors and faculty who teach them.

The question surrounding online education being comparable to face-to-face courses received mixed reviews since its introduction. The percentage of chief academic officers who perceive online education as inferior to face-to-face courses has been decreasing. Allen and Seaman (2013) reported that between 2011 and 2012 those indicating online courses as "inferior" dropped from 32.4% to 23.0%. However, in 2013 this number showed a slight increase to 26% (Allen & Seaman, 2014).

According to chief academic officers, faculty acceptance of online education has remained steady. When asked if their faculty accepted the value and legitimacy of online education, 27.6% agreed in 2002, with a slight increase to 30.2% in 2012 (Allen & Seaman, 2013). The chief academic officers listed this lack of acceptance as a very important barrier to the growth of online education. Another barrier to widespread adoption of online

education is the need for online students to self-regulate and self-motivate to succeed in online courses. Academic officers who believe students need more discipline to succeed have increased from 64.7% in 2005 to 68.9% in 2013 (Allen & Seaman, 2014). Lower retention rates in online courses continue to be a concern for chief academic officers with 41% in 2013 believing this to be a barrier to program growth compared to 27% in 2004 (Allen & Seaman, 2014). As stated by Stokes (2011), it does take a certain amount of focus and determination to study on your own, but everyone is not able to overcome these challenges. Self-motivation and retention rates are tied together by a common issue of students' ability to stay focused and study on their own. The final barrier addressed by Allen and Seaman (2013) was the acceptance of graduates of online education programs by potential employers. They found that 30% of chief academic officers considered this as an important barrier to widespread adoption of online education, a rate which remained unchanged from 2007 to 2012.

Online education can increase collaboration and dialog with student and faculty from different geographic areas (Hoffmann & Dudjak, 2012), but it requires a cultural shift in thinking as well as new skill sets for both the instructor and the student (Bower, 2001; Hoffmann & Dudjak, 2012; Palloff & Pratt, 2010). Instructors and students should consider their skills for managing time, "netiquette", computer literacy, and the ability to attentively navigate the online environment (Regan, et al., 2012).

Students perceive themselves as customers of higher education and not the product (Cercone, 2008; Puzziferro & Shelton, 2009). Online teaching activities should focus on the learner and provide multiple ways for the student to learn instead of the teacher just conveying the information (Conceição, 2006). This is considered a learner-centered, or

student-centered, approach as contrasted with the traditional teacher-centered approach

(Bower, 2001; Cercone, 2008; Conceição, 2006; Feist, 2003; Huang, 2002; Regan, et al.,

2012). With this change in focus, instructors shift their role to more of a facilitator who

engages students in the learning process with the focus being on the tasks the students need

to accomplish in order to learn the material, instead of the teacher explaining the material

through lecture (Bower, 2001; Cercone, 2008; Clay, 1999; Conceição, 2006; Feist, 2003;

Huang, 2002; Mitchell, 2009; Morris, Xu, & Finnegan, 2005; Regan, et al., 2012).

Puzziferro and Shelton (2009) describe this change in focus as a "move from the rigidity of

the ivory-tower culture to a more dynamic, student-responsive, integrated and collaborative

culture, which is closely aligned with the values, skills and ideals of the ever-evolving

global information age" (Introduction Section). The paradigm shift from traditional forms

of course delivery to that of online methods can be difficult for faculty and university

structures, particularly those that have been in place for a long time (East, LaMendola, &

Alter, 2014).

  Requirements for online education. Online education requires more than simply

supplementing instruction with a computer medium (Conceição, 2006; Hoffmann & Dudjak,

2012). Instructors must redefine how they teach the material. The demand for online

education has created the need for instructors willing to learn the pedagogy of teaching

online (Brooks, 2003; Oomen-Early & Murphy, 2009). The pedagogy of an online

educational environment should address the skills of teaching, including instructional

design, the role of the teacher, and the challenges of integrating models of online education

into the curriculum (East, LaMendola, & Alter, 2014). Bailey and Card (2009) found eight

pedagogical practices for effective online teaching: (a) fostering relationships with the

students; (b) engagement through emails, class discussion boards, sharing student biographies, and student group projects; (c) timeliness by means of returning graded assignments promptly and frequently checking emails and responding to questions; (d) communication through giving timely feedback on assignments, responding to written questions, communicating requirements of the course, and informing students when they will be away; (e) organization of the course with links to supplemental material and having all course materials available the first day of class; (f) having a clear understanding of technology and how to use it in the courses to assist student learning; (g) being flexible by keeping an open mind and the ability to adapt to changes; and (h) having high expectations by defining course goals and learning objectives and clearly establishing the expectations at the beginning and throughout the course. It is beneficial for online teaching faculty to have a clear understanding of these pedagogies to assist them with the implementation of their online courses.

Factors that make teaching online unique compared to its face-to-face counterpart include: (a) instructors usually do not see how students react in an online environment to what is said or done to the same extent they would in a face-to-face course; (b) the effectiveness of the teaching is highly dependent on how well the technology is used; (c) the curriculum must be well-organized and follow a logical progression to allow students to move through the content easily; (d) instructors need to determine the students' feelings and their motivation through asynchronous methods; and (e) online instructors can work with a number of different people in the development and delivery of the course, unlike the individual endeavor of the traditional classroom (Brown & Corkill, 2004; Moore & Kearsley, 1996). Faculty and educational leaders involved with online education should

clearly understand these differences in order to become proficient educators while providing online educational opportunities.

The traditional concept of teaching and learning being time and place should be reconsidered as teaching and learning can occur regardless of time, place, or proximity (Mitchell, 2009). Husmann and Miller (2001) designed a conceptual framework that represents a holistic approach to online education and that included the following elements: (a) delivery appropriateness, (b) learner responsibility, (c) instructor responsibility, (d) administrative responsibility, and (e) one that is superseded by subtext or cultural dimension that values and encourages degrees of learning. Within this framework, the learners must dedicated and self-motivating in order for any online education program to be successful. The online instructor must recognize pedagogical differences and deliver the material appropriately for the learner to understand the content. Administrators need to foster program effectiveness and overall quality. The final piece of the framework is the cultural dimension. Students will have a greater feeling of responsibility in a culture that recognizes rigor and self-application.

A common educational theory used in online education is *andragogy* (Bailey & Card, 2009; Zhen, Garthwait, & Pratt, 2008). This term was coined by European adult educators to provide a label for the growing body of knowledge and technology in regard to adult learning (Lawson, 2009). The assumptions of andragogy are: (a) adult learners are self-directed; (b) have experience; (c) learn best when they perceive a need; (d) want immediate, (e) real-world application; and (f) are motivated to learn due to internal factors such as self-esteem, desire for recognition, natural curiosity, and love to learn (Knowles, Malcolm S.and Associates, 1984). The theory of Andragogy can be an important tool to

keep in mind while building an online course because it describes areas that need to be considered for the common online student.

  Quality of online education. Throughout the research literature, the quality of online education is discussed. Even after years of conducting online courses, faculty still consider online courses not equivalent in quality to traditional courses because of the lack of face-to-face interaction (Osika, Johnson, & Buteau, 2009; Palloff & Pratt, 2010). Quality can be displayed in many forms. Zhen et al. (2008) indicated that one of the more influential factors in the quality of an online course is the amount of interactive communication between students and faculty. One reason as to why communication is important is that the quantity of communication is a major factor in decreasing the perceived "distance" between the instructor and the student, which can increase the satisfaction of the student (Boling, Hough, Krinsky, Saleem, & Stevens, 2012; Brooks, 2003). With the readily available technology used today such as Facebook, Twitter, and text messaging, there is a clear demand for additional modes of communication from faculty and students in the online environment including audio, video, and easy-to-use IM (instant messaging) and SMS (short message service) tools (Jafari, McGee, & Carmean, 2006).

  The quality of an online education program can be significantly impacted by the attitudes of instructors, students, and course administrators (Boling et al., 2012; Brooks, 2003; Ross & Klug, 1999). Betts (1998) found that college deans with online education experience and/or who had a positive attitude towards online education had a larger percent of faculty participating in online education. The attitude of the educational leaders towards the online education environment will filter down to the instructors and eventually the students.

The use of appropriate forms of technology to support the online classroom can improve learning outcomes (Huang, 2002). Educational technology such as email, chat rooms, discussion boards, newsgroups, blogs, and wikis engage learners and help keep them involved in the communication process. The discussion board is the central place for communication between students and faculty (Bailey & Card, 2009; Barker, 2003; Brooks, 2003; Huang, 2002). However, not all online courses use discussion boards. In order to achieve successful outcomes, attention to promoting interactivity and developing a sense of community with the students should be a priority (Palloff & Pratt, 2010). Using a mix of online education tools will help meet the needs of the online learners. Therefore, the role of technology and the instructor are the same, to be a facilitator of online education (Huang, 2002). The key to success in the online classroom is the interaction between students and between instructors and students (Palloff & Pratt, 2010).

Reasons for online education. Two primary reasons exist for offering courses online, the first being to reach a larger number of students, and second being to generate additional revenue streams (Brooks, 2003; Husmann & Miller, 2001; Kampov-Polevoi, 2010; Lesht & Windes, 2011; Levine & Sun, 2002; Seaman, 2009; Simpson, 2010). These additional revenue streams have helped to overcome some budget cuts in higher education institutions (Bonk, 2010; Bruner, 2007; Orr et al., 2009). An increase in revenue, as well as other institutional factors is the most significant reason that has led to the decision to convert a face-to-face course to online, but faculty members remain the main decision makers on what and how to teach in the online versions (Kampov-Polevoi, 2010). Through the process of changing the delivery method from face-to-face to online, faculty are finding new ways of teaching their courses.

One of the benefits resulting from the online education phenomenon, has been the extent to which it forces a reconsideration of what is known about the traditional classroom and the traditional institution—and that can only be a good thing. (Stokes, 2011, p. 198)

Students can enjoy the "anytime learning" online courses provide them, but there are also additional consideration that students need to be aware of before taking an online course. Mitchell (2009) found that the demand for online courses was higher than their face-to-face counterparts, yet the attrition rates were seven percentage points higher than the face-to-face courses. This is partly due to student misconception that online courses require less work and that they function as an independent study rather than a structured course. Participants in Mitchell's 2009 study indicated that online courses are not a good fit for all students or for all faculty. Liu (2012) indicated that students with prior content knowledge and technology skills will have higher achievement in an online course. The flexibility in learning is what draws students to an online education. This is especially important for the non-traditional students with time constraints due to family and work (Cercone, 2008; Hinson & LaPrairie, 2005; Lesht & Windes, 2011; Levine & Sun, 2002).

Online education policies. Levine and Sun (2002) indicated that higher educational institutions are notorious for being slow when implementing changes to policies. These institutions struggle to keep up with the fast pace of the electronic age, and the individuals using these technologies are paying the price. Administrators must work efficiently to manage time, multiple priorities, and select the best technologies, resources, and methods to accomplish administrative tasks in the rapidly growing realm of online education (Puzziferro-Schnitzer, 2005). Puzziferro-Schnitzer (2005) indicated that these current

administrative processes are inefficient for faculty and students engaged with online education.

Online teaching faculty require professional development and designated time in order to develop quality courses. They are being asked to apply familiar course content and pedagogical strategies in an unfamiliar environment (Wiesenmayer et al., 2008). According to Puzziferro and Schelton (2009) online faculty members need professional development to foster excellence, ability for recognition and rewards, and to give an opportunity to share and mentor other faculty members.

With regards to faculty, five policy recommendations emerged in a study by Betts (1998). The first recommendation is the assurance of technical, administrative, and financial support. The second is assurance of quality courses and programs with evaluations. Third, give faculty members the opportunity to attend workshops and seminars. Fourth, implementation of feasibility studies, data, and information explaining the advantages, disadvantages, cost benefits, and student benefits of online education. Lastly, give faculty the option to participate or not in online education. These recommendations were stated fourteen years ago, but they continue to be an issue today.

Students

Students have many reasons to choose online courses over their face-to-face counterparts. Online courses provides an important learning environment for many students, particularly non-traditional students who are older, attend class part-time, hold jobs, have families, and live off campus (Levine & Sun, 2002; Liu, 2012). Online courses are demanding with readings, discussions, writing assignments, and proctored exams (Morris et

al., 2005). Students often are willing to work through the negative aspects of online education in order to ensure the flexibility they desire (Brooks, 2003).

Creating an equivalent learning experience to that of a traditional face-to-face course using online education requires more planning on the part of the instructor, more effort on the part of the student, and a new skill set for both (Bower, 2001). These new skills, such as time management, "netiquette", computer literacy, and the ability to navigate online are needed to create a meaningful learning environment (Regan, et al., 2012). An online education environment requires different processes, policies, and procedures for both the teacher and the student (Mitchell, 2009). Preparing faculty and students for the online environment will create a more successful learning experience.

Prior to enrolling in online education, students need an orientation to help them understand the online environment and expectations for online education. A study by Oomen-Early and Murphy (2009) listed faculty complaints that ranged from students who did not understand the need for a computer—to thinking all online courses were self-paced—to expecting faculty to be available 24/7. Additionally, faculty members expressed concerns that students are not prepared for the online environment and suggested that universities assess students' readiness to learn online. An important factor in the success of an online educational program is ensuring students have realistic expectations of what is involved in successfully completing online courses and programs. Giving students realistic expectations prior to their enrollment in online education, and support systems after they enroll will help ensure they are prepared for the responsibility it takes to be successful (Brooks, 2003; Oomen-Early & Murphy, 2009).

Students require attention from the instructor regardless of whether it is an online or face-to-face course (Brooks, 2003). Instructors need to give feedback and present the course in a well-structured manner in order to increase the chances of success for busy online learners (Huang, 2002). If students do not feel the online presence of the course instructor, research suggests they may lose interest and drop out. Another reason for students dropping out of online courses is because they lack appropriate technical abilities such as basic computer, writing, and typing skills (Brooks, 2003). Providing first-year students adequate assistance to help them become familiar with technology and how to prepare for online education may increase the first-year to second-year retention rate (Liu, 2012). Overall, it is important to prepare students for the responsibilities that come to online students in order for them to be successful in this environment.

Online Teaching Faculty

Online teaching adds many roles to the course instructor that include being an instructional designer that designs the online content, a facilitator that engages learners in the learning process, a catalyst that initiates conversations, and a learner that participates in the learning experience (Conceição, 2006). These additional roles add to the workload, but they also give faculty an opportunity to learn new methods of teaching.

Through analysis of several online courses using discussion boards, Morris et al. (2005) classified online instructors as three types: (1) online monitor who was visible at the beginning of the course and read each message, but rarely participated in discussions; (2) online facilitator who asked questions, occasionally provided feedback in discussions, provided guidelines for assignments, and fostered student collaboration; and (3) online teacher/participant who was highly visible throughout the class and interacting in all

discussions. The online facilitators seemed to have the most balance in their courses and higher number of student postings.

Faculty satisfaction plays a critical role in online education. Instructors who are more satisfied with online teaching have a higher level of interaction with their online students than do instructors who are not satisfied with online teaching (Wasilik & Bolliger, 2009). Teaching online education courses allows faculty to have greater flexibility in their schedule which can lead to higher satisfaction (Clay, 1999; Osika et al., 2009; Parthasarathy & Smith, 2009).

Moving a course into an online environment provides faculty a reason to question what they are going to teach, how to best teach it, and how to use the technology to accomplish it (Major, 2010). Also noted by Major (2010) was the increased organization and structure of courses when teaching online. This results in a positive effect for the institutions due to better teaching in the face-to-face versions of the course. It has been shown that faculty who have taught online use these new instructional methods to transform their face-to-face courses and become more interactive with their students (Lackey, 2011; Mitchell, 2009). Instructors have also been more willing to try new methods of instruction—both online and in the physical classroom (Mitchell, 2009). These positive outcomes from teaching online courses create better educational opportunities for both students and faculty.

Increased time. Online faculty can feel consumed with the amount of time required to teach effectively while still meeting their other demands (Clay, 1999; Oomen-Early & Murphy, 2009). Work may no longer be contained within a set time and place—it can become constant. Without adequate release time, monetary incentives, or technical support,

faculty experience increased dissatisfaction with online instruction due to the time to prepare and teach (Oomen-Early & Murphy, 2009). Workload connected to the development of an online course is a concern for faculty, and they requested course release time the semester prior to offering a new online course to help with this issue (Bolliger & Wasilik, 2009; Orr et al., 2009).

Throughout the literature, the time requirements involved in teaching online continues to emerge. Adding the technical role to faculty substantially adds to the time involved in developing an online course (Kampov-Polevoi, 2010). Adopting new technologies takes time and requires faculty to develop new skills and understanding of how to use them. Creating meaningful learning situations through online education methods takes time and energy to complete successfully (Orr et al., 2009; Regan, et al., 2012). An online course should not be merely an attempt to integrate Web-based components into a face-to-face course (Hinson & LaPrairie, 2005; Hoffmann & Dudjak, 2012). It should include ways to use the technology to reach out to students in new and meaningful ways. Ultimately, using online technologies requires a different way of teaching; learning new tools and pedagogies; and learning what works best with students, the curriculum, and the online setting. (Conceição, 2006; Hoffmann & Dudjak, 2012; Meyer, 2012). It is interesting to note that in some of the more recent studies such as Parthasarathy and Smith (2009), faculty were not as concerned by the time commitment because of what seemed to be a clearer understanding of the pros and cons of online teaching.

Teaching online involves a lot of "hidden work" such as developing course content, creating course material, maintaining chat rooms, and communicating with students around the clock (Levine & Sun, 2002; Wolcott & Betts, 1999). More recently, Wilson (2010)

states that academia is called an "ivory sweatshop," implying that the faculty have heavier

workloads than outsiders might think. Conceição (2006) lists the process in two phases: the

development phase is related to instructional design and organization of the course and the

delivery phase, which involves some type of interaction between students, content, and

technology and teaching functions such as class management, summarizing content,

monitoring and assessment of learner performance, course clarification, and course

continuity. This extra work involved in created and teaching online courses needs to be a

consideration for administrators when assigning faculty workloads.

An exception to the belief that creating and teaching online courses take more time

for faculty was found in a study by Hislop and Ellis (2004) which compared the time spent

during the semester for equivalent online and face-to-face courses and determined the

amount of time spent to be equal. However, this study did not take into account the work

done prior to the semester starting, which represents a large portion of an online instructor's

workload. After the initial time investment into course development, instructors can recycle

their course content and may only need to make minor adjustments to the course design and

curriculum between terms (Hinson & LaPrairie, 2005).

Faculty in non-tenured track positions are more active in online education than

tenured track positions (Betts, 1998; Bruner, 2007). In order to recruit and retain highly

capable faculty who are willing to teach online, research has suggested that institutions need

to have an adequate and valued rewards system (Simpson, 2010). Most institutions award

tenure based on a balance of teaching, conducting research, and years of service. Time

spent developing online education is time not spent on these professional activities which

may be needed to be successful in the tenure process (Bower, 2001). However, eleven years

later, half of the participants in the study by Meyer (2012) indicated teaching online allowed them to increase their time to research or make a steady contribution to their field.

To relieve some of the burden of teaching online, adjunct faculty are stepping into the online environment (Puzziferro & Shelton, 2009). The adjunct faculty members identify with and match the values of the nontraditional students. It is important to have these adjunct faculty involved in online education to help protect the faculty roles that are essential to the research and scholarship function of the institution. Students expect faculty to have real-world experience, be flexible and dynamic, share the decision-making, demonstrate entrepreneurial mindset, and be customer-service oriented, which are qualities the adjunct faculty have (Puzziferro & Shelton, 2009). However, according to Wilson (2010), the tenure ranks are shrinking as universities rely more on adjunct instructors to fill these positions. Also, some students perceive the quality of online courses to be less when taught by adjunct faculty as compared to full-time faculty (Boling et al., 2012). Adjunct positions fill an important role in higher education, but online education needs full-time faculty to maintain consistency.

Motivating factors for online teaching faculty. The following motivating factors for faculty to participate in online education were found during the review of the literature:

- The opportunity to reach remote students (Betts, 1998; Bruner, 2007; Osika et al., 2009; McKenzie, Mims, Bennett, & Waugh, 2000; Schifter, 2002; Wolcott, 1999).

- Intellectual challenge and opportunity to develop new ideas (Betts, 1998; Schifter, 2002; Wolcott & Betts, 1999).

- The opportunity for research (Meyer, 2012; Schifter, 2002).

- Release time (Bruner, 2007; Orr et al., 2009; Schifter, 2002).

- Financial rewards (Lesht & Windes, 2011; Orr et al., 2009; Schifter, 2002; Wolcott, 1999).

- Motivation to use technology (Betts, 1998; Osika et al., 2009; McKenzie et al., 2000; Schifter, 2002).

- The opportunity for recognition and personal/professional growth (Betts, 1999; Bruner, 2007; Schifter, 2002; Wolcott & Schifter, 2002).

- The opportunity to improve teaching skills (Schifter, 2002).

- Credit towards promotion and tenure (Oomen-Early & Murphy, 2009; Schifter, 2002).

- Technical and organizational support (Orr et al., 2009; Schifter, 2002).

- Increased flexibility (Betts, 1999; Lesht & Windes, 2011; Osika et al., 2009; McKenzie et al., 2000; Wolcott & Schifter, 2002).

- Overall job satisfaction (Betts, 1998; Schifter, 2002; Wolcott & Betts, 1999).

- Desire to extend the reach or influence of their program (Wolcott, 1999).

Wolcott and Betts (1999) found that intrinsic factors may affect initial involvement, yet faculty member's motivation and subsequent response to incentives may change with additional experience.

Inhibiting factors for online teaching faculty. As mentioned previously, the success of any online education program depends on the attitude of the faculty delivering the courses. Educational leaders who understand and address inhibiting factors, or barriers, will have a greater advantage at recruiting and maintaining online teaching faculty (Orr et al., 2009). The following inhibiting factors were found during the review of literature:

- Increased workload (Betts, 1998; Lesht & Windes, 2011; Orr et al., 2009; Schifter, 2002; Seaman, 2009).

- Participation does not count towards tenure (Bruner, 2007; Oomen-Early & Murphy, 2009; Simpson, 2010; Wolcott, 1999).

- Lack of technical and organizational support (Betts, 1998; Lesht & Windes, 2011; Orr et al., 2009; Schifter, 2002).

- Reduced course quality (Betts, 1998; Lesht & Windes, 2011; Schifter, 2002).

- Inadequate compensation (Orr et al. 2009; Schifter, 2002; Wolcott, 1999).

- Lack of release time (Betts, 1998; Orr et al. 2009; Schifter, 2002; Wolcott, 1999).

- Absence of face-to-face interaction (Betts, 1998; Bruner, 2007; Lesht & Windes, 2011).

- Lack of opportunities to become involved (Betts, 1998).

- Lack of grants for material/expenses (Betts, 1998; Schifter, 2002).

- Lack of technical skills (Betts, 1998; Orr et al., 2009; Osika et al., 2009).

- Fear of the unknown (Lesht & Windes, 2011).

By understanding these inhibiting factors, administrators can create policies and procedures that can enhance the future of higher education (Lesht & Windes, 2011).

Educational Leaders

It is critical to understand the process required to implement an online educational program in order to overcome the issues related to online education. In a 1996 study, Carter provided a framework for educational leaders to follow before implementing an online education program, the key elements of the framework includes: (1) conduct a needs

assessment, (2) determine the cost, (3) decide how faculty will be selected to teach, (4) define the incentives for faculty to become involved, (5) provide time for faculty to train and plan, (6) determine impact of teaching online for promotion and/or retention of faculty, (7) establish which courses have a higher probability of success, and (8) determine the impact online education will have on student services. Educational leaders have not addressed these issues, particularly the issue of involving faculty teaching online courses (Carter, 1996).

The study conducted by Allen and Seaman (2013) from 2009 to 2013 showed a steady increase of chief academic officers stating that online delivery was a critical part of their long-term strategy, with 69.1% indicating it was critical as of the fall of 2012. However, not all institutions have included online education in their mission statements. A disconnect exists if the institutional mission statement conveys a commitment to online education, but the institution lacks practices and/or policies for rewarding online education faculty (Simpson, 2010). Wolcott (1999) noted that the bottom line is that institutional values are reflected in an organization's reward system. Educational leaders need to include online education as part of their mission statement and reward system in order to show a commitment to online faculty and the online educational program.

According to Oomen-Early and Murphy (2009), educational leaders are not fully aware of the dynamics involved with developing and facilitating an effective online course. As technology continues to change and impact the work of faculty, institutions are challenged to keep pace with matching their values with faculty rewards (Wolcott, 1999). Faculty expect and deserve to be rewarded for their efforts to serve diverse student groups and use new technology methods (Wolcott & Betts, 1999). In an effort to understand online

education policy from the perspective of the internal stakeholders, Simpson (2010) found a lack of written policy for online education with respect to faculty rewards. The criterion for rewarding faculty work at many research institutions is based primarily on the scientific model of research and publication rather than teaching. This reward structure can be counterproductive to reaching larger academic goals such as educating a greater number of students and satisfying the changing needs of modern students (Simpson, 2010). Educational leaders are struggling with how to support research while making space for the kinds of pedagogical innovations online education offers (DiStefano & Witt, 2010).

Faculty members are among the most important stakeholders in online education (Betts, 1998). Incentives for teaching online can involve non-salary incentives such as extra vacation days, fringe benefits, course release, and opportunities for faculty development to additional compensation such as bonuses, promotion, institutional recognition, and additional compensation for developing and offering new courses (Wolcott & Betts, 1999; East, LaMendola, & Alter, 2014). Findings from Zhen, Garthwait, and Pratt (2008) suggest institutions should offer credits toward promotion and tenure, recognition and rewards, and funding or merit pay based on how effectively faculty use or integrate technology in their teaching practices.

Participation in online education does not carry much weight in influencing promotion and tenure decisions. It also poses a risk to junior or untenured faculty members due to their efforts being under-valued and un-rewarded. (Simpson, 2010; Wolcott, 1999; Wolcott & Betts, 1999). Educational leaders need to develop a way to recognize online teaching as it relates to tenure and promotion. The dilemma over tenure and promotion also

raises the issue of whether traditional forms of faculty evaluation take into account the

unique nature of the online education environment (Orr et al., 2009).

Faculty want educational leaders to give them clear policy and procedures regarding

online course development. They need leadership in the following areas: (1) expectations

and role of the instructor, (2) workload and compensation, (3) notification of resources and

support people to access, (4) manuals or guides on how to teach online, (5) guidelines for

what an online course should look like, and (6) suggestions for professional development

related to online course development (Feist, 2003).

Educational leaders need to understand that the online environment differs

significantly from the face-to-face environment and become informed of the possibilities of

collaboration, teaching, and professional development via the Internet (Wiesenmayer et al.,

2008). Compensation for course development, either monetary or release time, was

mentioned throughout the literature. Institutions often boast about being equipped with

cutting edge technology while not paying much attention to instructing the faculty on how to

utilize the technology to maximize the effectiveness of online teaching (Lee, 2002). There

is a tendency for institutions to invest in technology first and pedagogy second which can

cause problems as higher learning should primarily focus on pedagogy (Owusu-Ansah et al.,

2011).

Online education increases student and faculty flexibility to live outside of the

geographic area of the main campus (DiStefano & Witt, 2010). There is a belief that online

education is more conducive to graduate instruction rather than undergraduate (Olson &

Hale, 2007). Educational leaders are confronted by issues involving dispersed students by

rethinking curriculum delivery, learning assessment, support services, and campus life.

Issues for the dispersed faculty include rethinking organizational leadership and administrative strategies and an increased focus on clear and consistent communication (DiStefano & Witt, 2010). According to Olson and Hale (2007), educational leaders have been concerned with controlling academic honesty and a lack of student self-discipline or time management skills which may hinder their success within the online educational program.   Educational leaders need to be aware of these unique issues online education programs face.

　　　　Faculty development. Online teaching has changed dramatically over the last 10 years and the need to create training opportunities is ever evolving. Terantino and Agbehonou (2012) offer the following suggestions for planning future training opportunities for online teaching: (1) be prepared by planning in advance, (2) provide support, (3) focus the technology training on technology that has direct value to the faculty participants, (4) select guest speakers and presenters carefully based on knowledge and experience, and (5) cover any course review process in depth so faculty participants know how their courses will be reviewed. Faculty prefer one-on-one support from university personnel and colleagues to assist them with their online courses and consider collaboration with colleagues to be the most beneficial in preparing them to teach online (Lackey, 2011). Training needs to evolve along with the technology. Programs developed previously need to be constantly analyzed to determine if they are still relevant (Oomen-Early & Murphy, 2009).

　　　　According to Lee (2002), instructional support refers to the kind of support the institution provides faculty to develop and improve their instruction. These support specialists include instructional designers, editors, technicians, graphic designers, radio and/or television producers, teaching assistants, and librarians. When creating a faculty

development program, four areas need to be addressed: faculty buy in, course quality and student learning, administrative and technical support, and faculty-student interactions (Barker, 2003). A good faculty development plan should address student learning first and technology second (Orr et al., 2009). Technology is merely a tool for course delivery, and faculty need to have confidence in their skills for using it and confidence that the tools promote student learning (Barker, 2003). Training should be beyond learning the technology and focus on the pedagogy and teaching strategies relative to the Web 2.0 generation (Oomen-Early & Murphy, 2009; Orr et al., 2009; Lackey, 2011). In a study by Pankowski (2004), 75% of faculty members that taught at two-year institutions received approximately 30 hours of technical training, but only a third received pedagogical training. The topics covered in their pedagogical training included topics such as providing feedback to online students, active learning, student collaboration, and designing online content. "Pedagogical training provided before faculty begin to teach online would improve not only faculty morale, but also, and more important, would increase student satisfaction with online courses" (Pankowski, 2004, Pedagogical Traning section). Educational leaders must be willing to invest in faculty learning in both technical and pedagogical domains (DiStefano & Witt, 2010; Lackey, 2011; Pankowski, 2004). Unfortunately, training in the pedagogical skills needed to teach online is rarely provided to faculty (Palloff & Pratt, 2010).

Faculty should incorporate technology early in their careers and offer Web-enhanced courses as a way to get comfortable with the course management system (Lackey, 2011). The same tools available for face-to-face courses are the ones most often used in an online class. Therefore, training on how to effectively use other tools related to technology, such

as chat, blogs, journals, and surveys, will help bridge the gap between the face-to-face course and its corresponding online version (Osika et al., 2009).

An expectation of higher education faculty members is that because they have taken many classes, they therefore should know how to teach. However, not all faculty members have participated as a student in an online environment, and even if they had, it does not ensure the ability to then teach. Online teaching faculty need to learn online teaching skills and methods. In addition, they should have experience as a student in online education to help them understand the difficulties associated with the online education process (Pankowski, 2004; Terantino & Agbehonou, 2012). Faculty who have a high level of confidence in their ability to use online tools are more likely to have an interest in and invest time to develop online courses. If faculty believe online education is an effective option for students, it is more likely they will overcome the time constraints and be motivated to use technology effectively (Zhen et al., 2008).

Faculty workload typically does not permit them to spend many hours learning how to design, develop, and teach online classes on their own (Lee, 2002). Educational leaders should include faculty input into what days and time to conduct training and workshops (Zhen et al., 2008). According to Ross and Klug (1999), one of the most effective things educational leaders can do to help promote online education to their faculty is to enhance faculty's knowledge of online education. Institutional support for faculty involvement is essential as well as is the availability of adequate and effective training (Bower, 2001; Wolcott & Betts, 1999).

Online teaching faculty believe faculty development should include support for course development (e.g., financial, administrative, and technical); opportunity for seminars

and workshops that focus on skill development, use of new technologies, designing courses, teaching strategies, and educational merit of online education techniques; and release time for training (Betts, 1998). In addition, they want opportunities that they could use right away or were related to a current project, had built-in follow-up procedures, fit into their busy schedules, matched their learning styles, focused on curriculum, included leadership or direction from the program chair, and included a support person they could call with questions (Feist, 2003).

Healthy developmental relationships require two major functions: psychosocial and career (Mullen, 2012). Peer mentoring provides teaching methods and tips on conducting online education courses (career) as well as psychological and emotional support (psychosocial) to relieve some of the frustration experienced teaching online. Generally, this peer mentoring is informally conducted through communication among faculty members and not provided by the institution, but it is as important as any other support services (Lee, 2002). Mentoring is a proven strategy to support, improve, and build a strong community (Puzziferro & Shelton, 2009). Participants in the study by Regan et al. (2012) recognized they do not frequently dialog with other online education instructors. Sharing experiences can help increase awareness about pedagogical issues in the online environment, improve the quality of online courses, influence policy makers to better support faculty training and performance, and encourage faculty who are new to online education (Boling et al., 2012; Conceição, 2006). Boling et al. (2012) state a lack of collaboration is due to the fact that many online instructors are adjunct faculty.

Educational leadership support. Support from educational leaders, as well as an instructional design team, is vital to generating satisfactory student outcomes that meet the

needs of accreditation, certification, and higher education standards (Hoffmann & Dudjak, 2012). Lee (2002) conducted a study to determine if there was a difference between the perceptions of faculty and educational leaders concerning instructional support in online education with regard to: (1) course design, (2) course facilitation, (3) use and application of new online education technologies, (4) training in teaching methods, (5) course evaluation, (6) instructors' technology needs, (7) rewards, (8) incentives, and (9) personnel support. Faculty responses showed a lack of support in all areas, with rewards having the lowest mean score, while educational leaders had the exact opposite response with rewards being the only variable that was perceived to be less than supportive (Lee, 2002).

A successful transition to an online environment is heavily dependent on the level of institutional support (Kampov-Polevoi, 2010). Oomen-Early and Murphy (2009) found that faculty indicate an overall lack of support by university administration and an inadequate infrastructure for online education. They went on to express a feeling that university administrators are out of touch with the demands of online faculty and do not understand what effective online instruction requires. Educational leaders should work with faculty to understand their concerns.

Perceived organizational support can contribute to positive effects towards job satisfaction (Eisenberger et al., 1997). The perceived organizational support theory influences various aspects of an employee's treatment by the organization which influences the employee's interpretation of organizational motives underlying the treatment (Eisenberger et al., 1986). The study by Rhoades and Eisenberger (2002) indicated a strong, positive relationship between POS and affective commitment, job satisfaction, positive mood at work, desire to remain with the organization, and turnover. The study also

indicated a medium relationship with job involvement, strains, absenteeism and tardiness, and extra role behavior directed to the organization.

Faculty need additional direction concerning online education and clarity in the online education mission from educational leaders. Faculty members are content experts and should not be expected to become technology experts to engage in online education (Orr et al., 2009). Educational leaders need to be more flexible in supporting online instruction if programs are to succeed. Experienced instructors can provide valuable information and insights into successful online courses. Educational leaders should encourage them to share what they have learned by providing incentives such as course breaks or supplemental salary (Kampov-Polevoi, 2010). A study by Husmann and Miller (2001) found that educational leaders perceive the quality of online education programs are based almost exclusively as the performance of faculty and they need to invest heavily in programs that will enhance faculty performance.

Analysis and Discussion

This chapter has presented a review of the relevant research literature related to online education and organizational support of postsecondary online teaching faculty. Clearly, online education has grown considerably over the last decade. Higher educational institutions quickly implemented online education programs in order to be competitive, but are now trying to work through the process of fine tuning these programs to increase retention of students as well as faculty. Analyzing programs and courses to determine what is working in online education environments, and what is not, is essential to the long term viability of these programs. Educational leaders should include faculty members in these decisions because they are uniquely aware of student needs, as well as their own.

It is important for educational leaders to recognition that online education is not a good fit for everyone. Some students do not have the self-discipline to work independently in an online environment. Also, not all faculty are comfortable with the asynchronous aspect of online education. The extroverted instructor who thrives on the face-to-face interaction will not be as accepted in the online environment due to the inability to have constant synchronous communication with the students.

Students need to take responsibility for their learning and dedicate themselves in order to be successful. It is important for educational leaders to understand that students need to be prepared for working in an online environment. Student retention and success rates are lower in online education due to students not being prepared with the expectations of an online environment. Taking time to educate students about the necessary skills and expectations will increase retention and satisfaction. This will also alleviate some of the frustration that faculty members have with students who are not prepared for the rigors of an online course. Students should be prepared for not only the technical aspect, but also with time management skills. By preparing students with these basic skills, faculty will be able to spend time on learning objectives and not technical support issues. Online education programs will also benefit with greater retention of students. Institutions need to include adequate online services to assist these students with the issues that they are faced with an online environment. Services such as online library and bookstore; registration, billing, and payment systems; and technical support should be available for online students.

Educational leaders should become more involved in the online education process in order to provide online educators the support they need to become successful. Peer mentoring appears to be one of the top tools for faculty to have available for them to discuss

online education tools and pedagogy. Regan et al. (2012) found using online education environments was considered "intriguing" by faculty who were beginners, "stressful" by the majority, and "satisfying" by those who know the technology and have the most experience. It may be helpful for these experienced faculty members to share their knowledge, particularly with new online instructors, to alleviate some of these negative emotions. Educational leaders can help by facilitating opportunities for faculty to discuss issues and concerns about their online education experiences with each other.

Throughout the literature, there seems to be a deficiency with regard to educational opportunities assisting online teaching faculty with the online educational pedagogies. Many of the current opportunities involve technology and how to use it, but not the best way to teach in this new medium. Several studies discussed different courses faculty were required to take before they could begin teaching online, but this seems to be the exception and not the standard. This training would provide faculty with clear expectations that would help them create more consistent, higher quality online courses.

The time commitment of online education and the rewards system are issues that continue to require resolution. The initial development of an online course takes time, but that time is not recognized in the current rewards system at many higher educational institutes. To increase online teaching faculty motivation and retention, educational leaders should recognize online education as another element in their system.

It appears that educational leaders are not meeting the needs of faculty in several areas: rewards and recognition, added time commitments, lack of adequate training in online pedagogy, and ensuring students are prepared for the online environment. Additionally, the literature indicates educational leaders do not appear to have a deep understanding of online

education in general; however, they are the individuals making the important decisions concerning the programs.

Summary

Online education will remain a popular option for busy students in higher educational institutions. At the same time, technology will continue to change and evolve. Online teaching faculty should fully understand online pedagogy in order to create meaningful learning experiences, and must keep up with new, ever-changing technologies. They require educational leaders to understand the intricacies of teaching online to help assist them in creating a quality online education program.

Educational leaders will need to work at understanding the process necessary to create an online education experience for their institution to remain competitive in this global environment. They will have to meet the needs of their faculty, but first they must understand those needs. Creating opportunities for faculty to learn how to become better instructors in the online environment and providing them with structure and support will ensure a strong online education program.

There is little research on instructional support by educational leaders for online faculty members. Through this study, a clear representation of the different perceptions of online teaching faculty and administrators who support online education will be revealed. The study will also determine faculty perceptions of institutional support towards faculty members' motivation, commitment, and satisfaction associated with online education. Educational leaders will be able to use this information to meet the needs of their online teaching faculty and create a stronger online program for their institution.

Chapter 3: Methodology

The purpose of this study was (a) to investigate the relationship between online faculty perceptions of instructional support and that of organizational leaders of online programs, and (b) to examine the relationship between faculty and organizational leaders' perception of organizational support and motivation, commitment, and satisfaction associated with online education. In order to investigate these issues, a cross-sectional survey design was implemented. The two populations of the study were land grant university faculty who teach online and land grant online organizational leaders. The survey instrument was adapted from the work of Lee (2000) and was designed to collect quantitative data as well as provide opportunities for participants to elaborate on their responses through open-ended questions. This chapter will describe the research methods, the survey instrument, and the procedures that the researcher followed to address the research questions. Issues concerning reliability and validity are also addressed.

Quantitative methods were used to conduct this study. A quantitative approach to research is one in which the investigator primarily uses post positivist claims for developing knowledge (e.g., cause and effect thinking, reduction to specific variables, hypotheses and questions, use of measurement and observation, test of theories), employs strategies of inquiry such as experiments and surveys, and collects data on predetermined instruments that yield statistical data (Creswell, 2003; Trochim & Donnelly, 2008; Warner, 2008). Quantitative data is numeric in form (Trochim & Donnelly, 2008). "Measurement and statistics are central to quantitative research because they are the connections between empirical observation and mathematical expressions of relations" (Hoy, 2010, p. 1).

The specific method for this study was a self-administered, cross-sectional descriptive survey method. According to Mertens (1998), a cross-sectional descriptive approach is a one-time survey for the purpose of describing the characteristics of a sample at one point in time. Survey research is the process of collecting sample data from a larger population and using the sample to infer attributes of the population (Dillman, Smyth, & Christian, 2014; Nesbary, 2000; Rea & Parker, 2005). Surveys are used when individual people are the unit of analysis, when collecting data to describe a population too large to observe directly, and when measuring attitudes and orientations in a large population (Babbie, 1995; Dillman et al., 2014). Surveys offer the benefit of replicability in that a survey instrument can be used repeatedly to examine different populations, times, and settings, or to duplicate a previously completed study. This attribute of survey research allows researchers to assess differences attributable to these various conditions (Rea & Parker, 2005).

Population

The populations of this study were faculty members at land grant universities in the northwestern region of the United States who teach online courses, and the department chairs and/or deans of these faculty. Land grant universities were created by the Morrill Act of 1862 which was signed into law by Abraham Lincoln. According to the Library of Commerce website, the act provided each state with 30,000 acres of Federal land for each member in their Congressional delegation (The Library of Congress, 2014). The land was sold by the states and the proceeds were used to fund public colleges that focused on agriculture, military tactics, and the mechanical arts (Association of Public and Land-grant Universities, 2012; The Library of Congress, 2014). Sixty-nine colleges where funded by

the land grants. Land grant universities were mandated to be open, accessible, and serve the people (Association of Public and Land-grant Universities, 2012).

Land grant universities were chosen due to their commonalities as well as their efforts to serve the people. The original mission for land grand institutions was to "teach agriculture, military tactics, and the mechanic arts as well as classical studies so members of the working classes could obtain a liberal, practical education" (Association of Public and Land-grant Universities, 2012, p. 1). Serving the general population through online learning methods should be an important aspect of the land grant universities today. For this reason, land grant institutions were chosen as the population for this study. The specific institutions used for this study were based on region and researcher located states. The five institutions in the northwest include Montana State University (MSU), Oregon State University (OSU), University of Idaho (UI), Utah State University (USU), and Washington State University (WSU). A sixth university, University of Wyoming, was chosen for the pilot study.

The sampling frame was composed of online faculty teaching in fall 2014 and their department chairs and/or deans at chosen institutions. In order to obtain a list of online faculty members, the institution's website was used to identify those faculty members teaching courses designated as online during fall 2014. Email addresses were obtained through the institutions' websites.

Sampling Method

A simple random sampling technique was used to select the sample for this study. A simple random sampling is a method that involves drawing a sample from a population so that every member of the population has an equal chance of being included in the sample (Thompson, 2012; Trochim & Donnelly, 2008; Warner, 2008). In theory, if the sample is

randomly chosen from the population, the sample should represent the population (Warner, 2008). Since simple random sampling is a fair way to select a sample, it is reasonable to generalize the results back to the population (Trochim & Donnelly, 2008).

The sampling frame for this study was composed of faculty members teaching online during fall 2014 at five northwestern land grant universities. In order to ensure representation from each of the selected universities, a desired sample size was determined and sought for each institution in order to ensure each could be described accurately.

Sample size calculation. Each university was treated as a single population and a desired sample size of faculty was determined for each. The simple random sample calculation formula below was used to determine the number from each institution (Thompson, 2012).

Sample Size:
$$ss = \frac{z^2 * (p) * (1\text{-}p)}{c^2}$$
Where:
$z = z$ value(1.96)
$p =$ proportion (.50)
$c =$ confidence interval (.05)

Correction for Finite Population:
$$\text{new } ss = \frac{ss}{(ss - 1) / (1 + \text{Population})}$$

An additional 20% was added to help account for non-response and still be able to achieve the desired sample size.

The desired overall sample size for this study was 633 faculty members and 144 administrators. To determine the participants, a list of online faculty members teaching fall 2014 at each university was entered into Microsoft Excel and a random number generator was used to assign a number to each faculty member. The list was then sorted in ascending

order by the random number and the top participants were selected. For each faculty member selected for the study, their department chair and/or dean was also asked to participate in the study for the administrator perspective.

Table 1 shows the number of faculty and administrative participants from each institution as well as the number of participants that opted out of participating in the survey. Participants were able to opt out themselves with a link provided with the survey or by emailing the researcher. Various reasons for opting out included no longer teaching online, adjunct faculty who are given a course already created, administrators who no longer oversee online faculty, and participant time constraints.

Table 1

Sample Population by University

Land Grant University	Total Faculty Teaching Fall 2014	Participants Contacted		Opt out		Actual	
		Desired Sample Size Online Faculty	Desired Sample Size Org. Leader	Online Faculty	Org. Leader	Actual Sample Size Online Faculty	Actual Sample Size Org. Leader
MSU	106	99	21	5	3	94	18
OSU	374	228	40	24	4	204	36
UI	99	94	26	4	1	90	25
USU	220	127	42	19	4	108	38
WSU	184	150	32	13	5	137	27
Total	983	698	161	65	17	633	144

Survey Instrument

The primary element of any survey is the standardized questionnaire—everyone receives the same questions in the same order (Nesbary, 2000). This study adapted a survey created by Lee (2000) that was designed to measure faculty and administers' views on instructional support for online education. Changes were made to the survey to update the

terminology and current issues related to online education as well as reword areas for better clarification. In addition, the number of construct items representing commitment, satisfaction and motivation were increased to improve measurement validity of these constructs. The survey was then tested and refined based on what was learned after conducting the pilot study.

The survey instrument used for this study consisted of 67 Likert questions with a 7-point response scale. The response scale ranged from "Strongly Disagree" (1) to "Strongly Agree" (7). Lee's (2000) study used a 5-point scale with one degree for unsupportive responses and four degrees for supportive responses. A 7-point response scale was chosen for this study to increase the sensitivity of the data (Cummins & Gullone, 2000; Lavrakas, 2008).

Indices scores were calculated for each of the instructional support constructs by calculating the mean of the individual items representing each of the constructs. The indices included measures for Course Design (6 items), Course Conversion (3 items), Technology Training (6 items), Online Pedagogy (6 items), Online Pedagogy Assessment (6 items), Instructor's Technology Needs (5 items), Rewards (5 items), Incentives (6 items), Personnel Support (6 items), Faculty Commitment (6 items), Faculty Motivation (6 items), and Faculty Satisfaction (6 items). An open-ended comment section followed each construct allowing respondents to describe other activities or services their institution offered to support course design for the purpose of online education. The end of the survey had eleven items to collect demographic and background data from the respondents. A copy of the survey is included in the Appendix. The survey was designed with a response burden of about 10-15 minutes per respondent.

Construct validity. Construct validity is "the degree to which scores on a measure correspond to the underlying construct that the measure is supposed to assess" (Warner, 2008, p. 862). The survey was reviewed by a panel of experts consisting of five university faculty members who were involved with online education. The survey was modified to enhance its readability and usability, and updated to improve clarity, relevance, and up-to-date concepts, which served to improve the measurement and construct validity. Additional definitions were also added to the survey instrument to assist with participants understanding of the concepts.

Survey pilot. The study was piloted with faculty who were teaching online at the University of Wyoming in the fall of 2014, thirty-one potential participants responded to the pilot and completed the survey. The survey was built and disseminated using Qualtrics, which is an online survey development platform that allows for the development and delivery of survey instruments. In first working through, learning about, and using Qualtrics for the pilot study, several issues were discovered that were corrected for the main study. One technical problem was related to the numeric response scale used for most of the survey questions. During the development of the survey instrument, each time the response scale was changed, the actual response scale values changed. In other words, if the response scale was changed from a 1 to 5 point scale to a 1 to 7 point scale, the anchor points for each possible response point converted to a 6 to 12. For example, the original scale was set so that the response scale included a (1) for "completely satisfied" and ranged to a (7) for "completely unsatisfied." It was then decided, based on the pilot, that the scale anchor descriptors needed to be changed to a Likert type agree/disagree response scale. When the response scale was changed to an agree/disagree setup, the numeric response scale changed

to 8 for strongly disagree to 14 for strongly agree, instead of the desired range of 1 to 7. These scales were revalued back to 1 through 7.

It was discovered after sending the pilot emails that a default setting in Qualtrics marked the survey as "in progress" when the survey was opened and then the survey closed for that participant one week later. An option was changed for the study that would not mark the survey as "in progress" until the survey was actually started by the participant. The survey settings were changed on the study to keep surveys marked as "in progress" to remain open for one month to allow adequate time to complete the survey for as long as the participants were getting reminder emails. Additionally, questions 19 and 21 were adjusted to allow for multiple responses on the final survey instrument. Analysis was completed on the pilot data to test for reliability of the instrument and is described below.

Construct reliability. Reliability is defined as "the degree to which a measure is consistent or dependable" (Trochim & Donnelly, 2008, p. 80). It can also be stated as the consistency of measurement results (Warner, 2008). People's opinions on issues rarely take the form of strongly agree, agree, disagree, or strongly disagree (Babbie, 1995), however, the Likert scale is "highly reliable when it comes to a rough ordering of people with regard to a particular attitude or attitude complex" (Miller & Salkind, 2002, p. 330). The Likert response scale also has certain limitations, for example it is not an effective way to probe for clarification for incomplete answers (Fowler, Jr., 2009). Although the Likert response scales have limitations, the survey instrument for this study also included open-ended questions where participants were able elaborate on their perspectives. The scale used in the survey for questions 1-12 was the 7-point rating scale of strongly agree, agree, somewhat agree, neither agree nor disagree, somewhat disagree, disagree, and strongly disagree with 7

being strongly agree and 1 being strongly disagree. The demographic and background section consisted of categorical selection and fill in the blank.

Multiple questions should be used to improve measurement reliability when measuring personality traits, abilities, attitudes, or knowledge (Creswell, 2003; Trochim & Donnelly, 2008; Warner, 2008). "Using a score that corresponds to a sum (or an average) across multiple measurements provides a measure that is more reliable than a single measure" (Warner, 2008, p. 839). Including multiple measures makes it possible to assess the reliability or consistency of responses and, in some situations, confidence about validity can be increased by a score that is a summarization of multiple measures (Creswell, 2003; Trochim & Donnelly, 2008; Warner, 2008). For this reason, several survey questions on the original study were expanded to include multiple questions to improve the measurement. Additional measures for commitment, satisfaction, and motivation were selected from the Institution of Employment Studies (Hayday, 2003).

The reliability of the original survey instrument was checked by Lee (2000) using Cronbach's alpha. However, only one Cronbach's alpha was calculated for all items and not for each construct. Therefore, it is uncertain if in fact the Cronbach's alpha reported by Lee (2000) was a valid measure, because of the fact that it was measuring internal consistency across multiple constructs. Cronbach's alpha is a statistical calculation used to estimate the internal consistency of a measure (Trochim & Donnelly, 2008), and if the calculation is applied across multiple measures, then there is uncertainty as to the validity and usability of such a score.

The pilot study included 31 participants at a land grant university. Four participants were administrators, eight were adjunct, and eighteen were full-time faculty. A Cronbach's

alpha was calculated from the pilot data for each construct to determine the reliability of the instrument. The results are shown in Table 2. Calculating a Cronbach's alpha summarizes information about positive inter-correlations between the items on a multiple-item survey (Warner, 2008). "The Cronbach alpha provides a reliability coefficient that tells us, in theory, how reliable our estimate of the 'stable' entity that we are trying to measure is, when we combine scores from p test items (or behaviors or ratings by judges). The Cronbach alpha uses the mean of all the inter-item correlations (for all pairs of items or measure) to assess the stability or consistency of measurement" (Warner, 2008, p. 854). A coefficient alpha ranges in value between 0 and 1, with scores closer to 1 indicating higher degrees of internal consistency, while scores on the lower end closer to .00 have poor internal consistency. An acceptable level of reliability is in part based on the type of assessment being reviewed and the use of the interpretation. According to Hardy and Bryman (2004), if the alpha is below .8, the reliability of the scale may need to be investigated further. Blaikie (2003) indicated that if the alpha is below .7, the set of items may be an unreliable measure of the concept. With an alpha value exceeding .9, a researcher should consider as to whether or not all of the items are needed to measure the construct (Lavrakas, 2008). It is important to note that the value of the alpha is influenced by the number of items in the scale; it increases as the number of items increases (Blaikie, 2003).

Table 2

Pilot Study: Cronbach's Alpha

Construct	Cronbach's Alpha	# of Construct Items	# of Pilot Responses
Course Design	.79	6	30
Course Conversion	.56	3	31
Technology Training	.90	6	31
Online Pedagogy	.90	6	29
Online Pedagogy Assessment	.41	2	31
Technology Needs	.86	5	30
Rewards	.80	5	31
Incentives	.92	6	31
Personnel Support	.82	6	30
Commitment	.83	6	31
Motivation	.77	6	30
Satisfaction	.85	6	31

Course conversion had a lower alpha than desired due to low inter-correlation and only having three items measuring the construct. The items were reviewed and determined adequate to measure the construct. *Online pedagogy assessment* also had a low alpha value. Review of this construct determined there were two constructs being measured: formative evaluation (during the operation of the course) and summative evaluation (at the end of the course). This question was further expanded to include three questions for each of the two constructs for a total of 6 items for the construct of *online pedagogy assessment* in the final survey instrument. The Cronbach's alpha for *commitment* was calculated at .53. Upon further review, the question that states "Often, I find it difficult to agree with my institution's policies on important matters relating to online education" should have been reverse ordered. When the alpha was run again for *commitment*, the value was calculated at .83.

Survey Dissemination and Administration

      External validity and sampling. According to Trochim and Donnelly (2008) validity is defined "as the best available approximation to the truth of a given proposition, inference, or conclusion" or whether the measurement really measures what it intends to measure (Creswell, 2003; Warner, 2008). External validity, which is the degree to which the results of the study can be generalized to other people, places or times (Creswell, 2003; Trochim & Donnelly, 2008; Warner, 2008), was addressed by using a random sample of participants selected from the developed sampling frame. The sampling frame was composed of online faculty teaching in fall 2014 and their department chairs and/or deans at MSU, OSU, UI, USU, and WSU.

      Self-administered surveys have an advantage when question response categories are numerous or complex (Dillman et al., 2014; Fowler, Jr., 2009). This online survey was conducted using Qualtrics® to distribute and collect the survey data. Survey procedures as described by Dillman et al. (2014) were followed. According to Dillman et al. (2014), the most determinant factor to increase response rate is multiple contacts with participants. "A pre-notice email message appears to take on somewhat greater importance for email surveys because it is very easy to discard email after reading only a tiny portion of it" (Dillman, 2007, pp. 367-368). For this reason, a pre-notice email was sent to alert participants of the survey two days before the survey was distributed. The link to the survey was then sent in an email to the sample population. A reminder email was sent one week after the initial contact to complete the survey to non-responders. The reminder email was sent prior to the winter break. A second and third reminder email was sent out the first two weeks of January

when faculty returned to campus. Both follow-up emails contained a reminder and the survey link (Dillman et al., 2014). Response rates are listed in Table 3 below.

Table 3

Response Rate for Survey

	Surveyed		Responded		Response Rate	
Institution	Faculty	Dept. Chair/ Dean	Faculty	Dept. Chair/ Dean	Faculty	Dept. Chair/ Dean
MSU	94	18	44	7	47%	39%
OSU	204	36	75	15	37%	42%
UI	90	25	47	12	52%	48%
USU	108	38	58	17	54%	45%
WSU	137	27	54	13	39%	48%
Total	633	144	278	64	44%	44%

Non-response bias. A threat to external validity that researchers must address is nonresponse bias. Non-response bias is introduced when the characteristics of the respondents are systematically different than the characteristics of the non-respondents (Hudson, Seah, Hite, & Haab, 2014). Non-response bias can occur when those who do not respond to the survey have a different perspective towards the research questions than those who did respond. A survey with a higher response rate probably will produce a better and less biased sample than one with a lower response rate (Fowler, Jr., 2009). Participants are more likely to complete the survey if they are interested in the subject matter or research itself than individuals who are not interested which can lead to nonresponse bias (Groves, et al., 2006). The researcher needs to check for this bias and follow-up with non-responders, which is those who did not complete the survey during the normal data collection period, so as to be able to compare them to the responders and form judgments about the generalizability of the sample data. As part of the design decision, a researcher must choose how much effort to invest in reducing nonresponses (Fowler, Jr., 2009).

After the final reminder, non-responders were identified and a random sample taken for each institution. For this study, non-response bias was examined by sending follow-up emails with a link to the survey to individuals who have not responded as prescribed by Dillman et al. (2014). The email was personalized to show understanding of their time constraints and written more persuasively to elicit additional responses. The email also directly stated the additional responses would be used to calculate non-response bias. Due to time constraints, fifteen percent of non-responders were contacted by a personalized email asking the participant to complete the survey to determine the nonresponse bias. The email was sent from the researchers personal email account and not through Qualtrics, which appears as a bulk email, in an attempt to obtain additional responses to test for non-response bias. Eighty-seven emails were sent out to non-responders with ten responses being recorded. The survey was closed after five weeks and the data was then transferred to SPSS® for analysis.

Comparing early to late responders. Analysis of non-response bias is important in determining if a sample is representative of the population from which it was drawn. Miller and Smith (1983) determined that non-respondents are similar to late respondents in responding to surveys. For this study, non-response bias was evaluated by comparing the construct scale scores for *commitment*, *satisfaction*, and *motivation* between early respondents (*n* = 132) to late respondents (*n* = 17) through the use of an independent-samples *t*-test. No statistically significant difference was found in the *commitment* ratings (*t*(140) = -.838, p > .05) between early respondents (*M* = 5.02, *SD* = .77) and late respondents (*M* = 5.20, *SD* = .75). The results of the independent-samples *t*-test comparing *satisfaction* ratings between early responders (*M* = 5.58, *SD* = .98) and late responders (*M* =

5.61, *SD* = 1.00) found no significant difference between groups (*t*(139) = -.101, p > .05).

And finally, there was no statistically significant difference (*t*(138) = -.945, p > .05) found in

the *motivation* ratings between early respondents (*M* = 4.72, *SD* = 1.28) and late respondents

(*M* = 5.07, *SD* = .91). Based on these findings, the sample data was determined to be

representative of the population from which it was drawn.

Analysis

        All statistical analysis was conducted using MS Excel and SPSS® statistical

software. Each research question is presented below with the anticipated inferential

statistical analysis to be applied in order to address the research question. Qualitative data

collected was analyzed using the in vivo method. The findings from the qualitative data was

used to inform the interpretation of the quantitative data.

        To screen for violation of assumptions, a Shapiro-Wilk's test and a visual inspection

of the histograms, normal Q-Q plots and box plots showed that the constructs were

approximately normally distributed for both faculty and organizational leaders. An

examination of skewness and kurtosis was also completed and found to be within acceptable

limits. A Levene's test was used to verify the equality of variances in the samples.

        There is some debate on appropriate and best uses of parametric statistical analyses

for Likert data. A conservative approach would lead to a conclusion that statistics such as

mean and Pearson *r* should not be applied to rating-scale data (Warner, 2008). However,

combining multiple scales (average or sum) into an index will add value and variability to

the data which can resemble an interval property (Allen & Seaman, 2007; Cohen, 2013). If

the assumptions of normality are met, analysis using parametric procedures can be followed

(Allen & Seaman, 2007). Since the data was approximately normally distributed and averaged into indexes, parametric procedures were used for the analysis of the study.

Research objective. Describe the demographic and background characteristics of the participants of the study?

Descriptive statistics that include frequency distribution, mean, median and mode was conducted on: (a) age, (b) years of teaching or years in leadership, and (c) number of online courses taught while only a frequency distribution was conducted on (d) gender, (e) race, (f) type of position held, (g) types of learning management systems, (h) forms of communication, (i) instructional technology, (j) tenure status, and (k) department to determine the demographics of the study population.

Research question 1. Are there differences between online faculty perceptions and organizational leaders perceptions of instructional support in online education with regard to: (a) course design, (b) course conversion, (c) technology training, (d) online pedagogy, (e) online pedagogy assessment, (f) instructors' technology needs, (g) rewards, (h) incentives, and (i) personnel support?

The following null hypothesis was tested in order to address the research question.

$H1_0$: Online teaching faculty and organizational leaders do not differ in perceived organizational support as it relates to (a) course design, (b) course conversion, (c) technology training, (d) online pedagogy, (e) online pedagogy assessment, (f) instructors' technology needs, (g) rewards, (h) incentives, and (i) personnel support as measured by two independent-samples *t-test*. Also stated as $H1_0$: $\mu_{faculty} = \mu_{leaders}$.

To determine if faculty and organizational leaders differ significantly for each construct, a two-independent-samples *t-test* was conducted. The alpha level was set at .05 (α =. 05). A priori power is an estimate of the probability of correctly rejecting a false null hypothesis and comprises three elements (1) selected alpha level, (2) planned study sample size, and (3) estimated priori effect size (Martin & Bridgmon, 2012). A priori power probability analysis was conducted using G*Power 3.1.9.2 (Faul, Erdfelder, Lang, & Buchner, 2007). The calculation included the pilot study's effect size of $d = .57$, an alpha of .05, a power (1-β err prob) of .80, and an allocation ratio N2/N1 (4 organizational leaders/26 faculty) of .15. This resulted with a total sample size of 220 and a critical *t* value of 1.97. A desired level of statistical power when planning a study is 80% or greater and increasing the sample size will increase the power (Martin & Bridgmon, 2012; Warner, 2008). Thus, the alpha level and the power are within reasonable limits to control both Type 1 error (rejecting a true null hypothesis) and Type 2 error (retaining a false null hypothesis).

An independent-samples *t-test* assumes that there are two samples being compared and that the samples are independent; that is "the composition of one sample is in no way matched or paired to the composition of the other sample. Thus the two samples reflect two separate population" (Sirkin, 1999, p. 272). In non-experimental applications of the *t-test*, causal inferences are not appropriate when comparing groups that are naturally occurring. The type of comparison can only be reported as a descriptive result and cannot be used to make a causal inference (Warner, 2008). Thus, the results from the independent-samples *t-test* will only report if there is a significant difference between faculty and organizational leaders. The opportunity for participants to include qualitative data elaborated on the cause of the statistically significant differences.

Research question 2. What is the relationship between perceived organizational support constructs and online faculty commitment, motivation, and satisfaction?

The following null hypotheses were tested in order to address the research question.

H2a$_o$: Perceptions of organizational support constructs do not significantly predict commitment of online teaching faculty. Also stated as H2a$_o$: $\beta_a = \beta_b = \beta_c = \beta_d = \beta_e = \beta_f = \beta_g = \beta_h = \beta_i = 0$

H2b$_o$: Perceptions of organizational support constructs do not significantly predict motivation of online teaching faculty. Also stated as H2b$_o$: $\beta_a = \beta_b = \beta_c = \beta_d = \beta_e = \beta_f = \beta_g = \beta_h = \beta_i = 0$

H2c$_o$: Perceptions of organizational support constructs do not significantly predict satisfaction of online teaching faculty. Also stated as H2c$_o$: $\beta_a = \beta_b = \beta_c = \beta_d = \beta_e = \beta_f = \beta_g = \beta_h = \beta_i = 0$

Multiple linear regression was used to address the H2abc$_o$ hypotheses. Again, a priori power probability analysis was conducted to estimate of the probability of correctly rejecting a false null hypothesis using G*Power 3.1.9.2 (Faul, Erdfelder, Lang, & Buchner, 2007). The calculation included the pilot study's squared multiple correlation of $R^2 = .24$ to determine an estimated effect size, an alpha of .05, and a number of predictors of 9 (predictor variables). The resulting power was .80 with a total sample size of 59 and a critical F value of 2.07. A desired level of statistical power when planning a study is 80% or greater and increasing the sample size will increase the power (Martin & Bridgmon, 2012; Warner, 2008). Thus, the alpha level and the power are within reasonable limits to control both Type 1 error (rejecting a true null hypothesis) and Type 2 error (retaining a false null hypothesis). In other words, if a real significant predictive relationship existed between the

independent variables and the dependent variable, then if a random sample was drawn of 351, there would be a 100% chance of detecting the relationship.

Multiple linear regression is used to relate a group of independent variables (predictors) to explain the variance in a dependent variable (Keith, 2006; Smith, Gratz, & Bousquet, 2009). To accomplish this, an equation is used to predict values of a criterion variable from a combination of two or more predictors (Vaughan, 1998). Multiple linear regression was used to develop a model to represent the relationship between motivation, commitment, and satisfaction and the nine predictor variables: (a) course design, (b) course conversion, (c) technology training, (d) online pedagogy, (e) online pedagogy assessment, (f) instructors' technology needs, (g) rewards, (h) incentives, and (i) personnel support. Multiple linear regression first involves a test of the overall regression model. When a model is found to be statistically significant, then each construct coefficient must be analyzed to determine which predictor variables are significantly related to the criterion variables.

Qualitative comments. The comments from the open-ended questions were analyzed using the in vivo method. In vivo coding assigns a label to a section of data using a work or short phrase taken from that section of data (King, 2008). "The aim of creating an in vivo code is to ensure that concepts stay as close as possible to research participants' own words or use their own terms because they capture a key element of what is being described" (King, 2008). These comments were analyzed to provide more in-depth information about the variables associated with the organizational support constructs. Forty-four percent of respondents provided additional comments.

Summary

This chapter described the population, the survey instrument, research methods, and the procedures that the researcher followed to address the research questions. Reliability and validity were addressed by means of panel of experts, pilot study, increase items to measure constructs, and Cronbach's alpha. Parametric tests were used for analysis, specifically the independent-samples *t-test* and multiple linear regression. Qualitative comments were analyzed and used to provide additional insight into the quantitative findings.

Chapter 4: Findings

The purpose of this study was (a) to investigate the relationship between online faculty perceptions of instructional support and that of organizational leaders of online programs, and (b) to examine the relationship between faculty and organizational leaders' perception of organizational support and motivation, commitment, and satisfaction associated with online education. A quantitative research methodology was implemented to achieve these objectives. As part of the survey instrument, open-ended questions were provided that allowed respondents to elaborate with qualitative type responses. The quantitative statistical analysis was completed using descriptive statistics and univariate statistical procedures including the use of the two-independent-samples *t*-test, the analysis of variance (ANOVA), and multiple linear regression analysis. Qualitative data analysis was completed using in vivo coding for responses to the open-ended questions.

Statistical assumptions. Along with the skewness, kurtosis, and central tendency evaluation, a visual inspection of the histograms, normal Q-Q plots and box plots showed that the data is approximately normally distributed for both faculty and organizational leaders across the organizational support constructs. Outliers were identified and not included within the calculations. Skewness and kurtosis figures for online faculty are displayed in Table 4. Although some items have a slight negative skew, the absolute values are generally well below 0.5 and thus deemed within acceptable limits of the normality assumption (Sirkin, 1999). For the item of *course conversion* the negative skew was slightly more pronounced and thus this construct was evaluated using both parametric and non-parametric tests to validate conclusions.

Table 4

Tests for Normality: Skewness and Kurtosis for Online Faculty

Construct	*M*	Mdn	Skewness		Kurtosis	
			Statistic	*SE*	Statistic	*SE*
Course Design	4.7	4.7	-.36	.15	-.43	.29
Course Conversion	5.6	5.7	-.67	.15	-.19	.29
Technology Training	4.6	4.7	-.30	.15	-.46	.29
Online Pedagogy	4.1	4.2	-.18	.15	-.71	.29
Online Pedagogy Assess – During	3.1	3.0	.27	.15	-.69	.29
Online Pedagogy Assess – End	4.0	4.0	.08	.15	-.79	.29
Online Pedagogy Assess – Total	3.6	3.3	.34	.15	-.64	.29
Technology Needs	4.9	5.0	-.17	.15	-.54	.30
Rewards	3.3	3.4	.00	.15	-.64	.29
Incentives	4.0	4.0	-.18	.15	-.59	.30
Personnel Support	3.8	4.0	-.12	.15	-.36	.29
Commitment	5.0	5.2	-.45	.15	-.06	.30
Motivation	4.7	4.8	-.36	.15	-.42	.30
Satisfaction	5.7	5.7	-.34	.15	-.41	.30

Skewness and Kurtosis figures for organizational leaders are displayed in Table 5.

Course conversion and *technology training* are negatively skewed, but within acceptable

limits. Both parametric and non-parametric tests were completed to validate the results.

Table 5

Tests for Normality: Skewness and Kurtosis for Organizational Leaders

Construct	*M*	Mdn	Skewness		Kurtosis	
			Statistic	*SE*	Statistic	*SE*
Course Design	4.9	5.2	-.60	.30	-.48	.59
Course Conversion	6.0	6.3	-.75	.30	-.83	.58
Technology Training	4.9	5.0	-.71	.30	-.01	.58
Online Pedagogy	4.8	4.9	-.62	.29	-.19	.58
Online Pedagogy Assess – During	4.0	4.0	-.16	.30	-.83	.59
Online Pedagogy Assess – End	4.6	4.7	-.39	.32	-.61	.62
Online Pedagogy Assess – Total	4.4	4.4	-.15	.30	-.91	.59
Technology Needs	5.3	5.2	-.04	.30	-.69	.59
Rewards	4.2	4.3	-.22	.31	-.99	.61
Incentives	4.8	5.0	-.61	.30	.11	.59
Personnel Support	4.6	4.7	-.50	.30	-.51	.58
Commitment	5.2	5.2	-.18	.31	.84	.61
Motivation	5.4	5.7	-.54	.31	-.72	.61
Satisfaction	6.0	6.0	-.04	.31	-.63	.62

Research Objective: Describe the Demographic and Background Characteristics of the Participants of the Study.

Descriptive statistics were calculated for (a) age, (b) gender, (c) race, (d) type of position held, (e) years of teaching or years in leadership, (f) number of online courses taught, (g) types of learning management systems, (h) forms of communication, (i) instructional technology, (j) tenure status, and (k) department to determine the demographics of the study population. From the overall population of 780 online teaching faculty and organizational leaders (N = 780; 636 faculty and 144 organizational leaders) identified from the selected land grant institutions, approximately 44% provided some kind of response. A review of the data found that 13 participants completed less than 50% of the survey. These

13 records were removed from the data set, which left 347 respondents for analysis ($n = 347$; 281 faculty and 66 organizational leaders).

The respondents consisted of 50% full-time faculty, 31% adjunct faculty, and 19% organizational leaders. Table 6 shows a comparison between full- and adjunct faculty and the organizational leaders by age, years in this or a similar position, and number of courses taught online. For the number of courses taught online, respondents were advised to count the same course taught several times as a single course.

Table 6

Descriptive Statistics for Age, Years in Position, and Number of Online Courses Taught

	Age			Years in position			[a] # of courses taught online		
Population	*M*	Mdn	Mode	*M*	Mdn	Mode	*M*	Mdn	Mode
Full time	50	49	45	11	9	3	4	3	1
Adjunct	46	44	32	7	5	3	3	2	1
Org. leaders	55	56	61	11	6	1	n/a	n/a	n/a
Overall	49	50	61	10	6	3	4	3	1

[a] Organizational leaders were not asked to state the number of courses taught online.

Table 7 shows the results for gender and race. The majority of organizational leaders were male and Caucasian. Adjunct faculty were mostly Caucasian women, while full-time faculty had the most diversity for race.

Table 7

Descriptive Statistics for Gender and Race

	Gender		Race		
Position	Male	Female	White	Asian	Other
Full time	54%	46%	87%	6%	7%
Adjunct	33%	67%	91%	6%	3%
Org. leaders	75%	25%	93%	2%	5%
Total	51%	49%	90%	5%	5%

Twenty three participants did not provide tenure information and are not reported in Table 8. About half of full-time faculty members are either tenured or on a tenure track. Over half of all respondents are in a non-tenure track position.

Table 8

Descriptive Statistics for Tenure Status

	Tenured	Tenure track, but not tenured	Non-tenure track	Total
Full-time faculty				
Count	51	23	85	159
Percent	32.1%	14.5%	53.5%	100.0%
% Tenure Status	45.1%	100.0%	45.2%	49.1%
Adjunct faculty				
Count	6	0	98	104
Percent	5.8%	0.0%	94.2%	100.0%
% Tenure Status	5.3%	0.0%	52.1%	32.1%
Organizational Leaders				
Count	56	0	5	61
Percent	91.8%	0.0%	8.2%	100.0%
% Tenure Status	49.6%	0.0%	2.7%	18.8%
Total				
Count	113	23	188	324
Percent	34.9%	7.1%	58.0%	100.0%
% Tenure Status	100.0%	100.0%	100.0%	100.0%

A breakout of respondents by the unit for which they associate themselves with (i.e., college or department) is presented in Table 9. The units with the largest number of participants in the study were agriculture/forestry, education, and the sciences.

Table 9

Respondent's by Unit

Unit	Full-time faculty	Adjunct faculty	Organizational leaders	Total %
Agriculture/Forestry	15%	10%	24%	15%
Business	8%	9%	9%	8%
Education	16%	16%	10%	15%
Engineering	7%	5%	7%	6%
General Education	7%	8%	3%	7%
Health Professions	9%	9%	2%	8%
Languages	7%	8%	5%	7%
Liberal Arts	6%	11%	2%	7%
Science	16%	15%	14%	16%
Sociology/Psychology	4%	7%	5%	5%
Other	5%	2%	19%	6%
Total %	49%	32%	19%	100%

Participants were asked which learning management systems (LMS) they used when teaching online. Multiple responses could be given by each participant to record if they were using more than one LMS and the responses are shown in Table 10. Several respondents who were using Angel stated they were in the process of migrating to Blackboard.

Table 10

Learning Management Systems

LMS	Full-time faculty		Adjunct faculty		Organizational leaders		Total	
	#	%	#	%	#	%	#	%
Blackboard	90	44%	66	48%	33	52%	189	46%
Canvas	52	25%	37	27%	17	27%	106	26%
Desire2Learn	30	15%	13	9%	7	11%	50	12%
Angel	22	11%	11	8%	4	6%	37	9%
Moodle	2	1%	6	4%	1	2%	9	2%
Other	10	5%	4	3%	2	3%	16	4%

Table 11 shows the responses to the primary form of communication between instructors and students in their online courses. Although originally intended as a question for faculty, of the 66 organizational leaders, 53 responded to this question. Forty-seven percent of participants indicated email as their primary form of communication with students, as compared with 45% who indicated course communities to be their primary form of communication.

Table 11

Primary Tool Used to Communicate With Students

Communication Tool	Full-time faculty		Adjunct faculty		Organizational leaders		Total	
	#	%	#	%	#	%	#	%
Email	74	42%	51	48%	33	62%	158	47%
Course communities (e.g., blogs, discussion boards)	85	48%	51	48%	15	28%	151	45%
Text messaging / instant messaging	1	1%	2	2%	1	2%	4	1%
Other	16	9%	2	2%	4	8%	22	7%

Participants were asked what types of tools and features they use to support their online instruction. Multiple responses were allowed to determine all of the tools/features used by instructors. The results are displayed in Table 12.

Table 12

Tools/Features Used to Support Online Instruction

Instructional Tool	Full-time faculty		Adjunct faculty		Org. leaders		Total	
	#	%	#	%	#	%	#	%
Discussion boards	123	34%	77	40%	23	27%	223	35%
LMS	117	33%	66	35%	34	40%	217	34%
Meeting software (e.g., Skype)	38	11%	19	10%	13	15%	70	11%
Website separate from LMS	30	8%	7	4%	6	7%	43	7%
Blogs	18	5%	13	7%	4	5%	35	6%
Wikis	11	3%	3	2%	2	2%	16	3%
Other	22	6%	6	3%	2	2%	30	5%

The sample population was generally Caucasian, about 50 years old, and in their current position for approximately 10 years. The split between male and female was equal, but 75% of organizational leaders were male. Most of the sample population has taught 4 different online courses. Blackboard and Canvas are the main learning management systems used with the primary communication tools being email and course communities to correspond with their students.

Research Question 1: Are there differences between online faculty perceptions and organizational leaders perceptions of instructional support in online education with regard to: (a) course design, (b) course conversion, (c) technology training, (d) online pedagogy, (e) online pedagogy assessment, (f) instructors' technology needs, (g) rewards, (h) incentives, and (i) personnel support?

The statistical assumptions that need to be met for a two independent-samples *t*-test are normality, random sampling, independence, and equal variances (Privitera, 2012; Warner, 2008). Normality was address at the beginning of this chapter and found to be within acceptable limits across each of the organizational support constructs. The sample

population was obtained through a simple random sampling method and the two

populations, online faculty and organization leaders, are independent from each other. A

Levene's test verified the equality of variances in the samples (homogeneity of variance)

(p>.05).

Independent-samples t-tests were performed to assess whether the perception of

online faculty was significantly different than that of administrative leaders for each

organizational support construct. An alpha level of .05 (α = .05) was used for the analysis.

Before conducting the t-test, descriptive statistics were first calculated. The group statistics

are displayed in Table 13.

Table 13

Group Statistics for t-test: A Comparison of Faculty and Organizational Leaders

	Faculty				Organization Leaders			
Construct	*n*	*M*	SD	*SE*	*n*	*M*	SD	*SE*
Course Design	280	4.66	1.31	.08	65	4.88	1.38	.17
Course Conversion	277	5.61	1.10	.07	66	5.96	1.09	.03
Technology Training	280	4.56	1.33	.08	66	4.86	1.67	.17
Online Pedagogy	280	4.13	1.45	.09	66	4.76	1.37	.17
Online Pedagogy Assess. - during	276	3.12	1.33	.08	64	3.95	1.17	.14
Online Pedagogy Assess. - end	267	3.97	.98	.06	57	4.61	.99	.13
Online Pedagogy Assess. - total	274	3.57	1.07	.06	64	4.38	1.01	.13
Technology Needs	270	4.91	1.16	.07	64	5.30	.99	.12
Rewards	279	3.28	1.29	.08	60	4.24	1.24	.16
Incentives	266	3.96	1.27	.08	65	4.76	1.23	.15
Personnel Support	280	3.78	1.31	.08	66	4.58	1.50	.18
Total	281	4.18	1.03	.06	66	4.81	1.07	.13

Table 14 shows the output for the independent-samples t-test comparing faculty

perceptions to organizational leaders perception for each of the organizational support

constructs. The effect size was calculated using the Cohen's *d*. The Cohen's *d* strength of

effect size is small if $d \leq .20$, medium if d is between .20 and .79, and large if $d \geq .80$

(Martin & Bridgmon, 2012; Privitera, 2012; Warner, 2008). For the organizational support

constructs, all were found to be perceived significantly differently by faculty than by

organizational leaders, except for *course design* ($p = .21$) and *technology training* ($p = .10$).

Table 14

Organizational Support Constructs: A Comparison of Faculty and Organizational Leaders
Perceptions

| | *t*-Test for Equality of Means | | | | | |
Construct	*t*	*df*	*p*-value	*M* Diff	*SE* Diff	Cohen's *d*
Course Design	-1.25	343	.21	-.23	.18	n/a
Course Conversion	-2.36	341	.02	-.36	.15	.26
Technology Training	-1.63	344	.10	-.30	.18	n/a
Online Pedagogy	-3.19	344	.00	-.63	.20	.34
Online Pedagogy Assess. - during	-4.63	338	.00	-.84	.18	.50
Online Pedagogy Assess. – end	-4.49	322	.00	-.64	.14	.50
Online Pedagogy Assess. - combined	-5.54	336	.00	-.81	.15	.60
Technology Needs	-2.48	332	.01	-.39	.16	.27
Rewards	-5.25	337	.00	-.96	.18	.57
Incentives	-4.58	329	.00	-.80	.17	.51
Personnel Support	-4.35	344	.00	-.80	.18	.47
Total	-4.44	345	.00	-.63	.14	.48

A Mann-Whitney test was computed to validate the conclusions of the independent

samples t-test. The results are listed in Table 15. Both *course design* and *technology*

training were not statistically different which supports the independent samples t-test.

Table 15

Mann-Whitney Test: A Comparison of Faculty and Organizational Leaders Perceptions

Construct	Faculty Mdn	Org. Leaders Mdn	U	p-value	r
Course Design	4.67	5.17	8293.0	.18	.07
Course Conversion	5.67	5.33	7247.0	.01	.15
Technology Training	4.67	5.00	7877.0	.06	.10
Online Pedagogy	4.17	4.92	6891.5	.00	.17
Online Pedagogy Assess. - during	3.00	4.00	5901.5	.00	.25
Online Pedagogy Assess. - end	4.00	5.00	5708.0	.00	.26
Online Pedagogy Assess. - combined	3.50	4.50	5480.0	.00	.28
Technology Needs	4.90	5.20	7292.5	.01	.13
Rewards	3.40	4.50	5192.0	.00	.30
Incentives	4.00	4.92	5753.0	.00	.26
Personnel Support	4.00	4.73	6189.0	.00	.22
Total	4.23	4.95	6101.0	.00	.23

For the significant organizational support constructs, online faculty scored lower than organizational leaders by an average of about .6 points on the seven point scale (see Table 16). The largest discrepancy was for *rewards* which averaged about 1 point lower for faculty. *Rewards* also had the second largest effect size ($d = .57$). *Online pedagogy assessment during and combined*, *incentives*, and *personnel support* followed with an average of about .8 points lower for online faculty. *Course conversion* and *technology needs* were the closest between online faculty and organizational leaders with an average of about .4 points separating them.

Table 16

Significant Differences Between Faculty and Organizational Leaders

Construct	Faculty M	Org. Leaders M	Difference $M_{OL} - M_F$	Cohen's d
Course Conversion	5.61	5.96	.4	.26
Online Pedagogy	4.13	4.76	.6	.34
Online Pedagogy Assess. - during	3.12	3.95	.8	.50
Online Pedagogy Assess. - end	3.97	4.61	.6	.50
Online Pedagogy Assess. - combined	3.57	4.38	.8	.60
Technology Needs	4.91	5.30	.4	.27
Rewards	3.28	4.24	1.0	.57
Incentives	3.96	4.76	.8	.51
Personnel Support	3.78	4.58	.8	.47
Total Support Score	4.18	4.81	.6	.48

Course design. *Course design* was not found to be significantly different, $t(343) = -1.25$, $p = .21$ between faculty and organizational leaders. Therefore, the null hypothesis is retained, indicating there is no statistically significant difference between online teaching faculty's and organizational leaders' perceptions concerning organizational support as it relates to course design (fail to reject H1$_{0a}$). The mean perceived support for faculty ($M = 4.66$, $SD = 1.31$) was about .26 points lower than the mean for organizational leaders ($M = 4.88$, $SD = 1.38$). *Course design* was found to be significantly different between full-time faculty ($M = 4.78$, $SD = 1.35$) and adjunct faculty ($M = 4.46$, $SD = 1.23$) with full-time faculty rating it about .3 points higher.

Participants comments provided from the open-ended questions included remarks on personnel support, in-house training, encouraged certification courses, and inadequate support. Good personnel support was the most common reference with 62 participants recognizing additional help, specifically one-on-one support with an instructional designer. The in-house training included learning lunches, annual Ecampus conferences, and

workshops throughout the year. Several respondents reported being encouraged to pursue Quality Matters training and certification. Some comments concerning inadequate support are as follows:

- Tech guidance is provided for the Learning Management Software, D2L, but training in online course design itself is not provided.
- I know that the institution is interested in having faculty offer online courses, but I don't see a lot of active encouragement or support for such teaching.
- I am unaware of our University offering many opportunities to learn more about better designed online courses. I get a lot of emails from other entities offering webinars and classes (e.g., Magna Publications and their affiliate Faculty Focus).
- Getting help with Blackboard has been difficult. The Web-based tutorials do not always help me deal with my concerns, and the support only applies to technological challenges, not really course design specifically.

Course conversion. *Course conversion* was significantly different, $t(341) = -1.25$, $p = .02$, $d = .26$, between faculty and organizational leaders. Therefore, there is sufficient evidence at the alpha level of .05 to reject the claim that online teaching faculty and organizational leaders do not differ in perceived organizational support as it relates to course conversion (reject $H1_{0b}$). The mean perceived support for faculty ($M = 5.61$, $SD = 1.10$) was about .4 points lower than the mean for organizational leaders ($M = 5.96$, $SD = 1.09$).

Responses to the open-ended questions included comments on personnel support, monetary compensation, time commitment, and little to no support. Personnel support was the most common reference with 20 participants acknowledging the great support from other individuals and/or departments. Monetary benefits included mention of either grants or

course development funds to assist in the conversion of a course to online. Six respondents

reported a lack of time to use the tools and learning resources available to them. One

respondent report "there is an online course and news feed to support instructional design

and teaching. I should review this more often for ideas and support but online teaching is

extremely time consuming!" Several stated the process for *course conversion* at their

institution was cumbersome to use and not "faculty friendly". One respondent stated:

> Everything is done through what is called 'Global Campus.' It's how we get
>
> assistance for the online courses. … Dealing with Global Campus involves at least
>
> four steps whereas a simple e-mail would be much easier from the instructor's point
>
> of view.

Technology training. *Technology training* was not significantly different, $t(344) = -1.63$, $p = .10$ between faculty and organizational leaders. Therefore, there is insufficient

evidence at the alpha level of .05 to reject the claim that online teaching faculty and

organizational leaders do not differ in perceived organizational support as it relates to

technology training (fail to reject H$1_{0c)}$. The mean perceived support for faculty ($M = 4.56$,

$SD = 1.33$) was about .3 points lower than the mean for organizational leaders ($M = 4.86$, $SD = 1.67$).

Open ended comments for *technology training* include personnel support, training

sessions, and lack of support. Personnel support include Ecampus and instructional designer

support, mentoring opportunities, help desk, and supervisor assistance. Several training

sessions and/or resources were mentioned including online tutorials, brown bag sessions,

workshops, and support to attend conferences. Several respondents reported they did not

know what was available for them to use. Others reported "some help but not enough" and "long webinars (not recorded) where you forget what you need to know before you need it."

Online pedagogy. *Online pedagogy* was significantly different, $t(344) = -3.19$, $p < .05$, $d = .34$, between faculty and organizational leaders. Therefore, there is sufficient evidence at the alpha level of .05 to reject the claim that online teaching faculty and organizational leaders do not differ in perceived organizational support as it relates to online pedagogy (reject $H1_{0d}$). The mean perceived support for faculty ($M = 4.13$, $SD = 1.45$) was about .6 points lower than the mean for organizational leaders ($M = 4.76$, $SD = 1.37$).

Personnel support was highly commented on for *online pedagogy* through either mentoring, instructional designers, or department staff. A couple of respondents specifically discussed required training for new instructors during their first term. The certifications for Quality Matters and CMS were mentioned as assisting in *online pedagogy*. A lack of time to use the resources to learn *online pedagogy* and not knowing what resources were available were also mentioned.

Online pedagogy assessment. *Online pedagogy assessment* has two areas being measured – assessments during the course and assessments at the end of the course. Both measures were tested separately as well as together. The results show a significant difference between all three of the measures, during $t(338) = -4.63$, $p < .05$, $d = .50$, after $t(322) = -4.49$, $p < .05$, $d = .50$, and combined $t(336) = -5.54$, $p < .05$, $d = .60$. Therefore, there is sufficient evidence at the alpha level of .05 to reject the claim that online teaching faculty and organizational leaders do not differ in perceived organizational support as it relates to online pedagogy assessment (reject $H1_{0e)}$. The mean perceived support for assessment during the course for faculty ($M = 3.12$, $SD = 1.33$) was about .8 points lower

than the mean for organizational leaders ($M = 3.95$, $SD = 1.17$). Assessments at the end of a course was about .6 points lower from faculty ($M = 3.97$, $SD = .98$) to organizational leaders ($M = 4.61$, $SD = .99$) while the combined assessments was about .8 points lower for faculty ($M = 3.57$, $SD = 1.07$) than organizational leaders ($M = 4.38$, $SD = 1.01$).

Optional comments for assessment include instructor initiated evaluations, peer reviews, and conventional end of term assessments. The most common remarks were instructor initiated evaluations. This included the instructor creating an evaluation to administer to their students or requesting their course be evaluated through student evaluation or peer review. Types of peer review that were mentioned include Quality Matters review, department head or dean, online faculty members, or instructional designers. Several respondents commented that the conventional end of course student evaluations were used which are the same for face-to-face and online courses. One responded stated "conventional student evaluations are used. They do not work." This was a common theme among respondents.

Technology needs. The *t*-test results showed that *technology needs* was significantly different between faculty and organizational leaders, $t(332) = -2.48$, $p = .01$, $d = .27$. Therefore, there is sufficient evidence at the alpha level of .05 to reject the claim that online teaching faculty and organizational leaders do not differ in perceived organizational support as it relates to technology needs (reject $H1_{0f}$). The mean perceived support for faculty ($M = 4.91$, $SD = 1.16$) was about .4 points lower than the mean for organizational leaders ($M = 5.30$, $SD = .99$).

Comments concerning *technology needs* range from great support to non-existent. For respondents that received hardware from their institution, they are on a three year

rotation to get new equipment. Several respondents commented that they were required to provide all of their own equipment. Some stated specifically they were adjunct, but other comments include:

- My department head is going to pay for my office phone. My IT people assist me with computer issues, etc. However, I had to buy a laptop off a research grant.

- None. It is all out-of-pocket as an instructor, not a tenured-track faculty member.

- I work from a different campus and at home. For this course, I am completely dependent on my own computer, printer, Internet provider, etc., which amount to significant expenses.

- By default, faculty are expected to provide their own computer and software resources, except in the case for some general software license agreements. Support for computer purchases has been, and is, non-existent.

Comments for personnel support for *technology needs* included great technical support, instructional designers, graphic designers, and videographers.

Rewards. *Rewards* included earning tenure and/or advancement in rank, salary increases, fringe benefits, compensation for course development, and compensation for offering a new course. All institutions resulted in a lower perceived level of support for *rewards* from faculty than organizational leaders. *Rewards* was significantly different, $t(337) = -5.25$, $p < .05$, $d = .57$. Therefore, there is sufficient evidence at the alpha level of .05 to reject the claim that online teaching faculty and organizational leaders do not differ in perceived organizational support as it relates to rewards (reject $H1_{0g}$). The mean perceived support for faculty ($M = 3.28$, $SD = 1.29$) was about 1 point lower than the mean for organizational leaders ($M = 4.24$, $SD = 1.24$).

The additional comments section contained three major categories: monetary compensation, other compensation, and no compensation. Monetary compensation included grants, cash awards, and stipends. One respondent stated "as a chair, I provide support (salary) for staff to do this, but the funds are one year out of sync with needs. Costs fall on the department although the higher ups take most of the funds." Other types of compensation included benefits for full-time faculty (e.g. advancement, fringe benefits, etc.) and appreciation by peers. Most optional comments for *rewards* were negative. Several stated previously there were *rewards*, but not any longer. Other comments include:

- There is very little recognition for online work. I have no opportunity for salary increase or advancement. I do not feel as if I am part of the university community and I almost feel as if the university prefers it that way because if they acknowledge my efforts then they may feel obligated to offer me compensation!

- I'm pretty much an outsider - no invitations to department functions and no recognition or appreciation of any kind. It's not a lot of fun here at my institution. I do teach online for another institution which does much better with supporting faculty. But this ground institution doesn't really know I'm out here slugging away hours every day.

- Rather than constituting a "reward", our department actually punishes faculty who teach highly enrolled courses. Online instructors who teach courses with an enrollment of 27 students earn just as much as do instructors teaching courses with as many as 120 students.

Incentives. *Incentives* included release time, faculty development opportunities, flexibility in work schedule, opportunities to improve teaching skills, intellectual

challenge/opportunity to develop new ideas, and recognition for online teaching efforts. The *t*-test showed a significant difference, $t(329) = -4.58$, $p < .05$, $d = .51$, between faculty and organizational leaders. Therefore, there is sufficient evidence at the alpha level of .05 to reject the claim that online teaching faculty and organizational leaders do not differ in perceived organizational support as it relates to incentives (reject $H1_{0h}$). The mean perceived support for incentives for faculty ($M = 3.96$, $SD = 1.27$) was about .8 points lower than for organizational leaders ($M = 4.76$, $SD = 1.23$).

Most of the optional comments for *incentives* were negative in nature. The few positive comments included receiving recognition of their work by their department or with an award. Several comments related to distance faculty not receiving the *incentives* and recognition that campus based faculty receive. One comment stated "within our department, which is all online, we work and challenge each other. But, in comparison to the rest fixed location faculty, distance faculty lose out." Another respondent added "online courses are taught by part-timers who are removed from the life of the board appointed faculty. We are seen as less competent and our role is to save the institution money." A general sense of less *incentives* being offered is related by this comment "if the class is over 70 students, we are given grading support. This is sometimes good, depending on the quality of the grader. It used to be better, but lately, there seems to be more disincentives."

Personnel support. The *t*-test results showed that *personnel support* was significantly different, $t(344) = -4.35$, $p < .05$, $d = .47$, between faculty and organizational leaders. Therefore, there is sufficient evidence at the alpha level of .05 to reject the claim that online teaching faculty and organizational leaders do not differ in perceived organizational support as it relates to personnel support (reject $H1_{0i}$). The mean perceived

support for faculty ($M = 3.78$, $SD = 1.31$) was about .8 points lower than the mean for organizational leaders ($M = 4.58$, $SD = 1.50$).

The optional comments for *personnel support* was predominantly positive. The types of *personnel support* mentioned include teaching/grading assistance, department of distance education, IT help desk, instructional designers, and peer mentoring. A lack of department support was mentioned in this comment:

All of the support comes from Ecampus. I think this is a real issue, because the department themselves are very slow to embrace online learning. I think this is primarily due to a lack of exposure and that the technology used is outside of the area of expertise for many lifers in academia.

Other comments express concerns with inadequate staffing in the distance education department to help with the updates which cannot be updated by the faculty members themselves.

Combined constructs. The nine instructional support constructs were averaged into a combined constructs index. The results were significantly different, $t(345) = -4.44$, $p < .05$, $d = .48$. The mean perceived support for faculty ($M = 4.18$, $SD = 1.03$) was about .6 points lower than the mean for organizational leaders ($M = 4.81$, $SD = 1.07$).

Full-time compared to adjunct faculty. In order to determine if a significant difference exists between full-time faculty and adjunct faculty, an independent samples *t*-test ($\alpha = .05$) was calculated to compare the two groups. The group statistics are listed in Table 17. The comparison was computed for the nine constructs as well as *commitment*, *motivation*, and *satisfaction*.

Table 17

Group Statistics for t-test: A Comparison of Full-Time Faculty and Adjunct Faculty

Construct	Full-time Faculty				Adjunct Faculty			
	n	*M*	SD	*SE M*	*n*	*M*	SD	*SE M*
Course Design	172	4.78	1.35	.10	108	4.46	1.23	.12
Course Conversion	171	5.66	1.12	.09	106	5.53	1.08	.10
Technology Training	173	4.57	1.38	.10	107	4.54	1.25	.12
Online Pedagogy	172	4.13	1.47	.11	108	4.13	1.42	.14
Online Pedagogy Assess. – During	171	3.11	1.31	.10	105	3.12	1.37	.13
Online Pedagogy Assess. – End	163	3.93	.99	.08	104	4.04	.97	.10
Online Pedagogy Assess. – Total	168	3.53	1.05	.08	106	3.62	1.11	.11
Technology Needs	166	4.99	1.21	.09	104	4.79	1.06	.10
Rewards	171	3.28	1.35	.10	108	3.27	1.21	.12
Incentives	164	3.96	1.34	.10	102	3.98	1.14	.11
Personnel Support	172	3.77	1.39	.11	108	3.79	1.18	.11
Commitment	163	5.10	.77	.06	105	4.93	.76	.07
Motivation	159	4.90	1.14	.09	106	4.51	1.15	.11
Satisfaction	155	5.80	.82	.07	101	5.52	.70	.07

The *t*-test results are presented in Table 18. For eight of the nine organizational support constructs and *commitment*, there is not a significant difference between full-time faculty and adjunct faculty. It is interesting to note that for the *commitment* construct the p-value was calculated as .066, which is arguably meaningful, even if it is not statistically significant. There was a significant difference between full-time faculty and adjuncts for *course design* $t(278) = 2.04$, $p = .04$, *motivation* $t(263) = 2.72$, $p = .01$ and *satisfaction* $t(254) = 2.80$, $p = .01$. A Cohen's *d* effect size was calculated with a medium effect size of $d = .24$ for *course design*, $d = .34$ for *motivation* and $d = .35$ for *satisfaction*. The *course design* mean for full-time faculty ($M = 4.78$, $SD = 1.35$) was about .3 points higher than the mean for adjunct faculty ($M = 4.46$, $SD = 1.23$). The *motivation* mean for full-time faculty ($M =$

4.90, *SD* = 1.14) was about .4 points higher than the mean for adjunct faculty (*M* = 4.51, *SD*

= 1.15). The *satisfaction* mean for full-time faculty (*M* = 5.80, *SD* = .82) was about .3

points higher than the mean for adjunct faculty (*M* = 5.52, *SD* = .70).

Table 18

Organizational Support Constructs and Commitment, Motivation, and Satisfaction: A Comparison of Full-Time Faculty and Adjunct Faculty Perceptions

| | *t*-Test for Equality of Means | | | | |
Construct	*t*	*df*	*p*-value	Mean Difference	SE Difference
Course Design	2.04	278	.04	.33	.16
Course Conversion	.88	275	.38	.12	.14
Technology Training	.21	278	.83	.03	.16
Online Pedagogy	.01	278	.99	.00	.18
Online Pedagogy Assess. – During	-.06	274	.95	-.01	.17
Online Pedagogy Assess. – End	-.90	265	.37	-.11	.12
Online Pedagogy Assess. – Total	-.67	272	.51	-.09	.13
Technology Needs	1.35	268	.18	.20	.14
Rewards	.08	277	.94	.01	.16
Incentives	-.13	264	.90	-.02	.16
Personnel Support	-.10	278	.92	-.02	.16
Commitment	1.84	266	.07	.18	.10
Motivation	2.72	263	.01	.39	.14
Satisfaction	2.80	254	.01	.28	.10

Comparison of tenure status. In order to determine if a significant difference

exists between tenure status, a one-way ANOVA (α = .05) was calculated to compare the

three groups: tenured, tenure track but not tenured, and non-tenure track. An ANOVA was

computed for adjunct faculty, full-time faculty, and organizational leaders. The comparison

was computed for the nine constructs as well as *commitment*, *motivation*, and *satisfaction*.

The group statistics for full-time faculty are listed in Table 19. Tenured full-time faculty

reported lower perceived organizational support than non-tenure track full-time faculty for

all construct except *rewards*. Tenured full-time faculty was generally lower than full-time faculty on tenure track but not yet tenured. The exceptions were in *online pedagogy* and *rewards* where tenure track faculty rated lower.

Table 19

Group Statistics for One-Way ANOVA: A Comparison of Full-Time Faculty and Tenure Status

Construct	Tenured				Tenure Track but Not Tenured				Non-tenure Track			
	n	*M*	SD	SE *M*	*n*	*M*	SD	SE *M*	*n*	*M*	SD	SE *M*
Course Design	51	4.61	1.60	.22	23	4.60	1.44	.30	84	4.90	1.20	.13
Course Conversion	51	5.33	1.25	.17	22	5.76	1.04	.22	84	5.80	1.05	.11
Technology Training	51	4.37	1.57	.22	23	4.41	1.40	.29	85	4.69	1.29	.14
Online Pedagogy	50	4.14	1.58	.22	23	3.72	1.67	.35	85	4.23	1.42	.15
Online Pedagogy Assess. – During	50	2.88	1.11	.16	22	3.51	1.42	.30	85	3.12	1.36	.15
Online Pedagogy Assess. – End	48	3.78	.98	.14	20	3.95	1.17	.26	81	4.00	.94	.10
Online Pedagogy Assess. - Total	50	3.39	.94	.13	21	3.74	1.25	.27	83	3.55	1.04	.11
Technology Needs	46	4.81	1.40	.21	22	4.90	1.44	.31	84	5.15	1.06	.12
Rewards	51	3.34	1.44	.20	23	2.98	1.34	.28	83	3.28	1.29	.14
Incentives	48	3.51	1.43	.21	21	3.94	1.28	.28	81	4.16	1.26	.14
Personnel Support	50	3.37	1.36	.19	23	3.91	1.59	.33	85	3.94	1.36	.15
Commitment	50	4.82	.82	.12	23	5.26	.80	.17	84	5.24	.67	.07
Motivation	47	4.65	1.19	.17	23	5.36	1.01	.21	83	4.94	1.10	.12
Satisfaction	45	5.76	.76	.11	23	6.01	.83	.17	83	5.77	.86	.09

The ANOVA results for full-time faculty are shown in Table 20. A significant difference was found between tenured, tenure track but not tenured, and non-tenure track full-time faculty for *incentives* (*F*(2,147) = 3.59, p< .05), *commitment* (*F*(2,154) = 5.68, p< .05), and *motivation* (*F*(2,150) = .19, p< .05), but interestingly, not for *satisfaction* (p>.05). *Incentives* had a mean score of 3.51 for tenured, 3.94 for tenure track but not tenured, and 4.16 for non-tenured full-time faculty. *Commitment* had a mean score of 4.82 for tenured, 5.26 for tenure track but not tenured, and 5.24 for non-tenure track. *Motivation* had a mean score of 4.65 for tenured, 5.36 for tenure track but not tenured, and 4.94 for non-tenure track. Tenured full-time faculty rated lower perceived organizational support than tenure track but not tenured and non-tenure track.

Table 20

Organizational Support Constructs and Commitment, Motivation, and Satisfaction: A Comparison of Full-Time Faculty and Tenure Status

Construct	Source	SS	df	MS	F	p-value
Course Design	Between	3.25	2	1.63	.86	.42
	Within	292.04	155	1.88		
	Total	295.29	157			
Course Conversion	Between	7.29	2	3.65	2.92	.06
	Within	192.29	154	1.25		
	Total	199.58	156			
Technology Training	Between	3.72	2	1.86	.95	.39
	Within	305.16	156	1.96		
	Total	308.88	158			
Online Pedagogy	Between	4.59	2	2.30	1.01	.37
	Within	352.77	155	2.28		
	Total	357.36	157			
Online Pedagogy Assess. – During	Between	1.41	2	3.05	1.82	.17
	Within	141.95	154	1.67		
	Total	143.36	156			

Table 20 (cont.)

Construct	Source	SS	df	MS	F	p-value
Online Pedagogy Assess. – End	Between	1.93	2	.71	.73	.49
	Within	162.87	146	.97		
	Total	164.77	148			
Online Pedagogy Assess. - Total	Between	3.72	2	.96	.89	.41
	Within	225.75	151	1.08		
	Total	164.77	153			
Technology Needs	Between	3.72	2	1.86	1.23	.30
	Within	225.75	149	1.52		
	Total	229.47	151			
Rewards	Between	2.13	2	1.06	.59	.56
	Within	279.66	154	1.82		
	Total	281.79	156			
Incentives	Between	12.46	2	6.23	3.59	.03
	Within	255.08	147	1.74		
	Total	267.54	149			
Personnel Support	Between	10.60	2	5.30	2.74	.07
	Within	300.11	155	1.94		
	Total	310.71	157			
Commitment	Between	6.24	2	3.12	5.68	.00
	Within	84.53	154	.55		
	Total	90.76	156			
Motivation	Between	7.97	2	3.98	3.19	.04
	Within	187.40	150	1.25		
	Total	195.37	152			
Satisfaction	Between	1.23	2	.61	.89	.41
	Within	101.80	148	.69		
	Total	103.02	150			

The group statistics for adjunct faculty are listed in Table 21. Tenured adjunct faculty reported lower perceived organizational support than non-tenure track adjunct faculty for all construct except *online pedagogy assessment – during, technology needs,* and

satisfaction. *Commitment* and *motivation* were approximately equal between the two

groups.

Table 21

Group Statistics for One-Way ANOVA: A Comparison of Adjunct Faculty and Tenure Status

	Tenured				Non-tenure Track			
Construct	n	M	SD	SE M	n	M	SD	SE M
Course Design	6	4.19	1.33	.54	98	4.46	1.24	.13
Course Conversion	6	5.28	1.25	.51	96	5.56	1.09	.11
Technology Training	5	4.13	1.41	.63	98	4.53	1.25	.13
Online Pedagogy	6	3.67	1.07	.44	98	4.12	1.45	.15
Online Pedagogy Assess. – During	5	3.27	1.04	.46	96	3.09	1.38	.14
Online Pedagogy Assess. – End	5	3.87	.80	.36	95	4.03	.99	.10
Online Pedagogy Assess. - Total	5	3.57	.81	.36	97	3.61	1.12	.11
Technology Needs	6	5.03	.96	.39	94	4.77	1.09	.11
Rewards	6	2.17	.61	.25	98	3.30	1.21	.12
Incentives	5	2.97	1.53	.68	93	4.00	1.11	.12
Personnel Support	6	3.42	1.49	.61	98	3.78	1.16	.12
Commitment	6	4.94	.31	.13	96	4.92	.77	.08
Motivation	6	4.56	.88	.36	97	4.50	1.17	.12
Satisfaction	6	5.44	.64	.26	92	5.54	.72	.07

The ANOVA results for adjunct faculty are shown in Table 22. The ANOVA

resulted in a significant difference between tenured and non-tenure track adjunct faculty for

rewards ($F(1,102) = 5.13$, p = .03) and *incentives* ($F(1,96) = 3.94$, p = .05) with tenured

adjunct faculty rating support for these constructs lower than non-tenure track adjunct

faculty.

Table 22

Organizational Support Constructs and Commitment, Motivation, and Satisfaction: A Comparison of Adjunct Faculty and Tenure Status

Construct	Source	SS	df	MS	F	p-value
Course Design	Between	.41	1	.41	.26	.61
	Within	159.00	102	1.56		
	Total	159.41	103			
Course Conversion	Between	.45	1	.45	.37	.54
	Within	120.65	100	1.21		
	Total	121.09	101			
Technology Training	Between	.74	1	.74	.47	.50
	Within	160.30	101	1.59		
	Total	161.04	102			
Online Pedagogy	Between	1.14	1	1.14	.56	.46
	Within	209.19	102	2.05		
	Total	210.33	103			
Online Pedagogy Assess. - During	Between	.15	1	1.15	.08	.78
	Within	184.42	99	1.86		
	Total	184.57	100			
Online Pedagogy Assess. – End	Between	.14	1	1.34	.14	.71
	Within	93.79	98	.96		
	Total	193.93	99			
Online Pedagogy Assess. - Total	Between	.01	1	.01	.01	.94
	Within	122.98	100	1.23		
	Total	122.99	101			
Technology Needs	Between	.39	1	.39	.33	.57
	Within	114.99	98	1.17		
	Total	115.38	99			
Rewards	Between	7.28	1	7.28	5.13	.03
	Within	144.70	102	1.42		
	Total	151.98	103			
Incentives	Between	5.04	1	5.04	3.94	.05
	Within	122.83	96	1.28		
	Total	127.87	97			

Table 22 (cont.)

Construct	*Source*	*SS*	*df*	*MS*	*F*	*p*-value
Personnel Support	Between	.75	1	.75	.54	.47
	Within	141.79	102	1.39		
	Total	142.54	103			
Commitment	Between	.00	1	.00	.01	.94
	Within	57.43	100	.57		
	Total	57.43	101			
Motivation	Between	.02	1	.02	.01	.91
	Within	135.01	101	1.34		
	Total	135.03	102			
Satisfaction	Between	.05	1	.05	.10	.75
	Within	48.64	96	.51		
	Total	48.69	97			

The group statistics for organizational leaders are listed in Table 23. Tenured organizational leaders reported higher perceived organizational support than non-tenure track organizational leaders for all constructs except *online pedagogy assessment (during, ending, and total), personnel support, commitment, motivation,* and *satisfaction*.

Table 23

Group Statistics for One-Way ANOVA: A Comparison of Organizational Leaders and Tenure Status

Construct	Tenured				Non-tenure Track			
	n	*M*	SD	SE *M*	*n*	*M*	SD	SE *M*
Course Design	55	4.86	1.40	.19	5	4.33	1.61	.72
Course Conversion	56	5.95	1.09	.15	5	5.73	1.04	.46
Technology Training	56	4.79	1.78	.18	5	4.70	1.60	.72
Online Pedagogy	56	4.70	1.37	.18	5	4.43	1.56	.70
Online Pedagogy Assess. - During	55	3.95	1.21	.16	5	4.40	.80	.36
Online Pedagogy Assess. - End	48	4.54	1.02	.15	5	5.07	.28	.12
Online Pedagogy Assess. - Total	55	4.36	1.06	.14	5	4.73	.48	.21
Technology Needs	54	5.30	1.01	.14	5	5.12	1.18	.53
Rewards	51	4.24	1.26	.18	4	3.25	.77	.39
Incentives	55	4.75	1.24	.17	5	4.37	1.31	.59
Personnel Support	56	4.48	1.56	.21	5	5.17	.86	.38
Commitment	53	5.17	.79	.11	5	5.60	.38	.17
Motivation	54	5.43	1.18	.16	5	5.47	1.16	.52
Satisfaction	52	5.98	.76	1.10	5	6.10	.75	.34

The ANOVA results for organizational leaders are shown in Table 24. The ANOVA analysis indicates there is no significant difference between tenured and non-tenure track organizational leaders' perceptions across all constructs. Notably, the sample group size of non-tenured organizational leaders is small and suggests a need for further investigation into this comparison.

Table 24

Organizational Support Constructs and Commitment, Motivation, and Satisfaction: A
Comparison of Organizational Leaders and Tenure Status

Construct	Source	SS	df	MS	F	p-value
Course Design	Between	1.29	1	1.29	.65	.43
	Within	115.69	58	2.00		
	Total	116.97	59			
Course Conversion	Between	.22	1	.22	.19	.67
	Within	69.74	59	1.82		
	Total	69.96	60			
Technology Training	Between	.04	1	.04	.02	.89
	Within	114.55	59	1.94		
	Total	114.59	60			
Online Pedagogy	Between	.34	1	.34	.18	.68
	Within	112.94	59	1.91		
	Total	113.27	60			
Online Pedagogy Assess. - During	Between	.95	1	.95	.68	.42
	Within	81.37	58	1.40		
	Total	82.32	59			
Online Pedagogy Assess. - End	Between	1.25	1	1.25	1.28	.26
	Within	49.56	51	.97		
	Total	50.81	52			
Online Pedagogy Assess. - Total	Between	.63	1	.63	.59	.45
	Within	61.48	58	1.06		
	Total	62.11	59			
Technology Needs	Between	.14	1	.14	.14	.71
	Within	59.71	57	1.05		
	Total	59.85	58			
Rewards	Between	3.60	1	.60	2.36	.13
	Within	80.89	53	1.53		
	Total	84.49	54			
Incentives	Between	.68	1	.68	.44	.51
	Within	90.13	58	1.55		
	Total	90.81	59			

Table 24 (cont.)

Construct	Source	SS	df	MS	F	p-value
Personnel Support	Between	2.16	1	2.16	.93	.34
	Within	136.40	59	2.31		
	Total	138.56	60			
Commitment	Between	.83	1	.83	1.41	.24
	Within	33.14	56	.59		
	Total	33.98	57			
Motivation	Between	.01	1	.01	.00	.95
	Within	78.88	57	1.38		
	Total	78.88	58			
Satisfaction	Between	.06	1	.06	.11	.75
	Within	31.55	55	.57		
	Total	31.61	56			

Research Question 2: What is the relationship between perceived organizational support constructs and faculty commitment, motivation, and satisfaction for online faculty?

A multiple linear regression analysis was used as the statistical method to investigate this question. *Commitment*, *motivation*, and *satisfaction* were each modeled separately. The statistical assumptions that need to be met for a multiple linear regression are linear relationship, normality of the residuals, and multicollinearity. A visual inspection of the scatter plots showed a linear relationship between the independent and dependent variables. Normality was tested and discussed at the beginning of this chapter, the variables were approximately normally distributed, and then the residuals from the developed regression models were also confirmed to be within normality guidelines.

Multicollinearity was addressed for each construct. Multicollinearity occurs when there is a strong linear relationship between the independent variables (Cohen, 2013; Orme & Combs-Orme, 2009). "When there are many predictors, multicollinearity can occur even

if no pairs of variables are highly correlated; it can occur when one predictor is itself predicted very well by a combinations of other predictors" (Cohen, 2013). To identify problematic levels of multicollinearity, tolerance and the variance inflation factor (VIF) were computed. Tolerance is the amount of variance in an independent variable that is not accounted for by the remaining independent variables $(1 - R^2)$ with values of .10 or less being considered problematic (low tolerance values are undesirable) (Cohen, 2013; Orme & Combs-Orme, 2009). VIF values greater than 5, and tolerance values less than .1 should be investigated. VIF values greater than 10 and tolerance values less than .1 are considered problematic (Cohen, 2013; Orme & Combs-Orme, 2009). Tolerance and VIF levels are reported for *commitment*, *motivation*, and *satisfaction* for each respective model.

Commitment. Pearson product-moment correlation coefficients were computed to assess the relationship between the organizational support constructs and faculty *commitment*. There was a positive correlation between the variables as shown in Table 25. The strongest correlations for faculty *commitment* was with *online pedagogy assessment – total* and *online pedagogy assessment – end*.

Table 25

Pearson's Correlations Matrix – Faculty Commitment

Construct	Commitment
Commitment	1.00
Course Design	.34
Course Conversion	.37
Technology Training	.41
Online Pedagogy	.40
Online Pedagogy Assessment – During	.39
Online Pedagogy Assessment – End	.43
Online Pedagogy Assessment – Total	.44
Technology Needs	.42
Rewards	.30
Incentives	.47
Personnel Support	.36

A multiple linear regression was calculated to determine whether, and the extent to which, the instructional support constructs of (a) course design, (b) course conversion, (c) technology training, (d) online pedagogy, (e) online pedagogy assessment, (f) instructors' technology needs, (g) rewards, (h) incentives, and (i) personnel support represent significant predictors of faculty *commitment*. The stepwise feature within SPSS was used to analyze the different possible significant linear regression models. The significant model with the highest adjusted coefficient of determination (adjusted R^2 = .32) was composed of the significant predictive variables of *incentives*, *online pedagogy assessment total*, and *course conversion* ($F(3,224) = 36.27$, p < .05). The coefficient betas are displayed in Table 26. The tolerance levels are above .10 while the VIF levels are below 10, indicating the model is within acceptable limits for the multicollinearity assumption. The multiple regression analysis demonstrated that some of the support constructs do serve as significant predictors of faculty *commitment*.

Table 26

Faculty Commitment Coefficients – Significant Constructs

Construct	*B*	SE	*β*	*t*	*p*-value	Collinearity Tolerance	VIF
(Constant)	2.88	.24		12.17	.00		
Incentives	.18	.04	.29	4.61	.00	.76	1.32
Online Pedagogy Assess -Total	.20	.04	.28	5.58	.00	.82	1.22
Course Conversion	.13	.04	.18	3.04	.00	.83	1.20

The following constructs were found to be significant predictors of faculty *commitment*: *incentives*, *online pedagogy assessment total*, and *course conversion*. Participants' predicted *commitment* is equal to 2.88 + .18(*Incentives*) + .20(*Online Pedagogy Assessment-Total*) + .13(*Course conversion*).

- Commitment = 2.88 + .18(I) + .20(OPAT) + .13(CC)

Therefore, there is sufficient evidence at the alpha level of .05 to reject the claim that perceived organizational support constructs do not significantly predict commitment (reject $H2_{0a}$).

Full-time faculty commitment vs. adjunct commitment. A multiple linear regression was calculated for only full-time faculty members' *commitment* and the significant predictors were *incentives* ($p < .05$) and pedagogy assessment – total ($p < .05$). A significant regression equation was found ($F(2,136) = 31.36$, $p < .05$), with an adjusted R^2 of .31. Full time faculty members' predicted *commitment* is equal to 3.45 + .26(Incentives) + .17(Online Pedagogy Assessment – Total).

- Full-time Faculty Commitment = 3.45 + .26(I) + .17(OPAT)

A multiple linear regression was calculated for only adjunct faculty members' *commitment* and the significant predictor were *online pedagogy assessment – total* ($p < .05$)

and *technology training* ($p < .05$). A significant regression equation was found ($F(2,86) =$ 23.70, $p < .05$), with an adjusted R^2 of .34. Participants' predicted *commitment* is equal to 2.67 + .30(Online Pedagogy Assessment – Total) + .19(Technology Training).

- Adjunct Faculty Commitment = 2.67 + .30(OPAT) + .19(TT)

Tenure status and commitment. A multiple linear regression was calculated based on tenure status and position. Full-time tenured faculty members' *commitment* resulted in a significant predictor of *incentives* ($p < .05$). A significant regression equation was found ($F(1,39) = 17.98$, $p < .05$), with an adjusted R^2 of .29. Tenured full-time faculty's predicted *commitment* is equal to 3.65 + .32(Incentives).

- Tenured Full-time Faculty Commitment = 3.65 + .32(I)

Full-time tenure track but not yet tenured faculty members' *commitment* resulted in a significant predictor of *Online Pedagogy Assessment – Total* ($p = .01$). A significant regression equation was found ($F(1,16) = 8.58$, $p = .01$), with an adjusted R^2 of .31. Tenure track but not yet tenured full-time faculty's predicted *commitment* is equal to 3.60 + .42(Online Pedagogy Assessment - Total).

- Tenure Track but not Tenured Full-time Faculty Commitment = 3.60 + .42(OPAT)

Full-time non-tenure track faculty members' *commitment* resulted in significant predictors of *incentives* ($p < .05$) and *online pedagogy* ($p = .01$). A significant regression equation was found ($F(2,71) = 14.12$, $p < .05$), with an adjusted R^2 of .26. Non-tenure track full-time faculty's predicted *commitment* is equal to 3.70 + .19(Incentives) + .17(Online Pedagogy).

- Non-tenure Track Full-time Faculty Commitment = 3.70 + .19(I) + .17(OP)

Adjunct tenured faculty members' *commitment* resulted in a significant predictor of *online pedagogy assessment - total* ($p = .05$). A significant regression equation was found ($F(1,1) = 176.33$, $p < .05$), with an adjusted R^2 of .99. Tenured adjunct faculty's predicted *commitment* is equal to 4.73 + .09(Online Pedagogy Assessment - Total).

- Tenured Adjunct Faculty Commitment = 4.73 + .09(OPAT)

Adjunct non-tenure track faculty members' *commitment* resulted in significant predictors of *online pedagogy assessment – end* ($p < .05$) and *technology training* ($p = .01$). A significant regression equation was found ($F(2,80) = 22.55$, $p < .05$), with an adjusted R^2 of .35. Non-tenure track adjunct faculty's predicted *commitment* is equal to 2.86 + .32(Online Pedagogy Assessment - End) + .18(Technology Training).

- Non-tenure Track Adjunct Faculty Commitment = 2.86 + .32(OPAE) + .18(TT)

Motivation. A Pearson correlation coefficient was computed to assess the relationships between the organizational support constructs and faculty *motivation*. There was a positive correlation between the variables as shown in Table 27. The strongest correlation for faculty *motivation* was with *incentives* and *rewards*.

Table 27

Pearson's Correlations Matrix – Faculty Motivation

Construct	Motivation
Motivation	1.00
Course Design	.29
Course Conversion	.27
Technology Training	.32
Online Pedagogy	.31
Online Pedagogy Assessment – During	.39
Online Pedagogy Assessment – End	.41
Online Pedagogy Assessment – Total	.43
Technology Needs	.41
Rewards	.49
Incentives	.56
Personnel Support	.45

A multiple linear regression was calculated to determine whether, and the extent to which, the instructional support constructs of (a) course design, (b) course conversion, (c) technology training, (d) online pedagogy, (e) online pedagogy assessment, (f) instructors' technology needs, (g) rewards, (h) incentives, and (i) personnel support represent significant predictors of faculty *commitment*. The stepwise feature within SPSS was used to analyze the different possible significant linear regression models. The significant model with the highest adjusted coefficient of determination (adjusted R^2 = .37) was composed of the significant predictive variables of *incentives*, *online pedagogy assessment total*, and *rewards* ($F(3,222) = 45.17$, p < .05). The coefficient betas are displayed in Table 28. The tolerance levels are above .10 while the VIF levels are below 10 and thus are within acceptable limits for the multicollinearity assumption. The multiple regression analysis demonstrated that some of the support constructs do serve as significant predictors of faculty *motivation*.

Table 28

Faculty Motivation Coefficients – Significant Constructs

| | | | | | | Collinearity | |
Construct	*B*	SE	*B*	*t*	*p*-value	Tolerance	VIF
(Constant)	2.08	.25		8.43	.00		
Incentives	.32	.07	.35	4.94	.00	.55	1.83
Online Pedagogy Assess. - total	.25	.06	.23	3.92	.00	.82	1.22
Rewards	.15	.06	.17	2.42	.02	.56	1.78

The following constructs were found to be significant predictors of faculty

motivation: *incentives*, *online pedagogy assessment total*, and *rewards*. Participants'

predicted *motivation* is equal to 2.08 + .32(Incentives) + .25(Online Pedagogy Assessment-

Total) + .15(Rewards).

- Motivation = 2.08 + .32(I) + .25(OPAT) + .15(R)

Therefore, there is sufficient evidence at the alpha level of .05 to reject the claim that

perceived organizational support constructs do not significantly predict motivation (reject

$H2_{0b}$).

Full-time faculty motivation vs. adjunct motivation. A multiple linear regression

was calculated for only full-time faculty members' *motivation* and the significant predictors

of *motivation* were *incentives* ($p < .05$), *rewards* ($p < .05$), and *online pedagogy assessment*

– during ($p = .01$). A significant regression model was found ($F(3,132) = 30.03$, $p < .05$),

with an adjusted R^2 of .39. Full-time faculty members' *motivation* can be approximated

through the regression equation of 2.49 + .27(Incentives) + .24(Rewards) + .18(Online

Pedagogy Assessment – during).

- Full-time Faculty Motivation = 2.49 + .27(I) + .24(R) + .18(OPAD)

A multiple linear regression was calculated for only adjunct faculty members' *motivation* and the significant predictor were *incentives* ($p < .05$) and *online pedagogy assessment – end* ($p < .05$). A significant regression equation was found ($F(2,87) = 32.93$, $p < .05$), with an adjusted R^2 of .42. Adjunct faculty members' *motivation* can be approximated through the regression equation of 1.16 + .43(Incentives) + .41(Online Pedagogy Assessment – End).

- Adjunct Faculty Motivation = 1.16 + .43(I) + .41(OPAE)

Tenure status and motivation. A multiple linear regression was calculated based on tenure status and position. Full-time tenured faculty members' *motivation* resulted in a significant predictor of *incentives* ($p < .05$). A significant regression equation was found ($F(1,36) = 12.04$, $p < .05$), with an adjusted R^2 of .23. Tenured full-time faculty's predicted *motivation* is equal to 3.29 + .40(Incentives).

- Tenured Full-time Faculty Motivation = 3.29 + .40(I)

Full-time tenure track but not yet tenured faculty members' *motivation* resulted in significant predictors of *incentives* ($p < .05$) and o*nline pedagogy assessment – end* ($p = .04$). A significant regression equation was found ($F(2,15) = 13.52$, $p < .05$), with an adjusted R^2 of .60. Tenure track but not yet tenured full-time faculty's predicted *motivation* is equal to 2.13 + .47(Incentives) + .36(Online Pedagogy Assessment – End).

- Tenure Track but not Tenured Full-time Faculty Motivation= 2.13 + .47(I) + .36(OPAE)

Full-time non-tenure track faculty members' *motivation* resulted in significant predictors of *rewards* ($p < .05$), *incentives* ($p = .01$), and *online pedagogy assessment – during* ($p = .04$). A significant regression equation was found ($F(3,70) = 20.27$, $p < .05$),

with an adjusted R^2 of .44. Non-tenure track full-time faculty's predicted *motivation* is

equal to 2.28 + .30(Rewards) + .26(Incentives) + .17(Online Pedagogy Assessment -

During).

- Non-tenure Track Full-time Faculty Motivation = 2.28 + .30(R) + .26(I) +

  .17(OPAD)

No significant predictors were found for adjunct tenured faculty members'

motivation. Adjunct non-tenure track faculty members' *motivation* resulted in significant

predictors of *incentives* ($p < .05$) and *online pedagogy assessment – end* ($p < .05$). A

significant regression equation was found ($F(2,81) = 37.06$, $p < .05$), with an adjusted R^2 of

.47. Non-tenure track adjunct faculty's predicted *motivation* is equal to .85 + .48(Incentives)

+ .43(Online Pedagogy Assessment - End).

- Non-tenure Track Adjunct Faculty Motivation = .85 + .48(I) + .43(OPAE)

Satisfaction. Pearson product-moment correlation coefficients were computed to

assess the relationship between the organizational support constructs and faculty

satisfaction. There was a positive correlation between the variables as shown in Table 29.

The strongest correlation for faculty *satisfaction* was with *incentives*, *technology training*,

and *technology needs*.

Table 29

Pearson's Correlations Matrix – Faculty Satisfaction

Construct	Satisfaction
Satisfaction	1.00
Course Design	.25
Course Conversion	.16
Technology Training	.28
Online Pedagogy	.26
Online Pedagogy Assessment – During	.23
Online Pedagogy Assessment – End	.18
Online Pedagogy Assessment – Total	.22
Technology Needs	.28
Rewards	.21
Incentives	.32
Personnel Support	.27

A multiple linear regression was calculated to determine whether, and the extent to which, the instructional support constructs of (a) course design, (b) course conversion, (c) technology training, (d) online pedagogy, (e) online pedagogy assessment, (f) instructors' technology needs, (g) rewards, (h) incentives, and (i) personnel support represent significant predictors of faculty *satisfaction*. The stepwise feature within SPSS was used to analyze the different possible significant linear regression models. The significant model with the highest adjusted coefficient of determination (adjusted $R^2 = .11$) was composed of the significant predictive variables of *incentives* and *technology training* ($F(2,217) = 15.06$, p < .05). The coefficient betas are displayed in Table 30. The tolerance levels are above .10 while the VIF levels are below 10 and thus are within acceptable limits for the multicollinearity assumption. The multiple regression analysis demonstrated that some of the support constructs do serve as significant predictors of faculty *satisfaction*.

Table 30

Faculty Satisfaction Coefficients – Significant Constructs

Construct	*B*	SE	*β*	*t*	*p*-value	Collinearity	
						Tolerance	VIF
(Constant)	4.59	.21		22.25	.00		
Incentives	.15	.05	.24	3.20	.00	.71	1.41
Technology Training	.10	.05	.15	2.03	.04	.71	1.41

The following constructs were found to be significant predictors of faculty *satisfaction*: *incentives* and *technology needs*. Participants' predicted *satisfaction* is equal to 4.59 + .15(Incentives) + .10(Technology Training).

- Satisfaction = 4.59 + .15(I) + .10(TN)

Therefore, there is sufficient evidence at the alpha level of .05 to reject the claim that perceived organizational support constructs do not significantly predict satisfaction (reject $H2_{0c}$).

Faculty *motivation* had the largest effect from the organizational support predictors, but had the lowest rating among faculty members as shown in Table 31. *Motivation* also had the greatest difference with faculty rating about .7 points lower than organizational leaders. *Satisfaction* levels were rated the highest for both faculty and organizational leaders.

Table 31

Descriptive Statistics for Commitment, Motivation, and Satisfaction

| Construct | | Faculty | | | | Organization Leaders | | | Difference |
	n	M	SE	SD	n	M	SE	SD	$M_{OL} - M_F$
Commitment	268	5.03	.05	.77	59	5.20	.10	.77	.2
Motivation	265	4.74	.07	1.16	60	5.39	.16	1.22	.7
Satisfaction	256	5.69	.05	.79	58	5.97	.10	.78	.3

Faculty *commitment* levels ranged from 3 (somewhat disagree) to a 6.7 (strongly agree) with a mean of 5 (somewhat agree), a mode of 5 (somewhat agree) and a median of 5 (somewhat agree). The significant constructs for faculty *commitment* were *incentives*, *online pedagogy assessment – total*, and *course conversion* and account for about 32% of the variance in faculty *commitment* ($R^2 = .32$). According to the *t*-test performed for question 1, the largest factor was *incentives* which had a medium effect size ($d = .51$) and was about .8 points lower for faculty than for organizational leaders, *online pedagogy assessment - total* had a medium effect size ($d = .60$) and was about .8 points lower for faculty, and *course conversion* had a medium effect size ($d = .26$) and was about .4 points lower for faculty. Therefore, even though the *commitment* levels were similar in the respondents with a mean difference of .2 point, the specific significant constructs had a significant difference between online faculty and organizational leaders. About ten percent of faculty members rate their *commitment* levels agree to strongly agree.

Faculty *motivation* ranged from 1.8 (disagree) to 7 (strongly agree) with a mean of 4.7 (somewhat agree), a mode of 5.5 (agree) and a median of 4.8 (somewhat agree). The significant predictors included *incentives*, *online pedagogy assessment – total*, and *rewards* and account for 37% of the variance in faculty *motivation*. According to the *t*-test performed for question 1, *incentives* was the largest factor ($d = .51$, $M_{OL} - M_F = .8$), *online*

pedagogy assessment – total ($d = .60$, $M_{OL} – M_F = .8$) was the second largest factor followed by *rewards* which had a medium effect size ($d = .57$) and was about 1 point lower for faculty than organizational leaders. About fifteen percent of faculty members rate their *motivation* levels agree to strongly agree.

  Satisfaction levels for faculty ranged from 3.8 (neither agree nor disagree) to 7 (strongly agree) with a mean of 5.7 (agree), a mode of 6 (agree) and a median of 5.7 (agree). The significant predictors for faculty *satisfaction* included *incentives* and *technology training*. According to the *t*-test performed for question 1, *incentives* had the largest factor ($d = .51$, $M_{OL} – M_F = .8$) and *technology training* was not found statistically different and was about .3 points lower for faculty than organizational leaders. About thirty percent of faculty rated their *satisfaction* levels with either agreed or strongly agreed.

  Full-time faculty satisfaction vs. adjunct satisfaction. A multiple linear regression was calculated for only full-time faculty members' *satisfaction* and the significant predictors were *incentives* ($p < .05$) and *online pedagogy assessment – during* ($p = .04$). A significant regression equation was found ($F(2,130) = 10.00$, $p < .05$), with an adjusted R^2 of .12. Full time faculty members' predicted *satisfaction* is equal to 4.76 + .16(Incentives) + .11(Online Pedagogy Assessment - During).

- Full-time Faculty Satisfaction = 4.76 + .16(I) + .11(OPAD)

  A multiple linear regression was calculated for only adjunct faculty members' *satisfaction* and the significant predictor was *technology training* ($p < .05$). A significant regression equation was found ($F(1,85) = 17.74$, $p < .05$), with an adjusted R^2 of .16. Adjunct faculty members' predicted *satisfaction* is equal to 4.33 + .26(Technology Training).

- Adjunct Faculty Satisfaction = 4.33 + .25(TT)

Tenure status and satisfaction. A multiple linear regression was calculated based on tenure status and position. Full-time tenured faculty members' *satisfaction* resulted in a significant predictor of *incentives* ($p < .05$). A significant regression equation was found ($F(1,36) = 5.78$, $p = .02$), with an adjusted R^2 of .11. Tenured full-time faculty's predicted *satisfaction* is equal to 5.19 + .18(Incentives).

- Tenured Full-time Faculty Satisfaction = 5.19 + .18(I)

Full-time tenure track but not yet tenured faculty members' *satisfaction* resulted in a significant predictor of o*nline pedagogy assessment – end* ($p = .02$). A significant regression equation was found ($F(1,16) = 6.80$, $p = .02$), with an adjusted R^2 of .25. Tenure track but not yet tenured full-time faculty's predicted *satisfaction* is equal to 4.16 + .41(Online Pedagogy Assessment – End).

- Tenure Track but not Tenured Full-time Faculty Satisfaction = 4.16 + .41(OPAE)

Full-time non-tenure track faculty members' *satisfaction* resulted in a significant predictor of *personnel support* ($p < .05$). A significant regression equation was found ($F(1,71) = 15.11$, $p < .05$), with an adjusted R^2 of .16. Non-tenure track full-time faculty's predicted *satisfaction* is equal to 4.54 + .29(Personnel Support).

- Non-tenure Track Full-time Faculty Satisfaction= 4.54 + .29(PP)

No significant predictors were found for adjunct tenured faculty members' *satisfaction*. Adjunct non-tenure track faculty members' *satisfaction* resulted in significant predictors of *course design* ($p = .01$) and *incentives* ($p = .04$). A significant regression equation was found ($F(2,78) = 11.83$, $p < .05$), with an adjusted R^2 of .21. Non-tenure track

adjunct faculty's predicted *satisfaction* is equal to 4.01 + .18(Course Design) +

.17(Incentives).

- Non-tenure Track Adjunct Faculty Satisfaction = 4.01 + .18(CD) + .17(I)

Table 32 displays the tenure status results for *commitment*, *motivation*, and

satisfaction. *Incentives* is the only significant predictor for full-time tenured faculty. *Online*

pedagogy assessments is significant for tenure track but not yet tenured full-time faculty.

Table 32

Significant Predictors for Commitment, Motivation, and Satisfaction by Tenure Status

	Tenured	Tenure Track – Not Tenured	Non-Tenure Track
Full-time Faculty			
Commitment	Incentives	Online Pedagogy Assess. -Total	Incentives, Online Pedagogy
Motivation	Incentives	Incentives, Online Pedagogy Assess. – End	Rewards, Incentives, Online Pedagogy Assess. – During
Satisfaction	Incentives	Online Pedagogy Assess. – End	Personnel Support
Adjunct Faculty			
Commitment	Online Pedagogy Assess. – Total	n/a	Online Pedagogy Assess. – End, Technology Training
Motivation	n/a	n/a	Incentives, Online Pedagogy Assess. – End
Satisfaction	n/a	n/a	Course Design, Incentives

Summary

Statistical significant differences between faculty and organizational leaders were

found in seven of the nine organizational support constructs. Qualitative data from the

open-ended questions was analyzed and presented. Significant regression models were

determined from the nine organizational support constructs that account for 32% of variance

in faculty *commitment*, 37% of variance in faculty *motivation*, and 10% of variance in

faculty *satisfaction*. *Incentives* were statistically significant for *commitment*, *motivation*, and

satisfaction. For full-time faculty, *incentives*, *rewards*, and *online pedagogy assessments*

were important factors while *technology training*, *online pedagogy assessments*, and

incentives were important to adjunct faculty. Discussions and conclusions about these

findings are presented in the next chapter.

Chapter 5: Discussion, Conclusions and Recommendations

The objective of this chapter is to discuss the findings, examine possible conclusions, and provide recommendations for future studies. The quantitative statistical analysis reported in Chapter 4 demonstrated statistical differences for aspects of both research questions. Open-ended questions were analyzed, which provided additional insights to the quantitative data. The findings provide empirical evidence that faculty *commitment* was associated with *incentives*, *online pedagogy assessment*, and *course conversion*, that faculty *motivation* was associated with *incentives*, *online pedagogy assessment* and *rewards*, and that faculty *satisfaction* were significantly associated with the constructs of *incentives*, *online pedagogy assessment*, and *technology training*. Although somewhat congruent across faculty categories (full-time vs. adjunct), differences did exist. Interestingly, the findings suggest the construct of *technology training* to be of particular importance to adjunct faculty *commitment*, but not as important for full-time faculty *commitment*. In considering organizational support theory, and perceived organizational support (POS), it is somewhat surprising that tenured online faculty members were generally lower in their perceived support than non-tenure track faculty. Tenured organizational leaders rated relatively even with non-tenure track organizational leaders with the largest differences in *rewards* and *personnel support*.

This study investigated faculty and organizational leaders' perceptions of organizational support for online teaching, and whether faculty commitment, motivation, and satisfaction have a relationship with the organizational support constructs. The theoretical framework used for this study was the organizational support theory. According to the organizational support theory, perceived organizational support (POS) can meet socio-

emotional needs and is used by employees to infer the organization's readiness to reward increased efforts made on its behalf.

Discussion: Question 1

The perceptions of online faculty were different from those of the organizational leaders on all the constructs of organizational support except *course design* and *technology training*. The effect size showed moderate differences between the groups. In general, online faculty members perceived there to be less organizational support provided from their institution than administrators did.

Rewards and incentives. *Rewards* had the largest difference between online faculty and organizational leaders with a mean difference of one point lower for faculty. *Rewards* included earning tenure and/or advancement in rank, salary increases, fringe benefits, compensation for course development, and compensation for offering a new course. With these types of rewards, expectations were for full-time faculty and tenured status to rate higher in POS for *rewards*, but that was not necessarily the case. Adjunct and full-time faculty were equivalent in their POS for *rewards*. Full-time faculty who were tenured rated rewards only slightly higher than tenure track but not tenured and non-tenure track. Unexpectedly, tenured adjunct faculty rated rewards over one point lower than non-tenured adjunct faculty, and tenured organizational leaders were about one point higher in their rating of *rewards* than non-tenured organizational leaders.

Incentives were rated .8 points lower for faculty than for organizational leaders. *Incentives* included release time, faculty development opportunities, flexibility in work schedule, opportunities to improve teaching skills, intellectual challenge/opportunity to develop new ideas, and recognition for online teaching efforts. Again, expectations were

that full-time and tenured positions to rate incentives higher than adjunct and non-tenured positions. As with *rewards*, adjunct and full-time faculty were equivalent in their POS for *incentives*. Larger differences were seen among full-time faculty and tenure status for *incentives*. Tenured full-time faculty rated lower POS for *incentives* than both tenure track but not tenured (about .4 points) and non-tenure track full-time faculty (about .7 points). Tenure track but not tenured and non-tenure track full-time faculty reported similar ratings with about .2 points higher for non-tenure track. As with *rewards*, tenured adjunct faculty rated incentives about one point lower than non-tenured adjunct faculty, but tenured organizational leaders rated *incentives* closer than *rewards* with about .4 points higher than non-tenured organizational leaders.

 Rewards seem to have diminished over time. Comments addressed how the institution "used to support faculty in this area. No longer/I do not know of any rewards" and "there is no compensation for online course development. This is a recent change in the system which I think isn't good, but ...." Comments concerning *incentives* were generally negative in nature implying that due to the physical distance of online instructors, they are not receiving incentives that on-campus instructors are receiving. These comments correlate to institutional support studies which indicated that some institutions initially provided *rewards* and/or *incentives* to faculty such as workload adjustments, release time, monetary support or credit toward promotion and tenure, and then the support would decrease as time passed (Bower, 2001; McKenzie et al., 2000). A reduction in *rewards* and *incentives* may be attributed in part to the increase of adjunct instructors who often times are not provided the same kind of *rewards* or *incentives* that full-time faculty are.

Personnel Support. *Personnel support* were rated about .8 points lower among faculty members than among organizational leaders. *Personnel support* included facilitators to assist with larger online loads, teaching or research assistant, technical or technology consultant, instructional designer, evaluation specialist, and mentors. Adjunct and full-time faculty were equivalent in their POS for *personnel support*. Full-time tenure track but not yet tenure and non-tenure track were equivalent, but tenured full-time faculty was about .5 points lower. Tenured adjunct faculty was about .4 points lower than non-tenure track adjunct faculty. One of the largest differences between tenured and non-tenure track organizational leaders was concerning *personnel support* with about .7 points difference with tenured rating lower POS.

Personnel support was mentioned in the optional comments for *course design*, *course conversion*, *technology training*, *online pedagogy*, and *technology needs* as well as in the *personnel support* construct. Comments were generally positive concerning the assistance faculty members received from the organization's personnel. The types of personnel that were specifically stated include instructional designers, graphic designers, videographers, peer mentoring, teaching and/or grading assistance, department of distance education, and technical support/IT help desk. It is important for higher educational institutions to provide these personnel resources to relieve some of the time constraints placed on online faculty.

Instructional designers were mentioned throughout the comments as a resource to help create a better learning environment. Earlier literature refers to instructional design as a function of the faculty member (Barker, 2003; Conceição, 2006), while more recent publications refer to instructional designers separate from faculty members (Hoffmann &

Dudjak, 2012; Lackey, 2011; Meyer, 2012; Orr, Williams, & Pennington, 2009). The findings from this study are congruent with other recent literature suggesting that to be most effective, faculty need instructional design specialists assisting them in the creation, design, and continued development of their courses.

Various types of mentoring were referred to by respondents including virtual mentors, department of distance education/instructional designer mentors, and peer mentors. Virtual mentors are available to instructors and students with technology needs throughout the semester. Peer mentoring was referenced as "non-formal" but was "my most significant support." The importance of mentoring among online faculty members is seen throughout the literature as a way to share teaching methods and tips, and provide psychological and emotional support to help relieve some of the frustrations of teaching online (Barker, 2003; Boling et al., 2012; Conceição, 2006; Lee, 2002; Mitchell, 2009; Mullen, 2012; Pankowski, 2004; Puzziferro & Shelton, 2009). Despite the value associated with peer mentoring for online instructors, the findings from this study demonstrate that this continues to be an undeveloped support area in higher education. Institutions need to tap into their resources of experienced online faculty members and create formal peer mentoring models to share knowledge and provided the needed emotional support/connections for new online faculty members.

Online pedagogy assessment. Faculty rated *online pedagogy assessment – during and combined* about .8 points lower and *online pedagogy assessment –end* about .6 points lower than organizational leaders. *Online pedagogy assessment* included student, department chair/dean, and pear/mentor assessments for both during the operation of the course and at the end of the course. These were also combined as a total score. Both full-

time and adjunct faculty had relatively similar scores for all three constructs. Adjunct faculty who are tenured and non-tenure track were also similarly scored. Full-time tenure track but not tenured faculty had the highest POS for both *online pedagogy assessment – during* and *total* while tenured full-time faculty had the lowest POS which averaged about .4 points lower than tenure track but not tenured and about .2 points lower than non-tenure track faculty for all three constructs. Tenured organizational leaders averaged about .5 points lower than non-tenure track for all three constructs.

According so some of the comments, course evaluation forms were generally not designed for distance education so the results of evaluations were not constructive. Other researchers have found similar perspectives in that standard student evaluations do not take into account the unique nature of the online learning environment (Orr et al., 2009). According to Bolliger and Wasilik (2009), online faculty are also concerned about receiving lower course evaluations in their online courses. Participants in this study acknowledge conventional student evaluations do not work for the online environment. One comment was "I have found that the institutional level evaluations used are almost worthless in regards to providing useful feedback for course design, effectiveness and value. This area needs a lot of work." A common option expressed by respondents was a peer review of the course. This was prevalent in respondents who have the Quality Matters certification to be a course reviewer which was a certification that was self-disclosed by participants in the optional comments. Courses evaluated through peer review received feedback specific to online teaching which can lead to increased faculty commitment and motivation.

Online pedagogy. The last construct with over half a point difference was *online pedagogy*. Again, faculty were lower than organizational leaders. *Online pedagogy*

included developing and applying online teaching methods through group workshops or training sessions, self-paced computer-based and/or Web-based tutorials, webinars, conferences, mentoring, and guide book or manual. Adjunct and full-time faculty were equal in their POS for *online pedagogy*. Surprisingly, tenure track but not yet tenured full-time faculty had lower POS for *online pedagogy* than both tenured and non-tenure track full-time faculty where were relatively equal. Possibilities for this could be tenure track but not yet tenured faculty are busy working on obtaining tenure and do not feel the time necessary to develop online teaching methods. Besides *rewards* and *incentives*, *online pedagogy* had the largest difference between tenured and non-tenured adjunct faculty with about .5 points lower for tenured. Tenured organizational leaders reported slightly higher POS for *online pedagogy* than their non-tenured counterparts.

Online pedagogy had the least number of optional comments for the organizational support constructs with only twenty-five. Several mentioned not knowing what resources are available which could contribute to lower POS. A couple of respondents mentioned mandatory training in the first term for new instructors, but this does not help with continued training in *online pedagogy*. A general lack of time was indicated by several respondents which may correlate to the lower POS for tenure track but not yet tenured full-time faculty.

Other findings. The findings suggest online teaching is viewed as a job for adjuncts or graduate students and not for full-time, tenured positions. This concept is illustrated by the following comment:

As an instructor I get nothing for my work advancing this area of education and technology. But this is a symptom or a broader issue. I wonder how many tenured professors are the leaders in online course development in their departments?

Lee's (2000) study was composed of 46% tenured, 17% on tenure track, but not tenured, and 32% non-tenure track with 5% undeclared. This study was composed of 33% tenured, 7% on tenure track, but not tenured, and 54% non-tenure track with 7% undeclared. Considering both studies involved random samples of similar population, this proportional difference implies a trend towards less tenure track positions, This observation is congruent with Wilson (2010), who stated the tenure ranks are shrinking as universities rely more on adjunct instructors to fill these positions. One respondent commented "the lack of tenured positions for online faculty will forever ghettoize online classes and degrees." One of the major issues discussed in the literature is a lack of promotion and tenure status for online faculty members (Oomen-Early & Murphy, 2009; Orr et al., 2009; Simpson, 2010; Zhen et al., 2008). This continues to be a concern among online faculty members.

Some organizational supports such as workshops/training sessions, webinars, conferences, and self-paced courses are often underutilized due to time constraints felt by the online faculty members as described by this respondent:

> The problem is lack of time. (BTW, I think your analysis is going to be confounded by an inability to separate out one's feeling of being overwhelmed with responsibilities and thus lack of time, and one's perception of whether resources are available or not.)

Seaman (2009) reported almost 64% of faculty indicated it takes "somewhat more" or "a lot more" effort to teach online than face-to-face. Bolliger & Wasilik's (2009) study also found 60% of their respondents agreed or stongly agreed that they have higher workload when teaching online. As confirmed by this study, time requirements for online teaching remains a key factor that needs to be understood by organizational leaders. Wilson (2010) stated that

academia is called an "ivory sweatshop," implying that the faculty have heavier workloads than outsiders might think. This remains the opinion of many online faculty members in this study.

One unexpected finding was when comparing tenure status. Tenured faculty members generally had lower POS for the organizational support constructs than tenure track but not yet tenured and non-tenure track faculty. This may be due to tenured faculty having higher expectations of what they think should be offered in terms of organizational support.

Perceived organizational support. Rhoades and Eisenberger (2002) found that beneficial behaviors and performance can result from high levels of faculty commitment and loyalty. They provided examples of how an institution could attempt to increase these levels through greater investment in creating a superior online program and a culture willing to share information learned with peers and other personnel. Through this effort, Roades and Eisenberger propose that high levels of faculty satisfaction lead to better interactions with their online students and higher student satisfaction and reduced absenteeism. Additionally, there is a positive orgainziational benefit towards faculty retention.

According to organizational support theory, the relationship between performance-rewarded expectancies and POS is reciprocal (Eisenberger et al., 1986; Shore & Shore, 1995). POS is most influenced when employees believe the job conditions are readily controlled by their employer (Eisenberger et al., 1997). Also, highly discretionary actions by the employer have a greater influence on employees' POS and produce a stronger psychological contract than low discretionary job conditions (Eisenberger et al., 1997). *Rewards*, *incentives*, *online pedagogy assessment*, and *personnel support* were shown in this

study to be the constructs where the largest discrepency exists between faculty and organizational leaders' perceptions.

These constructs could all be considered as conditions that are readily controlled by the institution. Arguably, they are influential to POS and as such, they provide institutions a way to support online faculty members and promote positive morale. This, in turn, should positively influence faculty behaviors and performance, and ultimately benefit the institution and its students.

Discussion: Question 2

This study found an association between levels of organizational support and faculty *commitement*, *motivation,* and *satisfaction*, all of which are foundations of beneficial productive behaviour. The findings indicate that faculty *commitment* was associated with *incentives*, *online pedagogy assessment,* and *course conversion*, that faculty *motivation* was associated with *incentives*, *online pedagogy assessment*, and *rewards*, and that faculty *satisfaction* was associated with the constructs of *incentives* and *technology training*. These significant predictors account for 32% of variance in faculty *commitment*, 37% of variance in faculty *motivation*, and 11% of variance in faculty *satisfaction*.

Incentives was a significant predictor for faculty *commitement*, *motivation,* and *satisfaction.* There was also a significant difference in POS for *incentives* between faculty and organizational leaders. Therefore, it is important for institutions to concentrate on increasing POS for *incentives* in order to increase the faculty's *commitement*, *motivation,* and *satisfaction.*

Full-time faculty vs. adjunct. Interesting differences were discovered when faculty members were examined by their employment status of full-time or adjunct. For

commitment, *online pedagogy assessment – total* was a significant factor for both full-time and adjunct faculty. However, *incentives* was also a significant predictor for full-time faculty but not for adjunct faculty, and technical training was also a significant predictor for adjunct faculty but not for full-time faculty. *Course conversion* was not a significant predictor for either group individually, but was a significant predictor when the two groups were combined. For *motivation*, *incentives* was a significant predictor for both full-time and adjunct faculty with *online pedagogy assessment – during* and *rewards* also significant predictors for full-time faculty and *online pedagogy assessment – end* also a significant predictor for adjuncts. For *satisfaction*, *incentives* and *online pedagogy assessment – during* were the significant predictor for full-time faculty whereas *technology training* was the significant predictor for adjunct faculty.

Motivation* and *satisfaction* were significantly different between full-time faculty and adjunct faculty. *Motivation* levels were about .4 points higher for full-time faculty. *Incentives* was the influential predictor for adjunct faculty of *motivation*, which would account for lower reported scores since most adjunct faculty do not usually received *incentives* for their work. Along with *incentives*, full-time faculty *motivation* was also a significant predicted by *rewards*. *Online pedagogy assessment* was a predictor for both groups, with assessment during more important for full-time faculty *motivation* than for adjunct faculty, while assessment at the end was more important for adjunct faculty *motivation*. *Incentives* and *online pedagogy assessment – during* were also the predictors for full-time faculty members *satisfaction* levels. *Technology training* was the only significant predictor for adjunct faculty's *satisfaction* levels. Understanding of these differences can help organizations better target specific types of support. For example, to

increase adjunct *motivation* and *satisfaction*, organizational leaders should consider the need to increase *incentives*, provide adequate *technology training*, and/or provide *online pedagogy assessments*. To increase full-time faculty *motivation* and *satisfaction*, organizational leaders should consider the need to offer additional *incentives* and *rewards* and provide better *online pedagogy assessments during* the course.

Tenure status. When comparing faculty members by tenure status for *commitement*, *motivation,* and *satisfaction*, it was interesting that full-time tenured faculty members were only predicted by *incentives* while tenure track but not yet tenured were more predicted by *online pedagogy assessment.* This could be in part to tenure track but not yet tenured faculty being concerned with making tenure and wanting feedback on their course and how they might become better at teaching them.

Non-tenure adjunct and full-time faculty were very similar in the significant predictors for *commitment* and *motivation*. Both *incentives* and *online pedagogy assessment* are important to the non-tenure track faculty members. It seems non-tenure track faculty want to feel valued through *incentives* and have some way to determine how well they are teaching in the online environment through *online pedagogy assessment*. *Satisfaction* for non-tenure track full-time faculty was predicted by *personnel support* while non-tenure track adjunct faculty was predicted by *course design* and *incentives*.

Perceived organizational support. According to organizational support theory, employee commitment to the organization is strongly influenced by their perceptions of the organization's commitment to them (Eisenberger et al., 1986). In this study, faculty commitment levels are rated at a somewhat agree which means the institutions are not providing enough perceived commitment to fully engage strong commitment levels in their

faculty members. Employees who perceive that their organization values and cares about them seem to develop stronger commitment levels to their organization (Guan, et al., 2014).

Organizational behavior researchers have consistently found that a person's perception of how their organization supports their work highly influences their job motivation and commitment. In turn, motivation and commitment lead to improved work performance (Eisenberger et al., 1986; Shore & Shore, 1995). Faculty motivation levels were rated lower by participants than both commitment and satisfaction, and organizational leaders may want to consider ways to increase their faculty motivation by providing additional *incentives*, *rewards*, and better *online pedagogy assessments*.

POS and job satisfaction are strongly related but distinct constructs (Eisenberger et al., 1997). For this study, about fifty percent of faculty members rated their satisfaction levels between somewhat agree to agree, but overall POS seems to be rated lower. Faculty may not be perceiving adequate support by their institutions which disrupts the "norm of reciprocity" of trading their effort and dedication to the institution and in return not getting the benefits they feel they have earned.

Summary. Institutions should examine their online programs and specifically include a review of the efforts associated with *online pedagogy assessment*, *incentives*, *rewards*, and *technology training*. This review and subsequent application is one approach to increase faculty *commitment*, *motivation*, and *satisfaction*. Creating and implementing assessments that are specific to online education that are percieved as supportive, versus punitive, will help faculty improve their courses and the student online learning experience, resulting in positive levels of student satisfaction.

Incentives is an influential construct. Organizations can address *incentives* through release time, faculty development opportuntities, flexibility in work schedule, opportunities to imporve teaching skills, intellectural challenge/opportunity to develop new ideas, and recognition for online teaching efforts from their institution. *Rewards* are related to, but different from *incentives*. *Rewards* is another influential construct that includes earning tenure and/or advancement in rank, salary increases, fringe benefits, compensation for course development, and compensation for offering a new course. With .8 points difference for *incentives* and a full point difference for *rewards* between faculty and organizational leaders, there is a discrepency between what organizational leaders think, and what faculty think.

Time constraints were mentioned as reasons for lack of opportunities for development, improving teaching skills, and developing new ideas. Faculty members were aware of ways to learn to improve their knowledge of online education, but where unable to utilize the resources due to limited time available. Organizational leaders would benefit from a deeper understanding of faculty time, and how the issue of lack of time limits "opportunties" for the individual, even when the opportunities may be provided by the organization.

Through an understanding of how organizational supports are percieved by faculty and orgainzational leaders, and through an understanding the extent to which the supports are associated with and can be predictive of commitment, satisfaction and motivation, online education programs can be most effective. Given limited resources, orgainzaations must prioritize by first addressing the most important and influencial types of supports, which lead to increase faculty commitment, motivation, and satsifaction.

Conclusions and Summary

With the emergence, and even prominence of online education, research into practices that best support the effectiveness of online programs are important. Although this study addressed online education in the context of higher education, there is also an increasing number of online learning opportunities being provided to students in secondary education. Those who teach within this virtual digital environment need the assistance of organizational leaders to provide the necessary organizational support for faculty to effectively teach online. These supports include proper rewards, incentives, and assessment of work as well as providing technology, personnel support, and opportunities to learn additional tools. Organizational leaders need to understand how their role in providing support to faculty is perceived, and how this perception is related to motivation, commitment, and satisfaction of their faculty. Through this understanding, efforts can be focused on providing meaningful organizational supports that improve faculty commitment, motivation, and satisfaction, that lead to higher quality work, and ultimately reduces employee turnover. All put together, these constructs influence the level of success of online programs and student's online educational experiences. It is important to understand the kind of organizational support online teaching faculty require, and to seek to ensure educational leaders understand those requirements so that they may work to address them.

Recommendations

The following recommendations are made to improve perceived organizational support for online teaching faculty:

- Reward and incentives are important factors for faculty commitment, motivation and satisfaction. It seems online faculty are underappreciated for

the time they spend teaching in the online environment. Many of these faculty members are physically distanced from their peers as well as their students. Organizational leaders need to become aware of the shortfalls of online learning from the perspective of the faculty members and make adjustments to rewards and incentives.

- Peer mentoring is a valuable resource for online education. Organizational leaders need to capitalize on this internal support system to create a better environment for their faculty. Formalizing a peer mentoring program will increase knowledge, create a supportive environment, and reduce the "distance" between faculty members.

- Organizational leaders need to reconsider how online courses are evaluated. Peer review of online courses may be a better way to assess online courses and faculty teaching performance, as opposed to relying heavily on the standard student evaluations, which often times were created for face-to-face courses.

- Time commitments for online learning needs to be better understood by organizational leaders. Providing adequate time for faculty to spend studying provided training materials, sharing ideas with peers, and utilizing online education personnel such as instructional designers to increase their effectiveness for teaching online would benefit the institutions online programs.

- Faculty must also be aware of the time considerations and work to be efficient in their efforts. Because the development of online support

materials can be labor and time intensive, it is particularly important that these development efforts be leveraged over multiple offerings of a course. The effective reusability of the developed online resources will assist the faculty member achieve high levels of productivity over time. Formal training and professional development should be provided that addresses online instructional resource development and the concept of reusability.

This study has examined the perceptions of online teaching faculty and organizational leaders regarding organizational support constructs and faculty commitment, motivation and satisfaction. Lower levels of faculty POS were associated with the institutions not providing the necessary perceived supports for faculty. This could be considered a violation of the norm of reciprocity, which obligates people to respond positively to favorable treatment received from others. Faculty perceive they are putting more into the relationship with their institutions than what they are getting out of it. Ultimately, these constructs influence the success of the program and student's online educational experiences. Recommendations for further research include the following:

- Similar comparative studies should be made in different types of institutions such as private universities or two-year colleges.

- Additional similar studies should be conducted in different geographical regions.

- A more in-depth comparison of full-time and adjunct faculty would be beneficial as the adjunct ranks seem to be increasing.

- Additional organizational leaders could be added to the study such as Director of Distance Education and Vice President of Instruction.

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Appendix – Survey Instrument

Instructional Support for Online Education Survey

Amy Provost, Doctoral Candidate
Department of Education
University of Idaho

This survey is part of a doctoral research project being conducted through the College of Education at the University of Idaho. The purpose of this study is to: a) investigate the relationship between online faculty perceptions of instructional support and that of organizational leaders of online programs and b) to examine the relationship between faculty perception of organizational support and faculty motivation, commitment, and satisfaction associated with online education. The results of this study will help identify whether there are perceptual differences between faculty and administrators, and investigate the role of instructional support constructs as they relate to instructor performance. There is no anticipated harm that can occur by participation in this project, participation is voluntary, and all individual information collected will be kept confidential and stored securely.

This survey takes approximately 10-15 minutes to complete.

The following definitions will be used throughout the survey.

*Online Education: Online education or training is identified as an online means by which students learn and faculty teach. Students and faculty may or may not be geographically separated in order to take advantage of online education.

*Instructional Support: Support that a higher education institution provides faculty members to improve their online teaching such as course redesign support, training in the use and application of online education technologies, training in teaching methods, support personnel, and media and technical support.

*Online pedagogy: the art or science of teaching online education or instructional methods used to teach online education.

Section I. Questions about <u>Instructional Support for Online Education</u>

Please respond to the following question about the extent of instructional support your institution provides.

1. <u>Course Design</u>. My institution supports faculty who teach online courses through:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Group workshop or training session on course design	☐	☐	☐	☐	☐	☐	☐
Self-paced computer-based and/or Web-based tutorials on course design	☐	☐	☐	☐	☐	☐	☐
Webinars on course design	☐	☐	☐	☐	☐	☐	☐
Conferences on course design	☐	☐	☐	☐	☐	☐	☐
Mentoring opportunities for course design	☐	☐	☐	☐	☐	☐	☐
A guide book or manual on course design	☐	☐	☐	☐	☐	☐	☐

Please describe any other activity or service your institution offers to support course design for the purpose of online education.

2. <u>Course Conversion</u>. My institution supports faculty who teach online courses through:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Assistance with the preparation of online course materials (e.g. Instructional designers, graphic designers, etc.)	☐	☐	☐	☐	☐	☐	☐
Provide a Learning Management System (e.g. Blackboard, Canvas, etc.)	☐	☐	☐	☐	☐	☐	☐
Coordination of communication with online learners (e.g. video chat, instant messaging, etc.)	☐	☐	☐	☐	☐	☐	☐

Please describe any other activity or service your institution offers to support online education course conversion.

3. <u>Technology training</u>. My institution supports faculty who teach online courses through:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Group workshop or training session on technologies used for online education	☐	☐	☐	☐	☐	☐	☐
Self-paced computer-based and/or Web-based tutorials on technologies used for online education	☐	☐	☐	☐	☐	☐	☐
Webinars on technologies used for online education	☐	☐	☐	☐	☐	☐	☐
Conferences on technologies used for online education	☐	☐	☐	☐	☐	☐	☐
Mentoring opportunities for technologies used for online education	☐	☐	☐	☐	☐	☐	☐
A guide book or manual on technologies used for online education	☐	☐	☐	☐	☐	☐	☐

Please describe any other activity or service your institution offers to support instructor learning technology training.

4. Developing and Applying Online Teaching Methods (Online Pedagogy). My institution supports faculty who teach online courses through:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Group workshop or training session on developing and applying online teaching methods	☐	☐	☐	☐	☐	☐	☐
Self-paced computer-based and/or Web-based tutorials on developing and applying online teaching methods	☐	☐	☐	☐	☐	☐	☐
Webinars on developing and applying online teaching methods	☐	☐	☐	☐	☐	☐	☐
Conferences on developing and applying online teaching methods	☐	☐	☐	☐	☐	☐	☐
Mentoring opportunities for developing and	☐	☐	☐	☐	☐	☐	☐

applying online teaching methods							
A guide book or manual on developing and applying online teaching methods	☐	☐	☐	☐	☐	☐	☐

Please describe any other activity or service your institution offers to support teaching online pedagogy for online education.

5. <u>Assess and Receive Feedback from Online Teaching (online pedagogy assessment)</u>: My institution supports faculty who teach online courses through:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Student assessment during the operation of the course	☐	☐	☐	☐	☐	☐	☐
Department Chair/Dean assessment during the operation of the course	☐	☐	☐	☐	☐	☐	☐
Peer/Mentor assessment during the operation of the course	☐	☐	☐	☐	☐	☐	☐
Student assessment at the end of course	☐	☐	☐	☐	☐	☐	☐
Department Chair/Dean assessment at the end of course	☐	☐	☐	☐	☐	☐	☐
Peer/Mentor assessment at the end of course	☐	☐	☐	☐	☐	☐	☐

Please describe any other evaluation your institution offers to support online education.

6. <u>Instructors' Technology Needs</u>: My institution supports faculty who teach online courses through:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Purchase and upgrade hardware	☐	☐	☐	☐	☐	☐	☐

Purchase and upgrade instructional software	☐	☐	☐	☐	☐	☐	☐
On-site technical support	☐	☐	☐	☐	☐	☐	☐
Remote site technical support	☐	☐	☐	☐	☐	☐	☐
Support for online resources (e.g. blogs, wikis, social networking, etc.)	☐	☐	☐	☐	☐	☐	☐

Please describe any other activity or service your institution offers to support instructors' technology needs.

7. <u>Rewards</u>: My institution supports faculty participation while teaching online courses through:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Earning tenure and/or advancement in rank	☐	☐	☐	☐	☐	☐	☐
Salary increase	☐	☐	☐	☐	☐	☐	☐
Fringe benefits	☐	☐	☐	☐	☐	☐	☐
Compensation for course development	☐	☐	☐	☐	☐	☐	☐
Compensation for offering new courses	☐	☐	☐	☐	☐	☐	☐

Please describe any other reward your institution offers to support online teaching.

8. <u>Incentives</u>: My institution supports faculty participation while teaching online courses through:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Release time	☐	☐	☐	☐	☐	☐	☐
Faculty development opportunities	☐	☐	☐	☐	☐	☐	☐
Flexibility in work schedule	☐	☐	☐	☐	☐	☐	☐

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Opportunity to improve teaching skills	☐	☐	☐	☐	☐	☐	☐
Intellectual challenge/ opportunity to develop new ideas	☐	☐	☐	☐	☐	☐	☐
Recognition for online teaching efforts from your institution	☐	☐	☐	☐	☐	☐	☐

Please describe another incentive your institution offers to support online education.

9. Personnel Support: My institution supports faculty participation while teaching online courses through:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Facilitator to assist with larger online loads (i.e. grading, manage discussion boards, responding to emails, etc.)	☐	☐	☐	☐	☐	☐	☐
Teaching or research assistant	☐	☐	☐	☐	☐	☐	☐
Technical or technology consultant	☐	☐	☐	☐	☐	☐	☐
Instructional designer	☐	☐	☐	☐	☐	☐	☐
Evaluation specialist	☐	☐	☐	☐	☐	☐	☐
Mentors (or other faculty advisers)	☐	☐	☐	☐	☐	☐	☐

Please describe any other personnel position your institution offers to support online education.

Section II. Questions about Faculty Commitment, Motivation, and Satisfaction

Please rate yourself on the following.

10. Commitment: To what extent do you agree or disagree to the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor disagree	Somewhat Agree	Agree	Strongly Agree
I understand how my job contributes to my institution's goals and objectives for online learning.	☐	☐	☐	☐	☐	☐	☐
I am willing to put in a great deal of extra effort to help my institution be successful in online learning. .	☐	☐	☐	☒	☐	☐	☐
I am encouraged to be creative and innovative to meet my students' needs.	☐	☐	☐	☐	☐	☐	☐
My institution cares about its students.	☐	☐	☐	☐	☐	☐	☐
Often, I find it difficult to agree with my institution's policies on important matters relating to online education.	☐	☐	☐	☐	☐	☐	☐
My institution inspires the best job performance from me.	☐	☐	☐	☐	☐	☐	☐

11. Motivation: To what extent do you agree or disagree to the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor disagree	Somewhat Agree	Agree	Strongly Agree
I am very motivated at work.	☐	☐	☐	☐	☐	☐	☐
My institution sufficiently rewards me for my work.	☐	☐	☐	☐	☐	☐	☐
My institution provides sufficient incentives at work.	☐	☐	☐	☐	☐	☐	☐
My chair and/or dean encourages open, honest two way communication.	☐	☐	☐	☐	☐	☐	☐
My institution values me.	☐	☐	☐	☐	☐	☐	☐
My institutions' goals for online learning align with my goals.	☐	☐	☐	☐	☐	☐	☐

12. Satisfaction: To what extent do you agree or disagree to the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor disagree	Somewhat Agree	Agree	Strongly Agree
I enjoy my work most days.	☐	☐	☐	☐	☐	☐	☐

I am noticed when I do a good job.	☐	☐	☐	☐	☐	☐	☐
I get a feeling of accomplishment from my job.	☐	☐	☐	☐	☒	☐	☐
I am satisfied with my job.	☐	☐	☐	☐	☐	☐	☐
I have a clear understanding of my job responsibilities and what is expected of me.	☐	☐	☐	☐	☐	☐	☐
I do interesting and challenging work.	☐	☐	☐	☐	☐	☐	☐

Section III. Demographic and Background Characteristics

Your personal information will remain confidential.

13. What is your age? [____]

14. What is your gender?

☐ Male

☐ Female

15. What is your race?

☐ White/Caucasian

☐ African American

☐ Hispanic

☐ Asian

☐ Native American

☐ Pacific Islander

☐ Other [_____]

16. Which statement best describes your position?

☐ A full-time faculty member who teaches online courses

☐ A part-time faculty member who teaches one or more online courses

☐ An administrator who has responsibility for providing instructional support to online education faculty

17. How many years have you been in this or a similar position?

[____] Years

18. If you are a faculty member (or adjunct faculty), how many courses have you taught online?
(*The same courses taught several times should be counted as one.*)

☐ Course(s)

19. What learning management system(s) do you use when teaching?

☐ Moodle

☐ Blackboard

☐ Canvas

☐ Desire2Learn

☐ OnCourse

☐ Sakai

☐ Coursera

☐ EdX

☐ Other ▭

20. What is the primary form of communication between instructors and students in your courses?

☐ Course communities (e.g. blogs, discussion boards)

☐ Email

☐ Text messaging

☐ Social media

☐ Other ▭

21. Which of the following tools/features do you use to support your online instruction?

☐ Learning Management System (LMS)

☐ Website that is separate from the LMS

☐ Meeting software (e.g. Skype)

☐ Discussion boards

☐ Chat room

☐ Blogs

☐ Wikis

☐ Other ▭

22. Present tenure status

☐ Tenured

☐ Tenure track, but not tenured
☐ Non-tenure Track

23. What department do you work in?

☐ Business
☐ Education
☐ Health Professions
☐ Science
☐ Engineering
☐ General Education
☐ Agriculture/Forestry
☐ Information Technologies/Computer Science
☐ Technical Professions
☐ Other _____

Any additional information you would like to provide?