SERVANT LEADERSHIP,

SELF-EFFICACY, AND

COMMUNITIES OF INQUIRY IN

HIGHER EDUCATION ONLINE LEARNING

A Dissertation

Presented in Partial Fulfillment of the Requirements for the

Degree of Doctorate of Education

with a

Major in Education

in the

College of Graduate Studies

University of Idaho

by

Rachel L. Huber

May 2014

Major Professor: Linda Taylor, Ph.D.

Authorization to Submit Dissertation

This dissertation of Rachel L. Huber, submitted for the degree of Doctorate of Education with a Major in Education in the College of Graduate Studies and titled: "Servant Leadership, Self-Efficacy, and Communities of Inquiry in Higher Education Online Learning" has been reviewed in final form. Permission, as indicated by signatures and dates below, is now granted to submit final copies of the College of Graduate Studies for approval.

Major Professor: _____

                                     Linda Taylor, Ph.D.   Date

Committee
Members: _____

                                     Corinne Mantle-Bromley, Ph.D.   Date

_____

                                     Raymond Dixon, Ph.D.   Date

_____

                                     Royce Kimmons, Ph.D.   Date

Department
Administrator: _____

                                     Jeffrey Brooks, Ph.D.   Date

Discipline's
College Dean: _____

                                     Corinne Mantle-Bromley, Ph.D.   Date

Final Approval and Acceptance by the College of Graduate Studies

Dean of the College
Of Graduate Studies _____

                                     Jie Chen, Ph.D.   Date

Abstract

This three-article dissertation explored various aspects of improving the quality of online teaching. The first article was a quantitative study that investigated the relationship between online instructor self-efficacy and student satisfaction at a private university in the northwestern United States. The second article was a multiple case study which investigated how teachers who are familiar with servant leadership principles perceive servant leadership traits as able to transition to and have influence in the higher education online classroom. It identified what online learning looks like when the teacher uses the servant leadership model. In addition, the presence of mentoring in courses taught by instructors trained in servant leadership was established, and servant leadership was recommended as an effective pedagogical approach for higher education online learning. The third article was a quantitative study that investigated the relationship between servant leadership training and instructor self-efficacy, with respect to teaching presence, cognitive presence, and social presence (as measured by the CoI) in higher education online learning. The last chapter tied the three research articles together, concluding that servant leadership is an effective pedagogical approach and has similarities to teaching best practices and principles of andragogy. When teachers are trained, and online programs are developed, using a foundation of servant leadership principles the result is increased mentoring, more effective online instruction, and increased satisfaction and success of students.

Keywords: online learning, servant leadership, self-efficacy, Community of Inquiry, higher education, andragogy

Acknowledgements

First and foremost, I couldn't have done this without my wonderful husband and children, who have been patient, supportive, and understanding through this long process. My sister, Debi has been my proofreader, editor, and counselor. I couldn't have done this without her. My mom and dad have supported me in every way, and I would not have had the desire or the courage to accept this challenge without their influence and example.

Linda Taylor has been absolutely incredible as a major professor, as she has helped me every step of the way. With Linda's knowledge, passion, and compassion she works miracles, and I am so grateful to have been a beneficiary of her talents. In addition, my committee has been most helpful in providing valuable feedback and assistance in every aspect of my research. They truly went above and beyond.

My fellow researchers have been the "dream team," and I could not wish for better research and writing partners. In addition, our cohort has been outstanding and I am grateful for all of them. We started off as strangers, and are now dear friends. Of course none of us could have done this without Bryan Maughan. What many would have shied away from, he viewed as an opportunity and embraced the challenge.

I am grateful to all the people from University of Idaho who had the courage to try something new, and who took a risk on me and allowed me into the program. In addition, I want to thank the administrators at BYU-Idaho for their support.

Although I cannot refer to them by name, as anonymity was a requirement of the IRB, I am grateful to my servant leadership participants. I have been blessed by my association with them, and have seen true servant leadership in action in all my interactions with these remarkable individuals.

Dedication

For my Dad. Since the September morning he held my hand and took me on the long walk

across the street to my first day of school, he has never given up on his conviction that I

could do whatever I set my mind to do—to such an extent that I came to believe it myself.

Table of Contents

List of Tables

List of Figures

CHAPTER 1: INTRODUCTION TO THE PROFESSIONAL PRACTICES DOCTORATE

This study was designed to fulfill the purpose of the University of Idaho Professional

Practices Doctorate in Education (PPD), resulting in a Doctorate of Education (Ed.D.)

degree, meaning it focused on understanding, developing, and implementing solutions to

local problems. PPD programs are distinguished from traditional doctorates in that they

incorporate "practice-rooted research, work-based learning, employment-related skills and

cohort-driven pedagogies" (Willis, Inman, & Valenti, 2010, p. 99). The characteristics of

PPD programs are thus included in PPD dissertations. This introduction compared the

purposes and outcomes of PPD programs with traditional Ph.D. programs. Specifically, it

focused on the Ed.D. degree as a type of PPD, examined PPD dissertation options, and

explored the collaborative nature of this research study.

PPD programs are usually characterized by building content and skills that are

broader and more interdisciplinary than traditional Ph.D. programs. Since the students in

these programs are often older and working in their chosen professions, the PPD allows

students to focus on problems within their professional workplace, rather than on academic

philosophies and theories (Green & Powell, 2005). The PPD prioritizes professional

knowledge over academic knowledge, its goal being to address real and often localized

problems, rather than developing academic theories (Willis et al., 2010). While some

scholars have debated the validity of PPD programs (Le Belle, 2004; Willis et al., 2010, p.

29-32), founders of the Carnegie Project on the Education Doctorate endorse the PPD

doctorate program in Education, and uphold the idea that this "new degree can help restore

respect for the excellent work of education practitioners and leaders" (Shulman, Golde,

Bueschel, & Garabedian, 2006, p. 28).

Historically, educators have debated the purposes and outcomes of Ph.D. programs in Education compared to Ed.D. objectives and outcomes. The first doctorate of education (Ed.D.) was offered from the University of Toronto in 1881, and later in the United States at Harvard in 1920 (Green & Powell, 2005, p. 87). The purpose of the Ed.D. is to prepare practitioners, as opposed to scholars and researchers in traditional Ph.D. programs.

Institutions such as the University of Illinois and the University of Idaho focus the Ed.D. dissertation around solving problems rather than discovering universal knowledge. The University of Illinois characterizes their Ed.D. dissertation as a "synthesis of experiences that is the hallmark of a highly qualified professional. The demonstration of these qualities may take a variety of forms such as: (a) a field study; (b) a scholarly, original paper; . . .or (c) an analytic report" (College of Education at Illinois, 2013, par. 1). In addition, Clark University, Harvard Graduate School of Arts and Sciences, Louisiana State University, and the University of Alabama support the three-article dissertation format used by the University of Idaho PPD program (University of Idaho, 2011; Willis et al., 2010, p. 47).

The three-article dissertation format incorporates five elements in the dissertation, including an introduction that explains the three articles contained in the dissertation, followed by three publishable articles, and a conclusion that ties together findings from the articles and proposes both solutions to problems of practice and implications for future scholarship (Willis et al., 2010, p. 46). Overall, the purpose of the PPD dissertation is to prepare leaders who have the requisite skills to identify an authentic, researchable issue or problem related to their practice and to conduct disciplined inquiry that can identify promising solutions (T. Brown-Ferrigno, personal communication, September 5, 2012).

Table 1.1 summarizes the similarities and differences between the three types of

dissertations.

Table 1. 1. *Types of Dissertations*

Chapter	Traditional	3 Article (TAD)	PPD
1	Introduction	Introduction	Problem
2	Literature Review	Article 1	Context of Research
3	Methodology	Article 2	Action Research
4	Results	Article 3	Results
5	Discussion	Conclusion	Reflective Analysis

Finally, it must be noted, "PPD dissertations tend to be done collaboratively rather

than by a lone researcher, because most of the significant issues of professional practice call

for collaboration" (Willis et al., 2010, p. 39). The research in this study was cohort-based.

The first article presented in this dissertation was collaborative, and as such, some overlap

between articles is expected. Individual articles may share the same theoretical framework,

methodologies, or method of gathering data (Willis et al., 2010, p. 25). In this dissertation,

each researcher's individual study, as well as the group study, focused on a current problem

with technology in education. The research informs online learning at private institutions

such as Brigham Young University-Idaho (BYU-I), a private university located in the

northwestern United States.

While traditional research seeks to generalize findings, action research focuses on

specific situations and localized solutions (Stringer, 2007). Therefore, the foci of the

researchers' various studies identified problems of practice that were worthy, marketable,

and original (Willis et al., 2010). Participatory Action Research (PAR) is suited to

developing and implementing solutions to local problems, and fulfills the purpose of the

PPD program in its objective of practice-driven research. In a similar manner, some of the

individual qualitative studies utilized the Rapid Assessment Process (RAP) and used cohort members as co-researchers and analysts (Beebe, 2001). The PPD's focus on work-related learning and employment-driven skills were inherent in both the group and individual studies.

The research team for the group study included Jeffrey Hochstrasser, an instructor at BYU-I; Heather Carter, an online instructor and administrator at BYU-I; Rachel Huber, a BYU-I online instructor and former online student; and Brett Yadon, an online administrator at BYU-I. The cohort focused their research on current technology issues in the classroom and organization. The study's stakeholders included both online students and students in traditional face-to-face classrooms at BYU-I, online and campus faculty at the same university, BYU-I online learning departments and administration, online servant leadership programs, and the University of Idaho.

In addition to the collaborative research, each member of the research team conducted individual research to complete two of the three articles for the three-article dissertation. The individual studies employed various types of research, and all focused on understanding and improving online learning or technology used in higher education.

The individual portion of this dissertation includes a multiple case study (Chapter 3) to discover how teachers who are familiar with servant leadership principles perceive servant leadership traits as being able to transition to and have influence in the higher education online classroom and what online learning looks like when the teacher uses the servant leadership model. In addition, a quantitative study (Chapter 4) investigated the relationship between servant leadership training and instructor self-efficacy, with respect to teaching presence, cognitive presence, and social presence (as measured by the CoI) in

higher education online learning. The fifth chapter is the conclusion summarizing the results of the three studies.

References

Beebe, J. (2001). *Rapid assessment process: An introduction*. Walnut Creek, CA: AltaMira.

College of Education at Illinois. (2013). Dissertation. In *Graduate Student Handbook*

(Ed.D. Degree Requirements). Retrieved October 1, 2013 from

http://education.illinois.edu/students/grad_handbook/edd

Green, H., & Powell, S. (2005). *Doctoral study in contemporary higher education*.

Maidenhead, England: The Society for Research into Higher Education/Open

University Press/McGraw-Hill Education.

La Belle, T. (2004, April). *Credential inflation and the professional doctorate in California*

higher education. Berkeley, CA: Center for Studies in Higher Education, University

of California Berkeley. Retrieved from

http://cshe.berkeley.edu/publications/publications.php?id=75

Shulman, L., Golde, C., Bueschel, A., & Garabedian, K. (2006). Reclaiming education's

doctorates: A critique and a proposal. *Educational Researcher*, *35*(3), 25-32.

Stringer, E. T. (2007). *Action Research (3rd ed.).* Thousand Oaks: Sage.

University of Idaho. (2011). *Professional Practices Doctorate (Ed.D.): About Professional*

Practices Doctorate. Retrieved from

http://www.uidaho.edu/ed/leadershipcounseling/professionalpracticesdoctorate

Willis, J., Inman, D., & Valenti, R. (2010). *Completing a professional practice dissertation.*

Charlotte: Information Age Publishing.

CHAPTER 2: SELF-EFFICACY IN ONLINE TEACHING: HOW INSTRUCTOR
CONFIDENCE AFFECTS STUDENT SATISFACTION

(Heather Carter, Jeffrey Hochstrasser, Rachel Huber, Brett Yadon)

Abstract

Online learning is the most rapidly growing area in higher education. This study explored the correlation between instructor self-efficacy (N = 265) and student satisfaction (N = 9179) with online courses. Instructor self-efficacy in online teaching was examined in terms of the instructors' confidence in online teaching pedagogy, use of technology, and subject matter expertise (as measured by the Online Instructor Self-efficacy Survey). Student satisfaction levels with the course, instructor, and perceived learning were measured by end-of-semester student evaluations. Statistical analysis revealed that instructors with over three semesters of teaching experience at BYU-I were found to have significantly higher self-efficacy but lower student satisfaction levels than instructors who had been teaching less than three semesters. In addition, a significant difference was found in terms of student satisfaction and class standing, with more advanced students being less satisfied with their instructors, their perceived learning, and their online course. Analysis of data from pre-college (Pathway) students revealed significant differences from the traditional students in this study. Moreover, the more confident an instructor was in their technological skills, the lower the student satisfaction was with the online course for the non-matriculated students. Suggestions for future research were discussed.

Keywords: higher education, online learning, self-efficacy, student satisfaction, technology

Introduction

Online learning is an increasing part of the landscape of higher education in the United States. Enrollments in online courses have increased steadily since 2005 (Wasilik & Bolliger, 2009). A recent survey indicated 50% of college presidents believe that ten years from now a majority of students will be taking classes online (Parker, Lenhart, & Moore, 2011). In 2012, almost seven million students in the United States, or 32% of all higher education students, were taking courses online (Allen & Seaman, 2013).

Despite this high rate of growth in online enrollments, in 2012 over two-thirds of faculty members at American universities reported that they did not accept the value and legitimacy of online learning (Allen & Seaman, 2013). This same rate of acceptance, or non-acceptance, has been relatively consistent for the last ten years, and shows no sign of changing (Allen & Seaman, 2011, 2013). Even acceptance of online education by students is in question. In a study consisting of counseling and school psychology graduate students found a significant preference toward face-to-face teaching when compared with hybrid and strictly online courses (Taylor & Huang, 2010). These findings could be explained by personality types that prefer face-to-face learning over the online environment (Harrington & Loffredo, 2010). Students who preferred online classes based their preferences on convenience, enjoyment of computer technology, and interest in innovation (Harrington & Loffredo, 2010).

Online programs are less expensive and offer more flexibility for students. Even without considering student preferences, online courses are being offered at a rate that exceeds the growth of traditional courses in higher education (Allen & Seaman, 2013; Harrington & Loffredo, 2010). Increasing enrollments, accompanied by a consistent

questioning of the value of online education, justify a need to examine ways the quality of the online student experience might be improved while maintaining escalating growth rates.

Problem Statement

Brigham Young University-Idaho (BYU-I), located in the northwestern United States, is among those institutions of higher education experiencing exponential growth in online learning (see Figure 2.1). In Fall Semester 2009, when BYU-I first developed a separate online program, 67 remote adjunct instructors were hired to teach 35 different online courses. By Fall Semester 2013, four years later, the number of online instructors had increased by 683% (Routson, 2013). The university hired 525 instructors to teach 142 different online courses, spread across 732 sections. In Fall 2013, on the first day of registration, the number of enrollments reached 30,742 (Routson, 2013).
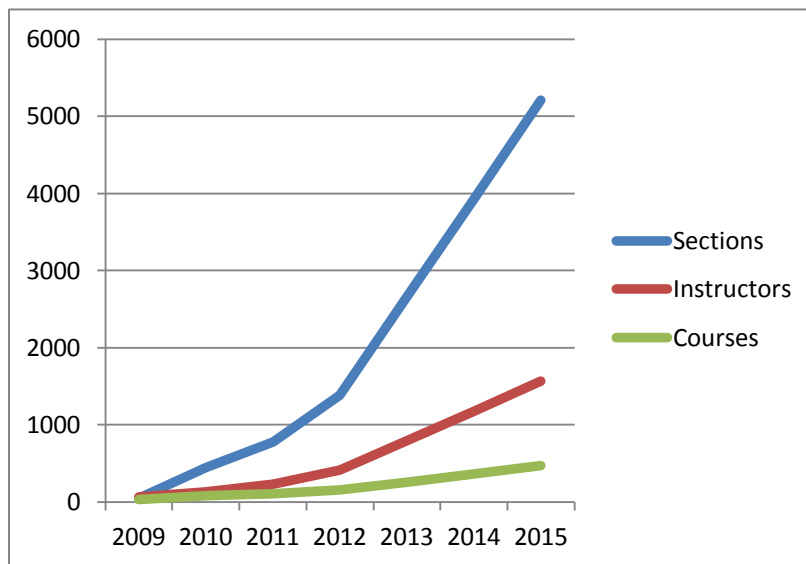
Figure 2. 1. Current and projected growth in Online Learning at BYU-Idaho.

From Fall 2013 to Winter 2014, the online program increased its number of instructors yet again, by 29%. Since the online courses at BYU-I are staffed almost

exclusively by remote instructors, escalating online enrollments will mean more remote adjunct faculty to hire, train, and develop each year.

The rapid growth in online students and online instructors necessitates increased training. Not only must new instructors be trained on the technicalities of teaching, they must also learn a new online teaching pedagogy. The growth has also forced the online department to continually adapt their management procedures as data is gathered comparing online student satisfaction levels to student satisfaction in the same on-campus courses. The university faces challenges of improving the quality of online education and increasing student satisfaction ratings, while supporting high levels of accelerated growth.

Purpose Statement

This study explored the correlation between instructor self-efficacy in teaching online and student satisfaction levels from end-of-semester evaluations. Specifically, online teaching self-efficacy was examined in terms of instructors' confidence in online teaching pedagogy, use of technology, and knowledge of the subject matter. This study identified correlations between self-efficacy and student satisfaction in order to enable the university to improve satisfaction, develop better hiring strategies, and improve instructor training and professional development.

Significance of the Study

BYU-Idaho has three main imperatives from Kim B. Clark, its current President: lower the cost of education, serve more students, and improve students' learning experience (Clark, 2005). The university's online program has helped fulfill two of these missions, by lowering the cost of education and serving more students than ever before. Still, the university continues to explore ways to improve student satisfaction, especially in the online

learning program. Examining instructor self-efficacy as it correlates with student satisfaction is significant because of the potential impact an instructor's self-efficacy may have on students' experience and satisfaction (Bandura, 2005).

In addition, this study may provide additional guidelines for hiring and training online faculty members who, in the end, will help improve the online learning experience for students. Finally, students' experience with the online platform at this particular university can be generalized and found applicable to other online institutions throughout the United States.

<div align="center">**Literature Review**</div>

Students are considered the main stakeholders in the educational process. One way to measure quality in online education is to look at student satisfaction with courses and instructors (Astin, 1993; Donald & Denison, 1996; Katiliute & Kazlauskiene, 2010; Schuh & Upcraft, 2002). Self-efficacy theory has its roots in social cognitive theory, and is built on a constructivist framework, which has implications for online learning. This review of the literature examined research concerning domains of online instructor self-efficacy and how they relate to student experiences in online learning.

Student Satisfaction

Student satisfaction in higher education is often used as a key indicator of institutional effectiveness and success (Donald & Denison, 1996; Katiliute & Kazlauskiene, 2010; Schuh & Upcraft, 2002). Satisfaction has been found to have a larger impact on grades than grades have on student satisfaction (Bean & Bradley, 1986). In addition, student satisfaction has been related to increased retention and enrollment, along with improved academic performance (Beil & Shope, 1990; Beltyukova & Fox, 2002; Tinto, 1993).

One of the factors linked to increased student satisfaction with online learning is interaction with instructors. Students connect to instructors in online courses through the presence of quality, plentiful interaction in the use of technology, online-specific pedagogy, and course competency. In general, the more frequent and instructive the interaction with faculty, the more satisfied students are with their experience in online classes (Ali & Ahmad, 2011; Astin, 1993; Jackson, Jones, & Rodriguez, 2010; Kuh, 2003; NSSE, 2005).

A quantitative study of 917 undergraduate students identified several predictors of student satisfaction in online learning (Sahin, 2007). Personal relevance was found to be the strongest predictor of student satisfaction. This involves linking course content with personal experiences of the students and creating courses that are learner-centered, and involve students' out-of-school knowledge and skills. Instructor support was identified as the second most significant predictor of student satisfaction in the online learning environment. This includes timely help, useful feedback, and easy communication. Active learning, which allowed students to involve their own learning strategies, problems, and solutions to the course, was the third strongest variable in predicting students' satisfaction. Addressing these predictors of student satisfaction when developing online courses increases "student motivation, participation, and ultimately, learning" (Sahin, 2007, p. 6).

Research findings are mixed concerning the relationship between gender and student satisfaction, and which gender tends to be more satisfied with the online educational experience. Using a survey that employed a data set of 1185 students from 27 online courses, one study found female students significantly more positive about e-learning than male students (Gonzalez-Gomez, Guardiola, Rodriguez, & Alonso, 2012). This contradicted previous studies, which revealed greater e-learning valuation and satisfaction and a more

positive perception of online learning among male students (Lu & Chiou, 2010; Ong & Lai, 2006). Still other studies indicate no gender effect on attitudes towards online learning (Cuadrado-Garcia, Ruiz-Molina, & Montoro-Pons, 2010; Hung, Chou, Chen, & Own, 2010). All of these studies used similar quantitative data-gathering methodologies, involving participant surveys gathered from a significant number of university students. Ong and Lai (2006) is the exception, which utilized participants employed at six international companies that implement their own e-learning programs. Though the results from these studies show mixed results concerning gender as a variable influencing student satisfaction with online learning, one may still conclude that gender is a variable that should continue to be monitored in future research.

Theoretical Framework

Self-Efficacy Theory is a component of Social Cognitive Theory, which is founded in Constructivism. Having at its foundation the concept of constructing knowledge through experience and social interaction, Constructivism provides a framework for understanding, predicting, and changing human behavior (Crotty, 1998; Paul, 2005). As it relates to education:

> Constructivist principles…help designers and teachers create learner-centered, collaborative environments that support reflective and experimental processes. Students and instructors can then build meaning, understanding, and relevant practice together and go far beyond the mere movement of information from instructors' minds to students' notebooks. (Jonassen, Davidson, Collins, Campbell, & Haag, 1995, p.1)

Since online learning is also founded on the principle of constructivism, many research studies of online instruction are associated with constructivist theory (Jonassen et al., 1995; LeNoue, Hall, & Eighmy, 2011).

Self-efficacy Theory

Self-efficacy theory describes an individual's belief about his or her perceived ability to accomplish certain tasks and/or succeed in a particular situation (Bandura, 2005). It can also be viewed as an individual's self-judgment of personal capabilities, and is often required to begin and successfully complete various tasks at a certain level (Shazadi, Khatoon, Aziz, & Hassan, 2011). For example, an individual with high self-efficacy in angling would feel comfortable handling a fishing rod and confident about his or her ability to land a catch during a fishing trip. However, when fishing in a new situation or with different equipment, this same individual may have lower self-efficacy, especially if initial attempts were not successful. Likewise, teacher efficacy is context-specific and a teacher's level of self-efficacy may change from one class period to another (Goddard et al., 2000). Therefore, a teacher may have high self-efficacy teaching geography in a traditional classroom setting. However, when teaching a different subject, or in an online environment or with new technology, the teacher's self-efficacy may be lower.

Self-efficacy and outcome expectations can be described in terms of their relationship with motivation to learn (Bandura, 1977). Individuals will engage in learning if they believe in their ability to learn (efficacy expectations) and they also believe their efforts at learning will be rewarded (outcome expectations). Figure 2.2 depicts Bandura's theory of self-efficacy.
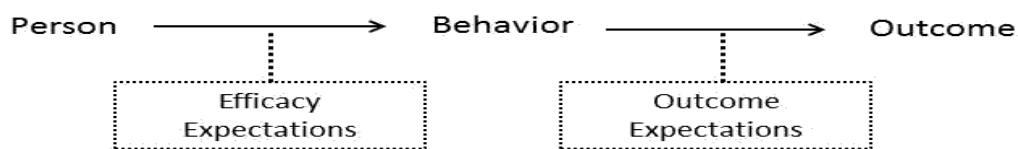
Figure 2. 2. Efficacy and Outcome Expectations (Bandura, 1997, p. 193).

Self-efficacy theory has implications for andragogy, the theory of adult learning developed by Malcolm Knowles. Some of the elements influencing adult learners are their tendency to draw from past experiences, self-directed learning, internal motivation, and a readiness to learn (Chan, 2010). Adults tend to learn what they believe they need to know, and to learn for immediate action rather than for future use (Chan, 2010; Knowles, Holton, & Swanson, 2012).

Domains of Online Teacher Self-Efficacy

Goddard, Hoy, and Hoy (2000) suggested that one way for school administrators to improve student achievement "is by working to raise the collective efficacy beliefs of their faculty" (p. 502). They concluded, "it is not enough to hire and retain the brightest teachers—they must also believe they can successfully meet the challenges of the task at hand" (Goddard et al., 2000, p. 503). High teacher self-efficacy has been found to correlate with increased student learning, student test scores, student motivation, and student achievement (Goddard et al., 2000; Henson, 2001). These findings are consistent across a broad range of demographics, but are limited to the face-to-face classroom. This review of the literature focused on research in terms of self-efficacy in online learning pedagogical skills, technological skills (Hung & Blomeyer, 2012), and course subject matter knowledge (Tschannen-Moran & Woolfolk-Hoy, 2001; Wright, 2010). These three domains were selected for two reasons. First, they correlated to the areas that have been shown to

influence student satisfaction (Jackson et al., 2010). Secondly, the relationship between content, pedagogy, and technology had been examined for several years.

The knowledge base teachers need to effectively teach with technology has previously been conceptualized in terms of Technological Pedagogical Content Knowledge (TPACK) (Koehler & Mishra, 2005; Schmidt et al., 2009). According to this framework, technology knowledge refers to knowledge about various technologies such as the Internet, interactive whiteboards, and software programs. Content knowledge refers to knowledge about course subject matter. Pedagogical knowledge is knowledge of the "methods and processes of teaching," including assessment, student learning, and classroom management (Schmidt et al., 2009). It is important to note that while TPACK examines knowledge in these three domains, it does not measure self-efficacy.

Research has found that instructors' self-efficacy in online teaching influences and is influenced by their confidence in online pedagogies, technology, and subject matter. Self-efficacy is context-specific, and may be high in one area and low in another (Bandura, 2005; Tschannen-Moran & Woolfolk-Hoy, 2001). For example, an online learning instructor may have high self-efficacy in terms of skills with technology and in terms of subject matter, but low self-efficacy in terms of online teaching pedagogy.

The importance for teachers to develop unique pedagogical knowledge and skills to teach in the online environment has been established in primary and secondary education (Deubal, 2008), as well as in higher education (Baran, Correia, & Thompson, 2013). A correlation has also been found between high teacher technological self-efficacy and years of experience in teaching online, as well as pedagogical training in the use of technology (Lee & Tsai, 2010). In relation to content, a teacher's self-efficacy is neither consistent

across activities nor across subject matter (Bandura, 1997; Tschannen-Moran & Woolfolk-Hoy, 2001).

Figure 2.3 depicts the relationship of self-efficacy with the three domains of the online instructor (Carter, Hochstrasser, Huber, & Yadon, 2013). It should be noted that although Online Instruction Pedagogy is found at the top of the circle, this does not suggest that one aspect of self-efficacy is more important than another.

Online Instruction Pedagogy

Online Instructor Self-Efficacy

Use of Technology

Subject Matter Expertise
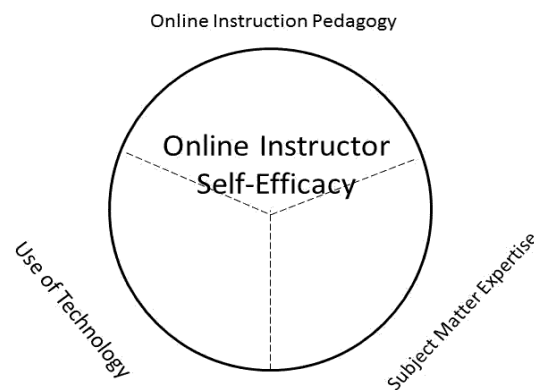
Figure 2. 3. Constructs of Online Instructor Self-Efficacy.

If instructors believe they have subject matter expertise, as well as competence in the use of technology and in online instruction pedagogy, they will provide a better learning environment for students to build their understanding and knowledge of the course material. Research indicates that when this occurs, the results are reflected in increased student satisfaction (Sahin, 2007).

Research Question and Hypotheses

This descriptive study explored the relationship between instructor self-efficacy and student satisfaction for online courses using a quantitative analysis of survey responses.

Research Question: What is the relationship between self-efficacy in online teaching and the level of student satisfaction with their online class? Because self-efficacy is always described as being specific to a certain area, this study examined which aspects of instructor self-efficacy are most significant in impacting online student satisfaction—technology, pedagogy, or content.

H_1 – There is a correlation between instructor self-efficacy *overall* and student satisfaction.

H_2 – There is a correlation between instructor self-efficacy in their *use of technology* and student satisfaction.

H_3 – There is a correlation between instructor self-efficacy in their *pedagogical skill* and student satisfaction.

H_4 – There is a correlation between instructor self-efficacy in their *subject matter expertise* and student satisfaction.

Methodology

This was a descriptive study, measuring the correlation of instructor self-efficacy with student satisfaction. This study was conducted with remote instructors currently teaching online for BYU-I. Demographic data in terms of age, gender, teaching experience and subjects taught was gathered from the Demographic Information Form, which each survey participant was asked to complete (see Appendix A for the complete form). In addition, this study used two survey instruments: one for instructors measuring online instructor self-efficacy, entitled Online Instructor Self-efficacy Survey (see Appendix B); and the other for students indicating satisfaction with course and instructor, as measured by

the BYU-Idaho Course Evaluation administered at the end of each semester (see Appendix C).

Research was conducted after approval of the Institutional Review Board (IRB) from both BYU-I and the University of Idaho. IRB approvals can be found in Appendix D and E. Researchers were trained in and followed the general ethical principles and code of conduct of the American Psychological Foundation (APA, 2010, p. 5-7) and completed certification from the National Institutes of Health (NIH). The nature of the surveys did not require identifying students or instructors individually. The data was analyzed in aggregate. To help protect the identity of instructors and enhance their comfort with taking the survey, all instructors were assigned a participant number by the researchers. This participant number was used to link instructors to the course satisfaction results. The researchers did not share individual self-efficacy scores with BYU-I; rather, all data was presented in aggregate.

Assessments

The Online Instructor Self-efficacy Survey (OISS) was adapted by the researchers, using as their model the Online Educator Self-Efficacy Scale (Hung & Blomeyer, 2012), the Online Technologies Self-Efficacy Scale (Miltiadou & Yu, 2000), Lee's Self-efficacy Instrument (Lee, 2003), and the Teacher Efficacy Construct (Tschannen-Moran & Woolfolk-Hoy, 2001). The OISS contained 38 questions designed to assess the self-efficacy of online teachers' pedagogical skills, technological skills, and subject matter expertise. It used a semantic differential scale, ranging from 1 (very confident) to 4 (not confident at all). It also included two open-ended questions for each of the three categories, allowing instructors to elaborate on what added to or diminished their confidence. See Appendix B for the complete instrument. It should be noted that while elements of the OISS were

identified in TPACK, the OISS was not designed to mirror TPACK. The focus of the OISS was to assess self-efficacy, and therefore the questions in the survey separate application of technology skills from other pedagogical techniques, whereas in the TPACK, all pedagogy is in one category. OISS design allowed researchers to combine understanding and application of technology into one category, and separate application of technological knowledge from other elements of pedagogy.

The second assessment instrument used was the BYU-Idaho Course Evaluation, administered to students at the end of each semester for all courses at BYU-I. This survey contained 43 questions about each student's performance and expectations in the class, as well as perceptions of the course and instructor. It used a five point rating scale about student satisfaction for the course in relation to other college courses the student had taken. The course evaluation used in this study has been administered at BYU-Idaho since 2008.

Data Collection

Researchers used the Qualtrics survey software to collect data. Prior to this research, data collection was in place for the student satisfaction measures, since each semester BYU-I administers a student survey for every course. The two quality measures of course and instructor ratings were already part of the survey. The correlation for these two quality measures was calculated for each self-efficacy question and for the three general categories of technological skill, knowledge of subject matter, and skill in online teaching pedagogy, as well as overall teaching self-efficacy.

Data Analysis

A Spearman rho correlation was conducted for all hypotheses. Analysis looked for a correlation between student satisfaction and instructor self-efficacy in terms of technological

skill, pedagogical skill, subject matter knowledge, and overall online teaching self-efficacy. It must be noted that 44% of the instructors taught classes in a Pathway program, which is a year-long program of general study skills and academic start courses designed to help non-matriculated students become college-ready. Because these are not traditional courses or traditional students, an analysis was conducted both with and without their data.

Phase I: Instrument Validation

The study had two phases. The goal of the first phase was to improve the content validity of the OISS. Ten Caucasian professionals (male = 8; female = 2) between the ages of 28 and 43 were asked to review and critique the OISS. Eight (80%) agreed to critique the OISS. Two of the professional reviewers held Ph.Ds in Instructional Design and six held Masters Degrees. All were either directors in research and development (n = 3) or managers of online instructors at BYU-I (n = 5). All reviewers were either from BYU-Idaho's Research and Development team or Online Course Improvement Department, and routinely develop and administer BYU-I assessments. In addition, they were all stakeholders in this research project.

The eight participants were asked for specific feedback on improving the instrument from a research and development perspective, as well as from the viewpoint of stakeholders. Four participants gave detailed and comprehensive feedback through email, and two participants shared their feedback in person. The other two participants said they wouldn't change anything.

As a result of stakeholder feedback, the two open-ended questions that were at the end of each category of the OISS were reduced to just one open-ended question relating to the specific topic of the section. In addition, the demographic survey was changed to require

instructors to select one primary course and teaching area, rather than allowing them to check multiple boxes. The survey then reminded instructors of their initial teaching area choice as they began the subject matter area of the survey. The revised survey also requested instructors to reflect on their own confidence levels, regardless of course design, class size, and other variable factors. Other minor changes to wording, punctuation, and grammar improved overall clarity.

Phase II: Study

Using the revised survey instrument, the final study was conducted in Fall 2013. Due to the relative ease of surveying all members of the populations, the survey was sent to all online instructors and all students in online courses. Therefore, all 486 instructors teaching online at BYU-I in the 2013 Fall Semester were invited to participate in the study by completing the OISS. The student population included all students enrolled in online courses at BYU-I during the same semester (n = 18,336). Instructors were invited to respond to the OISS prior to students completing the end-of-semester surveys. Because the data collection procedures were already in place for students, researchers were able to obtain survey results for all online students who completed the end-of-semester survey.

<div align="center">Results</div>

Participants

Instructors. All remote adjunct instructors (N = 486) from the Fall 2013 semester were invited to participate in the OISS. Of the remote instructor population who identified their ethnicity, the majority were Caucasian (54%), with 2.7% identifying themselves as Hispanic, 1.4% Asian and .02% African American and the same percentage (.02%) identified as East Indian (H. Hall, personal communication, January 31, 2014). From the

total online instructor population, 265 instructors (54.5%) completed the survey. Of those responding, 50.6% were female and 49.4% were male.

Because the population of Pathway students was markedly different than traditional college students, the analysis was split into three datasets: one including all responses (All Instructors), another with only Pathway students (Pathway), and the last with non-Pathway students (Non-Pathway). Pathway courses were separate from other online courses at BYU-Idaho and therefore the datasets were easily categorized. The majority of instructors (n = 168) taught non-Pathway courses (63.4%), followed by 117 instructors (44.2%) who taught Pathway courses. Some overlap existed, since 20 instructors taught both Pathway and non-Pathway courses. Female respondents (n = 134; 50.6%) were only slightly higher than male respondents (n = 131; 49.4%).

When asked about experience teaching online at BYU-Idaho, 65 were in their first semester teaching (24.5%), 23 had previously taught one to two semesters (8.7%), 84 had three to five semester's experience (31.7%), and 93 had over five semesters of online experience at BYU-Idaho (35.1%). Seventy-two instructors (27.2%) taught online for other universities. Of those, 13.9% had one or two semesters of experience teaching online at other universities, ten (13.9%) had three to five semesters of experience, and the remaining 72.2% had over five semesters (n = 52) of experience teaching online at other universities.

Students. Survey responses were collected from 18,336 online students. The majority of U.S. students in Fall 2013 were Caucasian (89.5%) with 6.02% identifying themselves as Hispanic, 1.4% Asian, and 3.1% identifying themselves as "other" (BYU-Idaho, 2014). However, since only 54.5% of instructors responded to the OISS, only 9,179 student responses could be utilized in this analysis. To clarify, only the responses from

students who had classes from instructors responding to the OISS were used to test the hypotheses presented in this study. Females accounted for 66.5% of the population (n = 6,102), and 33.5% were male (n = 3,077).

Freshmen constituted 16.3% of the student participants (n = 1,492); 17.8% of the students were sophomores (n = 1,637); 15.5% were juniors (n = 1,419); and 17.3% were seniors (n = 1,592). The remaining third of the students, 33.1%, were not matriculated into BYU-Idaho (n = 3,039). These were students enrolled in the Pathway program.

Students who completed the survey were taking courses in a variety of areas, with the largest category of students (42.4%) taking General Education courses (n = 3,890). Students who were taking courses in their major accounted for 30.2% of the students   (n = 2,774), while 4.4% of the students were enrolled in online courses for their minor   (n = 403), and 5.6% of the students completed the survey as part of an elective online course (n = 510). The remaining students either categorized their course as "other" (16.2%;   n = 1,490) or did not identify a category for their course (1.2%; n = 112).

Measurements

Student Evaluations. Annual student evaluations asked questions about student performance (including their level of commitment and expected grade), instructor, course, and course core values. The evaluation also asked for students' perceived learning and satisfaction in comparison to other courses they had taken, along with overall ratings of the course and instructor. Students were asked to rate their level of satisfaction in the course compared to other courses completed on a scale from -2 (meaning much less satisfied as compared to other courses) to +2 (meaning a great deal more satisfied as compared to other

courses). When students felt their satisfaction was the same as other college courses they had taken, it was rated as zero.

Student Satisfaction. The majority of students (97.2%) rated their level of satisfaction in the course compared to other courses (n = 8,918), with a mean of 0.97 (SD = 1.13); median of one; and a mode of two, which is a positive response. However, it must be noted that a chi square test of independence between students' year in school and satisfaction with their online course in comparison to other courses they had taken was significant, X^2(16, N = 17931) = 2493.513, p < .001, Cramer's V = .186. Freshmen responded in the neutral range (-1 to 1); the sophomores and juniors responded more negatively (-2 to 1); and seniors were the most negative (responding -2 to 0), meaning at the most negative response they were "a great deal less" satisfied with their online courses than other college courses they had taken. Significantly more (.01 level) juniors and seniors than one might expect by chance responded with a -2 rating (a great deal less satisfied). In addition, significantly fewer (.01 level) students than one might expect by chance, rated their learning as a 2 (a great deal more satisfied). This was true for freshmen, sophomores, juniors, and seniors. This means that fewer freshmen, sophomores, juniors, and seniors, (than one might expect by chance) were a great deal more satisfied with their online course as compared to other courses.

The opposite was true for the Pathway students. Significantly fewer (.01 level) Pathway students than one might expect by chance rated their satisfaction with the online course as compared to other courses between -2 to 1 (-2 = 0.2%; -1 = 0.9%; 0 = 3.0%; 1 = 6.1%). In addition, significantly more Pathway students than one would expect by chance, indicated they were a great deal more satisfied with their online course compared to other

courses (2) they had taken (21.9%). Overall, Pathway students were more satisfied with their online courses than traditional university students.

Perceived learning. Students were also asked how much they had learned in the course compared to other courses completed. They were given a scale from -2 (much less satisfied as compared to other courses) to +2 (a great deal more satisfied as compared to other courses). When students compared how much they learned in relation to other college courses they had taken, 98.1% responded (n = 9,009). The mean was 1.07 (SD = 1.04); median was one; and mode was two. This represents an overall positive response.

With respect to students' perceived learning, a chi square test of independence between students' year in school and perceived learning compared to other courses was significant, X^2(16, N = 18120) = 1859.416, p < .001, Cramer's V = .160. Freshman and sophomore students responded in the neutral range (-1 to 1), meaning most felt they learned as much in their online course as they had learned in other university courses they had taken. Juniors responded more negatively (-2 to 1), indicating that they learned anywhere from a "great deal less" to only a little more in their online course than in other classes they had taken. Finally, seniors responded the most negatively (responding -2 to 0). The most positive rating from any senior (a zero score) indicated that he or she learned about the same in his or her online course as in other courses he or she had taken. Significantly more juniors and seniors (.01 level) than one might expect by chance responded with a -2 rating, meaning they felt they had learned 'a great deal less' in their online course than from their other courses.

Data indicated the more schooling students received, the less learning they felt they acquired from their online courses compared to others they had taken. In addition,

significantly fewer students (.01 level) than one might expect by chance rated their learning as a two. This was true for freshmen, sophomores, juniors, and seniors. In other words, no class of students indicated that they had learned 'a great deal more' in their online class than in other classes they had taken.

Once again, the opposite was true for Pathway students. Significantly fewer Pathway students (.01 level) than one might expect by chance rated their perceived learning compared to other courses between -2 to 1 (-2 = 0.4%; -1 = 0.6%; 0 = 3.2%; 1 = 7.0%). In addition, significantly more Pathway students than one would expect by chance indicated they were a great deal more satisfied with the amount of information learned in their online course compared to other courses (2) they had taken (21%). Overall, Pathway students felt they learned more in their online courses than traditional university students.

Course rating. Students were asked to rate their instructor and how much they believed they had learned from the course. They were given a seven-point scale ranging from very poor (1) to exceptional (7). Ninety-eight percent of the students (n = 8,994) rated their perception of how much they had learned in the online course, with a mean of 5.55 (SD = 1.43); median of six; and mode of seven. This represented a very positive response. Moreover, when students were asked to give their overall rating of their instructor using the same scale, the mean was 5.94 (SD = 1.27)—also a very strong rating, with 98.6% (n = 9,046) of students responding.

Online Instructor Self-efficacy Survey (OISS). The OISS measured the self-efficacy of online instructors in terms of online pedagogy, subject matter expertise, and technological skills (Carter et al., 2013). It used a semantic differential scale, ranging from 1 (very confident) to 4 (not confident at all). Ninety-five percent of the instructors (n = 251)

completed the assessment. Inter-item reliability was measured by Cronbach's alpha and found to be high (.87).

Overall, instructors' self-efficacy (n = 251) as measured by the OISS ranged from 1.0 to 2.11, and had a mean of 1.34 (*sd* = .21), indicating confidence in their online teaching ability. Instructors' self-efficacy in their pedagogical skills (n = 259) ranged from 1.0 to 2.58, with a mean of 1.57 (*sd* =.316). Though instructors were less confident in their ability with online teaching pedagogy, they still generally reported confidence. Instructors' self-efficacy in their technological skills (n = 259) ranged from 1.0 to 2.17 and had a mean of 1.195 (*sd* = .228), showing that instructors felt more confident about their technological skills in teaching online than with their online pedagogy. Finally, instructors' self-efficacy in the subject matter ranged from 1.0 to 2.38 with the mean score of 1.34 (*sd* = .33). The mean for subject matter self-efficacy was interestingly the same as instructor self-efficacy for online pedagogical skills. Taken altogether, these results show that remote instructors at the university felt confident about their online pedagogy, technological skills, knowledge of subject matter, and overall online teaching, with their highest self-efficacy in their technological skills, as rated by the OISS.

Experience and self-efficacy. With respect to self-efficacy and experience teaching online, a significant difference was found in instructors' self-efficacy depending on how long they had been teaching at BYU-Idaho. An ANOVA revealed that teachers who had taught for BYU-Idaho for over three semesters were significantly higher in self-efficacy for online pedagogy than teachers who were in their first semester teaching (as identified by the Games-Howell post hoc test), $F(3, 255) = 3.364$, $p = .019$, $eta^2 = .038$ (medium-small). This was also true for instructors' self-efficacy with online teaching technology, $F(3, 255) =$

5.359, $p = .001$, $eta^2 = .059$ (medium), and overall self-efficacy, $F(3, 247) = 6.052$, $p = .001$,

$eta^2 = .073$ (medium). However, there was no significant difference in the instructors' self-

efficacy of their subject matter knowledge with respect to the amount of time they had

taught at BYU-Idaho, $F(3, 255) = 1.819$, $p = .144$, $eta^2 = .021$ (small). Analysis of the data

in Table 2.1 identified that experience teaching at BYU-Idaho increased instructors' self-

efficacy with both online teaching technology and online pedagogy, but knowledge of

subject matter was something instructors brought to their teaching with little influence from

university experience or professional development programs.

Table 2.1. *ANOVA: OISS * Experience Teaching at BYUI*

	SS	df	MS	F	p	eta^2	Effect size
Pedagogy SE							
Between groups	.983	3	.328	3.364	.019	.038	Medium-small
Within groups	24.839	255	.097				
Total	25.822	258					
Technology SE							
Between groups	.797	3	.266	5.359	.001	.059	Medium
Within groups	12.643	255	.05				
Total	13.441	258					
Subject SE							
Between groups	.605	3	.202	1.819	.144	.021	Small
Within groups	28.2877	255	.111				
Total	28.892	258					
Overall SE							
Between groups	.745	3	.248	6.052	.001	.073	Medium
Within groups	10.13	247	.041				
Total	10.1874	250					

Analysis

H$_1$ – There is a correlation between instructor self-efficacy *overall* and student

satisfaction.

H_2 – There is a correlation between instructor self-efficacy in their *use of technology* and student satisfaction.

H_3 – There is a correlation between instructor self-efficacy in their *pedagogical skill* and student satisfaction.

H_4 – There is a correlation between instructor self-efficacy in their *subject matter expertise* and student satisfaction.

A Spearman rho correlation was conducted for all four hypotheses to identify if there was a correlation between instructor self-efficacy in online instruction and student satisfaction in their online courses. The effect size for correlational studies most commonly used is the correlation coefficient itself (Kotrlik & Williams, 2003). Hopkins (1997) suggests using the following criteria to interpret the correlation coefficients: less than .10 as trivial, .10 to .30 as small, .30 to .50 as moderate, .50 to .70 as large, and .70 as very large. See Table 2.2 for complete statistical analysis of the correlations.

Table 2. 2. *Spearman Rho Correlation of Self-efficacy with Student Satisfaction*

	Pedagogy		Technology		Subject		Overall	
	r	*p*	*r*	*p*	*r*	*p*	*r*	*p*
All Students	0.021	.740	0.130	.035	0.092	.137	0.085	.167
Pathway	0.041	.663	0.185	.046	0.055	.558	0.110	.239
Non-Pathway	-0.128	.099	0.056	.470	-0.084	.277	-0.080	.305

A significant correlation was found (All Students: $p = .035$; Pathway: $p = .046$) between high instructor self-efficacy with technology and decreased student satisfaction with the class. This indicated the more confident an instructor was in their technological skills, the lower the student satisfaction was with the course. These findings were significant, primarily for the Pathway student population. However, it must be noted that the

effect size was small. The correlation was so slight that any relationship between the two

data sets should be more rigorously studied before drawing any conclusions or

recommending action.

Additional Analysis

In addition to the original hypotheses examined in this study, data was also available

to run correlations between instructors' self-efficacy and students' perceived learning, along

with an overall rating of the instructor and course. With respect to students' rating of the

course, the only significant correlation ($p = .02$) was between the Pathway students and the

instructors' self-efficacy in technology. Pathway students rated courses where the instructor

had high self-efficacy with technology lower than those where the instructor had a lower

self-efficacy with technology. However, it must be noted that the effect size shown was

small ($r = .216$). The correlation was so slight that any relationship between the two data

sets should be more rigorously studied before drawing any conclusions or recommending

action. Complete statistical analysis can be found in Table 2.3.

Table 2. 3. *Spearman Rho Correlation of Self-efficacy with Course Rating*

	Pedagogy		Technology		Subject		Overall	
	r	p	r	p	r	p	r	p
All Students	-0.013	.834	0.115	.061	0.046	.454	0.041	.511
Pathway	-0.019	.841	0.216	.020	0.007	.944	0.063	.502
Non-Pathway	-0.133	.086	0.011	.892	-0.111	.152	-0.125	.107

No significant correlation was found between instructors' self–efficacy in online

instruction and students' rating of the instructor. See Table 2.4 for the complete statistical

analysis.

Table 2.4. *Spearman Rho Correlation of Self-efficacy with Instructor Rating*

	Pedagogy		Technology		Subject		Overall	
	r	*p*	*r*	*p*	*r*	*p*	*r*	*p*
All Students	0.002	.980	0.072	.245	0.107	.084	0.022	.725
Pathway	-0.048	.608	0.146	.116	0.071	.445	0.012	.901
Non-Pathway	-0.076	.325	-0.022	.774	0.006	.943	-0.086	.270

In analyzing instructors' self-efficacy and students' perception of how much they learned compared to other courses, the only significant correlation found (*p* = .021) was between all students in respects to the instructors' self-efficacy with technology. The more confident the instructor felt with his or her technological skills, the less the students perceived they learned from the course compared with other courses. Again, the correlation was so slight (*r* = .141) that any relationship between the two data sets should be more rigorously studied before drawing any conclusions or recommending action. See Table 2.5 for complete statistical analysis.

Table 2.5. *Spearman Rho Correlation of Self-efficacy with Student Perceived Learning*

	Pedagogy		Technology		Subject		Overall	
	r	*p*	*r*	*p*	*r*	*p*	*r*	*p*
All Students	-0.010	.871	0.141	.021	0.076	.218	0.072	.241
Pathway	-0.047	.614	0.169	.069	0.025	.786	0.043	.648
Non-Pathway	-0.135	.081	0.090	.248	-0.113	.146	-0.071	.365

Satisfaction and instructor experience. Student evaluations were also analyzed with respect to amount and location of instructors' teaching experience. Small but significant correlations were found. The more experience an instructor had teaching for BYU-Idaho, the less satisfied (Satisfaction) students were with his or her course as compared to other courses they had taken (*p* = .029, *r* = -.134). Analysis revealed similar

results for student perceived learning (Learning) and course rating (Course), with a significance of .009 and .027 respectively. In contrast, the rating of BYU-I experience to instructor rating (Instructor) did not reach a significant threshold ($p = .093$). Table 2.6 depicts the complete correlational results between teaching experience and the student evaluations. Again, the correlations were so slight that any relationship between the two data sets should be more rigorously studied before drawing any conclusions or recommending action.

Due to the significant relationship between BYU-I teaching experience and student satisfaction, additional analysis was conducted by separating instructors who had experience only at BYU-Idaho ($n = 206$) and those with experience at other universities ($n = 79$). Note that when these populations were combined, they were slightly higher than the 265 instructors used for self-efficacy analysis. This is because there were 20 instructors who completed the demographic information, who did not complete the remainder of the survey. Correlations were conducted for each of these groups, and a significant correlation was found between student satisfaction and semesters of experience for instructors with only BYU-Idaho experience ($p = .001$, $r = -.231$). The more experience teaching at BYU-I (only) the less satisfied the students were in the online course. In comparison, no significant correlation was found for those who had taught at other universities ($p = .192$, $r = .148$). As with course satisfaction, analysis revealed a significant correlation between teaching experience and student ratings for the instructor, course, and student perceived learning in courses taught by instructors whose only teaching experience was at BYU-Idaho. The same correlation with experience did not exist for those who had taught at other universities. The more experience teaching at BYU-I (only), the lower students rated the online course and

instructor. In addition, the more experience teaching at BYU-I (only), the less satisfied

students were with the online course and how much they had learned compared to other

courses. See Table 2.6 for complete statistical analysis.

Table 2.6. *Teaching Experience Correlations to Student Evaluations*

	All BYU-I Instructors		Other Universities		BYU-Idaho Only	
	r	*p*	*r*	*p*	*r*	*p*
Course	-0.161	.009	0.160	.159	-0.177	.011
Instructor	-0.104	.093	0.207	.067	-0.173	.013
Learning	-0.136	.027	0.132	.246	-0.262	<.001
Satisfaction	-0.134	.029	0.148	.192	-0.231	.001

Analysis of the descriptive data with respect to teaching experience reveals a slightly

different story for student satisfaction in online courses compared to other courses taken.

All instructors. A one-way analysis of variance test was calculated to identify if

there was a significant difference between instructors (All BYU-I Instructors) based on the

amount of teaching experience at BYU-I. The analysis found significance. The courses of

instructors with over five semesters of experience at BYU-I were rated significantly lower

than the courses of instructors teaching their first semester at BYU-I. The more teaching

experience at BYU-I, the less satisfied the students were with the course in comparison to

other courses they had taken, $F(3, 281) = 3.742$, $p = .012$, eta2 $= .038$ (medium-small).

Table 2.7 presents the source table from this analysis.

Table 2.7. *ANOVA: Course Rating by Experience (all BYU-I Instructors)*

	SS	*df*	*MS*	*F*	*p*	eta^2	Effect size
Between groups	4.698	3	1.566	3.742	.012	.038	Medium-small
Within groups	117.581	281	.418				
Total	122.279	284					

In addition, instructors with over three semesters of teaching experience at BYU-I were rated significantly lower than instructors teaching their first semester at BYU-I. The more teaching experience at BYU-I, the lower the students rated the instructor, $F(3, 281) = 4.907$, $p = .002$, eta^2 = .05 (medium). See Table 2.8 for the source table of this analysis.

Table 2.8. *ANOVA: Student Instructor Ranking by Instructor Experience (all BYU-I Instructors)*

	SS	*df*	*MS*	*F*	*p*	eta^2	**Effect size**
Between groups	4.262	3	1.421	4.907	.002	.05	Medium-small
Within groups	81.342	281	.289				
Total	85.603	284					

With respect to how much the students perceived they learned compared to other courses taken, the same pattern was found. Students perceived learning significantly less from courses taught by instructors with over three semesters of experience at BYU-I than from courses taught by instructors teaching their first semester at BYU-I. The more teaching experience at BYU-I, the lower the students rated the amount they learned in the online class compared to other courses, $F(3, 281) = 7.128$, $p < .001$, eta^2 = .071 (medium-large). Table 2.9 presents the source table from this analysis.

Table 2.9. *ANOVA: Student Perceived Learning by Instructor Experience (all BYU-I Instructors)*

	SS	*df*	*MS*	*F*	*p*	eta^2	**Effect size**
Between groups	4.338	3	1.446	7.182	<.001	.071	Medium-large
Within groups	56.578	281	.201				
Total	60.916	284					

Accordingly, students were significantly less satisfied with their online course compared to other courses from instructors with over three semesters of experience at BYU-I and rated the amount of their satisfaction (compared to other courses) from

instructors teaching their first semester at BYU-I significantly higher. The more teaching experience at BYU-I, the lower the students rated their satisfaction as compared to other courses, $F(3, 281) = 6.445$, $p < .001$, $eta^2 = .064$ (medium). See Table 2.10 for the source table from this analysis.

Table 2.10. *ANOVA: Student Course Satisfaction by Instructor Experience (all BYU-I Instructors)*

	SS	df	MS	F	p	eta^2	Effect size
Between groups	6.067	3	2.022	6.445	<.001	.064	Medium
Within groups	88.18	281	.314				
Total	94.247	284					

BYU-I-only teaching experience. An independent samples t-test was conducted to identify if there was a significant difference between course rating for instructors who only taught at BYU-I (only) and those with teaching experience at other universities and found significance. Effect size was measured by Cohen's d with the following analysis: small (.20); medium (.50); large (.80). Courses taught by instructors who had only taught at BYU-I were rated significantly higher than courses taught by instructors with experience at other universities, $t(283) = -2.103$, $p = .036$, $d = .28$ (small). In addition, instructor ratings for those who had only taught at BYU-I were significantly higher than instructor ratings with experience at other universities,

$t(283) = -1.911$, $p = .036$, $d = .26$ (small).

With respect to how much the students perceived they learned compared to other courses taken, the same pattern was found. Students perceived they learned significantly less from courses taught by instructors with teaching experience at other universities. The students rated the amount they learned (compared to other courses) from instructors who

had only taught at BYU-Idaho significantly higher than the instructors with experience at other universities, $t(283) = -2.643$, $p = .009$, $d = .359$ (medium-small).

Accordingly, students were significantly less satisfied with their online course with instructors with teaching experience at other universities compared to other courses taught by instructors who had only taught at BYU-I. The students rated their satisfaction with the online class compared to other courses they had taken significantly higher when the teacher had taught only at BYU-I compared to instructors who had experience teaching at other colleges, $t(283) = -2.103$, $p = .036$, $d = .34$ (medium-small).

Teaching experience at other universities. A one-way analysis of variance test was calculated to identify if there was a significant difference in course ratings between courses taught by instructors who had teaching experience at other universities (Other Universities) based on the amount of teaching experience. There was no significant difference in how students rated courses taught by instructors with teaching experience at other institutions based on their level of experience, $F(2, 76) = 2.386$, $p = .099$, $eta^2 = .06$ (medium). Table 2.11 presents the source table from this analysis.

Table 2.11. *ANOVA: Course Rating by Instructor Experience (Other Universities)*

	SS	*df*	*MS*	*F*	*p*	*eta*^{2}	**Effect size**
Between groups	1.731	2	.865	2.386	.099	.06	Medium
Within groups	27.563	76	.363				
Total	29.294	78					

In contrast, instructors with over five semesters of experience teaching were rated significantly higher than instructors with less than two semesters of teaching experience at other universities. The more teaching experience at other universities, the higher the

students rated the instructor, $F(2, 76) = 3.598$, $p = .032$, eta^2 = .087 (medium). Table 2.12

presents the source table from this analysis.

Table 2.12. *ANOVA: Student Rating of Instructor by Instructor Experience (Other Universities)*

	SS	df	MS	F	p	eta^2	Effect size
Between groups	1.638	2	.819	3.598	.032	.087	Medium-large
Within groups	17.299	76	.228				
Total	18.937	78					

With respect to how much the students perceived they learned compared to other

courses taken, there was no significant difference in relation to the amount of experience the

instructor had teaching at other universities, $F(2, 76) = 2.216$, $p = .116$, eta^2 = .055

(medium). Table 2.13 presents the source table from this analysis.

Table 2.13. *ANOVA: Perceived Learning by Instructor Experience (Other Universities)*

	SS	df	MS	F	p	eta^2	Effect size
Between groups	.752	2	.376	2.216	.116	.055	Medium
Within groups	12.901	76	.170				
Total	13.653	78					

Accordingly, there was no significant difference in students' satisfaction with their

online course compared to other courses with respect to the amount of experience the

instructor had teaching at other universities, $F(2, 76) = 2.611$, $p = .080$, eta^2 = .055

(medium). Table 2.14 presents the source table from this analysis.

Table 2.14. *ANOVA: Student Course Satisfaction by Instructor Experience (Other Universities)*

	SS	df	MS	F	p	eta^2	Effect size
Between groups	1.430	2	.715	2.611	.08	.06	Medium
Within groups	20.817	76	.274				
Total	22.247	78					

Table 2.15 includes the complete descriptive statistics of teaching experience with respect to student satisfaction.

Table 2.15. *Teaching Experience and Student Evaluation: Descriptive Statistics*

	All Instructors		BYU-I Only		Other Universities	
	M	*SD*	*M*	*SD*	*M*	*SD*
Course	5.628	0.656	5.678	0.667	5.496	0.613
Instructor	5.999	0.549	6.038	0.566	5.899	0.493
Learning	1.153	0.463	1.197	0.473	1.037	0.418
Satisfaction	1.062	0.576	1.115	0.584	0.923	0.534

Self-efficacy and experience. Correlation results between instructor self-efficacy in online pedagogy and experience teaching online revealed that the more experience an instructor had teaching for BYU-I, the more confident he or she felt about his or her online pedagogical abilities ($p = .010$). Even stronger correlations were found between instructors' confidence in using online teaching technologies (email, discussion boards, attaching images, creating hyperlinks, sharing video files, etc.) and instructor experience at BYU-I ($p < .001$). As Table 2.16 shows, the longer an instructor had taught for BYU-I, the higher self-efficacy he or she reported in these areas. In contrast, there was no significant correlation found between instructor self-efficacy with subject knowledge and teaching experience at BYU-I ($p = .089$).

However, the correlation was significantly different if the remote instructor had experience teaching at other universities. The more experience an instructor had teaching at another university, the lower his or her self-efficacy in their online pedagogy ($p < .001$, $r = .213$). Still, this correlation is small enough that any relationship between the two data sets should be more rigorously studied before drawing any conclusions or recommending action.

Table 2.16. *Teaching Experience Correlations to Instructor Self-efficacy*

	BYU-I Experience		Other Universities	
	r	*P*	*r*	*p*
Pedagogy	-0.159	.010	0.213	<.001
Technology	-0.224	<.001	0.015	.802
Subject	-0.105	.089	0.120	.051
Overall	-0.198	.001	0.153	.013

Summary

This study explored the relationship between instructor self-efficacy and student satisfaction levels from end-of-semester student evaluations. Specifically, instructor self-efficacy in online teaching was examined in terms of the instructor's confidence in online teaching pedagogy, use of technology, and subject matter expertise. A significant correlation was found with the Pathway students ($p = .046$), identifying that the more confident an instructor was in his or her technological skills, the lower the Pathway student's satisfaction was with the course. However, it must be noted that the effect size was small.

In addition, Pathway students had a significantly positive response pattern (.01 level). Pathways students, significantly more than one might expect by chance, reported feeling they had learned more from their online course than other courses they had taken (21.1%) and were more satisfied with their online course than other courses they had taken (21.9%). It must be noted that Pathway is a special BYU-I program targeted toward individuals who are not traditional students and who have an opportunity they would not otherwise have expected. It is possible that because they have been excluded from the traditional college path, they value it more highly than traditional students. Overall, the scores of Pathway students for satisfaction have historically been higher than traditional university students (Routson, 2013). Higher satisfaction ratings might also be attributed to the fact that Online Operations purposefully assigned higher-rated instructors to Pathway

courses in the past. Finally, Pathway courses are the first experiences many Pathway individuals have with university courses. Pathway students typically do not have as much experience with university courses, and might have lower expectations and hence higher satisfaction with their instructors and courses.

Statistical analysis also revealed a unique response pattern in terms of student satisfaction with respect to class standing. The less higher education experienced, the higher the course satisfaction rating. The more education a student experienced (senior-standing), the less satisfaction with online courses. This is an important piece of information for BYU-I to address.

The analysis also found relatively few satisfaction ratings at either extreme (a great deal less satisfied or a great deal more satisfied) with traditional students (non-Pathway students). This confirmed previous findings by the university noting that in comparison to on-campus course offerings, online courses experienced fewer extremely high and extremely low satisfaction ratings (Young, 2014).

Correlation results between instructor self-efficacy in online pedagogy and experience teaching online revealed a correlation between the amount of experience an instructor had teaching for BYU-Idaho and his or her confidence in his or her online pedagogical abilities. The longer the instructor had taught for BYU-I, the higher his or her self-efficacy in online pedagogy.

Even stronger correlations were found between instructors' confidence in using online teaching technologies (email, discussion boards, attaching images, creating hyperlinks, sharing video files, etc.) and instructor experience at BYU-Idaho. The longer instructors had taught for BYU-Idaho, the more self-efficacy they reported in these areas.

However, a significant difference was found regarding student satisfaction and instructors' experience teaching at other universities. Remote instructors who only taught at BYU-I had significantly higher student course ratings ($p = .036$) along with perceived learning ($p = .009$) and satisfaction ($p = .012$), with their online course (compared to other courses) than instructors who had experience teaching at other universities.

Statistical analysis of all of the remote instructors teaching at BYU-I for over five semesters were rated significantly lower in their course evaluations than instructors teaching their first semester at BYU-I. ($p = .012$). Moreover, instructors with over three semesters of teaching experience at BYU-I were rated significantly lower than instructors teaching their first semester at BYU-I ($p = .002$). Students perceived they learned significantly less than other courses from instructors with over three semesters of experience at BYU-I and rated the amount they learned (compared to other courses) from instructors teaching their first semester at BYU-I significantly higher ($p < .001$).

Discussion and Conclusion

Online education is the most rapidly growing area in higher education (Wasilik & Bolliger, 2009). Among these institutions, BYU-Idaho has experienced rapid and continual growth in their online program in recent years. This study explored the relationship between instructor self-efficacy and student satisfaction levels as determined from end-of-semester evaluations. Self-efficacy in online teaching was examined in terms of an instructor's confidence in online teaching pedagogy, use of technology, and subject-matter expertise.

This study revealed that no significant correlations exist at BYU-Idaho between student satisfaction and online instructors' self-efficacy with online pedagogy. Neither were any correlations found between satisfaction and instructors' subject-matter expertise or

overall online self-efficacy. Only very small, reverse correlations were identified between instructors' efficacy in teaching technology and student satisfaction ratings. Therefore, this research was unable to support any of the four original hypotheses. This is discrepant to the literature indicating that high teacher self-efficacy correlates with increased student learning and satisfaction (Goddard et al., 2000; Henson, 2001). However, this study did reveal positive correlations between instructor self-efficacy and length of experience teaching online.

Interestingly, this study also indicated that students were less satisfied with their learning experience in courses taught by instructors with experience teaching online at other universities in comparison to instructors who only had experience teaching online for BYU-Idaho. In general, the more experience instructors had teaching, the less satisfied students were with their learning experience. Accordingly, the longer BYU-I instructors taught for the university, the higher their self-efficacy, but also the lower their students' satisfaction levels. Student satisfaction and perceived learning appeared highest in those courses where instructors had taught only for BYU-Idaho and were in their first semester teaching. A possible explanation for this dynamic could be that training for new instructors has improved. Another explanation could be burnout of some kind among veteran instructors, as well as more enthusiasm and involvement from new instructors. More research is needed in order to uncover the meaning of these relationships and to discover strategies for improving student satisfaction ratings while retaining BYU-I instructor experience.

Another interesting finding revealed that student satisfaction in online courses diminished as students progressed in their education. A possible explanation for this dynamic is that the more classes students have experienced, as in the case of seniors, the

higher the satisfaction expectation level becomes for future courses. It could also be due to the maturity of the online program at BYU-I as indicated by the online course list (http://www.byui.edu/online/courses/course-list), indicating that upper division online courses are newer to the program. Seniors and juniors in Fall 2013 might have been the first to encounter new online courses that may yet require additional development to meet the standards expected by students. Another possibility is that seniors at that particular juncture in their education, might need or prefer a different course format than what online courses traditionally offer (i.e. hybrid).

Finally, a significant correlation was found with Pathway students ($p = .046$), identifying that the more confident an instructor was in his or her technological skills, the lower Pathway students' satisfaction was with the course. These findings were significant, primarily for the Pathway student population. This data could represent a dislike for the course content or the course instruction. It could also represent the possible use of technology by Pathway instructors that is beyond the comfort level of non-matriculated students, since Pathway students represent a population of non-traditional students taking college-preparation courses, rather than traditional university courses. The students may also be surprised at the amount of extra work college courses require compared to high school courses. This study did not corroborate Sahin's studies, which indicated that the higher an online instructor's competence with technology, the better the learning environment they will provide to their students (Sahin, 2007). However, it must be noted that the effect size was small. The correlation was so slight that any relationship between the two data sets should be more rigorously studied before drawing any conclusions or recommending action.

Limitations

This study was conducted at a private, religious, undergraduate, four-year university in the Northwest. The results of this study are limited to this demographic, and can neither be generalized to graduate students and instructors, nor to other institutions. In addition, because 45.5% of instructors did not take the self-efficacy survey, the researchers' ability to correlate with all students was limited. Instructors who chose to respond to the survey might be a more involved population and naturally more self-confident about their online teaching abilities. Limitations could be greatly reduced in a future study by being more sensitive to instructor needs, and taking extra measures to be certain instructors knew their confidentiality would be maintained. For instance, an independent contractor could conduct the self-efficacy survey, rather than an administrator from the online program.

Gender, though noted and reported for students, was not treated as a variable in this study. The gender of remote online instructors was also not treated as a variable, but could possibly affect the satisfaction ratings of students.

Pathway students represented another limitation, due to the unique nature of the program and the students' lack of educational experiences. Pathway students are non-traditional university students, which make results less relatable to other institutions. In addition, the newness of the Pathway program makes Pathway results less reliable. It is difficult to determine whether results relate to the newness of the program or are a realistic expression of Pathway participants. This study attempted to address the Pathway limitation by separating the data into all-student groups, non-Pathway groups, and Pathway-only groups.

Finally, this study was limited to the duration of one semester. Results would prove more reliable over longer periods of time and across a greater sample of online instructors. During Fall 2013, the Pathway program welcomed more new students than in any other semester. These students in particular would have little to no experience with college or college courses.

Validity

Perhaps significant factors other than teacher self-efficacy presented the largest threat to validity in the study. To address this concern, additional variables were also measured and tested using statistical analysis. The following variables were tested:

- Demographics of instructors and students

- Overall teaching experience of the instructor

- Instructor teaching experience online

- Instructor teaching experience online at BYU-I

- Department/subject area of instruction

- Instructor preference for teaching online or face-to-face courses

Another potential threat to validity was the applicability to student populations outside of BYU-I. While the nature of action research is concerned more with solutions to local problems, researchers were careful to structure the survey instruments in a way that other institutions using asynchronous online instruction, could repeat the study in order to increase the validity of the results.

Implications for Practice

The findings of this study indicate online teaching self-efficacy may not be a significant consideration when hiring online instructors. In fact, high self-efficacy,

especially in terms of technology, may actually be a negative factor in facilitating online courses. Online learning programs may benefit from looking more at other factors, such as personality, training, and mentoring as indicators of future instructor success.

Another finding that merits consideration is lack of student satisfaction with online courses as students' year in school increases. If higher level courses are newer and therefore of lower quality, then more time needs to be invested in course development, or newer courses should receive more improvement focus than current practice. If students increasingly experience lower satisfaction because they have more courses for comparison, perhaps more experienced students should be engaged to find ways to improve online courses.

The finding that a decrease in student satisfaction also appears to correlate with an increase in instructor experience seems to be the result with the most promise for practice implications. This finding needs to be confirmed and more deeply understood through additional analysis over multiple semesters. If it is confirmed, it could lead to significant changes in practice. For example, teacher experience may need to be eliminated or even considered as a contra indicator when selecting remote leadership for adjunct instructors. Perhaps more recent training and mentoring offered to less experienced instructors needs to be encouraged or required for more experienced instructors.

Recommendations for Future Research

Though gender was noted and reported, it was not treated as a variable in this study with regard to students or instructors. Future studies should include this variable as part of the analysis to see if gender is a factor relating to student satisfaction with online courses at

BYU-Idaho. The gender of the online instructor should also be treated as a possible variable in future studies.

Results of this study suggest further exploration into student perceived learning and student satisfaction levels. A needs assessment to see how the university might obtain improved satisfaction ratings, particularly among more experienced, traditional students may provide helpful information to increase student satisfaction of online courses. In addition, research results merit an examination comparing the variable of online courses and hybrid courses to student satisfaction and learning among senior-level students.

An analysis of Technological Pedagogical Content Knowledge (TPACK) in online courses could also reveal significant differences between instructor knowledge and instructor self-efficacy with regard to student satisfaction and learning. Stronger relationships, for instance, might be found between student satisfaction and instructor knowledge, rather than with instructor self-efficacy.

Finally, future studies exploring the effectiveness of professional development for instructors with respect to student satisfaction would be informative. Since no significant correlations were identified between satisfaction levels and instructor self-efficacy, similar correlations could be done with instructors who received professional development in specific online teaching skills, such as increasing instructor presence and contact with students. Future research may also garner different results if an independent party conducted the self-efficacy surveys rather than an administrator from the online program.

References

Ali, A., & Ahmad, I. (2011). Key factors for determining student satisfaction in distance learning courses: A study of Allama Iqbal Open University. *Contemporary Educational Technology, 2*(2), 118-134.

Allen, I. E., & Seaman, J. (2011). *Going the distance: Online education in the United States, 2011*. Needham, MA: Sloan-C Consortium. Retrieved from http://sloanconsortium.org/publications/survey

Allen, I. E., & Seaman, J. (2013). *Changing course: Ten years of tracking online education in the United States.* Babson Survey Research Group. Retrieved from http://files.eric.ed.gov/fulltext/ED541571.pdf

American Psychological Association. (2010). *Ethical standards of psychologists*. Washington, D.C.

Astin, A. W. (1993). *What matters in college? Four critical years revisited.* San Francisco, CA: Jossey-Bass.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychology Review*, *84*(2), 191-215.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman and Company.

Bandura, A. (2006). Guide for constructing self-efficacy scales. In F. Pajares & T. Urdan (Eds.). *Self-efficacy beliefs of adolescents, (5),* (307-337), Greenwich, CT: Information Age Publishing.

Baran, E., Correia, A. P., & Thompson, A. D. (2013). Tracing successful online teaching in higher education: Voices of exemplary online teachers. *Teachers College Record,*

115(3). Retrieved April 13, 2013 from

https://www.tcrecord.org/library/abstract.asp?contentid=16896

Bean, J. P., & Bradley, R. (1986). Untangling the satisfaction-performance relationship for college students. *Journal of Higher Education, 57*(4), 393-412.

Beil, C., & Shope, J. H. (1990). No exit: Predicting student persistence. Paper presented at the Annual Forum of the Association for Institutional Research. Educational Reproduction Services Number ED 321669.

Beltyukova, S. A., & Fox, C. M. (2002). Student satisfaction as a measure of student development: Towards a universal metric. *Journal of College Student Development, 43*(2), 161-169.

BYU-Idaho Academic Office. (2014). Official enrollment statistics for BYU-Idaho "Day" students [Data file]. Retrieved from http://www2.byui.edu/IR/stats/index.htm

Carter, H., Hochstrasser, J., Huber, R., & Yadon, B. (2013). *Improving Student Satisfaction: Correlating Instructor Self-efficacy with the Online Student Experience*. Unpublished manuscript, Department of Education, University of Idaho, Moscow, Idaho.

Chan, S. (2010). Applications of andragogy in multi-disciplined teaching and learning. *Journal of Adult Education*, *39*(2), 25-35.

Clark, K. B. (2005, October). *Inaugural Response*. Brigham Young University-Idaho, Rexburg, Idaho.

Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. Thousand Oaks, CA: Sage Publishing, Inc.

Cuadrado-Garcia, M., Ruiz-Molina, M. E. & Montoro-Pons, J.D. (2010). Are there gender differences in e-learning use and assessment? Evidence from an interuniversity online project in Europe. *Procedia Social and Behavioral Sciences 2*(2), 367-371.

Deubal, P. (2008). *K-12 online teaching endorsements: Are they needed?* Retrieved April 8, 2013 from T.H.E. Journal: http://thejournal.com/articles/2008/01/10/k12-online-teaching-endorsements-are-they-needed.aspx

Donald, J. G., & Denison, D. B. (1996). Evaluating undergraduate education: The use of broad indicators. *Assessment & Evaluation in Higher Education, 21*(1), 23-40.

Goddard, D., Hoy, W.K. & Hoy, A. W. (2000). Collective teacher efficacy: Its meaning, measure, and impact on student achievement. *American Educational Research Journal, 37*(2), 479-507.

Gonzalez-Gomez, F., Guardiola, J., Rodriquez, O., & Alonso, M. (2012). Gender differences in e-learning satisfaction. *Computers & Education, 58*(1), 283-290.

Harrington, R., & Loffredo, D. A. (2010). MBTI personality type and other factors that relate to preference for online versus face-face instruction. *Internet & Higher Education, 13*(1-2), 89-95.

Henson, R. K. (2001). Teacher Self-efficacy: Substantive implications and measurement dilemmas. *Keynote address given at annual meeting of Educational Research Exchange.* College Station, TX: Texas A&M University.

Hopkins, W. G. (1997). *New view of statistics*. Retrieved August 23, 2002 from http://www.sportsci.org/resource/stats/effectmag.html

Hung, J. L., & Blomeyer, R. (2012, October). The online educator self-efficacy scale (OESES): A research-based tool for assessing online educator performance.

Symposium conducted at iNACOL's annual Virtual Schools Symposium. New Orleans, LA.

Hung, M. L., Chou, C., Chen, C. H., & Own, Z. Y. (2010). Learner readiness for online learning: Scale development and student perceptions. *Computers & Education*, *51*, 1304-1320.

Jackson, L. C., Jones, S. J., & Rodriguez, R. C. (2010). Faculty actions that result in student satisfaction in online courses. *Journal of Asynchronous Learning Network, 14*(4), 78-96.

Jonassen, D., Davidson, M., Collins, M., Campbell, J., & Haag, B. (1995). Constructivism and computer-mediated communication in distance education. *American Journal of Distance Education*, *9*(2), 7-26.

Katiliute, E., & Kazlauskiene, I. (2010). The model of studies quality dimensions from student's perception. *Economics and Management, 15*, 580-586.

Koehler, J. & Mishra, P. (2005). What happens when teachers design educational technology? The development of technological pedagogical content knowledge. *Journal of Educational Computing Research, 33.* 131-152.

Knowles, M., Holton, E., & Swanson, R. (2012). *The adult learner, the definitive classic in adult education and human resource development.* New York: Routledge.

Kotrlik, J., & Williams, H. (2003). The incorporation of effect size in information technology, learning, and performance research. *Information Technology, Learning and Performance Journal 21*(1), 1-7.

Kuh, G. D. (2003). What we're learning about student engagement from NSSE: Benchmarks for effective educational practices. *Change*, *35*(2), 24-32.

Lee, C. (2003). *Self-efficacy instrument*. Retrieved April 9, 2012 from Pegasus, UCF: http://pegasus.cc.ucf.edu/~coreylee/projects/self_efficacy_instrument.htm

Lee, M. H., & Tsai, C. C. (2010). Exploring teachers' perceived self-efficacy and technological pedagogical content knowledge with respect to educational use of the World Wide Web. *Instructional Science*, *38*, 1-21.

LeNoue, M., Hall T., & Eighmy, M. (2011). Adult education and the social media revolution. *Adult Learning*, *22*(2), 4-12.

Lu, H., & Chiou, M. (2010). The impact of individual differences on e-learning system satisfaction: A contingency approach. *British Journal of Education Technology, 41*(2), 307-323.

Miltiadou, M., & Yu, C. H. (2000). Validation of the online technologies self-efficacy scale (OTSES). Paper presented at the Association of Educational Communications and Technology (AECT) International Convention, Denver CO.

National Survey of Student Engagement (NSSE). (2005). *Student engagement: Exploring different dimensions of student engagement.* Bloomington, IN: Indiana University Center for Postsecondary Research.

Ong, C. S., & Lai, J. Y. (2006). Gender differences in perceptions and relationships among dominants of e-learning acceptance. *Computers in Human Behavior, 22*(5), 816-829.

Parker, K., Lenhart, A., & Moore, K. (2011, Apr 28). *The digital revolution and higher education: College presidents, public differ on value of online learning*. Retrieved April 28, 2013 from the Pew Research Center Web: http://pewinternet.org/Reports/2011/College-presidents/Summary.aspx

Paul, J. (2005). *Introduction to the philosophies of research and criticism in education and the social sciences.* Upper River Saddle, NJ: Pearson.

Routson, N. (2013, Sept 16). Personal Interview by Heather Carter.

Sahin, I. (2007). Predicting student satisfaction in distant education and learning environments. *Turkish Online Journal of Distance Education, 8*(2), 1302-6488.

Schmidt, D. A., Baran, E., Thompson, A. D., Mishra, P., Koehler, M. J., & Shin, T. S. (2009). Technological Pedagogical Content Knowledge (TPACK): The development and validation of an assessment instrument for preservice teachers. *Journal of Research on Technology in Education, 42*(2), 123-149.

Schuh, J. H., & Upcraft, M. L. (2002). Measuring student satisfaction and needs. In M. J. Barr, M. K. Desler, & Associates (Eds.). *The handbook of student affairs administration (2nd ed.),* (265-285). San Francisco, CA: Jossey-Bass.

Shazadi, T., Khatoon, S., Aziz, S., & Hassan, H. (2011). Determining factors affecting teachers' self-efficacy at secondary school level. *Language in India, 11*(10), 385-395.

Taylor, L., & Huang, H. (2010). *Student perceptions of face-to-face, hybrid, and online courses and their engagement in online communication.* Paper presented at the International Conference of Web 2.0 and Education, Jhongli City, Taiwan.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition.* Chicago, IL : The University of Chicago Press.

Tschannen-Moran, M. & Woolfolk-Hoy, A.W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education 17*, 783-805.

Wasilik, O., & Bolliger, D. (2009). Faculty satisfaction in the online environment: An institutional study. *The Internet and Higher Education, 12*(3-4), 173-178.

Wright, J. M. (2010). *Effect of Quality Matters™ Training on Faculty's Online Self-efficacy.* M. Clay (Ed.), Distance Learning Administration Annual Conference Proceedings.

Young, A. (2014, Feb. 7). Personal Interview by Heather Carter.

CHAPTER 3: SERVANT LEADERSHIP AND HIGHER EDUCATION ONLINE

LEARNING

Abstract

This multiple case study investigated how teachers who are familiar with servant leadership principles perceive servant leadership traits as being able to transition to and have influence in the higher education online classroom. It identified what online learning looks like when the teacher uses the servant leadership model. In addition, the presence or absence of mentoring in these teachers' online courses was analyzed. Finally, the study asked whether servant leadership is an effective pedagogical approach for higher education online learning.

Through triangulation of interviews and analysis of course artifacts, this study identified that servant leadership principles are able to transition to and have influence in the higher education online classroom. This was found to be accomplished when professors focus on what one is rather than on what one does, recognize that servant leadership is a developmental and an ongoing process, and maintain a presence in the classroom. Servant teachers also convey an attitude of being available, aim to teach the whole person, and serve as a model for students.

This study also identified that servant teachers effectively incorporate andragogical principles into online courses. These principles include being learning-centered, valuing previous life experience, providing purposeful learning, acknowledging internal motivation of students, flowing learning to the interest of the students, and respecting the individual. Also evident was Greenleaf's principle of 'first among equals.' Servant teachers

incorporated servant leadership traits into their lives and classrooms, and valued ongoing feedback to and from students.

The potential for mentoring in this venue was affirmed, and the study concluded that servant leadership is an effective pedagogical approach for higher education online learning. Ultimately, the evidence of servant leadership in the online classroom lies in the answer to Greenleaf's 'best test,' or in the lives of the students. Suggestions for future research were presented.

Keywords: servant leadership, higher education, online learning, andragogy, online teaching

Introduction

The evolution of technology in recent decades has eased access to information and changed the profile of higher education. While online learning, also called e-learning and distance education, has decreased the impact geographic and cultural barriers have on access to education, there is a wide range of perceptions, both on the part of students and faculty, about the effectiveness and quality of online learning (Allan & Seaman, 2013; Berg, 2013). In order to thrive, or even survive, in the technological age, higher education institutions need to adapt and apply innovative strategies to increase effectiveness (Abel, 2005; Christiansen & Eyring, 2011; Cohen & Kisker, 2010; Kerr, 2001).

One approach to improving online pedagogies could be the servant leadership model. This is a philosophy which puts the needs of others before the needs of self, where power is shared, and the focus is on helping people develop and perform as highly as possible (Greenleaf, 1991). Research has shown that when the servant leadership model is applied to teaching, the result is more effective student-centered education (Drury, 2005;

Hays, 2008). Servant leadership principles inform higher education andragogy and the teacher's role of mentoring (Bowman, 2005; Crippen, 2010; Galbraith, 2002; Johnson & Vishwanath, 2011; Poon, 2006; Steele, 2010; Thompson, Jeffries, & Topping, 2010; van de Bunt-Kokhuis, 2012). Incorporating mentoring and servant leadership principles into the high-tech world of online learning may increase effectiveness of higher education (Thompson et al., 2010; van de Bunt-Kokhuis, 2012).

Servant leadership in the higher education online classroom may be even more important than in the traditional face-to-face classroom, as the virtual environment alters many aspects of the teacher-student relationship, and does not lend itself as easily to social connections as does a face-to-face setting (van de Bunt-Kokhuis, 2012). Adult learning theory suggests that in order to facilitate transformative learning in the online environment, methods of effective online teaching practices need to be developed, and instructors need to be trained in how to create and facilitate these courses (Merriam, Caffarella, & Baumgartner, 2007). When applied to online teaching, servant leadership attributes such as listening, community building, empathy, and commitment to the growth of others, may improve the quality of online education (van de Bunt-Kokhuis, 2012).

Purpose of the Study

This qualitative multi-case study investigated how teachers who are familiar with servant leadership principles perceive servant leadership traits as being able to transition to and have influence in the higher education virtual classroom, and examined what servant leadership looks like in online learning. In addition, the research sought to identify how teachers in a higher education online classroom measure whether they are accomplishing servant leadership, as defined by Greenleaf's 'best test' which is that "those served grow as

persons, and that, while being served, they become healthier, wiser, freer, more autonomous, and more likely themselves to become servants" (Greenleaf, 1991, p. 7).

With the growth of online courses in recent decades, and concern over the quality of higher education in general, there has been an increased emphasis on finding effective pedagogical approaches which can positively influence higher education experiences and outcomes. By identifying servant leadership traits which are transferrable to the online venue, students, instructors, and institutions can be positively impacted in a variety of ways.

By identifying effective ways of incorporating it into the pedagogy of the online classroom, distance education may become an effective method of influencing future servant leaders and having a large impact across geographic and cultural barriers. By identifying how teachers apply principles of servant leadership to online learning, these techniques can be taught to other teachers in a variety of disciplines as part of their initial training or ongoing professional development. This practice has the potential to then increase the effectiveness of online learning.

This study of servant leadership also may inform the online teaching field about increasing teaching presence and applying andragogical principles into the higher education online classroom. In addition, mentoring is inherent to the servant leadership approach, and implementing the servant leadership model in online learning may enhance the instructor's effectiveness and the student's success.

Significance of Study

With the growth of online courses in recent decades, and concern over the quality of higher education in general, there has been an increased emphasis on finding effective

pedagogical approaches which can positively influence higher education experiences and outcomes. By identifying servant leadership traits which are transferrable to the online venue, students, instructors, and institutions can be positively impacted in a variety of ways.

By identifying effective ways of incorporating it into the pedagogy of the online classroom, distance education may become an effective method of influencing future servant leaders and having a large impact across geographic and cultural barriers. By identifying how teachers apply principles of servant leadership to online learning, these techniques can be taught to other teachers in a variety of disciplines as part of their initial training or ongoing professional development. This practice has the potential to then increase the effectiveness of online learning.

This study of servant leadership also may inform the online teaching field about increasing teaching presence and applying andragogical principles into the higher education online classroom. In addition, mentoring is inherent to the servant leadership approach, and implementing the servant leadership model in online learning may enhance the instructor's effectiveness and the student's success.

Research Questions

This study was guided by the following research questions:

1. How do teachers who are familiar with servant leadership principles perceive servant leadership traits as able to transition to and have influence in the higher education online classroom?

2. What does online learning in the higher education virtual classroom look like when the teacher uses the servant leadership model?

3.   Are teachers of higher education servant leadership courses mentoring their students by engaging servant leadership principles? If so, how?

4.   Is servant leadership an effective pedagogical approach for higher education online learning?

A systematic search of databases was conducted using EBSCO, ERIC, JSTOR, and SAGE with the keywords 'servant leadership teaching,' 'servant teacher,' 'servant leadership higher education,' 'servant leadership education,' and 'servant leadership online.' Many articles were found which address servant leadership in educational administration, but only nine articles were found which discuss servant leadership in teaching, either face-to-face or online.

Definition of terms

Online learning: A form of education in which the main elements include physical separation of teachers and students during instruction and the use of various technologies to facilitate student-teacher and student-student communication (adapted from Berg, 2013).

Virtual classroom: Describes the mode of computer-based education whereby the teacher interacts with students via technology, but NOT in physical proximity.

Traditional classroom: A face-to-face educational experience where one or more students and a teacher interact in the same physical environment.

Servant leadership: The servant leader has the natural feeling that one wants to serve first, as opposed to lead first. The servant leader puts others' needs first. The best test is, "Do those served grow as persons? Do they, while being served, become healthier, wiser, freer, more autonomous, more likely themselves to become servants?" (Greenleaf, 1991, p. 7).

Servant teacher: A teacher at any level who employs the characteristics of a servant leader in their teaching.

Assumptions

In alignment with Greenleaf's best test, and literature about andragogy, online learning, and servant leadership, this study makes the following assumptions:

1.   Teachers who are teaching online servant leadership courses are familiar with servant leadership concepts.

2.   Teachers who are familiar with servant leadership concepts, and have as an objective of their online courses to develop servant leaders, will practice servant leadership concepts in their online teaching (Horsman, 2012).

3.   Practicing servant leadership principles in education increases the potential for a richer relationship and increased mentoring between teacher and student (Bowman, 2005; Crippen, 2010; Steele, 2010; van de Bunt-Kokhuis, 2012)

4.   Teachers who practice servant leadership in their online teaching have an increased likelihood of applying best teaching practices (Crippen, 2010; Harris, 2004).

<div align="center">

Literature Review

</div>

Research concerning teachers' roles and best practices is abundant. This literature review summarizes best practices for traditional and online instruction, and outlines principles of andragogy and the Community of Inquiry (CoI) model for effective online learning environments. The teacher's role of mentoring is discussed. In addition, the servant leadership theoretical framework and origins are reviewed, as well as what research has found in terms of its transferability to the online or face-to-face classroom.

A comprehensive database search produced only nine articles which discuss teachers as servant leaders in the classroom. Two were quantitative studies (Drury, 2005; Johnson & Vishwanath, 2011), one was a qualitative study (Hays, 2008), and six were descriptive essays or reviews (Bowman, 2005; Crippen, 2005; Hannay, Kitahara, & Fretwell, 2010; Harris, 2004; Steele, 2010; van de Bunt-Kokhuis, 2012). Crippen (2010) and Steele (2010) discussed teacher training. Bowman's (2005) study could be applied to teachers at all levels. The other six targeted educators in higher education. All but one were specific to the face-to-face classroom; van de Bunt Kokhuis (2012) focused on online learning, particularly in terms of building community.

Best Practices in Education

Over seventy years of educational research have identified best teaching practices which increase student achievement and satisfaction (Gorsky & Blau, 2009). Effective teachers are described as encouraging contact between students and faculty, developing reciprocity and cooperation among students, encouraging active learning, and respecting diverse talents and ways of learning (Chickering & Gamson, 1987). In addition, effective teachers are knowledgeable in their field, competent, organized and prepared, fair, responsible, respectful, maintain high expectations of students, and provide clear and prompt feedback (Bhada, 2002; Chickering & Gamson, 1987; Delaney, Johnson, Johnson, & Treslan, 2010; Gorsky & Blau, 2009; Murry, Gillese, Lennon, Mercer, & Robinson, 1996).

While online teaching requires the adoption of new pedagogies, research has shown that many of the characteristics of effective teaching are similar in both the online and face-to-face classroom (Delaney, Johnson, Johnson, & Treslan, 2010). These include being

organized, flexible, respectful, and skilled at maintaining confidences, creating community, and setting clear expectations (Boettcher & Conrad, 2010; Gorsky & Blau, 2009; Hill, 2011). In addition, effective online instructors share personal meaning, encourage students to collaborate, keep discussions focused, help students avoid misconceptions, and confirm understanding (Garrison, Anderson, & Archer., 2000).

Although best practices for both online and face-to-face teaching share commonalities such as effective communication and timely feedback, the emphasis is different (Boettcher & Conrad, 2010; Gorsky & Blau, 2009). For example, while students in face-to-face classrooms appreciate prompt feedback, it is not nearly as important as it is for distance students. Distance students expressed much more need for prompt (preferably within 24 hours), accurate, and extensive feedback to fill the void created by lack of face-to-face communication (Delaney et al., 2010).

Andragogy. Any discussion of learning in higher education requires a foundation in adult learning theory, or andragogy. Malcolm Knowles' andragogical learning theory assumes that adults move from being dependent toward being self-directed, that the learner has a great deal of experience when they enter the educational situation, the learning is purposeful and designed to meet a specific need, and the learner is motivated by internal factors such as self-esteem and self-actualization (Knowles, Holton, & Swanson, 2012; Merriam et al., 2007). These unique adult learner attitudes contribute to an understanding of best practices for all students in higher education, and specifically to the demographically, geographically, and culturally broad spectrum of students who engage in online learning.

Community of Inquiry (CoI). Online teaching is often measured and evaluated using the CoI framework, which identifies three important elements which are crucial for a successful online learning experience (Garrison et al., 2000). These elements are social presence, cognitive presence, and teaching presence.

- Social presence is the ability to project oneself into the online classroom, and present oneself as a real person (Rourke, Anderson, Garrison, & Archer, 2001).

- Cognitive presence is defined as "the extent to which online learners are able to construct and confirm meaning through sustained discourse in a critical community of inquiry" (Garrison et al., 2000).

- Teaching presence is defined as "the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes" (Anderson, Rourke, Garrison, & Archer, 2001)

- Deep, meaningful learning involves the interrelationships of all three (Garrison & Cleveland-Innes, 2005).

Figure 3.1 provides a visual depiction of the Community of Inquiry Model.

Teaching presence helps establish social and cognitive presence by providing the structure or design, and leadership or direction. In this way an instructor provides a means for the students and ideas to come together (Garrison & Cleveland-Innes, 2005; Swan & Shih, 2005). Teaching presence has been shown to influence student satisfaction, perceived learning, and sense of community (Garrison, 2007; Wu & Hiltz, 2004). Research has found that instructors who maintain a solid presence have characteristics which are similar to

teaching best practices in online learning (Boettcher & Conrad, 2010; Gorsky & Blau,

2009; Hill, 2011).

Figure 3.1. Community of Inquiry Model

 "Critical inquiry in a text-based environment: Computer conferencing in higher education," by D.
R. Garrison, T. Anderson, and W. Archer, 2000, *The Internet and Higher Education*, *2*(2-3), p. 87-
105.

Recently, a fourth element, learner presence, has been proposed as an addition to the

CoI model. Learner presence describes the forethought and planning, monitoring, learning

strategy, and reflection which students use in their online learning (Shea & Bidjerano,

2010). In this model, teaching presence influences and is influenced by social presence and

learner presence, which then influence cognitive presence. Regardless of which model is

used, it is clear that teaching presence has a significant influence on the learning outcomes

and student experience in online learning. Ultimately, by influencing teaching presence in

the online environment, institutions have the potential to positively impact student

outcomes.

Teachers as Mentors

It has been said that discovery, memory, and mentoring, are the three most important jobs of universities—with memory and mentoring being intertwined, and mentoring being equally or more important than the others (Christiansen & Eyring, 2011). Discovery refers to the learning and dispersing of new knowledge. Memory is accomplished in online learning as universities "help learners gain their footing in the flood of information that might otherwise overwhelm them….[Students often] lack an understanding of what to search for and what to make of it when they find it" (Christiansen & Eyring, 2011, p. 334). The professor helps students discern where to go for information, what sources to trust, and how to interpret the information.

Mentoring in higher education has its roots in colonial colleges, when students lived and studied with their tutors and other students, and learned as much from them as they did from the formal pedagogy (Christiansen and Eyring, 2011; Kerr, 2001). Professors still have the opportunity to be a life-changing mentor. Recent research has linked mentoring in youth and young adults to positive developmental outcomes and overall success in many areas (DuBois, Holloway, Valentine, & Cooper, 2002; Rhodes & DuBois, 2008). Effective mentoring in higher education has been linked to retention rates, timely degree completion, academic success, scholarly productivity, and subsequent career achievement (Campbell & Campbell, 1997; Nakamura & Shernoff, 2009).

Mentoring can be achieved online as well as in person. Christiansen and Eyring (2011) state that:

Though online pedagogies continue to improve and are likely to produce cognitive learning outcomes superior to those of the traditional classroom lecture, the most

lasting, transformative learning is personal, the result of an intimate, lasting

connection with a great teacher (p. 337).

It is possible to achieve this personal intimacy remotely, as instructors reveal their

personalities online, and provide group and individual encouragement, guidance, and

introspection (Christiansen & Eyring, 2011).

Awareness of the need for remote students to connect with their instructor or

facilitator of their online learning has resulted in an increased interest in e-mentoring

(Thompson et al., 2010). E-mentoring is defined as:

A relationship…between a more senior and/or experienced individual (mentor) and a

lesser skilled or experienced individual (mentee or protégé), primarily using

electronic communications. [This relationship] is intended to develop and grow the

skills, knowledge, confidence, and cultural understanding of the protégé to help him

or her succeed (Thompson et al., 2010, p. 305).

There are pros and cons to the e-mentoring experience over the face-to-face

mentoring experience. Some critics suggest that one major drawback of e-mentoring is that

it lacks the depth of face-to-face interaction (Thompson et al., 2010). However, online

communication supports the development of open relationships, and reduces the social cues

which can inhibit communication. In addition, e-mail enables one to have more time to

construct thoughtful responses (Thompson et al., 2010).

Servant Leadership Background

The theory of servant leadership may inform application of the concepts of

discovery, memory, and mentoring. Greenleaf wrote his essay, *The Servant as Leader*, in

1969, which introduced the theory of servant leadership (Greenleaf, 1977). His stated purpose was to instill hope in the college students he met during the turbulent 1960s.

The main idea behind servant leadership is that one is servant first. It is only after one has the desire to serve that one aspires to lead. In contrast, a leader-first approach is often driven by a desire for power or for wealth. A servant leader puts others' needs as their highest priority (Greenleaf, 1977). This philosophy contrasts with leadership models which focus on reaching organizational goals or the transformation of the individual, leader, or organization (McClellan, 2007).

Historical underpinnings. Servant leadership principles have been practiced worldwide for over 2000 years (Joseph & Winston, 2005) and is evident in the New Testament teachings of Jesus Christ, who told his disciples that "he that is greatest among you shall be your servant" (Matt. 23:11, *King James Version*), and "the Son of Man did not come to be served, but to serve" (Matt. 20:28*). Jesus not only taught servant leadership, he practiced it. An example of this is seen as he washed his disciples' feet, a chore that was usually reserved for the servant, and then told them to do likewise (John 13). Jesus Christ trained his servant leaders through word and example (Focht, 2011).

Servant leadership can also be found in other religious and cultural traditions in China, India, and Greece, as there are components of Buddhism, Hinduism, Taoism and Islam which correlate with servant leadership principles (Focht, 2011; McCollum, 1995; Rieser, 1995; Sarayrah, 2004; Sendjaya et al., 2008; Wallace, 2006). All of these religions share the belief that a servant leader is firstly a servant of a higher being or power, and in obedience to that higher being they will serve people (Focht, 2011; Sendjaya et al., 2008).

Nonreligious traditions also support the concept of servant leadership (Sendjaya et al., 2008). The Aristotelian concept of virtue has been linked with servant leadership philosophy (Patterson, 2003). For centuries, the coronation ceremonies of kings and queens have emphasized the idea of the leader being the servant of the people (Sendjaya & Sarros, 2002), and the fact that we refer to politicians as public servants, and to government employees as civil servants, attests to the fact that servant leadership is deeply ingrained into our society (Focht, 2011).

Greenleaf's servant leadership. Robert Greenleaf attributes the servant leadership concept to thoughts he had after reading Hermann Hesse's *Journey to the East* (Hesse, 1956). This short book is rich in Eastern religious tradition, especially Hinduism (Sendjaya et al., 2008). It describes a mythical journey by a group of men. The central figure is Leo, who accompanies the group as the servant, but who also supports them with his spirit and his song. When Leo suddenly disappears, the group disbands in chaos. As the narrator attempts to write his story, Leo reappears, and the narrator comes to realize that Leo was actually the head of the order that had sponsored the trip, and had been the leader all along.

Greenleaf realized that it was in Leo's role as servant that he exerted the true leadership influence. Greenleaf became aware that positive influence develops as a result of an individual's willingness to serve, rather than one's position, status, or skill. Moral conviction, emotional stability, and a strong self-image drive the servant leader to put the needs of those they serve above their own. Greenleaf described a servant leader as a 'first among equals'—one who does not use his position or power to get things done, but who tries to persuade and influence others (Greenleaf, 1977).

As an employee of AT&T for many years, Greenleaf witnessed the influence of both good and bad leadership in an organization. He came to recognize the importance of strong organizations to the health of individuals and communities. He proclaimed that although everything begins with the individual, it is organizations that sustain movement (Frick, 2004). This forms the foundation for his writings about community building, stewardship, and commitment to the growth of people.

Greenleaf was also strongly influenced by Quaker thought and practice. One of his mentors was John Woolman, a Quaker who lived in America in the 1700s. Woolman's autobiography recounts how for three decades he traveled up and down the Colonies, asking thought-provoking questions and gently, but persuasively, convincing other Quakers that slavery was wrong (Woolman & Whitney, 1950). By the end of Woolman's travels, Quakers collectively rejected slavery, and vocally bemoaned it as evil. For the next century Quakers were a powerful force in the Underground Railroad and solid supporters of the abolitionist movement throughout the United States (Frick, 2004). Greenleaf's commitment to the ideas of listening, persuasion, stewardship, and healing can largely be attributed to Woolman's writings and Quaker traditions.

Greenleaf's theoretical framework was outlined in a series of essays in the 1970s. Larry Spears, in an introduction to Greenleaf's (1991) *The Servant as Leader*, listed ten of Greenleaf's most frequently discussed servant leadership traits. These are:

1.   *Listening:* Servant leaders are great communicators, listening to themselves (their inner voice) and others.

2.   *Empathy:* Servant leaders are able to sense and understand another's sentiments and perspective.

3.   *Healing:* Servant leaders seize the opportunity to make whole those with whom they come in contact.

4.   *Awareness:* Servant leaders view situations from an integrated, holistic perspective.

5.   *Persuasion:* Servant leaders are effective at building consensus, and rely on persuasion, rather than positional authority, to make a change.

6.   *Conceptualization:* Servant leaders are able to see the whole in the perspective of history. They can state and adjust goals, evaluate, analyze, and foresee contingencies.

7.   *Foresight:* Servant leaders are able to regard the present, and constantly compare what is going on with a review of the past and projection into the future.

8.   *Stewardship:* Servant leaders believe that everyone plays a significant role in the well-being of the institution, and that serving the needs of others serves the greater good of society.

9.   *Commitment to the growth of people:* Servant leaders do everything they can to nurture the servant leader potential which is present in those they serve.

10.   *Building community:* Servant leaders look for ways to build community within an organization.

According to Greenleaf (1977, p. 27), the best test of servant leadership is:

- Do those served grow as persons?

- Do they, while being served, become healthier, wiser, freer, more autonomous, and more likely themselves to become servants?

- What is the effect on the least privileged of society, and will they benefit or at least not be further deprived?

Greenleaf admits that it is actually very difficult to know that the test has been validated. It requires a good deal of study and experience, and repeated iterations of hypothesizing and analyzing.

Servant Leadership in the Classroom

In addition to his many essays, Greenleaf wrote the book *Teacher as Servant,* a parable about a college professor who encouraged a group of college students to create institutions where all benefit (Greenleaf, 1979). His book emphasized that in any situation, everyone should have the expectation and the opportunity of both serving and of being served, and that a professor has an opportunity to profoundly impact students, giving them purpose and renewed hope.

The concept of teachers as servant leaders has been the subject of a growing body of literature in the 21st Century (e.g., Bowman, 2005; Drury, 2005; Hays, 2008; Johnson & Vishwanath, 2011; Nichols, 2011; van de Bunt-Kokhuis, 2012). When the servant leadership model is applied to teaching, the result is more effective student-centered education and more collaborative inquiry (Drury, 2005).

Servant teachers focus on measuring student outcomes, rather than determining what is being taught. This results in the professor providing more opportunities for self-direction, reshaping the authority relations in the classroom, implementing experience-based learning activities, adopting a relational-learning approach, and fostering lifelong learning. Thus, the values, beliefs, and behaviors of the servant leader are consistent with the learner-centered approach to education (Hannay et al., 2010). The literature on servant leadership in

teaching suggests that the characteristics of listening, empathy, healing, awareness, persuasion, conceptualization, stewardship, foresight, commitment to the growth of people, and community building are key elements in successful teaching and mentoring. A summary of these findings is described below.

Listening. Servant teachers are good listeners, both to themselves (their inner voice) and to their students (Hannay et al., 2010). Teachers hear messages about issues, opportunities, problems, and performance, and then make informed decisions (Hays, 2008). Listening helps teachers gain insight into individual and group dynamics, and they are then able to help students develop and evolve (Harris, 2004). Classroom activities should promote careful listening and reflection (Crippen, 2010). In the online classroom, the teacher, more than ever before, needs to listen (van de Bunt-Kokhuis, 2012).

Empathy. Servant teachers empathize with their students, and accept them for who they are, while at the same time expecting more from them in terms of what they are capable of doing (Crippen, 2010; Greenleaf, 1991). Empathy in the classroom is exhibited when teachers make connections with their students and downplay positional authority (Bowman, 2005). Empathic teachers appreciate diversity, have increased tolerance and breadth of view, and give consideration to students' interests and ideas (Hays, 2008; Steele, 2010). They understand how attitudes, expectations, and behavior norms vary across cultures (van de Bunt-Kokhuis, 2012). When educators show empathy to students, trust is increased, synergy and transformational learning occurs, and teachers are able to make material more relevant and meaningful to students (Crippen, 2010; Greenleaf, 1991; Hannay et al., 2010; Harris, 2004; Hays, 2008; Steele, 2010).

Healing. Servant teachers are sensitive to emotional pain which students may be experiencing, and are available to help whenever needed. They don't take responsibility from the students, but when they can they help remove obstacles that are preventing students from accomplishing their goals, and provide them with skills and knowledge to heal and move on (Bowman, 2005; Hays, 2008; Steele, 2010). This healing can empower students and unlock their potential for learning and transformation, as well as self-reliance and health (Greenleaf, 1991; Harris, 2004; Johnson & Vishwanath, 2011). The servant teacher's classroom (face-to-face or online) is a happy, positive environment where all have a voice, feel welcome, and are valued (Crippen, 2010; Hays, 2008).

Awareness. Awareness is a central and continuous part of learning and teaching, involving reasoning, transformation, and reflection (Hannay et al., 2010; Hays, 2008; Johnson & Vishwanath, 2011). Servant leaders are very aware of what is going on inside themselves and others, along with the immediate and broad environment (Crippen, 2010; Hays, 2008). They are fully engaged in the moment and liberated from self-centered constraints (Hays, 2008).

Servant teachers are congruent, making connections between what they know and believe, and what they say and do (Crippen, 2010). They are conscious of their own teaching styles, tendencies and weaknesses (Hannay et al., 2010). In addition, they are conscious of learning objectives and course requirements (Hannay et al., 2010). As students of their students, servant teachers seek feedback on their strengths and weaknesses, and use that feedback to map a course for improvement (Crippen, 2010; Hannay et al., 2010). This means often adapting lesson plans to meet the needs of students (Hays, 2008; Johnson &

Vishwanath, 2011). Teachers can raise awareness by encouraging students to increase their information gathering and evaluating skills (van de Bunt-Kokhuis, 2012).

Persuasion. Servant teachers seek a win-win for everyone, and are most concerned about doing the right thing for the greater good (Hays, 2008). They are credible and honest, and demonstrate academic professionalism, consistency, reliability, and a solid emotional character (Crippen, 2010; Harris, 2004; Steele, 2010). Servant teachers offer, invite, encourage, and listen to their students (Hays, 2008). They share stories of serving which inform, entertain, and inspire (Crippen, 2010; Hays, 2008; van de Bunt-Kokhuis, 2012). By modeling servant leadership behaviors in their classrooms students are able to have trust and confidence in them (Bowman, 2005; Crippen, 2010; Hannay et al., 2010; Harris, 2004; Steele, 2010).

Power is shared in a servant teacher's classroom. It is through the sharing of power that consensus building and persuasion are possible (Crippen, 2010). Servant teachers take time to talk to students and get to know *what* matters to them and *why* (Hays, 2008). By identifying each student's motivation in terms of values, attitudes, and beliefs, servant teachers can effectively persuade them to change (Harris, 2004).

Conceptualization. By seeing the big picture, and using systems thinking, servant teachers recognize the importance of each part and its relative significance to the overall system (Hays, 2008). Servant teachers conceptualize the lesson, the day, the week, etc., and look beyond the day-to-day realities of the class to long-term needs (Crippen, 2010). Servant teachers nurture their students' ability to dream great dreams (Crippen, 2010; Johnson & Vishwanath, 2011). They help students see that the first and simplest solution may not be the best, help them appreciate the complexity of issues, and equip them with the

tools to work through those issues (Hays, 2008). Understanding what is to be learned, and how it is to be taught, servant teachers daily seize opportunities to make small differences in their students' lives (Bowman, 2005).

Foresight. Foresight requires that teachers understand fully where they are and see options for the future. Because foresight depends on learning from experience and being able to step outside experience, more seasoned teachers are naturally able to employ more foresight (Crippen, 2010). Servant teachers are able to develop a shared vision with students, and a commitment to how that vision may be achieved (Hays, 2008). They are able to see talent, potential, and dignity, and draw these out of their students (Bowman, 2005; Johnson & Vishwanath, 2011). By focusing on experiential learning, they are able to help students see a connection between what is taught in the classroom (face-to-face or online) and its application to real life (Hannay et al., 2010).

Stewardship. Servant teachers focus on long-term results and sustainability, rather than short-term convenience, and strive to help people work successfully in a team (Hays, 2008). In this way they are able to focus the energy, excitement and talents of students for the common good of all (Bowman, 2005; Steele, 2010). Servant teachers take a learning-centered approach to teaching, and accept responsibility for developing people, providing ongoing support, and protecting the rights, property, and welfare of students (Hannay et al., 2010; Hays, 2008; Steele, 2010). Servant teachers recognize that they are accountable to the school, and each investment in a student is also an investment for the benefit of all (van de Bunt-Kokhuis, 2012).

Commitment to the growth of people. Teaching is at its core an investment in others and in our collective future, so this characteristic of servant leaders is inherent in the

very nature of teaching (Crippen, 2010; van de Bunt-Kokhuis, 2012). Servant teachers model servant leadership, and exemplify the leader as learner, seeking ongoing feedback from others, and being committed to developing their own conscience and efficacy, as well as that of others (Crippen, 2010; Hays, 2008). They have the courage, passion, and commitment to ask what is best for students before considering their personal needs and desires (Bowman, 2005; Hays, 2008; Steele, 2010). Servant teachers nurture students' academic, personal, social, and spiritual growth, acting as a role model, and providing the motivation others may need to grow (Crippen, 2010; Harris, 2004; Hays, 2008).

Servant teachers create an environment of service, and do everything they can to nurture the servant leader potential which is present in their students (Crippen, 2010; Greenleaf, 1991; Steele, 2010). Servant teachers ask themselves, "What are three things I can do to this week to hold myself accountable for the growth of others?" (Crippen, 2010, p. 33). They empower students, setting high standards for all, and giving people what they need, even if it is not what they want (Bowman, 2005; Johnson & Vishwanath, 2011; Steele, 2010). They proactively recognize students for their strengths and accomplishments (Harris, 2004), while also acknowledging challenges and areas that need improvement (Bowman, 2005; Steele, 2010). In this way, servant teachers can help students discover and unleash their talent, passion, and unformed interests, and remove obstacles that curb development (Bowman, 2005; Johnson & Vishwanath, 2011; Steele, 2010).

Building community. Learning is increased when students and teacher genuinely care about each other, and when everyone is both student and teacher. Servant teachers intentionally build community within the classroom, helping students experience a true sense of community and connection with peers, and energizing and uniting teams by

inspiring loyalty and mutual support (Bowman, 2005; Harris, 2004; Steele, 2011). This enables students to feel a sense of responsibility to contribute to the community, which facilitates exchanges of experiences and learning (Crippen, 2010; Harris, 2004; Hays, 2008). Servant teachers continually develop vision and direction, working together through developing individual and group potential, ownership, and capability (Hays, 2008).

In the online classroom, a teacher can foster a sense of community by building virtual teams, aiming for inclusion, information sharing, and equal access. The challenge in the online classroom is addressing students with divergent talents and cultures in a way that will increase engagement in the online learning community (van de Bunt-Kokhuis, 2012).

Summary of Literature Review

The positive influence which the ten characteristics of servant leadership have in the classroom is in part because of the overlap of servant leadership characteristics with the best practices of effective teachers, such as honesty, trust, appreciation of others, communication, competence, listening, encouragement, empowerment, influence, and modeling (Hannay et al., 2010; Ramsey & Fitzgibbons, 2005). Effective professors are described by students as those who help them grow as a person. This correlates with Greenleaf's 'best test' of effective servant leadership, which is to ask the question: "Do those served grow as persons?" While the positive traits of servant leadership form a solid foundation for effective teaching and mentoring in any educational situation, the lack of face-to-face contact in an online setting make them especially crucial.

<div align="center">

Methodology

</div>

This study investigated servant leadership characteristics in online courses through a multiple case study analysis using interviews, course shadowing, analysis of discussion

boards, and examination of course documents. Qualitative research involves data collection and analysis with the intention to break down the barriers that exist between the participants, researchers, and the research questions, in order to discover the deeper, richer meaning of the experiences of all involved (Stringer, 2007). Using a qualitative approach allowed the researcher to elicit emic perspectives, and explore the narratives of people involved with the phenomenon under investigation (Merriam, 2002).

Multiple Case Study

According to Yin (2009) "…the distinctive need for case studies arises out of the desire to understand complex social phenomena" (p. 4). Case studies have been described as qualitative research that seeks to find meaning and understanding of a purposefully selected case. The case could be a person, a group, a program, or an organization (Merriam, 2002). In this study, the case is the instructor of the Servant Leadership Course. Case studies are suited to *how* or *why* questions. They are preferred when looking at contemporary events, and when the researcher has no control over the behaviors. Qualitative case studies usually rely on direct observation and interviews of the people involved in events (Yin, 2009).

Case studies give the opportunity for researchers to use thick description, and thus uncover the many layers of meaning and interrelationships. Using this method enabled the researcher to portray an accurate picture of the findings regarding the existence of servant leadership in higher education online learning (Stake, 2006). In the present study, a multiple-case study approach was followed. Using multiple cases allowed for comparison of similar and contrasting online teaching situations and course requirements, as well as

differences in teachers, and therefore helped draw more compelling and robust conclusions (Stake, 2006).

Participant Selection

The cases were selected using purposive sampling. Yin (2009) suggests that when using multiple-case design, researchers should select participants based on purposive sampling, and choose cases which provide either similar results or contrasting results. Purposive sampling helps illustrate the part of the process under investigation (Silverman, 2005). Three instructors who taught graduate-level online servant leadership classes at an American university, and who had been teaching these courses for at least two years, were invited to participate in Fall 2013. A minimum two years of experience was chosen because of the assumption that instructors would have a sound understanding of the course material, and be more focused on enhancing the learning experience of the students than they are on mastering the material.

Two of the instructors taught an identical eight-week course, and both taught two sections of this course during the semester. The third instructor taught a different eight-week course once during the semester, in which servant leadership was only part of the focus. The reasons for using this sample are:

- The rationale that the presence of servant leadership traits should be most evident among those teachers who are *teaching* servant leadership principles;

- The opportunity to compare and contrast the same course taught by two different instructors;

- The opportunity to compare and contrast the same course taught twice by the same instructor;

- The opportunity to compare and contrast different courses taught by different instructors who all have a servant leadership approach.

Interviews

A semi-structured interview format was used. The interviews began with several basic questions, and then developed more as the interview progressed, recognizing that the richness of an interview is dependent on the follow-up questions (Marshall & Rossman, 2011; Stake, 2010). Allowing for evolution of questions as the interviews progressed was important, because:

> too much emphasis on original research questions and contexts can distract
>
> researchers from recognizing new issues when they emerge. But too little emphasis
>
> on research questions can leave researchers unprepared for subtle evidence
>
> supporting the most important relationships (Stake, 2006, p. 13).

In addition to the initial interview, subsequent follow-up questions were conducted via computer, phone, or email.

Interview questions

The researcher used a grand tour question to begin the interview, as suggested by Beebe (2001). One grand tour question was asked about each of the ten traits or characteristics of servant leaders described above. The first question was "How do you apply the servant leadership trait of 'listening' in your online classroom?" followed by several more specific questions about listening. Each trait was introduced with a similar grand tour question of "How do you apply the servant leadership trait of '_____' in your online class?" followed by several more questions about that trait. In this manner, all ten traits (listening, empathy, healing, awareness, persuasion, conceptualization, foresight,

stewardship, commitment to the growth of people, and community building) were discussed in detail. (See Appendix E for a complete list of interview questions.)

To conclude the interviews, four overall questions were asked in terms of the servant leadership pedagogy, online learning, Greenleaf's best test, and self-actualization. These questions were as follows:

1.   What changes have you made in applying servant leadership to the online classroom, which you did not (or would not) do in the face-to-face classroom?

2.   According to Greenleaf's best test, we know we are being servant leaders when those served grow as persons, and become healthier, wiser, freer, more autonomous, more likely themselves to become servants (Greenleaf, 1991). Do you see this result in your students, and if so, to what extent?

3.   Do you see you leading your students toward self-actualization as they progress through this course? If so, do you have some stories about that?

4.   Do you perceive servant leadership is an effective philosophy for online courses? If so, why? What makes it effective? What makes it better than other approaches?

Course shadowing and documents.

In addition to interviews, the researcher shadowed five online courses for a semester, taught by the three instructors. Two instructors each taught two sections of the same courses. Shadowing the courses increased the researcher's awareness and understanding of course development, content, and teaching pedagogy, how the instructors interacted with students, and what was expected of both student and teacher. Furthermore, course documents, including the syllabus, readings, and discussions were examined and analyzed.

Data Analysis

  Coding. Interviews were recorded and transcribed. The computer software program MAXQDA 11 was used to analyze the interviews, course documents, announcements, and discussion board posts. Coding criteria and categories were initially developed in conjunction with the research questions, the servant leadership characteristics being examined, and the methods of interaction the instructors used in their online course. Using open coding, additional categories were developed as themes became apparent during analysis. After transcription of the interviews, member checks were conducted to ensure that the transcription was authentic.

  Qualitative rigor. The data was analyzed according to Lincoln and Guba's (1985) qualitative evaluative criteria, and hence was evaluated in terms of credibility, transferability, dependability, and confirmability.

  Credibility. This is established by showing that an accurate picture of the phenomenon being studied has been presented (Shenton, 2004), and can be accomplished via triangulation and member checking. Triangulation of qualitative data is critical to the credibility of a study, for without triangulation researchers may miss something important (Lincoln & Guba, 1985; Stake, 2006). Triangulation was accomplished using two different approaches. First, interviews were compared with each other. Second, what participants said was compared with evidence in course artifacts.

  Credibility was also established through member checking, in which the participant checked the report for accuracy and possible misinterpretation (Stake, 2006). Lincoln & Guba (1985) suggest that since it is the respondents who "provided the constructions of

which the investigator's findings and interpretations are reconstructions, it is *they* who must find reconstructions credible" (p. 328).

***Transferability*.** Researchers must provide enough detail about the fieldwork so that a reader can determine if the environment in the study is similar to another situation he or she may be familiar with, and whether the findings can justifiably be applied to another setting (Shenton, 2004). The researcher is "responsible for providing the widest possible range of information for inclusion in the thick description" (Lincoln & Guba, 1985, p. 316). This research report used thick description, which is sufficient to establish transferability (Lincoln & Guba, 1985).

***Dependability*.** This is difficult to obtain in qualitative research. The goal should be to provide enough detail for the study to be replicated (Shenton, 2004). Lincoln and Guba (1985) suggest that there can be no validity without reliability, and therefore no credibility without dependability. Hence, if credibility has been established, there is no need to prove dependability. An audit of both the process and the product thus establishes this dependability.

***Confirmability*.** Data analysis should demonstrate that the findings emerge from the data, rather than from the researchers' own preconceived ideas (Shenton, 2004). The techniques used to establish confirmability in this study was an audit trail, reflexivity and triangulation. An audit trail of raw data, data reduction and analysis products, data reconstruction and synthesis products, process notes, personal notes, and instrument development information formed the audit trail which provides confirmability (Lincoln & Guba, 1985). Researcher reflexivity was utilized when analyzing the data, and analytical memoirs of the researchers were maintained via an audit trail throughout the study.

Triangulation of sources (multiple instructors, discussion board analysis, class artifacts) was also used in order to increase the confirmability of the results of this study.

Ethical Considerations

The protection of participants is a primary and an ongoing concern. Marshall and Rossman (2011) emphasize the importance of ethical considerations being a process, and not a one-time event. This study was reviewed, approved, and conducted in accordance with both the researcher's and the participant's Institutional Review Boards (IRB). See Appendix D for IRB approval letters.

Prospective participants were each provided with a consent form, and assured that their participation was voluntary, and that they could withdraw at any time. They were also assured that the researcher was the only person with access to the raw data, and that there was no way to identify the participants. Diligence was taken throughout the project to ensure that these confidentialities were maintained. This study has complied with APA ethical standards for the treatment of participants (APA, 2010, p. 5-7).

Reflexivity Statement

The researcher had previous experience as an online graduate student as well as an online instructor. Her interest in this topic arose out of these experiences, and a subsequent desire to find ways to improve the quality of online teaching in higher education. Researcher reflexivity and triangulation of information was used to reduces researcher bias.

Results

Interview Results

Results of the interviews as they pertain to the research questions are described below. Because these interviews were confidential and anonymous, the participants are referred to as P1, P2, and P3 throughout.

Research Question One: Servant leadership applied in the online classroom. The first research question explored how teachers who are familiar with servant leadership principles perceive servant leadership traits as transferring into the higher education online classroom. The participants identified seven main points, six of which were identified by all participants, as follows:

- Servant leadership is about being, rather than doing.

- Becoming a servant leader is a developmental and ongoing process.

- Servant teachers maintain a presence in the online classroom.

- The servant teacher conveys an attitude of being available.

- Servant teachers aim to teach the whole person.

- All participants recognized that, ultimately, servant teachers rely on Greenleaf's 'best test' to measure their effectiveness and success.

- Two of the participants emphasized that servant teachers model servant leadership in the classroom (P2, P3).

See Table 3.1 for interview triangulation of the themes that emerged.

Table 3.1. *RQ1: Interview Outcomes*

	P1	**P2**	**P3**
Being a servant leader	X	X	X
Honoring the developmental process	X	X	X
Maintaining a presence	X	X	X
Being available	X	X	X
Teaching the whole person	X	X	X
Modeling		X	X
Greenleaf's 'best test'	X	X	X

Being a servant leader. All the participants agreed that any teacher in any

discipline can be a servant teacher. However, before servant leadership principles can

transition to and have influence in the online classroom, or in any classroom, teachers must

first *be* servant leaders. Servant leadership is something a person *is*, not something a person

does.

> *By inculcating servant leadership into your personhood, into who you are as a*
>
> *person and who you are trying to be in the world and in relation to students and the*
>
> *learning environment, it will then impact the way in which you approach teaching*
>
> (P3).
>
> *If you feel that servant leadership is a valuable way of looking at the world, you will*
>
> *develop your life accordingly—towards greater well-being and greater emotional,*
>
> *physical, and spiritual health, and your movement as a professor will come up out of*
>
> *that kind of a lifestyle* (P1).

Honoring the developmental process. Participants emphasized that servant

leadership "is not something we decide to do and then we are there; it is a developmental

disposition we work on and train ourselves for" (P2). These teachers of servant leadership

refer to themselves, and to their students, as 'servant leaders in training.' "This helps to

clarify, right from the beginning, that those of us who are committed to servant leadership, trying to live our lives as servant leaders, are always servant leaders in training" (P3).

Maintaining a presence. All of the participants identified that it is important to maintain a presence in the online classroom. However, a presence does not mean dominance.

> *Sometimes teachers...feel like they have to be present all the time. That would be an imbalance of servant leadership... So for a person to be healthy and be present means to be present in meaningful ways (P1).*

Servant teachers do this by entering into the conversation students are providing, honoring their growth and learning, and respecting their autonomy (P2).

Being available. All participants emphasized that the choice to serve first is an attitude of being available, and servant teachers strive for this in their online classroom. However, this first requires a degree of healing and letting go of judgments, biases, prejudices, and fears.

> *[Teachers] bring the good and the not-so-good into the classroom...and need to take care of [their] own healing and get [their] own ego out of the way so [they] can be available to students.... A leader who has gone through that process to some extent will be more empathetic and more available to be considerate of other people. If they haven't, it will be evident. They won't be available to others in the same way (P2).*

Being available means listening to students and being respectful, hearing not only what they are asking, but what they are getting at or where they are coming from. Teachers

show their availability by being committed to the learning process, rather than merely committed to teaching the subject (P2).

Teaching the whole person. Participants all suggested that teaching requires engaging and educating the whole person. Online teaching has the potential to naturally create this type of holistic learning environment, and servant teachers view this as a benefit and an opportunity. The focus is on "the life of the heart, the life of the mind, and the life of the spirit" (P1).

> *We encourage creativity which often involves physical endeavor. Additionally we encourage holistic sensory experiences which involves a re-attending to and a renewed awareness of all of our sensing capacities and that involves some physical as well as emotional, spiritual and intellectual sensitivity (P2).*

The servant leadership characteristic of awareness is particularly useful when trying to teach the whole person. Servant teachers try to be "aware of aspects of student lives that are shared in their papers, discussion board posts, emails, etc.," and this influences how they teach (P3).

Modeling. Two of the participants suggested that modeling is an important aspect of the classroom experience, face-to-face or online, and modeling servant leadership characteristics can be built into any course (P2, P3). All the topics are taught and discussed, but they are also modeled.

> *Students pay attention to what is being modeled. As teachers teach, sell, talk, persuade, relate, and then model consistently and congruently, it has a powerful impact (P2).*

It was emphasized that modeling occurs when we primarily focus on listening and serving. However, "human beings are imperfect and not always consistent.... Still, if one is conscious of the importance of modeling servant leadership effectively, I think it tends to raise our ability to do exactly that" (P3).

Greenleaf's 'best test'. All three participants referred to Greenleaf's 'best test' as being inescapable when looking for evidence of servant leadership having an impact in their classrooms.

[Greenleaf's 'best test'] is the essential way in which servant leadership is determined to be present or absent, or present in some degree. And it informs the way I go about teaching this course (P3).

If a course is set up with interiority, or depth and meaning, which is then shared, the entire class will grow. As students see that everything is geared towards this interiority, they will naturally progress and grow (P2). Ultimately, teachers either live in a way that helps others become more wise, free, autonomous, and healthy or they are not servant leaders (P1). It should be noted that one participant suggested that interdependence, rather than autonomy, was a more desirable result (P2).

Students begin to acknowledge incongruities in themselves as they see teachers model servant leadership in the classroom: "As soon as they acknowledge it, [students] begin to get it, and almost all of them get it by the end of the course" (P2). Teachers can see and feel the changes in students' posts, papers, and e-mails, and identify evidence of the 'best test' being realized, and of an increasingly self-actualized individual, or of a servant leader in training (P3).

Research Question Two: Methods, Tools, and Traits. The second research question investigated what online learning in the higher education virtual classroom looks like when the teacher uses the servant leadership model. The responses were categorized into three main areas: andragogical approaches; the incorporation of servant leadership characteristics into online classrooms and into instructors' lives; and using various teaching tools and methods for feedback, both to and from students.

Andragogy. When servant leadership principles were applied to the online classroom the teaching methods were consistent with several andragogical principles, as depicted in Table 3.2. All participants discussed the importance of andragogical principles such as: creating a learner-centered classroom, valuing the experience with which adult learners come to the classroom, providing purposeful learning opportunities, recognizing that students are internally motivated, encouraging students to flow to areas of interest, and basing the student-teacher relationship on respect. While the concept of 'first among equals' was only mentioned by two participants, it is discussed here, as it is a major part of Greenleaf's leadership approach, and reflects the learner-centered nature of adult learning.

Table 3. 2 *RQ2: Interview Outcomes—Andragogy*

	P1	P2	P3
Learner centered	X	X	X
Value Experience	X	X	X
Purposeful learning	X	X	X
Internal motivation	X	X	X
Flow to interest	X	X	X
Respect individual	X	X	X
First among equals		X	X

Learner centered. Participants reported that they have learner-centered classrooms, where students learn from the teacher, but also from one another. While the teacher directs

the readings and the main theme, all participants indicated that the students teach each other throughout the course. "You cannot underestimate the power that comes from learning from one another, through the discussion board primarily but in other ways as well" (P3). The ideal classroom has a teacher who is an in-depth and high-quality professor helping to focus a learner-centered environment (P1).

Value experience. The participants all recognized students as professionals, and as having valuable experience and wisdom in their various areas of expertise. Previous life experience was not only valued, but reflection on prior experience was actually built into the course design as a necessary component to being able to conceptualize, understand, and apply new knowledge. Growth occurs most readily when students get an insight which ties something they are learning back into a past experience (P2). "Their previous experience is actually honored" (P2), and they "feel free to share their insights and thoughts, relating it to their own environment through lived experience" (P3).

Purposeful learning. The learning in servant teachers' online classrooms becomes increasingly purposeful, as students are encouraged to relate their new knowledge and skills back into their current situation and apply them into their work and family lives. Servant teachers challenge students to figure out how to apply servant leadership into their organizations (P2, P3). The assignments may require students to "go out into their life and do something and come back and record it in their papers" (P1).

> *Knowledge is important, but until it becomes alive through experience you really*
> *don't have it. So that is why we always try to say 'integrate your experience with the*
> *knowledge,' and that way we come to know it and reflect on it (P2).*

Internal motivation. The participants all perceived that students are internally motivated to learn the subject, and this desire drives their participation. By trying to perceive what motivates a student, servant teachers can know how to best help them and to make learning more personal. Participants reported adapting feedback on papers, in emails, or on discussion board posts, or providing individualized suggestions for further study as they realized what their students' individual motivations were (P3).

Flow to interest. Participants all indicated that they encourage students to flow to their areas of interest, and invite them to share their own wisdom throughout the course. There is much self-guided learning that takes place, and this dictates the flow of the class. It is up to students how much energy they are putting into it, where they choose to focus their learning, and from whom they choose to learn (P3). "By calling on them to integrate their experience with the ideas we are talking about, and by letting them flow to where they are interested in, that is where learning is going to bear the most fruit" (P2).

Respect individual. Servant leadership has at its core a striving to be respectful of others, and this carries over into the online community. All participants reported they show respect for students in a variety of ways including: letting them be autonomous and self-responsible in their learning (P3), being flexible in terms of certain deadlines (P3), creating a kind, positive culture in which to learn (P2), honoring people's beliefs, previous experiences, and perspectives (P1), and putting the responsibility for the learning into students' hands (P1). The servant teachers recognize that even online, when a respectful learning environment is created, people are able to connect and to heal (P2).

'First among equals'. While the concept of 'first among equals' was only mentioned by two participants (P2, P3), it is significant, as it is a major part of Greenleaf's leadership

approach. Servant professors create a holistic learning environment, where teachers take a more background role, modeling servant leadership, and acting as an authority, but not dominating. Even though it is a self-guided environment, the instructors recognized the need for students to feel that the instructor is present (P2). Roles are interchangeable, as the teacher is a student and the student is the teacher, and both teacher and students have not only the potential, but the likelihood, of learning from each other. "Indeed, at the end of each course I have felt like I have learned at least as much from students as I imagine they have learned from me" (P3).

Incorporating Servant Leadership Characteristics. According to all the participants, teaching and application of servant leadership attributes can be incorporated into any course or discipline. If an instructor wants to take a servant leadership approach to teaching, it doesn't matter what the topic area is (P1). All the participants indicated their belief that all of Greenleaf's characteristics of servant leadership, as outlined by Spears (listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of people, and community building) (Greenleaf, 1991) can be applied in any higher education online classroom.

Listening. All participants agreed that listening is one of the most important servant leadership skills. Online courses enable one to have more time to listen than in the face-to-face classroom, so in some ways online is better suited to servant leadership. In a traditional classroom it is harder to slow down in order to get the quietness and listening that online classrooms automatically have, where people spend their time quietly reading and letting it impact them, and then responding (P1).

Although listening is one of the most difficult servant leadership skills to teach, it can be taught. Teachers can be taught to listen deliberately to what students are and aren't saying; to listen with their whole mind and body, deliberately staying in tune with the flow of learning in the class (P2). Teachers can listen online through discussion board, papers, and emails, and increase their sensitivity to students' needs (P2, P3).

I am always trying to listen as carefully as I can to what students are saying, whether it is in their discussion board or papers or email correspondence that I have with students, and really try to understand what questions they are asking. Is there perhaps something that is behind a question that they are not stating directly, and is there something I can do to help with an answer or with another question? (P3)

As with the other servant leadership characteristics, as teachers model effective listening skills, students will learn them (P2).

Empathy. Working in the context of a learning community, instructors hear other people's experiences, and it encourages one to "really face yourself and your own weaknesses and then go into a deeper sense of the world, which generates and creates greater empathy" (P1). Teachers can practice empathy by trying to put themselves in their students' place, and then practice foresight to know how to best help them (P3).

Empathy can be taught by creating assignments that generate the ability for students to have to look inside themselves and increase self-awareness and awareness of others. "If a person works on just the basic difficulties of trying to become a more whole person, you become automatically more empathic" (P1).

Healing. For adults, healing and learning are two aspects of the same thing. "There is something that goes on in a respectful learning environment, where people can connect

and heal" (P2). Learning is first about letting go of something—former beliefs or prejudice or barriers—and this is inherent in the healing process. Teachers who do want to help students heal must first let go of their own prejudices and barriers, and let themselves heal. If they haven't, it will be evident in their inability to be available to their students (P2).

All participants reported that they try to be sensitive to their students' needs for healing. "I think of teaching as more about being a healing presence in the life of others and having them be a healing presence in my life" (P1). Any course can incorporate healing, either purposefully and directly, or subtly. For example, it can be as simple as helping students who have had negative learning experiences, to provide a positive learning experience for them (P3). The important thing is that instructors create a safe space for the healing to occur. In addition, instructors need to remain aware to situations which may require additional help, and refer students to professionals who can offer that help (P1).

Awareness. This refers to self-awareness and awareness of others, both of which are prevalent throughout the servant teacher's classroom. A teacher's awareness of each student and themselves enables them to facilitate greater self-awareness in the students (P2).

Listening to feedback from others is an important part of raising self-awareness. For example, servant teachers increase awareness of themselves by asking mentors and loved ones about incongruities they see in themselves (P1). Instructors can also listen to feedback from students and try to incorporate it into their courses (P2). It must be noted that a lot of awareness happens indirectly. "I get a lot of feedback from students in the form of what they are reading, seeing, etc. Feedback comes in relation to the content and the readings" (P3).

All participants emphasized the importance of creating assignments and papers that generate the ability for students to look inside themselves, in order to increase self-awareness. This accomplishes a degree of mentoring in the online classroom, mostly via questions either as feedback on a paper, or in an announcement, email, or discussion board post. One instructor (P2) encouraged students to write down all their epiphanies or insights to raise awareness of their growth and development.

Persuasion. Persuasion is exhibited in the servant-led classroom when instructors share power and give students a voice.

> *Persuasion occurs when ...we treat them with respect, present the information, and they...come to a decision as an independent adult person...not because of their need for approval from the professor or their fear of disapproval, but because to them it is the right thing (P2).*

Listening and asking good questions are important parts of persuasion. "Good persuaders ask beautiful questions" (P1).

All participants indicated they do not try to proselytize anybody or force servant leadership on their students, although one admitted that "anybody who is a servant leader on one level is a persuader of others toward servant leadership" (P1).

> *I just try as much as possible to help students see as clearly as I can what my understanding is of servant leadership and to invite them to look at it themselves (P3).*

Course developers and instructors can create modules based on knowing what real persuasion is and identifying moral objectives to persuade people towards. By helping

students look at values and identify their own values, servant teachers are using persuasion towards morality and the greater good.

> *Part of being a professor is trying to gain deeper understandings. When I get to people's values I am not necessarily trying to persuade them directly. What I am trying to do is get people to be more whole.... I think the whole project of higher education is to [help people decide] among many good options or good things, what is the ultimate good? (P1).*

Conceptualization. This pertains to how one approaches and develops learning environments. As systems become more complex, we need to learn to collaborate together, which requires conceptualization (P2).

> *Conceptualization describes the struggle to put words to something which we know in our mind, an image that we have, an idea, into a rational, logical sense that others can know and understand (P2).*

Course and program developers can create a safe and meaningful learning environment by conceptualizing the entire course and all its parts. Professors can be creative and engaging with the learning themes, openings, and closures, to involve different learning styles and engage people consistently in fresh and unique ways, which makes the experience more meaningful for students. Assignments can be designed which encourage students to explore core personal issues that enable them to gain a more authentic sense of servant leadership (P1).

As servant teachers become great conceptualizers, they can foster this skill in their students by giving them their voice and the freedom to conceptualize different ideas in their own words (P2). Servant teachers can further help students dream great dreams by

challenging them to find ways to apply what they have learned into their organizations (P2, P3).

Foresight. Of all the traits of servant leadership, foresight seems to be the most nebulous and difficult concept to grasp.

> *Foresight is the ability to look at a question that you are being faced with at the present, look to the past to see if there are experiences you have had that may inform your current decision-making, and then project that forward into the future to try to determine what the likely result may be for different kinds of decisions (P3).*

Having foresight is important for both students and teachers. Greenleaf said that foresight is the central ethic of leadership. If it is not occurring, it follows that leadership is not occurring (P2).

In order to be open to foresight, teachers must let go of fears, biases, and prejudices. Listening and empathy can be used to practice foresight in the classroom. Servant teachers use foresight by determining how best to teach something in particular, based on what they learn through effectively applying listening and empathy (P3).

All participants agreed that, although foresight is more difficult to learn than the other characteristics, it can be learned, and it can be taught in any course.

> *In order for students to increase their ability to use foresight, teachers must consciously develop, affirm, and acknowledge it in the classroom. Educators are teaching foresight in all kinds of courses—bringing in the notion of contemplation, where students sit quietly and then go through multiple exercises to draw on their thoughts. It is really accessing another form of knowledge and bringing it into awareness (P2).*

Stewardship. Stewardship in the classroom involves being cognizant of the effort students are making to their school and the course, and being a responsible steward of their time, energy, and money by honoring their commitment and being as helpful as possible (P3).

> *Stewardship requires constantly striving to assess that we are teaching what we think we are teaching, and constantly improving courses. Are students getting what we are trying to communicate to them? Are they more service-oriented at the conclusion than they were when they came in? (P2)*

Stewardship requires servant teachers to give a substantial amount of awareness-raising reading material, and then augment it with more content and announcements, according to the needs of the students (P3).

Students can be encouraged to develop a sense of stewardship by designing classes to facilitate personal growth, enabling students to look at things differently, and then being able to draw the community into a better sense of itself (P1).

Committed to the Growth of Others. Being committed to the growth of people happens naturally in teaching and learning, especially when the course is taught in the student-centered servant-led classroom. Servant teaching means being "committed to the notion of empowerment, the notion of growing towards greater independence, so that we are more available to be interdependent in healthy ways" (P2).

Any instructor in any class can be committed to the growth of others (P2). Teachers can check themselves on this by the nature of the assignments and how they direct the students. Everything should at least have some quality or orientation towards student growth (P1).

Courses can be designed to develop the students' capacity to care about their own growth and nurture others' growth. One participant (P1) said that he tries to "engage the life of the heart, the life of the mind, and the life of the spirit in a real way." If a course engages in this manner, it is hard for people not to grow. The theme, the readings, and the assignments will all be geared toward student growth, and "affirm them, acknowledge them, and call them forth into greater responsible action, less egocentric action, more other-oriented action" (P2).

All participants reported that students grow a great deal during a course. This growth is facilitated through providing extensive comments on student papers and being sensitive to their needs.

There are always students at the end of the course who say they have come through with a stronger sense of their own commitment to others, and their own desire to continue to grow as a servant leader (P3).

Community Building. All participants replied that their online classes do create a sense of community in terms of a community of learners. There are many ways to build community online. In fact, the basic structure of the online classroom lends itself to naturally build community through discussion boards (P1, P3). In addition, course developers and professors can set up the course to promote the creation of a community (P1).

Teachers work to develop a community of learners who are likewise interested in "moving toward the idea of greater wisdom, greater health, greater freedom, greater autonomy, as well as…healing, community building, foresight, awareness, etc." (P1).

In order to develop leaders who would take the value of community building into

their institutions I would put it as a central purposeful focus inside the course and

build assignments and activities that would accomplish that into the modules, and

then have them take the learning out into the community (P1).

All the participants reported that the students come to truly care about each other in the classes, but the nature of the topic influences the extent to which this happens. In another type of class instructors would need to combine technical questions with emotion-based questions in order to accomplish this (P1). As long as students are engaging the literature in their posts it gives them a framework on which the community develops (P2).

Methods and Tools for Feedback. While servant leadership understandings are filtered into the course design as well as inherent in the subject matter, the tools and methods available in the online classroom facilitate the learning process by providing an avenue of constant feedback both to and from students. These tools and teaching methods include discussion boards, emails, assignments, papers, announcements, questions, and student evaluations (see Table 3.3). Although these were used by all participants, the way each participant employed them is unique. One participant emphasized that "every online professor needs to find their way of providing feedback" (P1).

Table 3. 3 *RQ2: Interview Outcomes—Methods and Tools for Feedback*

	P1	P2	P3
Discussion Board	Students only	Active participant	Only provides welcome post
Email	X	X	X
Assignments/Papers	X	X	X
Announcements	Infrequent (10)	Infrequent (8)	Daily (44)
Questions	X	X	X
Evaluations	X	X	X

Instructor self-confidence is a significant factor in their effectiveness in this regard. "The more confident we are of what we are doing, the more we can try to assure we are taking the best approach for each student and how they may best learn, trying to be conscious of what we are saying and the impact that it has on students" (P3). Regarding feedback from students, participants suggested that in a very real way the online course environment is designed to encourage students to provide feedback through their own insights, ideas, and experiences.

Discussion Board. All participants used discussion boards as the basis for student interaction, and they all agreed that students develop a sense of community through the discussion board, beginning with the introductory post. This becomes a place where students are free to share their insights and thoughts about lived experience with work and family, including many rich and moving stories (P1). There is constant feedback between students on discussion board, and responses to each other are very empathic and caring (P3). Students often engage in true dialogue, which is where the real learning occurs (P2).

Participants emphasized the importance of listening carefully to what students are saying (indirectly and directly) on discussion boards and understanding what questions students may have. They were thus able to use this tool to try to develop a sense of what motivates each student, and then provide direct feedback or direction. All instructors reported that they could identify by what was written on discussion board posts whether students were developing an understanding of and internalizing the principles being taught.

Two of the participants chose not to comment on the discussion board on a regular basis, because they felt they would need to comment to ALL the students, or rotate among them from week to week, and that would get complicated (P1, P3). However, they both

spent time reading the posts to get acquainted with the students and learn how best to help them.

One participant (P2) maintained a very active role on the discussion board. While he did not utilize this venue for individual accolades, he tried to add to the conversation and take it wider and deeper for all students, making a comment about something that was said or submitting a separate posting to get students focused on an important aspect of the topic which hadn't yet been discussed. Although he had a bank of notes from which to draw for this extensive discussion board feedback, no two classes were the same in terms of where the discussions took them, so the feedback he gave the students was always unique. This instructor tried to be on the discussion board six or seven days a week reading the posts to monitor the flow of learning. "I can feel people changing. I can hear their perspective changing as they go through the modules. There is a huge shift in the classroom [during the semester]" (P2).

Email. Email was an important part of teacher-student communication for all participants. Sometimes emails were initiated by the students; sometimes by the instructor, who used email to help students individually by posing questions to invite greater self-awareness.

Instructors gave personal accolades to students via email rather than on discussion boards in order to recognize each student directly. These recognitions could be in the form of notes, thanks you's, and acknowledgement of work well done or of a particular insight shared on the discussion board (P2).

Instructors all had an open-door policy in terms of inviting students to contact them at any time via email, and then would provide prompt and in-depth responses.

I tell every student they can email me any time they want to have personal contact. This puts it in their hands as to how much contact they would like. Some want more contact than others, and I make myself available to that contact…. Any emails they send me, I [respond] basically the next day. Students usually comment, 'Wow, you responded fast,' or 'Thanks for putting so much time in this.' I hope they feel an in-depth personal experience with these (P1).

This instructor regretted that only about half of the students took advantage of this offer, and wondered how to encourage students to be more active in this regard.

One of the participants described "a pretty hefty amount" of email correspondence with students. He described many of these email-facilitated relationships as reaching the mentoring level, where they are frequent, deep, and may continue even after the course is finished (P3).

Assignments and Papers. All participants reported giving most of their personal feedback to students via papers and assignments. "I give real extensive comments to each person on their papers….. I want them all to feel like they had a personal experience, and hopefully they feel like they got an in-depth individual experience" (P1). By using feedback to strive to enter into a conversation with students, a dialogue was created.

When instructors post several positive comments for each negative one it helped students grow without diminishing confidence.

I make a lot of comments on their papers and spend a lot of time on that. I try to give useful, encouraging comments. I try as much as possible to be very sensitive to what is going to be most helpful for students to hear…. I emphasize the strengths, post questions where I see weaknesses, and invite them to think through a particular

section…. I try to encourage students in many ways, including appreciating their

writing skills and nurturing potential….Sometimes it is just a deep appreciation for

the remarkable spirit that you find in people. For those and other reasons, it is a

great joy for me to read papers (P3).

In designing a course which promotes the greatest growth and fosters a servant

leadership mentality, one participant suggested that while lessons should be geared to teach

principles, teachers can "turn things on their head" by creating assignments which require

students to truly look inside themselves in order to complete them (P1). Assignments which

bring an understanding of a concept on many different levels are most effective. This can

require students to go out and do something and then come back and report. All instructors

agreed that if assignments are designed well, the students' papers are where you see if they

are developing an understanding of servant leadership and seeking to authentically practice

it. The instructors all valued student papers as a means to truly listen, to find out what

motivates them, and identify ways to help them further.

It should be noted that all participants agreed that readings are central to teaching,

and should be built into the basic structure of the course. Course developers should gear all

readings toward the themes and learning objectives of the course. Readings enable students

to approach a subject from many different directions to "fully get their head around it"

(P2). The readings should require the students to go into a deeper sense of the world and

engage in a degree of self-analysis (P1). It should be necessary to complete the readings in

order to successfully complete assignments or participate in the discussion board. If

students do not grow as a result of the course, it is usually because they are not engaging in

the readings (P2). Instructors reported that along with their feedback, they would

sometimes suggest additional readings, depending on what was learned from listening to a student through discussion board, emails, and papers (P3).

Announcements. All instructors used announcements to provide feedback to students about their performance, additional information regarding course content, or postings about more practical course matters. One instructor (P3) posted daily announcements, which were a combination of content matter which he had written, content matter written by others, feedback to students, and other announcements that related to the course. In contrast, P1 and P2 posted periodic announcements throughout the semester, containing a combination of feedback and information related to the course itself, rather than additional course content.

Questions. Participants all agreed that questions are an important part of learning, and used them prolifically throughout the lessons. The online environment is especially conducive to effective use of questions, as there is time to try to fully process and understand the questions, and choose which to answer and how to answer them. All participants commented that whereas question asking in a traditional classroom favors the participation of extroverts who are quick to respond, the online classroom levels the playing field, and all students can take their time to craft a better response.

Questions were designed to elicit feedback from students on a wide range of aspects of servant leadership. On the discussion board students answered instructor questions, asked their own questions, and responded to each other's questions. In order to receive good grades, students aimed to pose deep questions, which increased the quality of feedback throughout the class (P1). Students were encouraged to ask questions based on their experience or interesting things they were reading (P2). This process promotes a sense

of community in the online classroom, and creates a holistic learning environment, as various levels of wisdom and different types of experiences are shared.

Questions were also used in instructor feedback on papers, emails, and discussion boards. Instructors listened carefully to see what questions were being asked, and then followed through with their own questions to promote a deeper, or a different, train of thought.

The better learning comes from asking questions. If I read something in a student's paper that strikes me as not understanding [the topic] accurately, I will try to ask questions designed to spark student thought to reconsider whatever the particular point was (P3).

Evaluations. These were described as a helpful tool for all participants. One participant specifically mentioned that questions on evaluations such as "How present was the professor?" and "How easy was the professor to access?" can be especially helpful. He used to receive comments from students saying that he wasn't available. As a result, he extended the offer to email him at any time, and the students no longer make this comment (P1).

Another participant shared that he receives top ratings at his university from students, and affirms that it is a result of the engaged pedagogy which he uses (P2). Sometimes students would make comments complaining about certain aspects of the course. He tried to change it when possible, but when those changes would result in a weakened course structure, such as a complaint about too much reading, he would disregard it (P2). Another participant recognized the evaluations as confirmation of the

impact of the course, as there were invariably many comments acknowledging that the course was a life-changing experience (P3).

Research Question Three: Mentoring in Online Learning. In terms of whether teachers of servant leadership courses perceive that they are mentoring their students by engaging servant leadership principles, all of them reported that yes, they are mentoring their students. While there are different levels of mentoring, and the most impactful mentoring involves close, intimate relationships, all participants agreed that a professional level of mentoring was present to some extent in their online courses.

Instructors suggested that a servant teacher is also a mentor, both in the online and face-to-face classroom. As mentors, they model servant leadership and help students develop their independence and their capacity for interdependence (P2).

> *I believe servant teachers engage that process by seeking to serve students in a way that has the potential to generate greater health, freedom, autonomy, and wisdom in the students and in the student/faculty relationship in general (P1).*
> *One of the things that teachers can do is to try to have the greatest possible awareness of themselves and of each student, and then try to encourage greater self-awareness, and to do that in a way that is hopefully in a kind of mentoring fashion (P3).*

Mentoring was most often done through feedback in the form of questions or comments in emails, discussion board postings, or notes on papers.

Research Question Four: Servant Leadership as a Pedagogical Approach. The last research question investigated whether the participants perceive servant leadership to be an effective pedagogical approach for higher education online learning. All the

participants agreed that servant leadership is an effective pedagogical approach for higher education online learning, and that it can be as powerful and effective in the online classroom as it is in the face-to-face classroom. In fact, one participant (P1) suggested that it is better than other pedagogies, because the test of success is taken out of the hands of the professor and put in the hands of the students.

The likelihood of community developing and individuals growing increases when servant leadership is employed as a pedagogical approach.

> *[Servant teaching] can result in a more satisfying and caring learning environment, and something that can be transformational for both students and teachers (P3). When you have...a legitimate servant leader professor, I have never seen one that students wouldn't love to take classes from. Those classes are amazing (P1).*

One participant discussed Greenleaf's writings about college professors as servant teachers, and suggested that anyone can be a servant teacher by making servant leadership part of who you are (P3). Recent research has shown that when servant leadership is taught to teachers, they "become more conscious and aware of the possibility of their acting as a servant leader, whatever the subject matter is that they are teaching" (P3). It is about striving to be moral and respectful of others, being inclusive of others, and being concerned about the development of the organization or the community (P2).

Additional Themes Evolved from Interviews. Three additional themes emerged from the interviews. One theme was regarding the importance of training instructors and course developers in how to develop effective online courses. Another theme involved the training of servant teachers. The third theme revolved around the uniqueness and benefits of online education.

Training in development of online courses. All the participants had been involved in the development of online courses at the institution at which they teach. In an effort to regulate the quality of the online program, everyone developing courses was required to participate in an intensive professional development training course.

This training taught course developers and instructors to conceptualize a holistic view of the course in terms of education of the whole student. One participant observed that much of our educational system tries to work with only the mental or the physical portion of an individual, and noted that more effective learning occurs when the necessity of teaching the whole person is acknowledged (P1).

Courses developed with this method incorporate five different components necessary for optimal learning—context, experience, reflection, action, and evaluation. This process also assisted course developers and instructors in defining what is required in taking a student from novice to mastery in any given topic.

This holistic training program was in alignment with servant leadership principles and attributes, and hence the servant leadership pedagogy was evident not only in the way the instructors taught their online course, but in the whole online learning experience from its inception (P1, P2). In applying this approach to other programs, one participant suggested:

> *Whatever class it is, I would just frame it to be an engager of the whole person,*
> *instead of acting like that doesn't exist.... Online course developers can be taught*
> *how to design assignments that encourage students to [develop more fully].*
> *Application activities can be developed to practice the characteristics, and servant*
> *leadership principles can be filtered into the way the topics are set up (P1).*

Training servant teachers. All participants agreed that teachers in any discipline can act as servant teachers by inculcating servant leadership into their personhood—into who they are and who they are trying to be in the world in relation to students and the learning environment. "If we view ourselves as servant teachers, we are wanting to be as conscious as we can as often as we can of what we are doing and saying and the impact it has on students" (P3).

Professional development facilitators of online teachers need to have a lot of heart and soul and high-quality master teacher abilities. New online instructors need a lot of teaching and mentoring in the beginning, and an institution should have a team of master teachers who can mentor the new instructors. In this way we can get vitality built into the programs and courses (P1).

Being active and purposeful in wanting to be a servant teacher requires professors to have an understanding of how to apply these characteristics, as well as Greenleaf's 'best test.' Success is not only measured by the fact that people get stronger in the subject being taught. Servant leadership transcends whatever topic it is and allows the teacher to engage on deeper levels (P1).

The attitudinal disposition of serving first is key, and there is a whole continuum of how available a teacher is based on what is going on in their personal life.

> *I think it is about human development and human relationships. You could take these principles and apply them to online teachers across the board to impact students in a positive way. I really believe that if all faculty members would be engaged that way, it would enhance their students' [experience], whether it is face-to-face or online (P2).*

Benefits of online learning. Two of the participants have taught their courses both face-to-face and online. They agreed that the quality of the learning experience is not determined by the venue, and that, if it is arranged right, anything in a traditional classroom can be done online, or vice versa. Both instructors have actually altered their face-to-face courses, as they have realized that some of their online assignments and teaching strategies were more effective than some they used in the face-to-face classroom.

All participants agreed that there are some definite benefits to the online environment. The whole experience is focused on student feedback, and may be an even better opportunity for honest engagement and dialogue. The anonymous nature of the online environment allows students to share more personally than they might in a traditional classroom (P3).

> *In a traditional classroom it is harder to slow down. To get the quietness and the listening that online automatically has, in a [face-to-face] classroom a teacher has to be brave enough to stop and have legitimate silence, and give people space to come into their understandings and then come into the conversation (P1).*

One participant (P2) observed that education is about relationships and human development, and that both exist in the online classroom. He described the growth of the students in the online classroom:

> *The epiphanies and the shifts in perspectives that occur online are absolutely amazing to me and they happen in every class. It is just by raising awareness, discussing the topics, [and] people all of a sudden get an insight or a new way of seeing it.... You can almost feel them grow, even online (P2).*

Whereas in the face-to-face classroom the instructor is the center of attention, online teaching is naturally student-centered. It requires the professor to enter a different role.

The focus is on the students learning rather than me being up there in the classroom. The professor is the base of the relationship in the traditional classroom, and students like the relationship with the a good professor. So the students still want a relationship with the professor, but it is going to be different online…. We can't do it with charisma or persona. We've got to do it by being available and demonstrating that we are there to help their learning process. It is about student learning; it is not about my favorite subject so much. It changes the focus (P2).

Triangulation Results

In order to further validate the participants' perceptions of servant leadership in the online environment, the researcher used course documents, discussion boards, and announcements to triangulate and validate the interview results. The degree of presence or absence of the interview themes in course artifacts is outlined below.

Research Question 1. With respect to the first research question regarding how teachers who are familiar with servant leadership principles perceive servant leadership traits as able to transition to and have influence in the higher education online classroom, six main themes emerged from the interviews. The triangulation of the interview themes regarding transitioning servant leadership into the online classroom is illustrated in Table 3.4 below.

Table 3.4. *RQ1: Triangulation*

	Interviews			Course* Documents			Student Discussion Board Posts**			Announcements & Teacher Discussion Board Posts***		
	P1	P2	P3	P1	P2	P3	P1	P2	P3	P1	P2	P3
Being a servant leader[a]	Y	Y	Y	2	1	1	2.3	3.0/1.6	1.9/2.3	--	64/46	54/57
Honoring the developmental process[b]	Y	Y	Y	5	31	31	8.7	9.7/17.8	8.5/16.3	--	94/73	78/77
Maintaining a presence[c]	Y	Y	Y	--	--	--	2.6	6.2/3.5	1.9/1.8	10	91/71	57/66
Being available[d]	Y	Y	Y	1	1	1	--	--	--	7	8	12
Teaching the whole person[e]	Y	Y	Y	10	0	0	2.9	1.1/0.6	1.4/1.6	--	26/17	24/27
Modeling[f]	--	Y	Y	0	1	1	0.7	2.8/1.1	0.7/1.8	--	6/4	4/4
Greenleaf's best test[g]	Y	Y	Y	0	1	1	0.1	0.7/0.4	0.7/0.7	--	2/2	11/15

*Course documents included syllabus, schedule, and assignments.
**Student discussion board posts are presented as a mean of posts per student. Two numbers reflect the different classes taught by the same instructor.
***Announcements and teacher discussion board post numbers are combined. Two numbers reflect the different sections of the course taught by the same instructor.
[a] A search of student discussion board posts was made for the word *practice* to identify mention of *being a servant leader.* A search of course documents, announcements, and teacher discussion board posts was made for the words *being* and *practice* to identify mention of this theme. Posts were verified as being on topic.
[b] The terms *journey*, *develop*, and *servant leader in training* were used to identify this theme in course artifacts. Posts were verified as being on topic.
[c] Presence was measured by the number of times students referred to their Professor as an individual (Dr./Professor/Mr.) and by the number of times instructors posted on discussion board or in announcements.
[d] Availability of instructor was measured by number of times instructors invited their students to contact or email them.
[e] Teaching the whole person was measured by use of the words *holistic* or *whole*. Posts were verified as being on topic.
[f] Modeling was measured by mention of the word *model* as a verb. Posts were verified as being on topic.
[g] This was measured by specific reference to Greenleaf's 'best test.'

The six themes are:

- Servant leadership is about being, rather than doing.

- Becoming a servant leader is developmental and an ongoing process.

- Servant teachers maintain a presence in the online classroom.

- It is important to convey an attitude of being available.

- Servant teachers aim to teach the whole person.

- Servant teachers serve as a model for their students.

The need to rely on Greenleaf's 'best test' as the ultimate measure of their effectiveness and success was identified by all participants.

Being a servant leader. All participants emphasized that servant leadership is something one *is*, rather than something one *does*, and that before servant leadership traits can have influence in the online classroom, a teacher must first *be* a servant leader. All aspects of the course design validated this emphasis. The courses were designed using the holistic course design process that participants described in their interviews, which is aligned with servant leadership principles. Course documents referenced being a servant leader and practicing servant leadership. Student discussions had an average of 2.2 mentions of *practicing* servant leadership and its principles. Assignments, including papers and readings required students to discuss authenticity and moral leadership, as well as what it means to *be* a servant leader. Finally, announcements and teacher posts on the discussion board of P2 and P3 had repeated references to *being* a servant leader and *practicing* servant leadership.

Honoring the developmental process. Servant leadership is a developmental and an ongoing process, and this was a major theme in all courses. Two of the participants

described themselves and their students as being servant leaders in training, and all participants described the continuing developmental journey toward servant leadership.

The course design verified this emphasis on the developmental process, as the lessons in course documents, discussion boards, assignments, and announcements frequently referred to students and instructors as servant leaders in training, being on a journey together, and developing in servant leadership. These references occurred an average of 12.2 times per student on the discussion boards. The announcements of P3 included these references an average of 77.4 times in each course, while P2 used these references an average of 83.5 times per course on the discussion board. In addition, the course schedule and syllabi of all participants included the concepts of development and transformation.

Maintaining a presence. All participants said they worked to have a presence in their online classroom. This was verified through announcements and discussion board posts. The presence of P2 in the classroom was evident on discussion board, as there was a mean of 4.85 posts per student either addressed directly to him or discussing his writings or posts using his name, *Dr. ___*. There was a mean of 2.05 posts per student directly addressing P1.

Evidence of teaching presence was also found on the student discussion boards in the courses of P1 and P3, but it wasn't as strong as that of P2. According to the student discussion board postings, it appeared that the servant professors maintained a presence partially as a result of the course readings which they had authored. This is exemplified by the personal manner in which the students referred to their instructor's writings. When citing literature written by their instructor, they referred to the author as *Dr.* or *Professor*

_____. In contrast, when referring to writings by another author, students referred to it using only their last name.

Being available. All participants indicated the desire to make themselves available to students. This was verified throughout each course. In course announcements and instructor discussion board postings, all instructors extended invitations to students to email them or to contact them (Mean = 9). Although one instructor only posted ten announcements throughout the course, these included seven invitations for students to email him, and three mentions of emails he had sent or would be sending to students. He also included this statement:

> *If you would like to communicate personally, please email me. I love and welcome contact from you…. I want to be available…so please know I do engage and welcome email exchange communication any time and I look in on it basically every day. I'd love to hear from you! (P1).*

There was no way of identifying from student discussion board postings how available they perceived their instructors to be. While they referred frequently to emails *from* their instructors, there were no references to the students having sought contact with them.

Teaching the whole person. In addition to the prevalence of this theme in the interviews, course artifacts also verified that all participants aimed to teach the whole person. This was evident in course documents of P1, as these terms appeared seven times, and an entire lesson was focused on a "holistic concept of personhood." In addition, all lessons in all courses incorporated assignments which required students to "listen, view, discuss, engage, and write."

Announcements from P3 discussed wholeness or holistic an average of 25.5 times. The discussion board postings of P2 likewise emphasized it, with holistic or whole being mentioned an average of 21.5 times. The announcements of P1 included a mention of holistic or whole three times in only eight announcements. There was also mention of it in all of the courses' student discussion board postings, with a mean of 1.5 times per student across all courses. It can be concluded that this holistic approach to teaching was confirmed through the analysis of the discussion boards and course documents.

Modeling. While only two of the participants in the interviews said that servant teachers model the characteristics they are teaching (P2, P3), there was evidence of the importance of modeling throughout each course. In the course documents of P2 and P3 it is discussed. The announcements of P3 discuss modeling four times per course, and the discussion board posts of P2 discuss it an average of 5 times per course.

Student discussion board postings include reference to modeling throughout the courses in several ways. They describe their desire to model it for others, others who have modeled it for them, and the general importance of teaching servant leadership through modeling. These references occurred in all the courses, at a mean of 1.4 times per student per course. However, in the discussion boards there was no actual mention of how the instructor was modeling servant leadership in the classroom.

Greenleaf's 'best test'. Instructors all indicated that they look to Greenleaf's 'best test' as evidence of their effectiveness at applying servant leadership skills in the online classroom. All instructors described this test as the only real way to verify one's success at being a servant leader.

Reference to Greenleaf's 'best test' is evident in course documents, announcements, and discussion board postings. However, since the results of this test are most evident in the lives of those served, the best place to look is in the students' discussion board postings. Not only was there discussion of the 'best test' in all the courses, but there was also strong evidence of student growth, which is more difficult to quantify. Students frequently wrote about their personal growth and desire to take the concepts they had learned and apply them in their own lives. There were very few students who did not openly discuss their growth.

Research Question 2. The second research question explored what online learning looks like when the teacher uses the servant leadership model. The three main areas identified from the interviews include use of andragogical principles, teaching and application of the characteristics of servant leadership in the classroom, and constant flow of feedback both to and from students using a variety of online teaching tools and methods.

*Andragogy***.** The application of andragogical principles in online instruction identified from the interviews was confirmed via triangulation with course artifacts and discussion board and announcement analysis. The andragogical principles identified from the interviews included: learner-centered classrooms, student experience valued, purposeful learning, internal motivation, flowing to the students' interest, respecting the individual, and 'first among equals' (see Table 3.5).

Learner-centered. Online learning naturally creates a learner-centered classroom, and all participants described their courses as being learner-centered. Rather than providing all the information for a course, they assumed the role of facilitators of student learning. This was verified by all course documents, which guided the direction of the student

learning, but did not dictate exactly what was learned. Assignments were in the form of papers and presentations, rather than exams which would require the absorption of specific facts. Students were required to take the lead on the discussion boards, with the assumption that students participated in the readings and other assignments, and then took that information and discussed it with their peers. In this way, students were learning from the course literature, but also from each other.

One of the instructors posted heavily on the discussion board in an effort to deepen the discussion (P2), while another posted daily announcements with the same purpose (P3). The other instructor communicated with students mainly via email. In all cases, the instructors aimed to facilitate, rather than control, student learning.

Table 3.5. *RQ2: Triangulation—Andragogy*

	Interviews	Course documents*	Student Discussion Board Posts**	Announcements & Teacher Discussion Board Posts***
Learner centered	All	High	High	High
Experience valued	All	Medium	High	High
Purposeful learning	All	High	High	High
Internal motivation	All	Medium	High	High
Flow to interest	All	High	High	High
Respect individual	All	Medium	High	High
First among equals	Most	Low	Medium	Medium

*Course documents were rated high if it was a prevalent theme occurring in the documents; medium if it was apparent in the documents; low if it was not apparent in the documents.
**Student discussion board posts were rated high if it was a prevalent theme among the students; medium if it was a theme occasionally occurring in the student posts; low if it was a theme which was not apparent.
***Announcements and teacher discussion board posts was rated high if it was a prevalent theme in the course; medium if it was apparent in the course; low if it was a theme which was not apparent.

Additional evidence of the learner-centered nature of the courses can be seen when comparing the announcements and discussion boards in the two sections of the same course

taught by two different instructors (P2, P3). Rather than pre-determining what would be presented to the students, the instructors made an effort to get a feel for the flow of the class, and adjusted their postings according to the needs of the students.

Experience valued. All participants emphasized that their students brought unique experience to their courses, which informed their learning. They recognized that students were, "professionals from all over the world, and some of them have much more experience and wisdom than [their instructor]" (P2).

All course documents invited the students to use their past experiences to understand the concepts they were learning. Student discussion board postings required the student to use their personal experiences to apply what they were learning. Announcements and teacher discussion board postings referred to the experience which students brought to the course.

Purposeful learning. All of the participants noted in their interview the importance of effecting real change in the lives of their students by encouraging them to make their learning purposeful through application into their organizations. One instructor said he specifically challenged students to take what they had learned and figure out how to work it into their organizations (P2).

The aim of purposeful learning was evident in all course documents, as the syllabi described the goals of the course, and all assignments, reading material, and course activities were aimed towards accomplishing these goals. Student discussion boards were constructed around stories of servant leadership applied to families and organizations. Announcements and teacher discussion board postings encouraged students to seek change in all areas of influence through application of what they had learned.

Internal motivation. All participants indicated that their students were internally motivated to learn and apply the subject matter, and that they frequently chose this particular program because of its emphasis on servant leadership. Student discussion board postings verified this assumption, as the students described what drew them to the course, and their desire to learn the topics.

The learner-centered nature of the course design took students' internal motivation into consideration, as was evidenced by the lengthiness of course readings lists. Two of the instructors also provided additional lengthy announcements or discussion board posts for the students to read (P2, P3). In addition, no traditional testing was required in these courses, but grades were based on participation in discussion boards and evidence of assignments being fulfilled through student papers.

Additional evidence of the students' internal motivation to learn was found in the number of discussion board postings. While the minimum number of posts in each of the classes was 32, the mean number of student postings across all classes was 42.6. In 80% of the classes, 78- 92% of students exceeded this minimum. The entire course was built on the assumption that students learn the subject matter solely because of a desire to increase in servant leadership skills and knowledge of the subject matter.

Flow to interest. Participants indicated that students were encouraged to flow to their areas of interest.

> *Rather than listening to what I think are the most important things...I allow them to bring up the topics that they think are relevant based on their experience. I think that is a modeling of servant leadership. It is adult pedagogy, but it is also being*

respectful of where they are at.... So by letting them flow to where they are interested

in, that is where learning is going to bear the most fruit (P2).

This was verified by course documents, which encouraged students to identify their areas

of interest, both in the reading and discussion board questions, as well as choosing what to

focus on.

Additional evidence of the courses allowing students to flow to their areas of interest

was found when comparing student discussion board postings of the two instructors who

taught two different sections of the same course. The means (M), median (Md), and modes

(Mo) of the different topics across the courses revealed preferences in where the students

chose to focus their conversation and their learning (See Table 3.6).

Table 3. 6 *Students 'Flow to Learning' on Discussion Board*

	P2 Section A			P2 Section B			P3 Section A			P3 Section B		
	M	Md	Mo	*M*	Md	Mo	*M*	Md	Mo	*M*	Md	Mo
Listening	21.1	17	10, 18	14.7	12	6, 18	18.3	18	29	20.7	17.5	15
Empathy	2.6	0.5	0	4.5	2.5	0	2.2	2	0, 4	1.5	1.5	0, 2
Healing	2.4	1.5	0	1.7	1	0	2.9	2	2	3.6	1	0, 1
Awareness	6.5	3.5	0	2.9	2.5	0, 1	5.2	4	4	4.1	3	2
Persuasion	1	0	0	1.4	.5	0	2.5	1.5	1	4.2	3	0
Concept	2.3	0	0	0.3	0	0	0.4	0	0	0.5	0	0
Foresight	2.9	1.5	0	1.6	1	0	1.9	1	0	1	0	0
Steward	0.3	0	0	0.4	0	0	0.4	0	0	0.2	0	0
Growth of People	7.4	5	2.5	6.7	6.5	2, 7, 12	6.5	4	4	7.6	6	5
Com Bldg	1.9	0.5	0	1.9	0.5	0	3.3	3.5	1	2	1	1

The table depicts how the same professor, teaching the same course but to different

students, may have had very different discussions. For example, P2 Section A discussed

listening a mean of 21.1 times per student, while the same professor in Section B only

discussed listening a mean of 14.7 times per student. In the same courses empathy was discussed only a mean of 2.6 times per student in section A, and a mean of 4.5 times per student in section B. The same differences exist for P3, although the variation is not as significant.

Respecting the individual. The respect which instructors had for their students was evident not only in the interviews, but in the autonomous nature of the course design with its broad parameters. One participant's announcements discussed respect 18 times (P3), and the discussion board postings of P2 discussed respect an average of 30 times throughout each course. In addition, the instructors' personal notes on discussion boards revealed an attitude of respect. This was evident by recognition of student's individual contributions, expressions of appreciation, positive acknowledgment of student comments and questions, and enthusiastic welcoming of students to the course (P2, P3). Additional notes of support and esteem were present in all instructors' announcements.

Student discussion boards discussed the concept of respect a great deal, especially as it related to trusting others and how people treat each other. While the discussion board required students to respond to each other, the postings frequently began with a respectful salutation such as, "Great post!" or "Great question!" and this attitude of esteem continued throughout the posts.

First among equals. The concept of 'first among equals' (based on using only persuasion to motivate), is difficult to truly achieve in a course where a teacher assigns students' grades based on performance. However, in a student-centered classroom the teacher more naturally assumes the position of 'first among equals.'

When I was teaching in the classroom face-to-face and I was the center of attention,

it was like teacher-student, parent-child, expert-non-expert. But what I'm working

toward is Greenleaf's notion of a group of peers, 'first among equals.' With adults,

that works best.... It is a very productive model, and most [healthy] organizations

use it.... There still needs to be a leader, but it is not treating people like they are

unequal (P2).

One instructor assured students via an announcement that "a quality effort at deep

discernment earns an A" (P1). The participants all emphasized in announcements how

impressed they were with the students as a group, and how much they learned from their

postings and papers. Of course, due to confidentiality, individual email communications

were unavailable in this study, and could not be used as additional confirmation of the

presence or absence of this theme in the courses.

Servant leadership characteristics. In addition to being discussed in the interviews,

the servant leadership characteristics of listening, empathy, healing, awareness, persuasion,

conceptualization, foresight, stewardship, commitment to the growth of people, and

community building were built into the course design in terms of course documents,

discussion board, and announcements. As shown in Table 3.7, evidence of their presence

was substantial in course artifacts, although it was clear that some of the characteristics

were more present than others.

Table 3. 7 *RQ2: Triangulation—Characteristics*

Trait*	Interviews			Course documents			Student DB Posts**			Announcements & Teacher DB Posts**		
	P1	P2	P3	P1	P2	P3	P1	P2	P3	P1	P2	P3
Listening	23	40	5	14	1	1	9.2	21.1/ 14.6	18.3/ 20.7	--	76/ 103	171/ 175
Empathy	12	28	12	0	0	0	3.3	2.0/4.5	2.2/1.5	--	11/3	15
Healing	34	39	6	8	1	1	8.6	2.9/1.7	2.9/3.6	6	39/36	51/54
Awareness	10	11	18	0	1	1	4.7	6.5/2.9	5.2/4.1	--	81/46	37
Persuasion	23	10	5	0	0	0	0.7	1.0/1.4	2.5/4.2	--	20/8	14/18
Concept	3	19	5	3	3	0	0.6	1.7/0.3	0.4/0.5	--	25/6	17
Foresight	14	18	20	0	0	0	1.1	2.9/1.6	1.9/1.0	--	37/7	13
Steward	4	10	5	0	0	0	0.2	0.3/0.4	0.4/0.2	--	8/3	23
Growth	3	1	4	0	0	0	4.7	7.6/6.7	6.5/7.7	--	9/2	21
Com Bldg	25	16	4	7	7	10	3.7	1.9/1.9	3.3/2.0	2	23/18	67

*A search was conducted through course artifacts. In order to identify cognates for the traits, the following form of the words were used: *listen, empath (to include empathize, empathy, and empathetic), heal (to include heal, healthier, and healing), aware, persua (to include persuade and persuasion), conceptual (to include conceptualization and conceptualize), foresight, steward, grow (to include grow and growth),* and *community*. The posts were verified as being on topic. Any which were not on topic were excluded.
**DB = Discussion Board. Total responses for students are divided by the number of students in the classes. P1 had 18 students in one class. P2 and P3 each had 12 in one section and 18 in another. Where there are two numbers (x/x), each number represents mean posts per section of the course taught by that instructor.

_____

Participants emphasized in the interviews that the teaching of servant leadership characteristics was built directly into the course topics. While course documents verified this for some of the traits and with some of the instructors, they did not confirm this for all traits and in all courses. Student discussion board posts mentioned all ten characteristics throughout the course, with an emphasis on listening, commitment to the growth of people, and awareness. Conceptualization, foresight, and stewardship were the least discussed traits. Announcements and teacher discussion board posts of P2 and P3 discussed all of the characteristics, while P1's announcements only mentioned healing and community building.

This substantiates the idea that different topics, or the way the course is designed, will naturally focus more heavily on one or more of the traits.

Methods and Tools for Feedback. All participants emphasized the importance of feedback, both to and from students, as a way to inform both teaching and learning. Methods and tools for feedback were similar to that used in other online courses. These included discussion board posts, emails, papers, projects, announcements, questions, and evaluations. See Table 3.8 for a summary of the methods and tools used for feedback both to and from students.

Email. Interviews revealed that all instructors utilized email to provide personal accolades, as well as feedback to students. Course documents and announcements encouraged students to email instructors. Two of the instructors repeated these invitations several times in announcements. While there was some mention of instructor-initiated emails in student discussion board postings, these comments did not inform the research regarding frequency of emails between student and instructor. Emails were also discussed in student discussion board posts as being used by students to build relationships with each other beyond the course, as they shared personal email addresses with each other. This provided evidence of friendships developed outside of class.

Discussion Board. All instructors utilized discussion boards, and reported in their interviews that they valued them as a means of knowing how the students were doing and what they could do to help them in their progress.

> *Listening is very much a part of [the discussion board]. It is listening to where the*
> *student is [and] paying attention to what they are saying [and] guiding that*

discussion by adding information that changes the direction or shifts it, and looking

for opportunities to add information to the discussion.... It is all about listening to

where they are in their learning process (P2).

Table 3.8. *RQ2: Triangulation—Methods and Tools for Feedback*

	Interviews			**Course documents***			**Student Discussion Board Postings****			**Announcements & Teacher Discussion Board Posts****		
	P1	**P2**	**P3**	**P1**	**P2**	**P3**	**P1**	**P2**	**P3**	**P1**	**P2**	**P3**
Email[a]	8	1	7	2	2	2	0.4	0.1/0.4	0.4/0.4	11	2/2	15/12
DB[b]	7	3	11	54	36	36	41.8	44.6/39.7	47.0/39.7	--	63/84	14/21
Assign & Papers[c]	36	16	35	29	22	22	2.2	1.4/0.7	1.2/1.2	26	51/38	25/27
Announce-ments[d]	2	1	3	--	--	--	1	0	4/7	10	8/8	44/45
Questions[e]	--	--	--	17	64	64	45.9	35.8/34.6	31.7/46.1	1	201/118	199/209
Evalua-tions[f]	6	0	2	--	--	--	--	2	--	--	--	1

*Course documents included syllabus, schedule, and assignments.

**Student discussion board posts are presented as a mean of posts per student. Two numbers reflect the different classes taught by the same instructor.

***Announcements and teacher discussion board post numbers are combined. Two numbers reflect the different sections of the course taught by the same instructor.

[a] A search of *email* was conducted in course artifacts. Data includes whether it was mentioned as an instruction or an invitation. Student discussion board postings are a mean, and include only references in terms of emailing others within the class.

[b] DB = Discussion Board. A mean of discussion board posts per student.

[c] A search of course artifacts was conducted for the words *paper* and *assignment*. It was verified that the post was on topic.

[d] A search for *announcement* was conducted through course student discussion board postings. It was verified that post was on topic. Announcements and teacher discussion board posts provides total number of announcements by instructor in each course.

[e] A search of course artifacts was conducted for questions. Mean per student and totals for instructor are given.

[f] Mention of evaluations was noted after a search through course artifacts.

All course documents outlined detailed requirements for discussion board postings,

and each lesson required immersion into the readings and course materials in order to

effectively participate on the discussion board. Students in all courses were required to post at least thirty-two times throughout the course. These posts took the form of one or two annotated questions relating to the course materials, as well as responses to other students' annotated questions. All teachers utilized class announcements to provide general feedback about student discussion board postings.

The degree of instructor involvement on the discussion board varied greatly. One instructor did not maintain a presence on the discussion board at all (P1). Another posted an individual welcome to each student, and then remained silent other than to answer course questions (P3). The third participant was present on the discussion board on an almost daily basis, providing feedback directly to students throughout the semester. He reinforced what was being said by students and encouraged deeper or broader thought (P2). Students frequently posted questions or comments directly to him, knowing that he was present and would respond. They also referred to his comments in their own posts throughout the semester. In an end-of-semester survey, one student reported, "I have gained a lot from what he has written in his posts and writings, as well as other students' posts" (S1).

Assignments and Papers. All participants used assignments and papers as a way of monitoring student growth and mastery of the topics. Course documents and announcements provided details about these requirements. Student discussion board postings referred an average of 1.34 times per student to papers and other assignments, and often discussed the details of the assignments, what they had learned, and the impact of the assignments on their learning and on their lives.

Announcements. There were two main ways announcements were used by the instructors. One posted daily announcements (P3), and the other two posted them periodically, (an average of eight per course). While there was no mention of announcements in course documents, instructors used them to augment the course documents, clarifying information which may have been unclear in the original documents, as well as other items of interest to the students, such as upcoming conferences. All instructors used announcements to provide positive feedback about student performance. Students in both P1 and P3's classes mentioned their instructor's announcements in their discussion board posts.

Questions. Participants emphasized the use of questions to invite deep learning. According to one participant, if the whole course is designed with "ultimate questions in mind" student growth will occur naturally (P1).

Instructors used questions throughout their course design. The syllabus included many questions, and the instructors often posted further questions in their feedback on the discussion board and announcements. Some examples are:

- *Why should I be a servant leader?*

- *Who should I serve?*

- *How and where can I practice servant leadership?*

Student discussion boards were built on a foundation of questions being asked and answered. Students grew from both what they learned in the course materials and what they learned from each other.

Each student asked a mean of 38.8 questions across all courses. Some were simple; others profound and thought-provoking. One instructor reported, "I encourage the students

to flow to the areas of their interest in the readings and to ask questions based on their experience and interesting things they are reading" (P2). This further exemplifies an andragogical approach to teaching. In addition to the questions asked throughout the discussion board posts, there was much discussion *about* questions and the importance of asking questions to encourage deeper thought.

Evaluations. While not frequently mentioned in course artifacts, the importance of evaluations was discussed by all participants in the interviews as an important part of obtaining feedback from students on how to improve the course or instruction. Evaluations were mentioned in discussion board postings of P2 and announcements of P3.

Research Question 3. The third research question investigated how teachers of servant leadership courses mentor students using servant leadership principles. While there are different levels of mentoring, all participants agreed professional-level mentoring was present to some extent in their courses. Mentoring was most often accomplished through questioning or discussions, either in emails, discussion board postings, or feedback on papers. Instructors emphasize that there are different levels of mentoring that take place, and that a professional level of mentoring can occur in online teaching (P3).

Due to the confidentiality of the mentoring and the student-teacher relationship, it could not be confirmed that mentoring actually happened. However, discussion about mentoring were verified through course documents, discussion boards posts, and announcements. Course documents were laden with mention of mentoring, including assignments to talk with a mentor. In addition, video clips of 'mentors' were provided for students to watch as part of their curriculum. Course documents of P1 mentioned mentoring 34 times, and his announcements included it four times. P2 and P3, who shared

course documents, included a mention of mentoring ten times. The announcements and discussion board posts of P2 discussed it ten times in one course and 17 times in the other. The announcements of P3 mentioned mentoring 16 times in both courses.

Student discussion board posts were replete with discussion of mentoring. It was referred to in relation to the assignments to watch the video clips and assignments to connect with a mentor to discuss various aspects of the course topics. In addition, there was discussion throughout the courses about mentoring as it related to servant leadership. Experiences of both being mentored and serving as a mentor were shared by almost all students.

Research Question 4. The exploration of servant leadership as an effective pedagogical approach for higher education online learning was explored in the fourth research question. All participants agreed that servant leadership is an effective pedagogical approach for higher education online learning, and that it can be as powerful and effective in the online classroom as it is in the face-to-face classroom, possibly even more so. According to the instructors, it can result in a more satisfying and caring learning environment than other pedagogies, and something that is transformational for both student and teacher. Servant leadership "is an effective philosophy for life. I think it works online and in face-to-face" (P2). As teachers learn servant leadership principles,

they become more conscious and aware of the possibility of acting as a servant leader, whatever the subject matter is that they are teaching, whether it is science or English or history or anything else (P3).

Evidence of servant leadership as an effective pedagogical approach was found in the experience of the students. A majority of students expressed appreciation for the course

and the impact it had on them. In addition, they openly expressed gratitude for the instructors and their contributions throughout the course. Statements by students emphasized the instructor presence which was manifest.

> *The readings and other resources have been great. P2 is an amazing professor. Even though the course is online, it is obvious he is very passionate about this topic, and it shows through his writings (S1)*
>
> *I see leadership in a different light now. I want to take what I have learned and truly become a servant leader (S2).*

Students also expressed that they became more conscious and aware, striving to be moral and respectful of others, inclusive of others, and concerned about the development of their organizations or communities.

Overall question: Participants measured their success as servant leaders by their impact on their students, and whether those served became more wise, free, autonomous, and healthy (Greenleaf, 1991, p. 7). Everything in each course was geared toward individual growth. As teachers modeled servant leadership, they could see students naturally begin to move in that direction. The teachers reported that they could see and feel the changes in students as they progressed throughout the course, as well as an increased commitment to serving by using servant leadership principles.

Student feedback was indicative of Greenleaf's (1991) 'best test' being realized. In response to the question asking students how they had grown as a person as a result of the course or instructor, one student (S4) responded, "I have developed a different perspective not only when identifying with leadership and who I want to be as a leader, but also a different perspective on life and how I want to live in general."

Another student replied , "[This course] expanded my ideas of servant leadership and the complexity of the philosophy. [The instructor] is available and engaged in the online process" (S2). A third student appreciated the instructor's "Personal stories about his own experience and challenges with servant leadership, and feedback on posts and papers, especially in the form of questions" (S3). This student also replied "[I am] more mindful of how others perceive me, my role and what I can do to bring out the best in colleagues, friends and family" (S3). Student feedback provided ample evidence of Greenleaf's 'best test' being realized as a result of their experience in the course and with the professor.

Summary

This multiple-case study investigated how teachers who are familiar with servant leadership principles perceive servant leadership traits as able to transition to and have influence in the higher education online classroom. It also identified what online learning in this venue looks like when the teacher uses the servant leadership model. The presence or absence of mentoring in the servant-led online classroom was discussed and analyzed. Finally, the question was asked whether servant leadership is an effective pedagogical approach for higher education online learning.

Triangulation of interviews, along with analysis of course documents and discussion boards and announcements, confirmed that servant leadership principles are able to transition to and have influence in the higher education online classroom. This study described what servant leadership in the higher education online classroom looks like, and affirmed the presence of mentoring in this venue. Finally, the study concluded that servant leadership is an effective pedagogical approach for higher education online learning.

Participants indicated that the transference of servant leadership traits into the online classroom is predominantly accomplished by focusing on what one is, rather than on what one does, recognizing that servant leadership is a developmental and an ongoing process, requiring the teacher to have a presence in the online classroom. Servant teachers also conveyed an attitude of being available, with a goal to teach the whole person, and serve as a model for students. Finally, all the participants indicated that they believed that Greenleaf's 'best test', which examines the impact on those served, is the ultimate measure of servant leadership success.

Servant leadership in the online classroom in many ways resembles the best practices of face-to-face and online instruction. Specifically, it applied several andragogical principles, such as being learning-centered, valuing previous life experience, providing purposeful learning, acknowledging internal motivation of students, flowing learning to the interest of the students, and respecting the individual. Also evident was Greenleaf's principle of 'first among equals.' Servant teachers incorporated characteristics of servant leadership into the online classroom, including listening, empathy, healing, awareness, foresight, conceptualization, stewardship, persuasion, commitment to the growth of people, and community building. While these are often built right into the course topics, participants suggested that they can be incorporated into any course. Participants valued ongoing feedback to and from students, and employed a variety of traditional online teaching tools and methods to accomplish this. This included the usage of discussion boards, emails, assigning projects and papers, posting announcements, asking questions, and reviewing student evaluations.

This study also confirmed that professional level of mentoring can exist in the servant-led online classroom. This was most often accomplished through some form of feedback from instructors to students. Finally, servant leadership was found to be an effective pedagogical approach for higher education online learning, and could be transformational for both the student and teacher.

In answering Greenleaf's 'best test' it is imperative that everything in the course is geared toward individual growth. As the semester proceeds, teachers reported that they could see and feel the changes taking place in the students. Student feedback provided triangulation of this being realized.

The interviews also uncovered additional themes not related to the research questions. The first theme revolved around the belief that an online course should incorporate the different components necessary for optimal learning (experience, reflection, action, and integration) and aim to educate the whole person. Second, teachers in any discipline could be servant teachers by inculcating servant leadership into their personhood, as servant leadership transcends all topics and allows engagement at deeper levels. If an institution wants to move in a servant leadership direction, they need to provide extensive teaching and mentoring. The third theme that evolved was that the quality of the learning experience is not determined by whether the course is taught online or face-to-face. Each has its own benefits, but anything in a traditional class can be taught online, and likewise anything that can be taught online can be taught in a traditional class.

Discussion

Applying servant leadership to teaching has been the subject of a growing body of literature in recent decades. However, most of this research has been focused on the face-

to-face classroom (e.g., Bowman, 2005; Drury, 2005; Hays, 2008; Johnson & Vishwanath, 2011). An exception was van de Bunt-Kokhuis, who discussed servant leadership applied to the online classroom, especially in terms of building community (2012).

This multiple-case study examined the effects of servant leadership in online courses. Triangulation of interviews with instructors of online servant leadership courses and analysis of course artifacts identified that servant leadership principles are able to transition to and have influence in the higher education online classroom. This study described what servant leadership in this venue looks like, affirmed the presence of mentoring, and concluded that servant leadership is an effective pedagogical approach for higher education online learning. Transference of servant leadership into the online classroom is not only possible, but is a natural result of incorporating servant leadership into one's personhood. In addition, the online venue is conducive to the application of servant leadership characteristics, as it provides an opportunity for teacher and students to slow down and listen. The online classroom also levels the playing field, in that both introverts and extroverts are expected to participate and have a voice. As an instructor is concerned with characteristics such as growth, listening, and healing, it will change the way they interact with and influence others. This study corroborates the face-to-face literature about the application of servant leadership into the classroom and confirms its possible application to the online learning environment.

Triangulation from the interviews identified that the transference of servant leadership into the online classroom is predominantly accomplished by focusing on what one is, rather than on what one does, and this is a developmental and an ongoing process for both students and teachers. In addition, servant teachers recognized the need to serve as

models for students as they are developing towards servant leadership. These three themes align with what has previously been identified as ways in which servant leadership has influence in the face-to-face classroom (Bowman, 2005; Crippen, 2005; Drury, 2005; Hannay et al., 2010; Harris, 2004; Hays, 2008; Johnson & Vishwanath, 2011; Steele, 2010).

The literature described how servant leadership traits such as listening, empathy, healing, awareness, foresight, conceptualization, stewardship, persuasion, commitment to the growth of people, and community building are naturally incorporated in a servant teacher's face-to-face classroom (Bowman, 2005; Crippen, 2005; Drury, 2005; Hannay et al., 2010; Harris, 2004; Hays, 2008; Johnson & Vishwanath, 2011; Steele, 2010). This study revealed that servant teachers in the online classroom incorporated characteristics of servant leadership. While these are often built right into the course topics, they can also be incorporated into the framework of any course.

This study confirmed the necessity of teachers having a presence and being available in the online classroom. This correlates with previous research which emphasizes the importance of teaching presence in creating an online community and having a positive influence on student outcomes (Anderson et al., 2001; Shea & Bidjerano, 2010).

The online community of inquiry model (CoI) describes teaching presence as incorporating both course design and instructor behavior (Arbaugh, Cleveland-Innes, Diaz, Garrison, Ice, Richardship, & Swan, 2008). This study found that when servant leadership is present not only in the online instruction, but is inherent in the course from its very beginnings, its influence becomes part of the very foundation of the course, and it creates a more holistic, influential online learning experience for students. When an online course

incorporates the different components necessary for optimal learning (experience, reflection, action, and integration) the whole person is educated and develops.

Another important theme which emerged from the interviews was that teachers in any discipline can be servant teachers by inculcating servant leadership into their personhood, as servant leadership transcends all topics and allows engagement at deeper levels. It must be noted, however, that institutions which want to move in a servant leadership direction need to provide new instructors with extensive teaching and mentoring opportunities.

Strong evidence of best practices of effective teaching was found in these online servant leadership classrooms. This is likely a result of the similarities between best practices of teaching and servant leadership principles and characteristics. Both best practices of effective teachers and servant leadership principles overlap with principles of andragogy. All can be naturally applied into the online classroom.

Interviews and course documents revealed that servant teachers encourage purposeful learning. This concurs with Chickering & Gamson (1987) who suggest that effective teachers help students see relevance and purpose in learning, and andragogical learning theory suggests that adults seek learning which is purposeful and designed to meet a specific need (Knowles et al., 2012).

In addition, this study revealed that servant teachers convey an attitude of respect to their students. Best practices suggest that teachers treat students with respect and fairness (Bhada, 2002; Delaney et al., 2010; Murry et al., 1996). Respect is also inherent in an andragogical approach to learning (Knowles et al., 2012).

Some of the prevalent themes which emerged from triangulation with course artifacts and interviews correlate with best practices of effective teachers. Examples are:

- Listening was one of the topics most discussed in interviews and discussion boards; best practices suggest that effective teachers communicate well and are good listeners (Hannay et al., 2010; Ramsey & Fitzgibbons, 2005).

- Triangulation revealed that building community was a prevalent theme throughout courses taught by servant teachers; effective teachers are described as appreciating diverse ways of learning and working to develop a collaborative community (Chickering & Gamson, 1987).

- Commitment to the growth of others was evident throughout the study; effective teachers have been described as having high expectations and empowering students (Bhada, 2002; Chickering & Gamson, 1987; Delaney et al., 2010; Murry et al.,1996).

Triangulation revealed that servant teachers also applied the principles of being learning-centered, including the principle of 'first among equals,' valuing previous life experience, acknowledging internal motivation of students, and flowing learning to the interest of the students. Malcolm Knowles' andragogical learning theory assumes that adults move from being dependent toward being self-directed, that the learner has a great deal of experience when they enter the educational situation, and are motivated by internal factors such as self-esteem and self-actualization (Knowles et al., 2012; Merriam et al., 2007).

This study revealed that online servant teachers valued ongoing feedback to and from students, and employed a variety of traditional online teaching tools and methods to

accomplish this which included: the usage of discussion boards, emails, assigning projects and papers, posting announcements, asking questions, and reviewing student evaluations. In a similar way, one of the best practices of effective instructors has been described as providing prompt and clear feedback. This need is amplified in the online classroom (Bhada, 2002; Delaney et al., 2010; Murry et al.,1996) and is an important aspect of creating a teaching presence in the online classroom and strengthening an online community of inquiry (Arbaugh et al., 2008).

With respect to mentoring, triangulation of the interviews and course artifacts revealed that professional level of mentoring is occurring in the servant-led online classroom. Mentoring is described as one of the three most important jobs of a university, and mentoring in higher education has been linked to student success including increasing retention rates, timely degree completion, academic success, scholarly productivity, and subsequent career achievement (Campbell & Campbell, 1997; Christiansen & Eyring, 2011; Nakamura & Shernoff, 2009).

With the growth of online learning, it is vital that institutions mentor students in this realm, providing group and individual encouragement, guidance, and introspection (Christiansen & Eyring, 2011). Servant leadership applied to the online classroom can inform the field of e-mentoring, providing opportunities for students to connect with their instructor or a facilitator in this regard (Thompson et al., 2010). Mentoring in online learning can increase teaching presence in online courses.

Triangulation confirmed that everything in the servant leadership course was aimed towards satisfying Greenleaf's 'best test', which examines the impact on those served as the ultimate measure of servant leadership success. Interviews, document discussion board

analysis, and student feedback provided evidence of growth being realized, and Greenleaf's 'best test' being satisfied.

Servant leadership was found to be an effective pedagogical approach for higher education online learning, and could be transformational for both the student and teacher. Servant leadership themes prevalent in a servant teacher's online classroom are in line with best practices of online learning, and support principles of andragogy. In addition, servant leadership in the classroom results in a strong teaching presence, and hence an environment which provides an effective educational experience for students.

It has been suggested that educational institutions have a responsibility to create a strong foundation for moral literacy and caring learning communities (Goodlad, Mantle-Bromley & Goodlad, 2004). The findings in this study suggest that servant leadership applied in the online classroom may help to fulfill this mandate. As one instructor stated, "servant leadership isn't servant leadership unless it is moral leadership, unless you are at least striving for moral leadership" (P2). Servant leadership's reliance on Greenleaf's 'best test' as evidence of servant leadership taking place, as well as the focus on the ten characteristics examined in this study and described by Spears (1991) is supportive of 'moral literacy' and 'caring learning environments.'

Limitations

In order to obtain qualitative rigor, this study was approached from multiple angles, using multiple sources of information to analyze the data (Lincoln & Guba, 1985). However, no study involving humans is without limitations. The limitations of this study were that there may be inherent bias from participants who are familiar with the servant leadership model, as well as from the researcher, who had experience as an online graduate

student and as an online instructor. Additional limitations were that the students were all graduate students, so the results may not be applicable to undergraduate students. All instructors taught courses at the same private American university, so caution needs to be used before applying the results to other types of institutions.

Utilizing purposive sampling, this study required participants to be familiar with the servant leadership model. As a result, participants may have been more likely to emphasize the positive aspects of this model. Hence one of the threats to credibility is potential bias by teachers. As advocates of servant leadership, and knowing that it is the topic of this research, participants may either not have seen it from critical perspectives, may have given answers that would have purposefully shed a positive light on servant leadership, or may have provided answers they thought the interviewer wanted to hear. This threat to credibility was minimized by prolonged and persistent engagement of research, as recommended by Lincoln and Guba (1985). The researcher observed the class throughout the semester, and further accomplished triangulation by analyzing course documents, announcements, and discussion board postings.

In addition, the bias which the researcher brought to the research must be recognized. The researcher had experience as an online instructor, and as an online graduate student with a variety of teachers and teaching methods, which had the potential to affect the interpretation of the data and the dependability of the study. This was minimized by using reflection and triangulation to analyze the data.

Implications for Practice

The results of this study have implications for practice in online instruction. With the growth in online courses, and concern over the quality of higher education in general, an

increased emphasis on effective pedagogical approaches can positively influence higher education experiences and outcomes. The identification of servant leadership traits which are transferrable to the online venue can positively impact students and institutions in a variety of ways.

Servant leadership is a skills and values-based model, and by identifying effective ways of incorporating it into the pedagogy of the online classroom, this medium may become an effective method of influencing future servant leaders and having a large impact across geographic and cultural barriers. By identifying what enables teachers to apply principles of servant leadership to online learning, these techniques can be taught to other teachers in diverse disciplines as part of their initial training or ongoing professional development. This has the potential to then increase the effectiveness of online learning.

This study of servant leadership informs the online teaching field about how to increase teaching presence and to effectively apply andragogical principles into the higher education online classroom. Since a strong teaching presence is the foundation for creating a strong online community of inquiry, those seeking to expand online teaching should be especially cognizant of finding ways to increase instructor effectiveness in this regard. In addition, since research indicates that mentoring increases one's overall success in life, and mentoring is inherent to the servant leadership approach, implementing the servant leadership model in online learning can enhance the instructor's effectiveness and the student's success.

Suggestions for future research

Examining the influence of servant leadership teacher training on teachers in non-servant leadership courses in all fields may be beneficial in informing online learning. It

may also be helpful to approach this as a longitudinal study, and measure the long-term effectiveness of servant leadership training on instructors.

In addition, it may be beneficial to measure the long-term influence of being taught using a servant leadership model on students. What would be the result if students were initially given an introductory course on servant leadership, and then continued their education in all subjects with courses which were developed using a servant leadership foundation, and instructors who were trained in servant teaching? How would their education and servant leadership abilities compare to students who are educated with more traditional models?

References

Abel, R. (2005). *Achieving success in internet-supported learning in higher education: case studies illuminate success factors, challenges, and future directions*. February, 2005. Lake Mary, FL: The Alliance for Higher Education Competitiveness, retrieved from http://www.a-hec.org/research/study%5Freports/IsL0205/TOC.html

Allan, I. E., & Seaman, J. (2013). *Changing course: Ten years of tracking online education in the United States.* Babson Survey Research Group. Retrieved from http://files.eric.ed.gov/fulltext/ED541571.pdf

American Psychological Association. (2010). *Ethical standards of psychologists*. Washington, D.C.

Anderson, T., Rourke, L., Garrison, D.R., & Archer, W. (2001). Assessing teaching presence in a computer conference environment. *Journal of Asynchronous Learning Networks, 5*(2), 1-17.

Arbaugh, J. B., Cleveland-Innes, M., Diaz, S., Garrison, D. R. Ice, P., Richardson, J. C., & Swan, K. P. (2008). Developing a community of inquiry instrument: Testing a measure of the Community of Inquiry framework using a multi-institutional sample. *Internet and Higher Education, 11*, 133-136.

Beebe, J. (2001). *Rapid assessment process: An introduction.* Walnut Creek, CA: AltaMira

Berg, G. A. (2013). Distance learning. In *Encyclopedia Brittanica*. Retrieved from http://www.britannica.com/EBchecked/topic/1482174/distance-learning.

Bhada, Y. K. (2002, Nov/Dec.) Top of the class. *BizEd*. 22-27.

Boettcher, J. V., & Conrad, R. M. (2010). *The online teaching survival guide: Simple & practical pedagogical tips.* San Francisco, CA: Jossey-Bass.

Bowman, R. F. (2005). Teacher as servant leader. *The Clearing House*, *78*(6), 257-259.

Campbell, T., & Campbell, D. (1997). Faculty/student mentoring program: Effects on academic performance and retention. *Research in Higher Education, 38*(6), 727-742.

Chickering, A. W., & Gamson, Z. F. (1987). Seven principles of good practice in undergraduate education. *AAHE Bulletin, 39*(7), 3-7.

Christiansen, C. M., & Eyring, H. J. (2011). *The innovative university: Changing the DNA of higher education.* San Francisco: Jossey-Bass.

Cohen, A. M., & Kisker, C. B. (2010). *The shaping of American higher education: Emergence and growth of the contemporary system* (2nd ed.). San Francisco, CA: Jossey-Bass.

Crippen, C. (2010). Serve, teach, and lead: It's all about relationships. *Insight: A Journal of Scholarly Teaching*, *5,* 27-36.

Delaney J, Johnson A, Johnson T, & Treslan D. (2010). Students' perceptions of effective teaching in higher education. *26th Annual Conference on Distance Teaching & Learning*. Retrieved from http://www.uwex.edu/disted/conference/Resource_library/handouts/28251_10H.pdf

Drury, S. (2005, August). Teacher as servant leader: A faculty model for effectiveness with students. In *Servant Leadership Research Roundtable*. Symposium conducted at School of Leadership Studies, Regent University. Retrieved from http://www.drurywriting.com/sharon/drury_teacher_servant.pdf

DuBois, D. L., Holloway, B. E., Valentine, J. C., & Cooper, H. (2002). Effectiveness of
mentoring programs for youth: A meta-analytic review. *American Journal of
Community Psychology, 30*(2), 157-197.

Focht, A. (2011). *Identifying primary characteristics of servant leadership: A Delphi study.*
Regent University.

Frick, D. M. (2004). *Robert K. Greenleaf: A life of servant leadership*. San Francisco, CA:
Berrett-Koehler.

Galbraith, M. W. (2002-2003). The adult education professor as mentor: A means to
enhance teaching and learning. *Perspectives: The New York Journal of Adult
Learning; 1*(1), 9-20.

Garrison, D. R. (2007). Online community of inquiry review: social, cognitive, and teaching
presence issues. Journal of Asynchronous Learning Networks, 11(1), 61–72.

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based
environment: Computer conferencing in higher education. *The Internet and Higher
Education, 2*(2-3), 87-105.

Garrison, D. R., & Cleveland-Innes, M. (2005). Facilitating cognitive presence in online
learning interaction is not enough. *The American Journal of Distance Education,
19*(3), 133-148.

Goodlad, J. I., Mantle-Bromley, C., & Goodlad, S. J. (2004). *Education for everyone:
Agenda for education in a democracy*. Jossey-Bass, San Francisco, CA.

Gorsky, P., & Blau I. (2009, June). Online teaching effectiveness: A tale of two instructors.
The International Review of Research in Open and Distance Learning, 10(3).

Greenleaf, R. K. (1977). *A journey into the nature of legitimate power & greatness.* NJ: Paulist Press.

Greenleaf, R. K. (1979). *Teacher as servant: A parable*. NJ: Paulist Press.

Greenleaf, R. K. (1991). *The servant as leader*. Indianapolis, IN: The Robert K. Greenleaf Center.

Hannay, M., Kitahara, R., & Fretwell, C. (2010, March). Student-focused strategies for the modern classroom. *Journal of Instructional Pedagogies, 2,* 1-16.

Harris, B. A. (2004) *Learning to serve: How Robert K. Greenleaf's theory of servant leadership can be applied by the adult educator with learners*. Unpublished manuscript, School of Professional Studies, Fresno Pacific University.

Hays, J. M. (2008, Winter). Teacher as servant: Application of Greenleaf's servant leadership in higher education. *Journal of Global Business Issues, 2*(1), 113-134.

Hesse, H. (1956). *The journey to the east*. New York, NY: Farrar, Straus, and Giroux.

Hill, C. (Ed.). (2011). 10 Principles of effective online teaching: Best practices in distance education. *Faculty Focus.* Retrieved from www.facultyfocus.com.

Horsman, J. (2012). *Syllabus for ORGL 530: Servant leadership*. Gonzaga University.

Johnson, A. C., & Vishwanath, K. R. (2011). Servant professorship and its implications. *International Journal of Education Research, 6*(1), 135-146.

Joseph, E. E., & Winston, B. E. (2005). A correlation of servant leadership, leader trust, and organizational trust. *Leadership & Organizational Development Journal, 26*(1), 6-22.

Kerr, C. (2001). *The uses of the university* (5th ed.). Cambridge, MA: Harvard University Press.

Knowles, M. S., Holton, E. F., & Swanson, R. A. (2012). *The adult learner: The definitive classic in adult education and human resource development* (7th ed.). New York, NY: Routledge.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry.* Beverly Hills, CA: Sage.

Marshall, C., & Rossman, G. B. (2011). *Designing qualitative research* (5th ed.). Thousand Oaks, CA: Sage.

McClellan, J. L. (2007). The advisor as servant: The theoretical and philosophical relevance of servant leadership to academic advising. *NACADA Journal*, *27*(2), 41-49.

McCollum, J. (1995). Chaos, complexity, and servant leadership. In Spears, L. (Ed.). *Reflections on leadership: How Robert K. Greenleaf's theory of servant leadership influenced today's top management thinkers.* USA: John Wiley & Sons.

Merriam, S. B. (2002). *Qualitative research in practice: Examples for discussion and analysis.* San Francisco, CA: Jossey-Bass.

Merriam, S. B., Caffarella, R. S., & Baumgartner, L. M. (2007). *Learning in adulthood: A comprehensive guide* (3rd ed.). San Francisco, CA: Jossey-Bass.

Murry, H., Gillese, E., Lennon, M., Mercer, P. & Robinson, M. (1996). Ethical principles in university teaching. *Society for Teaching and Learning in Higher Education*.

Nakamura, J., & Shernoff, D. J. (2009). *Good mentoring: Fostering excellent practice in higher education.* San Francisco, CA: Wiley & Sons.

Nichols, J. D. (2011). *Teachers as servant leaders*. Lanham: Rowman & Littlefield.

Patterson, K. A. (2003). *Servant leadership: A theoretical model.*. Servant Leadership Roundtable, Virginia Beach, VA, Regent University, October.

Poon, R. (2006). *A model for servant leadership, self-efficacy and mentorship*. Paper presented at the Servant Leadership Regent Roundtable, Regent University.

Ramsey, V. J. & Fitzgibbons, D. E. (2005). Being in the classroom. *Journal of Management Education, 29,* 333-356.

Rhodes, J. E., & DuBois, D. L. (2008). Mentoring relationships and programs for youth. *Current directions in psychological science, 17*(4), 254-258.

Rieser, C. (1995). Claiming servant leadership as your heritage. In Spears, L. (Ed.). *Reflections on leadership: How Robert K. Greenleaf's theory of servant leadership influenced today's top management thinkers.* USA: John Wiley & Sons.

Rourke, L., Anderson, T., Garrison, D.R., & Archer, W. (2001). Assessing social presence in asynchronous, text-based computer conferencing. *Journal of Distance Education, 14*(3), 51-70.

Sarayrah, Y. (2004). Servant leadership in the Bedouin-Arab culture. *Global Virtue Ethics Review, 5*(3), 58-79.

Sendjaya, S., & Sarros, J. C. (2002). Servant leadership: Its origin, development, and application in organizations. *Journal of Leadership & Organization Studies, 9*(2), 57-64.

Sendjaya, S., Sarros, J. C., & Santora, J. C. (2008). Defining and measuring servant leadership behavior in organizations. *Journal of Management Studies, 45*(2), 402-424.

Shea, P., & Bidjerano, T. (2010). Learning presence: Towards a theory of self-efficacy, self-regulation, and the development of a communities of inquiry in online and blended learning environments. *Computers & Education, 55*(4), 1721-1731.

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information, 22,* 63-75.

Silverman, D. (2005). *Doing qualitative research: A practical handbook.* Thousand Oaks, CA: Sage.

Stake, R. E. (2006). *Multiple case study analysis.* New York, NY: The Guilford Press.

Stake, R. E. (2010). *Qualitative research: Studying how things work.* New York, NY: The Guilford Press.

Steele, N. A. (2010). Three characteristics of effective teachers. *Update: Applications of research in music education, 28*(2), 71-78.

Stringer, E. T. (2007). *Action research* (3rd ed.)*.* Thousand Oaks, CA: Sage.

Swan, K., & Shih, L. F. (2005). On the nature and development of social presence in online course discussions. *Journal of Asynchronous Learning Networks, 9*(3), 115-136.

Thompson, L., Jeffries, M., & Topping, K. (2010). E-mentoring for e-learning development. *Innovations in Education and Teaching International, 47*(3), 305-315.

Van de Bunt-Kokhuis, S. (2012). Servant leadership: The online way! E-learning where community building is key. *European Journal of Open, Distance and E-Learning, 12*(1).

Wallace, J. R. (2006, August). *Servant leadership: A worldview perspective*. Paper presented at Servant Leadership Research Roundtable, Regent University.

Woolman, J., & Whitney, J. (1950). *The journal of John Woolman*. Chicago, IL: Henry Regnery Company.

Wu, D., & Hiltz, S. R. (2004). Predicting learning from asynchronous online discussions. *Journal of Asynchronous Learning Networks, 8*(2), 139-152.

Yin, R. (2009). *Case study research: Design and methods*. Thousand Oaks, CA: Sage.

CHAPTER 4: TEACHER SELF-EFFICACY, SERVANT LEADERSHIP, AND
COMMUNITIES OF INQUIRY

Abstract

This quantitative study investigated the relationship between servant leadership training and instructor self-efficacy, with respect to teaching presence, cognitive presence and social presence (as measured by the CoI) in higher education online learning. Participants were instructors and students in graduate-level online servant leadership courses from a private university, and instructors and students in graduate-level online courses from a land-grant university in the United States which did not identify as using the servant leadership model. This study utilized the Online Instructor Self-efficacy Survey, Servant Teacher Inventory, and Community of Inquiry (CoI) assessments.

   While students perceived servant leadership trained teachers as being significantly better at listening and persuasion than non-servant leadership teachers, no significance was found for the other servant leadership traits investigated. However, the effect size was large and the qualitative data revealed a difference of perspective. No significant difference was found in the CoI, but here again the qualitative data identified a difference of perspective amongst the students.

Significance was found between servant leadership teachers and control teachers on the Servant Teacher self-assessment in terms of awareness, and the effect size was large for all traits. Higher technology self-efficacy scores were correlated with lower servant leadership scores, and higher scores in pedagogical self-efficacy were correlated with higher scores in servant leadership. No significant difference was found in level of

perceived personal growth of students, but open-ended responses again revealed differences.

Keywords: higher education, online learning, self-efficacy, student satisfaction, students, technology

Introduction

Online learning has grown tremendously in recent years, and continues to do so at an accelerated rate. A recent study concluded that close to 70% of higher education institutions view online learning as critical to their long-term strategy (Allan & Seaman, 2013). In 2012 over seven million, or almost one third, of all higher education students took at least one online course (Allan & Seaman, 2013).

In spite of the fact that online learning is taking an increasingly significant role in the higher education landscape, there are a wide range of perceptions, both on the part of students and faculty, about the effectiveness and quality of online education. Many critics question the quality of online instruction when compared to the traditional face-to-face classroom (Allan & Seaman, 2013). A study of more than 2800 colleges and universities in the United States found that while 77% of academic leaders rated learning outcomes for online education "as good as or better" than courses taught in a face-to-face classroom, 23% believed that they are inferior. In the same study, over two-thirds of the institutions reported that their faculty did not accept the value and legitimacy of online learning (Allan & Seaman, 2013). In addition, studies have found that students often perceive asynchronous online formats to be inferior to either face-to-face or blended learning

formats in terms of instructional quality (Taylor & Huang, 2010; Ward, Peters, & Shelley, 2010).

Not all institutions which have attempted to enter the world of online learning have been successful in developing their programs. The degree of success institutions experience is measured by several factors, including student outcomes, student satisfaction, growth of enrollment, and faculty satisfaction. It has been found that the degree of success is correlated with the institution's efforts at supporting students and faculty, and constantly working to improve their online programs (Abel, 2005). It is imperative then, given the growth of online learning, that there should be increased emphasis on influencing the online learning experiences in a positive way.

Improving teaching effectiveness as it relates to online learning has been one focus of educational research in the recent decade (Gorsky & Blau, 2009). One perspective which may inform online teaching, specifically in terms of creating a strong teaching presence, is the servant leadership model. Much has been written about servant leadership as it applies to education, and studies have shown that when servant leadership is applied in the classroom the result is more effective student-centered education (Drury, 2005; Hannay, Kitahara, & Fretwell, 2010).

Many characteristics of effective face-to-face teachers have parallels in Greenleaf's servant leadership model. However, little research has been published on the potential for servant leadership to influence the higher education online learning experience. Recognizing, teaching, and applying servant leadership principles and methods in the online classroom have the potential to increase the quality of online learning in higher

education. This quantitative study examined the effects on students when taught by an instructor who is familiar with servant leadership principles.

Significance of the Study

With the growth of online learning, and the concern over the quality of both face-to-face and online learning in higher education, there is an increased emphasis on influencing online experiences in a positive way. As higher education institutions work to grow their online programs, and create strong Communities of Inquiry, teaching presence is one area over which they have significant influence. Servant leadership is a values and skills-based model. If servant leadership is found to be correlated with strong Communities of Inquiry and high self-efficacy, the servant teacher model may inform higher education institutions how to improve their online instruction and increase subsequent student satisfaction and learning.

Research Questions

1. Do students perceive their teachers who are familiar with servant leadership principles as being servant teachers, as measured by Servant Leader Inventory?

2. What is the effect of servant leadership in the higher education online classroom on student perceptions of teaching presence, cognitive presence, and social presence, as measured by the CoI?

3. Is there a relationship between self-efficacy in online teaching in higher education with respect to servant leadership and CoI?

4. Is there a difference in the level of perceived personal growth between students who are taught using a servant leadership model and those who are not?

Definition of Terms

Online learning: A form of education in which the main elements include physical separation of teachers and students during instruction and the use of various technologies to facilitate student-teacher and student-student communication (adapted from Berg, 2013).

Virtual classroom: Describes the mode of computer-based education whereby the teacher interacts with students via technology, but NOT in physical proximity.

Traditional classroom: A face-to-face educational experience where one or more students and a teacher interact in the same physical environment.

Servant leader: The servant leader has the natural feeling that one wants to serve first, as opposed to lead first. The servant leader puts others' needs first. The best test of successful servant leadership is, "Do those served grow as persons? Do they, while being served, become healthier, wiser, freer, more autonomous, more likely themselves to become servants?" (Greenleaf, 1991, p. 7).

Servant teacher: A teacher who employs the characteristics of a servant leader in their teaching.

Significance of the Study

The results of this study have implications for practice in online learning. With the growth of online learning and the concern over the quality of higher education (both face-to-face and online), there is an increased emphasis on influencing online experiences in a positive way. The results of this study have implications in terms of improving teaching presence in the online classroom. As higher education institutions work to grow their online programs, and create strong Communities of Inquiry, teaching presence is one area over which they have significant influence. Servant leadership is a values and skills-based

model. Given the significance which was found, the effect sizes, and the open-ended responses, even with such a small sample size, suggest that the servant teacher model may have insights which can aid higher education institutions in improving their online instruction in a positive way,

Literature Review

"The more people you undertake to serve, the more effective you will be.

Commit to serving everyone and become maximally effective."

(Fred Gratzon, author)

This literature review discusses best practices in both face-to-face and online teaching, and introduces the Community of Inquiry (CoI) model. It describes TPACK, self-efficacy, and andragogy. Finally, servant leadership in terms of its history and background and how it has been shown to relate to teaching is discussed.

Best Practices in Teaching

Best practices in teaching are those which increase student achievement and satisfaction (Gorsky & Blau, 2009). Good teachers, in both the face-to-face and online classrooms are described as follows:

- enthusiastic, engaging, humorous, approachable, and encouraging (Bhada, 2002; Delaney et al., 2010; Hannay et al., 2010; Ramsey & Fitzgibbons, 2005);

- competent, knowledgeable, organized, and prepared (Bhada, 2002; Delaney et al., 2010; Murry, Gillese, Lennon, Mercer, & Robinson, 1996);

- honest, trustworthy, and appreciative (Hannay et al., 2010; Ramsey & Fitzgibbons, 2005);

- treat students with respect and fairness, and provide prompt and clear feedback (Bhada, 2002; Delaney et al., 2010; Murry et al.,1996);

- communicate well and are good listeners (Hannay et al., 2010; Ramsey & Fitzgibbons, 2005);

- help students see relevance and purpose in learning (Chickering & Gamson, 1987);

- appreciate diverse ways of learning and work to develop a collaborative community of learners (Chickering & Gamson, 1987);

- have high expectations and empower students (Bhada, 2002; Chickering & Gamson, 1987; Delaney et al., 2010; Murry et al.,1996).

Although the characteristics of effective teachers in online teaching are similar to those in face-to-face teaching, the online classroom requires a different set of skills than face-to-face learning, and requires teachers to move beyond traditional pedagogy to adopt new practices.

Community of Inquiry (CoI). Best practices of online learning are most often described in terms of creating a Community of Inquiry (CoI) which is described in terms of teaching presence, social presence, and cognitive presence (Garrison et al., 2000). The CoI describes the online classroom as communities of learners where both reflection and discussion are used to build personally meaningful and socially valid knowledge (Garrison & Anderson, 2007). Figure 4.1 depicts the Community of Inquiry model, which describes the relationship of teaching presence, social presence, and cognitive presence in the online classroom.

Figure 4.1. Community of Inquiry Model

From "Critical inquiry in a text-based environment: Computer conferencing in higher education," by D. R. Garrison, T. Anderson, and W. Archer, 2000, *The Internet and Higher Education*, *2*(2-3), p. 87-105.

In this model, the three elements influence and are influenced by each other. Social presence is the ability to project oneself socially and emotionally online (Swan, Garrison, & Richardson, 2009). Cognitive presence is the extent to which one is able to build and confirm meaning through reflection and discourse (Swan et al., 2009). Both cognitive and social presence work together to develop a learning community. Teaching presence gives direction to the educational experience as instructors help students achieve their academic goals (Garrison & Anderson, 2007). Through the interplay of these three elements, meaningful learning and interaction can be created in online learning environments.

A fourth element has recently been proposed—learner presence. This is described as the forethought and planning, monitoring, learning strategy, and reflection which students use in online learning (Shea & Bidjerano, 2010). In this model, learner presence and social presence influence and are influenced by teaching presence. Learner presence and social presence then influence cognitive presence. Regardless of which model is used, it is clear

that teaching presence in the online classroom has a significant impact on the learning experience of students.

As mentioned earlier, instructors who are able to establish a strong teaching presence have characteristics similar to those recognized as best practices in teaching. However, in the online classroom the importance of some of these traits is magnified. These include providing timely feedback, creating community, setting clear expectations, focusing discussion, helping students avoid misconceptions, encouraging collaboration, and confirming understanding ((Boettcher & Conrad, 2010; Garrison et al., 2000; Gorsky & Blau, 2009; Hill, 2011).

Because a strong CoI is aligned with effective online learning and positive student outcomes, institutions have an interest in measuring success in this area. The CoI Instrument was developed as a tool to gauging the perceived impact of online instructors with respect to developing cognitive presence, social presence, and teaching presence, from the point of view of the student (Gorsky & Blau, 2009). This instrument has been found to be valid and reliable in operationalizing the CoI framework, especially in terms of cognitive and social presence, and it supports the notion of teaching presence being divided into instructor behavior and course design (Arbaugh, Cleveland-Innes, Diaz, Garrison, Ice, Richardship, & Swan, 2008).

Instructor effectiveness. A conceptualization of the knowledge base teachers should have to effectively teach using technology has been described in terms of Technological, Pedagogical, and Content Knowledge or TPACK (Koehler & Mishra, 2005; Schmidt, Baran, Thompson, Mishra, Koehler, & Shin, 2009). This framework describes technological knowledge as knowledge about various technologies used in online learning.

Pedagogical knowledge refers to knowledge about methods and processes of online instruction. Finally, content knowledge describes knowledge about course subject matter (Schmidt et al., 2009).

These same areas of technology, pedagogy, and subject matter have been found to have implications in terms of instructor self-efficacy. Self-efficacy describes a person's beliefs about his or her ability to succeed in a particular situation, and predicts their willingness to engage in a particular behavior (Bandura, 1997).

Research has found that a teacher's self-efficacy in terms of these three areas has an impact in the classroom (Hung & Blomeyer, 2012; Tschannen-Moran & Woolfolk-Hoy, 2001; Wright, 2010). Self-efficacy influences teachers' instructional behavior, persistence, enthusiasm, and commitment, and impacts outcomes in student learning, such as test scores, motivation, retention, and achievement (Goddard, Hoy, & Hoy, 2000; Henson, 2001; Tschannen-Moran & Woolfolk-Hoy, 2001).

Because self-efficacy is context-specific, self-efficacy may be high in one area and low in another. Therefore, a teacher who has high self-efficacy in a traditional classroom may have low self-efficacy in terms of teaching an online class of the same subject (Goddard et al., 2000). Therefore it is helpful to measure self-efficacy in terms of specific domains (Bandura, 2005). An Online Instructor Self-efficacy Survey (OISS) was created to measure self-efficacy of online instructors in the three realms of technology, pedagogy, and subject matter (Carter, Hochstrasser, Huber, & Yadon, 2014).

Servant Leadership

While 'best practices,' the CoI, TPACK, and self-efficacy all describe characteristics and provide measurements of effectiveness for online instructors, servant leadership may

prove valuable in terms of informing institutions which are looking for ways to improve online teaching in foundational and effective ways.

Although the concept of servant leadership goes back thousands of years, its introduction into business and educational theory and literature is quite recent. Robert K. Greenleaf introduced the term 'servant leadership' in a series of essays which he wrote throughout the 1970s (Greenleaf, 1991). While his career was spent in business, his essays outline a servant leader approach to managing institutions of all types, including educational, religious, and business.

Greenleaf (1991) described a servant leader as one who is servant first, as opposed to leader first, and puts others' needs as their highest priority. Only after one has the desire to serve, does one aspire to lead. In contrast, a leader-first approach is often driven by desire for wealth or power. Greenleaf concluded that true leadership appears only when one is motivated by a true desire to help others, and servant leaders lead those they serve toward self-actualization (Hannay et al., 2010). According to Greenleaf, "the difference manifests itself in the care taken by the servant-first to make sure that other people's highest priority needs are being served. 'The best test...[is]: Do those served grow as persons? Do they, while being served, become healthier, wiser, freer, more autonomous, more likely themselves to become servants?'" (Greenleaf, 1991, p. 7).

Servant Leadership in Education

It has been suggested that it would be helpful for educational institutions to create moral literacy and caring learning communities. (Goodlad, Mantle-Bromley, & Goodlad, 2004). The values, beliefs, and behaviors of the servant leader are consistent with both this mandate and with the learner-centered approach to education (Crippen, 2010). Greenleaf's

characteristics of servant leaders have been translated into the educational setting, and the concept of teachers as servant leaders has been the subject of a growing body of literature (eg. Bowman, 2005; Crippen, 2010; Drury, 2005; Harris, 2004; Hays, 2008; Nichols, 2011).

Most of the research about servant leadership in teaching have been limited to the traditional face-to-face classroom setting. An exception is van de Bunt-Kokhuis (2012) who describes servant leadership to the online environment. Spears (1995) summarized Greenleaf's servant leadership characteristics into ten main traits of servant leaders, namely: listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of people, and building community. Applications of these ten characteristics of servant leadership to the classroom are described in the literature as follows:

Listening. Servant teachers are great communicators and good listeners, both to themselves (through an inner voice) and to their students (Crippen, 2010; Hannay et al., 2010; Harris, 2004). Listening allows teachers to lead by being led (Bowman, 2005). They are able to help students develop and evolve as they gain insight into group dynamics through classroom activities which promote careful listening and reflection (Crippen, 2010; Harris, 2004). Listening is even more important in the online classroom in order to bring high-touch into the high-tech environment (van de Bunt-Kokhuis, 2012).

Empathy: Servant teachers develop positive relationships with students as they show compassion and empathy. While teachers accept students for who they are, they also expect more from them in terms of what they are capable of (Crippen, 2010; Greenleaf, 1991). Servant teachers strive to make material relevant and meaningful to students

(Hannay et al., 2010).When teachers form relationships based on trust, and downplay positional authority, synergy and transformational learning occur (Bowman, 2005; Crippen, 2010; Greenleaf, 1991; Harris, 2004; Hays, 2008; Steele, 2010). In addition, empathic teachers appreciate diversity of ideas (Hays, 2008; Steele, 2010), and show understanding of how attitudes, expectations, and behavior norms vary across cultures (van de Bunt-Kokhuis, 2012).

Healing. Servant teachers are sensitive to students who may be experiencing emotional pain, and strive to create a happy, positive environment where students have a voice and feel welcomed and valued (Crippen, 2010; Hays, 2008). They strive to remove obstacles that stand in students' paths, and give them the tools to heal and move on, unlocking their potential for transformation, self-reliance, and health (Bowman, 2005; Hays, 2008; Greenleaf, 1991; Harris, 2004; Johnson & Vishwanath, 2011; Steele, 2010).

Awareness. Servant teachers strive to be fully engaged in the moment and liberated from self-centered constraints (Hays, 2008). They are aware of what is going on inside themselves, others, and their environment (Crippen, 2010; Hays, 2008). Moreover, servant teachers strive to continually learn and improve through reasoning, reflection, and transformation (Hannay et al., 2010; Hays, 2008; Johnson & Vishwanath, 2011). In addition, they adapt to the needs of students, and seek feedback from students, mentors, and others to examine their own strengths and areas for improvement (Crippen, 2010; Hannay et al., 2010).

Persuasion: Servant teachers are concerned about doing the right thing for the greater good (Hays, 2008). They seek win-win solutions, are credible and honest, model servant leadership behaviors in their classrooms, and demonstrate academic

professionalism, reliability, consistency, and a solid emotional character (Crippen, 2010; Harris, 2004; Steele, 2010). They strive to understand each student's values, attitudes, and beliefs so they can use effective techniques to facilitate student growth (Harris, 2004). Servant teachers talk about what matters and why in an effort to offer, invite, and encourage students to move toward win-win approaches (Hays, 2008). Through the sharing of power in the classroom, everyone has a voice, and consensus-building and persuasion are possible (Crippen, 2010). Servant teachers, both face-to-face and online, share real life stories which inform, entertain, and inspire as a tool of persuasion (Crippen, 2010; Hays, 2008; van de Bunt-Kokhuis, 2012).

Conceptualization: Servant teachers see the big picture. From this they conceptualize the components of that big picture—the lesson, the day, the week, etc., and develop both long- and short-term goals (Crippen, 2010). They seize daily opportunities to make small differences in the lives of their students, while nurturing the students' ability to dream great dreams (Bowman, 2005; Crippen, 2010; Johnson & Vishwanath, 2011). Using a systems framework, servant teachers recognize the importance of each part and its relative significance to the overall system (Crippen, 2010). They help students see the complexity of their issues and look for the best, and not necessarily the easiest, solution (Hays, 2008).

Foresight: Foresight is more developed in experienced teachers, since it evolves with time in the field (Crippen, 2010). Servant teachers understand fully where they are, how they got there and why, and see options for the future (Crippen, 2010). Servant teachers work to develop a commitment to accomplishing a shared vision with their students (Hays, 2008). Drawing talent and potential out of their students, and helping them

see a connection between classroom learning and real-life application is a focus of servant teachers (Bowman, 2005; Hannay et al., 2010; Johnson & Vishwanath, 2011).

Stewardship: Accountability to the school and a recognition that every investment in a student is an investment for the common good, is important to servant teachers (van de Bunt-Kokhuis, 2012). They work for the common good of all students, regardless of the diverse needs in the classroom (Crippen, 2010; Harris, 2004), and thus focus on long-term results and sustainability, rather than short-term convenience (Hays, 2008). Servant teachers focus on the student by using learning-centered approaches, and thus provide ongoing support, and protect the rights, property, and welfare of students (Hannay et al., 2010; Hays, 2008; Steele, 2010). By emphasizing teamwork, servant teachers strive to channel the excitement, energy, and talents of students for the common good of the class (Bowman, 2005; Hays, 2008; Steele, 2010).

Commitment to the growth of people: Servant teachers focus on several areas of growth in students—professional, personal, academic, social, and spiritual (Crippen, 2010; Harris, 2004). They do everything possible to nurture the servant leader potential in each student (Crippen, 2010; Greenleaf, 1991; Steele, 2010). Servant teachers act as a role model, and provide the motivation others may need to grow (Crippen, 2010; Harris, 2004; Hays, 2008).

Commitment to growth results in teachers who are also motivated to change and learn, and thus seek ongoing feedback from others as they strive to increase their own effectiveness (Crippen, 2010; Hannay et al., 2010; Hays, 2008). Servant teachers ask what is best for their students before considering their personal needs and desires (Bowman, 2005; Hays, 2008; Steele, 2010). Setting high standards for all, and giving students what

they need (not necessarily what they want) empowers students (Bowman, 2005; Johnson & Vishwanath, 2011; Steele, 2010). As a result, obstacles that impede development are removed, and students' talents, passions, and interests are discovered and unleashed (Bowman, 2005; Johnson & Vishwanath, 2011; Steele, 2010). Servant teachers provide renewed hope and motivation when they proactively recognize accomplishments, and offer words of encouragement (Greenleaf, 1991; Harris, 2004).

Building community: People learn best in an engaged community, when everyone is both student and teacher, apprentice and expert, and where power is shared (Bowman, 2005; Crippen, 2010; Harris, 2004; Hays, 2008). All students should feel wanted, valuable, capable, and responsible (Crippen, 2010; Harris, 2005). Intentionally building community within the classroom is a goal of servant teachers. In these classrooms, students experience connection with peers, are energized and united teams, and share loyalty and mutual support (Bowman, 2005; Harris, 2004; Steele, 2011). This is accomplished by building virtual teams, sharing information with equal access, and striving for inclusion. An additional challenge in online learning is engaging students with divergent talents and cultures (van de Bunt-Kokhuis, 2012).

Summary of Literature Review

Best practices in online learning are similar to best practices in the face-to-face classroom. However, the way these are applied are different and require unique pedagogical approaches. This literature review examined the components of an effective CoI and how teaching presence may be influenced by improving technological, pedagogical, and content self-efficacy. Servant leadership was discussed in terms of its background and application to the classroom.

Research Methods

The purpose of this quasi-experimental quantitative study was to examine the relationship between servant leadership, CoI, and technological, pedagogical, and subject matter self-efficacy. Specifically, it examined the influence of an instructor who is familiar with servant leadership principles on students with respect to teacher presence, cognitive presence, and social presence, as measured by the CoI (Arbaugh et al., 2008). In addition, it explored the relationship between self-efficacy, as measured by OISS, in online teaching in higher education with respect to servant leadership and CoI, as measured by Servant Teacher Inventory and CoI (Swan et al., 2008; Carter et al., 2014; Hays, 2008). Finally, it investigated whether there was difference in the level of perceived personal growth between students who were taught using a servant leadership model and those who were not.

This study examined graduate-level servant leadership classes at a private university in the United States which used servant leadership principles, along with a land-grant university which did not identify as using the servant leadership model. The private university was selected because they have taught and practiced servant leadership principles for many years in the traditional face-to-face classroom. In recent years, they have taught these principles in the online environment as well. The land grant university was selected because it was in close proximity to the private institution and had a similar student population.

Methodology

Students in graduate-level servant leadership courses and non-servant leadership courses were administered the CoI (Swan et al., 2008). See Appendix F for complete

instrument. Students and instructors completed the Servant Teaching Inventory (Hays, 2008). See Appendix G for complete instrument. Instructors also completed the OISS (Carter et al., 2014). See Appendix B for complete OISS instrument. Qualtrics survey software was used to distribute surveys and for data collection.

Ethical Considerations

The protection of participants was a primary concern. This study was conducted in accordance with the Institutional Review Boards at both institutions. See Appendix D for IRB approval letter. Each perspective participant was provided with a consent form and assured that their participation was voluntary, and that results would remain confidential. Participants also had opportunity to contact the researcher to ask questions. This study complied with all APA ethical standards in the treatment of participants (APA, 2010, p. 5-7).

Research Questions

R_1: Do students perceive their teachers who are familiar with servant leadership principles as being servant teachers (as measured by the Servant Teacher Inventory)?

H_1: There is a relationship between students' perception that they are led by servant teachers, and teachers who are familiar with servant leadership principles.

H_{01}: There is no relationship between students' perception that they are led by servant teachers, and teachers who are familiar with servant leadership principles.

R_2: What is the effect of servant leadership in the higher education online classroom on student perceptions of teaching presence, cognitive presence, and social presence (as measured by the CoI)?

H_2: There is a significant relationship between servant leadership teaching in the online classroom and teaching presence, social presence, and cognitive presence (as measured by the CoI).

H_{02}: There is no relationship between servant leadership teaching in the online classroom and teaching presence, social presence, and cognitive presence, as measured by the CoI.

R_3: Is there a relationship between self-efficacy in online teaching in higher education with respect to teacher servant leadership and CoI?

H_3: There is a relationship between self-efficacy in online teaching in higher education with respect to teacher servant leadership.

H_{03}: There is no relationship between self-efficacy in online teaching in higher education with respect to teacher servant leadership.

H_4: There is a relationship between self-efficacy in online teaching in higher education with respect to the CoI.

H_{04}: There is no relationship between self-efficacy in online teaching in high education with respect to the CoI.

R_4: Is there a difference in the level of perceived personal growth between students who are taught using a servant leadership model and those who are not?

H_5: There is a difference in the level of perceived personal growth between students who are taught using a servant leadership model and those who are not.

H_{05}: There is no difference in the level of perceived personal growth between students who are taught using a servant leadership model and those who are not.

Measurements

This survey gathered demographic information, and then asked participants to complete two surveys. Students were asked to complete the CoI (Swan et al., 2008) and the Servant Teacher Inventory (Hays, 2008). Instructors were asked to complete the Servant Teacher Inventory (Hays, 2008) and the OISS (Carter et al., 2014).

Community of Inquiry. The Community of Inquiry scale (CoI) measures the student's perception of teaching presence, social presence and cognitive presence in an online classroom. It has been applied in numerous studies (Swan et al., 2008; Swan & Ice, 2010; Shea & Bidjerano; 2009). The CoI has been found to be valid and reliable in operationalizing the CoI framework, especially in terms of social presence and cognitive presence, and supports the notion of teaching presence actually being divided into course design and instructor behavior (Arbaugh et al., 2008).

It is comprised of 34 five-point Likert scale items ranging from 1 (strongly disagree) to 6 (strongly agree). This tool has been tested and shown to have construct validity (Arbaugh et al., 2008). Arbaugh (2007) reported good reliability with a Cronbach alpha of .86 in all factors of the CoI Scale.

Servant Teacher Inventory. The servant teacher inventory was developed by Hays (2008). It is comprised of three parts. Part one consists of 50 questions using a five-point rating scale ranging from 1 (never-seldom) to 5 (very often-always). It provides a statement, and then asks for a rating of the teacher in terms of how well that statement applies. Part three and four, which this study did not use, asked for descriptive words and vignettes.

This tool has construct validity, because of its strong theoretical background. It is based solidly on the ten characteristics of servant leadership described by Greenleaf and Spears (Greenleaf, 1991). It also has solid face validity, as the key is outlined in detail by Hays (2008), and it is in alignment with servant leadership theory as outlined by Greenleaf. Split half reliability was measured by Chronbach's alpha for this study and found to be high (.993).

Online Instructor Self-Efficacy Survey (OISS). This tool was developed to assess the self-efficacy of online instructors in terms of online pedagogical self-efficacy, subject matter expertise self-efficacy, and technological skills self-efficacy (Carter et al., 2014). The OISS contains fifty questions using a semantic differential scale, ranging from 1 (very confident) to 4 (not confident at all). Content of the survey was adapted from the following three instruments.

- The Online Educator Self-Efficacy Scale (OESES) was developed specifically to measure a teacher's online pedagogical self-efficacy (Baran, Correia, & Thompson, 2013; Deubal, 2008; Hung & Blomeyer, 2012).

- The Online Technologies Self-Efficacy Scale (OTSES) was developed to measure online students' self-efficacy beliefs, and has content validity, construct validity, and reliability (Miltiadou & Yu, 2000).

- The Teachers' Sense of Efficacy Scale was developed to measure the construct of teacher efficacy. This scale is considered reasonably valid and reliable, and has construct validity (Tschannen-Moran & Woolfolk-Hoy, 2001).

- Split half reliability for the OISS was measured by Chronbach's alpha (.870) and found to be high for this study.

Participants

Participants were instructors and students in online servant leadership courses at a university in the United States. The control group consisted of instructors and students in online non-servant leadership courses at a different university in the United States.

Data Analysis

To analyze the first three research questions, an independent samples t-test was conducted. These questions looked for a relationship between: students' perception that they are led by servant teachers and teachers who are familiar with servant leadership principles; servant leadership teaching in the online classroom and teaching presence, social presence, and cognitive presence (as measured by the CoI); and self-efficacy in online teaching in higher education with respect to teacher servant leadership. Because of insufficient data, the fourth hypothesis could not be answered. To analyze the fifth hypothesis, a chi square test of independence was conducted. This question investigated whether there was a difference in the level of perceived personal growth between students who are taught using a servant leadership model and those who are not.

<div align="center">

Results

</div>

Participants

Students. One hundred and nine students were enrolled in courses participating in this study, of which 76 were enrolled in servant leadership courses, and 20 were enrolled in non-servant leadership courses. However, the survey software experienced problems with distribution through the email system of the servant leadership institution, which resulted in 39 students who were not able to access the survey. This resulted in only 37 servant leadership students who could have participated in the study.

Twenty-one students completed the demographic information section of the survey, of which nine students (42.9%) were enrolled in servant leadership courses, and ten students (47.6%) were enrolled in non-servant leadership courses. Two students did not disclose which institution they attended. Therefore, the students who took the survey represent 23.1% of the servant leadership population which actually participated, and 50% of the non-servant leadership population which actually participated in the study.

Of the 21 participants, 13 were female (61.9%), six were male (28.6%), and two (9.5%) did not identify their gender. In regards to ethnicity, 16 students (76.2%) were Caucasian, one was African-American (4.8%); one was American Indian (4.8%); and three (14.3%) did not respond.

Since prior experience with online courses could change one's perception, students were asked how many online courses they had previously taken. Thirteen students (61.9%) had taken five or more online courses in the past, three (14.3%) had taken 3-4 online courses, one student (1.8%) reported having taken only one or two online courses previously, and four students did not respond (19.0%).

While 21 students completed demographic information, only 11 people (52.4%) completed the assessments. Nine were female (81.8%), and two were male (18.2%). The students' ages ranged from 25 to 62. Five were from the servant leadership courses (45.5%), and six were from the non-servant leadership courses (54.5%). All were Caucasian. Seven students (63.6%) had taken five or more online courses, two students (18.2%) had taken three or four online courses previously, and one student (9.1%) had taken one or two online courses before.

Course Instructors. Five instructors (100% of those invited) participated in the survey. Three were professors of servant leadership courses, and two were professors of non-servant leadership courses. One of the instructors (20%) had never taught an online course before, one (20%) had taught three to four online courses in the past, and three instructors (60%) had taught five or more online courses previously. One instructor taught an undergraduate class. However, none of his students participated in the study.

Measurements

Community of Inquiry. The Community of Inquiry scale (CoI) measures the student's perception of the teaching presence, social presence and cognitive presence in an online classroom using a six point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). Table 4.1 includes the means and standards deviations for each of the instructors with respect to the students' perceptions of teaching presence, cognitive presence and social presence in the online classroom.

Table 4.1. *CoI descriptive statistics by instructor*

	Teaching Presence	Social Presence	Cognitive Presence
ST1	4.72 (.235)	4.41 (.339)	4.528 (.268)
ST2	4.73 (.381)	4.44 (.786)	4.58 (.589)
T1	4.31 (.807)	4.54 (.528)	4.38 (.722)
Total	**4.497 (.631)**	**4.48 (.477)**	**4.45 (.564)**

Online Instructor Self-Efficacy Survey (OISS). The OISS measures the self-efficacy of online instructors in terms of online pedagogical self-efficacy, subject matter expertise self-efficacy, and technological skills self-efficacy (Carter et al., 2014). It uses a semantic differential scale, ranging from 1 (very confident) to 4 (not confident at all). Descriptive statistics revealed that all the instructors were confident and had good self-

efficacy in their pedagogical skills, knowledge of technology, and subject knowledge. See

Table 4.2 for complete descriptive statistics.

Table 4. 2 *OISS description by instructors and students*

	Pedagogy	**Technology**	**Subject Knowledge**	**Total**
ST1	1.167	1.389	1.0	1.237
ST2	1.67	1.67	1.25	1.184
T1	1.5	1.0	1.0	1.058
T2	1.67	1.67	1.25	1.184
Total	**1.25(.167)**	**1.181(.16)**	**1.125(.144)**	**1.191 (.033)**

Servant Teacher Inventory. The Servant Teacher Inventory (Hays, 2008) measures

servant teaching using a five-point rating scale ranging from 1 (never-seldom) to 5 (very

often-always). All the instructor's perception of themselves with respect to servant teacher

characteristics were positive (means were over 3). See Table 4.3 for descriptive statistics of

the Servant Teacher Inventory.

Table 4. 3 *Instructor Perception of Self as a Servant Teacher*

	ST1	*ST2*	*T1*	*T2*	**Total**
Listening	4.6	4.8	3.8	4.4	4.4
Empathy	4.6	4.2	3.6	3.2	3.9
Healing	5.0	4.4	3.6	3.8	4.2
Persuasion	4.8	4.8	4.0	4.5	4.525
Awareness	4.8	4.8	3.8	4.0	4.35
Foresight	4.8	4.8	3.6	4.2	4.35
Conceptualization	4.6	4.4	3.6	4.2	4.2
Stewardship	4.8	4.8	3.6	4.2	4.35
Commitment to growth of people	4.6	4.4	3.6	4.5	4.275
Community building	4.4	5.0	3.0	4.0	4.1

Results of Hypothesis Analysis

H₁: There is a relationship between students' perception that they are led by servant teachers, and teachers who are familiar with servant leadership principles (as measured by the Servant Teacher Inventory).

An independent samples t-test was conducted to identify if there was a relationship between students' perception that they are led by servant teachers, and teachers who are familiar with servant leadership principles. Since Levene's test for equality of variances was significant in all ten servant leadership areas, the equal variance assumed data were reported. Effect sizes ranged from medium-large to large. See Table 4.4 for complete statistical analysis.

Table 4.4. *Student Perceptions of Online Instructors as Servant Teachers (by university)*

	t	*df*	*p*	*d*	**Effect-size**
Listening	2.529	9	.032	1.587	Large
Empathy	1.346	9	.211	.846	Large
Healing	1.22	9	.253	.762	Medium-large
Persuasion	2.543	9	.032	.986	Large
Awareness	1.475	9	.174	1.760	Large
Foresight	1.488	9	.171	2.679	Large
Conceptualization	1.413	9	.191	.89	Large
Stewardship	2.136	9	.061	.859	Large
Commitment to growth of people	1.807	9	.104	2.372	Large
Community building	1.125	9	.290	.985	Large

Students taught by teachers trained in servant leadership perceived their teachers (M = 4.48, SD = .335) as significantly better at listening than students who were taught by teachers who were not trained in servant leadership (M = 3.57, SD = .74). In addition, students taught by teachers trained in servant leadership perceived their teachers (M = 4.48,

SD = .415) as significantly better at persuasion than students who were taught by teachers not trained in servant leadership (M = 3.63, SD = .64).

While significance was found in listening and persuasion, it must be noted that large effect sizes were found for awareness, foresight, conceptualization, stewardship, commitment to the growth of people, and community building. In addition, the written responses to the open-ended questions were very revealing.

Student comments about growth in the non-servant leadership courses were domain specific, and focused on acquiring new knowledge and research skills. For example, S1 commented that "this course has helped me understand the process of research and how to conduct research projects," and S2 responded that "I have learned to write a more professional research paper."

In contrast, student feedback about servant leadership courses, while also referring to the acquiring of domain-specific knowledge and skills, such as "serve first principles" (S3), the phraseology went beyond that to describe how they were changed as a result of the course. "[The instructor's] perspective and writing on [the subjects] has transformed how I view these elements in the dynamic of high performing organizations and successful relationships" (S4). Another student expressed appreciation for the "opportunity for self-reflection and to learn about my own strengths and weaknesses" (S5).

It should be noted, however, that the control class was a research class, which is not a 'transformational' topic in the same way that a servant leadership course is. It would be informative to compare two more similar courses taught by teachers who were either trained or not trained in servant leadership.

H$_2$: There is a significant relationship between servant leadership teaching in the online classroom and teaching presence, social presence, and cognitive presence (as measured by the CoI).

To answer the second research question investigating if being taught from a servant leadership perspective affects teaching presence, social presence, and cognitive presence (as measured by the CoI), an independent samples t-test was conducted revealing no significant difference between the groups. Effect size was measured by Cohen's *d*, and ranged from -.232 to .695. Being taught from a servant leadership model does not significantly affect the online student's perception of teaching presence, social presence, and cognitive presence (as measured by the CoI). See Table 4.5 for complete statistical analysis. This indicates that students perceive the influence of teachers both with and without servant leadership training as having no significant influence on teaching presence, social presence, and cognitive presence in the online classroom.

Table 4.5. *Independent Samples t-test: CoI & University*

	t	*df*	*p*	*d*	**effect-size**
Teaching presence*	1.193	6.141	.277	.695	medium-large
Social presence	-.380	9	.713	-.232	small
Cognitive presence*	.524	7.491	.618	.308	medium-small

* Levene's test for equality of variances was significant, therefore, equal variances not assumed statistic is presented.

Once again, while there was no significant difference in the CoI in relation to whether instructors were trained in servant leadership or not, the students' open-ended responses revealed differences. Student comments in the servant leadership courses expressed an appreciation for the teacher's presence: "He is available and engaged in the online process" (S6), and "My instructor is wonderful and offers a lot of supporting

material" (S7). The instructor's presence was recognized by another student: "Instructor's involvement on discussion board, the readings, the assignments encouraged a development of thinking and use of information/skills/knowledge" (S8). Another student reflected: "[He] is an amazing professor. Even though the course is online, it is obvious he is very passionate about this topic" (S9). The control group had no written comment pertaining to instructor's presence in the online classroom.

H$_3$: There is a relationship between self-efficacy in online teaching in higher education with respect to teacher servant leadership traits

For the third research hypothesis, an independent t-test was calculated to identify if there was a significant difference in the instructor's online teaching self-efficacy between the teachers trained in servant teacher principles and those not trained in servant teacher principles. While there was no significant difference in online teaching self-efficacy between the two groups, there was a large effect size for technology self-efficacy and overall online teaching self-efficacy, which suggests that this study should be repeated with a larger sample. See Table 4.6 for a complete statistical analysis.

Table 4. 6 *Independent Samples t-test: OISS & University*

	t	*df*	*p*	*d*	**effect-size**
Pedagogy SE*	-1.0	1.0	.50	0.46	Medium-small
Technology SE*	1.4	1.855	.305	1.40	large
Subject Knowledge SE*	.00	2.0	1.0	0.0	n.s
Overall SE*	1.342	1.471	.350	1.339	large

* Levene's test for equality of variances was significant, therefore, equal variances not assumed statistic is presented.

In addition, a Spearman rho was calculated to identify if there were any correlations in the teacher's online teaching self-efficacy and the different servant leadership

characteristics. It must be noted that correlations between healing, conceptualization and commitment to growth of others with overall online teaching self-efficacy were all .949 (p = .051). This effect size is classified as large which suggests that significance may be found if this study was repeated with a larger sample of instructors. Due to the way the assessments were worded, this indicates that when the instructor's confidence is high in their online teaching ability they do <u>not</u> rate themselves high in healing, conceptualization, and commitment to growth in others. This was also true with the instructor's self-efficacy in technology. The higher the instructor's confidence in their technology ability, the lower they rated themselves in healing, conceptualization, and commitment to growth in others. This inverse correlation with self-efficacy in technology and servant leadership, and a direct correlation between self-efficacy in online teaching pedagogy and servant leadership are important findings.

With respect to the instructor's self-efficacy in their subject, there was no correlation ($r = .00$) between the instructor's self-efficacy in their subject and the servant leadership traits of healing, conceptualization, and commitment to growth of people.

Considering that correlation coefficients greater than .70 are considered strong correlations with over 49% of shared variance between the two variables), the results for the correlation between the instructor's confidence in online pedagogy and servant leadership traits suggest some interesting results.

There is a 60% shared variance (overlap) that when the instructor has high confidence in their online pedagogy they also perceive themselves to have good listening skills, healing, conceptualization, commitment to growth of people, and building community. There is even a larger correlation ($r^2 = 66.67\%$) between the instructor's self

confidence in their technology skills and the servant leadership traits of persuasion, awareness, foresight, and stewardship. See Table 4.7 for complete statistical data. Therefore, when the instructor has high confidence in technological skills, they are lower in their self-perception of these servant leadership traits.

Table 4. 7 *Spearman rho correlations (OISS * Instructor self-rated Servant Leadership Qualities)*

	Overall SE		Pedagogy SE		Technology SE		Subject Knowledge SE	
	r	*p*	*r*	*p*	*r*	*p*	*r*	*p*
Listening	.632	.368	-.775	.225	.632	.368	.447	.553
Empathy	.632	.368	-.258	.742	.632	.368	-.447	.553
Healing	.949	.051	-.775	.225	.949	.051	.00	1.0
Persuasion	.833	.167	-.816	.184	.833	.167	.236	.764
Awareness	.833	.167	-.816	.184	.833	.167	.236	.764
Foresight	.833	.167	-.816	.184	.833	.167	.236	.764
Conceptualization	.949	.051	-.775	.225	.949	.051	.00	1.0
Stewardship	.833	.167	-.816	.184	.833	.167	.236	.764
Commitment to growth of people	.949	.051	-.775	.225	.949	.051	.00	1.0
Community Bldg	.632	.368	-.775	.225	.632	.368	.447	.553

H$_4$: There is a relationship between self-efficacy in online teaching in higher education with respect to the CoI.

It was not possible to identify a correlation between the CoI and the teacher's self-efficacy because there were only two instructors who completed the OISS that had students complete the CoI and they both scored themselves the same on the OISS. However, a one-way ANOVA was calculated to identify if there was a significant difference between the instructors on the CoI and found no significant difference. While the effect size for the students' perception of the instructors' social and cognitive presence was small, the effect

size for the students' perception of teaching presence was medium-large. See Table 4.8 for

the complete statistical analysis.

Table 4. 8 *ANOVA Source Table : CoI by Instructor*

	SS	df	MS	F	p	eta^2	Effect size
TP*Instructor							
Between groups	.471	2	.235	.537	.604	.118	Medium-large
Within groups	3.51	8	.439				
Total	3.981	10					
SP*Instructor							
Between groups	.038	2	.019	.067	.936	.017	Small
Within groups	2.241	8	.28				
Total	2.278	10					
CP*Instructor							
Between groups	.087	2	.044	.113	.895	.027	Small
Within groups	3.098	8	.387				
Total	3.186	10					

H$_5$: There is a difference in the level of perceived personal growth between

students who are taught using a servant leadership model and those who are not.

Eighty-two percent of the students (n = 9) felt that they had grown as a result of the

course. Two students (18.2%) said they felt that they had not grown as a result of the

course. A chi-square test of independence revealed no more significant difference than one

would expect by chance between the groups, X^2 (1, $N = 11$) = .02, $p = .887$, $\phi = -.043$.

Cohen's (1988) conventions for the phi coefficients are: .10 (small), .30 (medium), and .50

(large) effect size.

It should be noted that of the two people who indicated they had no significant

growth, one was from the servant leadership course, and one was from the non-servant

leadership course. However, their reasoning was very different. The one from the non-

servant leadership course did not take responsibility, and blamed the teacher stating "There

was very little feedback in the course or room to really be challenged or to grow" (S10). In contrast, the person from the servant leadership course who reported no growth as a result of the course claimed responsibility for their experience, and said, "I should devote more time to the subject matter" (S11). This student concluded that he or she did not grow because of a lack of effort.

Influence of Servant Leadership

In order to identify if there was a significant difference between servant teachers' perceptions of themselves in servant leadership qualities versus non servant teachers' perceptions of themselves, an independent samples t-test was conducted. Statistical analysis revealed that servant teachers are significantly higher (M=4.8, SD=.00) than the control group (M=3.9, SD=.14) in respect to Awareness. However, it must be noted that that while there was no statistical significance in all the other servant leadership areas, the effect sizes were all large. This implies that a larger sample size may show significance. See Table 4.9 for complete statistical analysis.

Table 4. 9 *Instructors' servant leadership perceptions*

	t	*df*	*p*	*d*	Effect-size
Listening*	1.897	1.22	.273	1.897	Large
Empathy	3.536	2	.072	3.536	Large
Healing*	3.162	1.22	.158	3.162	Large
Persuasion	2.2	2	.159	2.200	Large
Awareness	9	2	.012	9.00	Large
Foresight	3	2	.095	3.00	Large
Conceptualization*	1.897	2	.198	1.897	Large
Stewardship	3	2	.095	3.00	Large
Commit to growth of people*	.976	1.099	.496	.976	Large
Community Building*	2.058	1.637	.203	2.058	Large

* Levene's test for equality of variances was significant, therefore, equal variances not assumed statistic is presented.

Summary

This quantitative study investigated the relationship between student evaluations in terms of the CoI and teachers' servant leadership qualities as evidenced in their teaching. It also examined the relationship between the level of teacher's self-efficacy, as measured by the OISS (Carter et al., 2014), instructor's self-evaluation of servant leadership qualities, as measured by the Servant Teacher Inventory (Hays, 2008), and students' perceptions of teaching presence, cognitive presence, and social presence, as measured by the CoI (Swan et al., 2008).

This study examined graduate-level servant leadership classes at a private university in the United States, along with a land-grant university which did not identify as using the servant leadership model. All students (n = 11) were administered the CoI and Servant Teacher Instruments. The instructors (n = 5) completed the OISS and Servant Teacher Instrument. Five students from the servant leadership courses and six students from non-servant leadership courses participated.

Students perceived servant leadership trained teachers as significantly better at listening and persuasion than non-servant leadership teachers. No significance was found for the other traits, but a large effect size was found for awareness, foresight, conceptualization, stewardship, commitment to the growth of people, and community building. However, the qualitative data revealed a difference of perspective. Comments of students who were enrolled in the non-servant leadership course discussed their growth as being domain specific. Students in the servant leadership courses commented that they grew in the domain, but they indicated that growth had been transformational as well. For example, one student commented:

I think I have developed a different perspective not only when identifying with leadership and who I want to be as a leader, but also a different perspective on life and how I want to live in general (S11).

This verifies a statement made by one of the servant leadership teachers who participated in this study that if you have a legitimate interior learning theme that every student can see, there will be growth in more than just the subject. "If you have courses in which you don't have anything like that, then they are going to progress, but probably just in the intellect of whatever they are learning."

This study found no significant difference in teaching presence, cognitive presence and social presence (as measured by the CoI), but here again the qualitative data indicated that the teaching presence of the servant leader instructors had a profound impact on student experience.

Good feedback. Challenging my world view. Providing a broader perspective of leadership and leadership development (S8).

Personal stories about his own experience and challenges with servant leadership and feedback on posts and papers, especially in the form of questions (S12).

Non-servant leadership classroom evidenced no such comments.

No significant difference in instructor self-efficacy in terms of pedagogical, technological, and subject matter knowledge was found between the teachers who were trained in servant leadership and those who were not.

Only four of the instructors—two servant leadership and two non-servant leadership—completed the Servant Teacher inventory. A significant difference was found between servant leadership teachers and non-servant leadership teachers in terms of

Awareness. This refers to an awareness of themselves, as well as their students and the environment. Servant teachers are described as being engaged in the moment, and adapting lesson plans to meet the needs of students (Hays, 2008). No significant difference was found between them on the other traits, but the effect size was large for all traits.

Additional analysis revealed that instructors who were high in pedagogical self-efficacy perceived themselves also high in servant leadership skills of listening, healing, conceptualization, commitment to growth of people, and building community. In contrast, those who scored high in technological self-efficacy perceived themselves low in the servant leadership traits of persuasion, awareness, foresight, and stewardship, healing, conceptualization, and commitment to the growth of people. This suggests that additional research with a larger sample size may reveal significance.

No significant difference was found in the level of perceived personal growth of students, but open-ended responses revealed a difference. Those in the servant leadership course took responsibility for their lack of growth, while students in the control course blamed their instructor.

Discussion

Concern over the quality of online learning in higher education has prompted institutions to look for ways of improving the experience for students and faculty. This quasi-experimental quantitative study examined the relationship between servant leadership, technological, pedagogical, and content instructor self-efficacy, and Communities of Inquiry in the online classroom. It examined whether there is a relationship between servant leadership teaching in the online classroom and the students' perception of teaching presence, social presence, and cognitive presence. The study also

investigated the relationship between instructor self-efficacy in online teaching in higher education with respect to teacher servant leadership as well as differences in the level of perceived personal growth between students who are taught using a servant leadership model and those who are not. While the small sample size limits the generalizability of the results, some significance, along with large effect sizes as well as open-ended responses, suggest the need for additional research.

Students perceived servant leadership-trained teachers as significantly better at listening and persuasion than non-servant leadership teachers. These two traits share similarities with best practices of effective teachers, which are important in establishing a strong teaching presence in an online learning environment. Statistical analysis revealed that students in servant leadership courses perceived their instructors as having significantly better listening skills than non-servant leadership instructors. This quantitatively confirms that this servant leadership trait is present in the servant teacher-led online classroom, and correlates with the description of best practices of effective teachers. Servant teachers in the face-to-face classroom have been described as great communicators and good listeners, both to themselves (through an inner voice) and to their students (Crippen, 2010; Hannay et al., 2010; Harris, 2004). Effective teachers are described as communicating well and being good listeners (Hannay et al., 2010; Ramsey & Fitzgibbons, 2005).

With respect to persuasion, this study found that students in servant leadership courses perceive their instructors as having significantly better persuasion skills than non-servant leadership instructors. This corroborates the literature about servant leadership in

the face-to-face classroom and best practices of effective teachers, which focus on various aspects of persuasion as having influence in successful classrooms.

Servant leadership literature describes servant teachers as being concerned about doing the right thing for the greater good, being credible and honest, modeling servant leadership behaviors in their classrooms, and demonstrating academic professionalism, reliability, consistency, and a solid emotional character (Crippen, 2010; Harris, 2004; Hays, 2008; Steele, 2010). Likewise, effective teachers have been described as being honest, trustworthy, and appreciative (Hannay et al., 2010; Ramsey & Fitzgibbons, 2005). In addition, servant teachers' persuasion is evidenced in the classroom when power is shared and teachers discuss what matters and why, in an effort to offer, invite, and encourage students to move toward win-win approaches (Hays, 2008). Similarly, effective teachers are described as treating students with respect and fairness (Bhada, 2002; Delaney et al., 2010; Murry et al., 1996) and helping students see relevance and purpose in learning (Chickering & Gamson, 1987).

While no significant difference was found between the instructors for the other servant leadership traits, a large effect size was found for awareness, foresight, conceptualization, stewardship, commitment to the growth of people, and community building, suggesting that given a larger sample size, significance may become evident. These findings support the findings of previous studies on servant leadership in face-to-face classrooms, and calls for additional research in terms of a servant teacher's impact on students in the online classroom.

While no significance was found in terms of perceived growth of students in the survey, the open-ended questions revealed a difference of perspective. Both groups of

students indicated that they had grown throughout the course. However, students in the servant leadership courses indicated that growth had been transformational as well. One student reported that the course helped him or her become "more mindful of how others perceive me, my role and what I can [do to] bring out the best in colleagues, friends and family" (S12). Another responded, "I think I have developed a different perspective not only when identifying with leadership and who I want to be as a leader, but also a different perspective on life and how I want to live in general" (S11).

In addition, while each group had a student who said they had not grown as a result of the course, the student in the non-servant leadership course blamed the teacher, while the servant leadership student took ownership for the lack of growth. The open-ended questions and large effect sizes on the servant teacher results, both from the student's and instructor's perspective, suggest that additional research with a larger sample size may show more conclusive results.

Data revealed that instructors who had high technological self-efficacy were low in the servant teacher traits of healing, conceptualization, persuasion, awareness, foresight, stewardship, and commitment to the growth of people. In addition, instructors who had high pedagogical self-efficacy also had high servant teacher traits of listening, healing, conceptualization, commitment to the growth of people, and community building. This confirms findings in Article 2 (Carter et al., 2014) that high instructor technological self-efficacy is correlated with lower student satisfaction, and suggests that when instructors are more confident with computers, they are less people-oriented. Suggestions for future research include identifying personality and values to confirm this hypothesis.

Limitations

      This study has several limitations, the most significant of which was the small sample size and non-random selection of participants and assignment to group. Threats to validity of the study include type of course, level of student, and experience with online learning. In this study, the types of classes examined were very different. There was also a wide variation in the amount of online teaching experience between the servant leadership and non-servant leadership instructors. All students who participated were graduate students, which limit transference of these results to other student populations.

      Another limitation of this study was selection-treatment interaction, in that some of the teachers and students were familiar with the servant leadership model. Hence, one of the threats to credibility is potential bias by teachers or students, as the instruments rely on self-reporting, and people's perceptions of themselves may be different than how others perceive them, therefore, both students and instructors completed the instruments.

Implications for Practice

      The results of this study have implications for practice in online learning. With the growth of online learning, and the concern over the quality of higher education (both face-to-face and online), there is an increased emphasis on influencing online experiences in a positive way. The results of this study have implications in terms of improving teaching presence in the online classroom. As higher education institutions work to grow their online programs, and create strong online communities of inquiry, teaching presence is one area over which they have significant influence. Servant leadership is a values and skills-based model. The significance which was found, the effect sizes, and the open-ended responses, even with such a small sample size, suggests that the servant teacher model may have

insights which can aid higher education institutions in impacting online instruction in a positive way,

Suggestions for future research

It would be beneficial to conduct this study using a larger sample size. Replication of this study using similar and dissimilar courses would also be enlightening. In addition, conducting this study with undergraduate students would provide additional insights. Controlling for online teaching experience of instructors would improve generalizability of results.

A study which included a servant leadership training program, as well as a control group, may assist in understanding the potential impact of servant leadership training on the educational outcomes of students and the online learning experience of both students and instructors. This training could include teachers from a variety of disciplines to further identify the potential impact across fields. Research into the impact of course design which incorporates servant leadership principles throughout would provide additional insights into the potential of servant leadership as a pedagogical approach to higher education online learning.

References

Abel, R. (2005). *Achieving success in internet-supported learning in higher education: case studies illuminate success factors, challenges, and future directions*. February, 2005.

Lake Mary, FL: The Alliance for Higher Education Competitiveness, from http://www.a-hec.org/research/study%5Freports/IsL0205/TOC.html

Allan, I. E., & Seaman, J. (2013). *Changing course: Ten years of tracking online education in the United States.* Babson Survey Research Group. Retrieved from http://files.eric.ed.gov/fulltext/ED541571.pdf.

American Psychological Association. (2010). *Ethical standards of psychologists*. Washington, D.C.

Arbaugh, J. B. (2007). An empirical verification of the community of inquiry framework. *Journal of Asynchronous Learning Networks.* Retrieved from: http://www.sloan-c.org/publications/jaln/v11n1/pdf/v11n1_9arbaugh.pdf

Arbaugh, J. B., Cleveland-Innes, M., Diaz, S., Garrison, D. R. Ice, P., Richardson, J. C., & Swan, K. P. (2008). Developing a community of inquiry instrument: Testing a measure of the Community of Inquiry framework using a multi-institutional sample. *Internet and Higher Education, 11*, 133-136.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman and Company.

Bandura, A. (2005). Guide for constructing self-efficacy scales. *Self-efficacy beliefs of adolescents,* 307-337. Information Age Publishing.

Baran, E., Correia, A.P., & Thompson, A.D. (2013). Tracing successful online teaching in higher education: Voices of exemplary online teachers. *Teachers College Record, 115*(3).

Berg, G. A. (2013). Distance learning. In *Encyclopedia Brittanica*. Retrieved from http://www.britannica.com/EBchecked/topic/1482174/distance-learning.

Bhada, Y. K. (2002, Nov/Dec.) Top of the class. *BizEd*. 22-27.

Boettcher, J. V., & Conrad, R. M. (2010). *The online teaching survival guide: Simple & practical pedagogical tips.* Jossey-Bass, San Francisco, CA.

Bowman, R. F. (2005). Teacher as servant leader. *The Clearing House*, *78*(6), 257-259.

Carter, H., Hochstrasser, J., Huber, R., & Yadon, B. (2014). Self-efficacy in online teaching: How instructor confidence affects student satisfaction. Unpublished manuscript.

Chickering, A. W., & Gamson, Z. F. (1987). Seven principles of good practice in undergraduate education. *AAHE Bulletin, 39*(7), 3-7.

Crippen, C. (2010). Serve, teach, and lead: It's all about relationships. *Insight: A Journal of Scholarly Teaching*, *5*, 27-36.

Delaney J, Johnson A, Johnson T, & Treslan D. (2010). Students' perceptions of effective teaching in higher education. *26th Annual Conference on Distance Teaching & Learning*. Retrieved from http://www.uwex.edu/disted/conference/Resource_library/handouts/28251_10H.pdf

Deubal, P. (2008). *K-12 online teaching endorsements: Are they needed?* Retrieved April 8, 2013 from T.H.E. Journal: http://thejournal.com/articles/2008/01/10/k12-online-teaching-endorsements-are-they-needed.aspx

Drury, S. (2005, August). Teacher as servant leader: A faculty model for effectiveness with students. In *Servant Leadership Research Roundtable*. Symposium conducted at School of Leadership Studies, Regent University. Retrieved from http://www.drurywriting.com/sharon/drury_teacher_servant.pdf

Garrison, D. R., & Anderson, T. (2007). *E-learning in the 21st Century: A framework for research and practice.* New York: RoutledgePalmer.

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *Internet and Higher Education, 2*(2-3), 87-105.

Goddard, D., Hoy, W.K. & Hoy, A. W. (2000). Collective teacher efficacy: Its meaning, measure, and impact on student achievement. *American Educational Research Journal, 37*(2),479-507.

Goodlad, J. I., Mantle-Bromley, C., & Goodlad, S. J. (2004). *Education for everyone: Agenda for education in a democracy*. Jossey-Bass, San Francisco, CA.

Gorsky, P., & Blau, I. (2009, June). Online teaching effectiveness: A tale of two instructors. *The International Review of Research in Open and Distance Learning*.

Greenleaf, R. K. (1991). *The servant as leader*. Indianapolis, IN: The Robert K. Greenleaf Center.

Hannay, M., Kitahara, R., & Fretwell, C. (2010, March). Student-focused strategies for the modern classroom. *Journal of Instructional Pedagogies, 2,* 1-16.

Harris, B. A. (2004) *Learning to serve: How Robert K. Greenleaf's theory of servant leadership can be applied by the adult educator with learners*. Unpublished manuscript, School of Professional Studies, Fresno Pacific University.

Hays, J. M. (2008, Winter). Teacher as servant: Application of Greenleaf's servant

    leadership in higher education. *Journal of Global Business Issues, 2*(1), 113-134.

Henson, R. K. (2001). Teacher self-efficacy: Substantive implications and measurement

    dilemmas. *Keynote address given at annual meeting of Educational Research*

    Exchange. College Station, TX: Texas A&M University.

Hill, C. (2011). 10 Principles of effective online teaching: Best practices in distance

    education. *Faculty Focus.* Retrieved from www.facultyfocus.com

Hung, J., & Blomeyer, R. (2012). The online educator self-efficacy scale (OESES): A

    research-based tool for assessing online educator performance. *Virtual Schools*

    Symposium. 22 Oct. 2012

Johnson, A. C., & Vishwanath, K. R. (2011). Servant professorship and its implications.

    International Journal of Education Research, 6(1), 135-146.

Knowles, M., Holton, E., & Swanson, R. (2012). *The adult learner, the definitive classic in*

    adult education and human resource development. New York: Routledge.

Koehler, J., & Mishra, P. (2005). What happens when teachers design educational

    technology? The development of technological pedagogical content knowledge.

    Journal of Educational Computing Research, 33. 131-152.

Merriam, S. B. (2002). *Qualitative research in practice: Examples for discussion and*

    analysis. San Francisco, CA: Jossey-Bass.

Merriam, S. B., Caffarella, R. S., & Baumgartner, L. M. (2007). *Learning in adulthood: A*

    comprehensive guide (3rd ed.). San Francisco, CA: Jossey-Bass.

Miltiadou, M., & Yu, C. H. (2000) Validation of the Online Technologies Self-Efficacy

    Scale (OTSES). *ERIC* Department of Education 6 Nov 2000: 1-11.

Murry, H., Gillese, E., Lennon, M., Mercer, P., & Robinson, M. (1996). Ethical principles in university teaching. *Society for Teaching and Learning in Higher Education*.

Nichols, J. D. (2011). *Teachers as servant leaders*. Lanham: Rowman & Littlefield.

Ramsey, V. J., & Fitzgibbons, D. E. (2005). Being in the classroom. *Journal of Management Education, 29,* 333-356.

Schmidt, D. A., Baran, E., Thompson, A. D., Mishra, P., Koehler, M. J., & Shin, T. S. (2009). Technological Pedagogical Content Knowledge (TPACK): The development and validation of an assessment instrument for pre-service teachers. *Journal of Research on Technology in Education, 42*(2), 123-149.

Shea, P., & Bidjerano, T. (2009). Community of inquiry as a theoretical framework to foster "epistemic engagement" and "cognitive presence" in online education. *Computers & Education, 52*(3)*,* 543-553.

Spears, L. (1995). Tracing the growing impact of servant leadership. In Spears, L. (Ed.), *Insights on Servant Leadership: Service, stewardship, spirit, and servant leadership,* (pp. 1-12). New York, NY: John Wiley and Sons.

Swan, K., Garrison, D. R., & Richardson, J. C. (2009). A constructivist approach to online learning: the Community of Inquiry framework. In Payne, C. R. (Ed.). *Information technology and constructivism in higher education: Progressive learning frameworks,* (pp. 43-57). Hershey, PA: IGI Global.

Swan, K., & Ice, P. (2010). The Community of Inquiry framework ten years later: introduction to the special issue. *Internet and Higher Education, 13*(1-2), 1-4.

Taylor, L., & Huang, H. (2010). *Student perceptions of face-to-face, hybrid, and online courses and their engagement in online communication.* Paper presented at the International Conference of Web 2.0 and Education, Jhongli City, Taiwan.

Tschannen-Moran, M., & Hoy, A. W. (2001) Teacher efficacy: capturing an elusive construct. *Teaching and Teacher Education* 17, 783-805.

Van de Bunt-Kokhuis, S. (2012). Servant leadership: The online way! E-learning where community building is key. *European Journal of Open, Distance and E-Learning, 12*(1).

Ward, M. E., Peters, G., & Shelley, K. (2010). Student and faculty perceptions of the quality of online learning experiences. *The International Review of Research in Open and Distance Learning, 11*(3).

Wright, J. M. (2010). *Effect of quality matters training on faculty's online self-efficacy*. In M. Clay (Ed.), *Distance learning administration conference,* (pp. 1-5). Jekyll Island, GA. The Berkley Electronic Press.

CHAPTER 5: CONCLUSION

Introduction

Technological innovations of recent decades have changed the profile of higher education. In 2012 over seven million students, almost one third of all higher education students, took at least one online course (Allan & Seaman, 2013). Although online learning has eased access to formal education, the effectiveness and quality of online learning continue to be questioned (Allan & Seaman, 2013; Berg, 2013). In spite of the fact that an increasing number of institutions report online learning as being critical to their long-term strategy, over two-thirds of academic leaders report that their faculty do not accept the value and legitimacy of online learning (Allan & Seaman, 2013). In addition, students report that they often prefer either face-to-face or blended learning formats over asynchronous online formats, giving as one reason that they perceive a difference in terms of instructional quality (Taylor & Huang, 2010; Ward, Peters, & Shelley, 2010). In addition the results of the first study (Chapter 2) indicate that with increased education, students give lower ratings to online courses, instructors, and perceived learning.

An increased emphasis on effective pedagogical approaches can positively influence higher education experiences and outcomes and result in increased student satisfaction. Servant leadership is one approach to online teaching which may provide direction to institutions seeking to grow these programs. Servant leadership attributes are comprised of both values and skills. Recognizing, teaching, and applying servant leadership in the online classroom has the potential to increase the quality of online learning in higher education.

Applying servant leadership to teaching in the face-to-face classroom has been the subject of a growing body of literature in recent decades (e.g., Bowman, 2005; Drury, 2005; Hays, 2008; Johnson & Vishwanath, 2011). Research has shown that more effective student-centered education and increased mentoring occurs when the servant leadership model is applied to the face-to-face classroom (Drury, 2005; Hays, 2008; Thompson, Jeffries, & Topping, 2010). Although little has previously been published about servant leadership in the online classroom, it has been suggested that these same benefits can be realized when servant leadership is applied to teaching in the online venue (Thompson et al., 2010; van de Bunt-Kokhuis, 2012). The results of the qualitative and quantitative studies in chapters three and four aligns with previous research of face-to-face courses. This indicates that servant leadership is especially suited as a pedagogical approach to online teaching, making it applicable to and even enhancing a successful online learning experience.

Servant Leadership

Servant leadership was first proposed by Robert K. Greenleaf in a series of essays which he wrote throughout the 1970s. Servant leadership is based on the concept that one is servant first. It is only after one has the desire to serve that one aspires to lead. A leader-first approach, in contrast, is often driven by the pursuit of power or wealth. A servant leader puts others' needs as their highest priority, while traditional leadership models primarily focus on reaching organizational goals (Greenleaf, 1977; McClellan, 2007).

Servant leadership principles have roots in the New Testament teachings of Jesus Christ, who counseled his disciples that "he that is greatest among you shall be your servant" (Matt. 23:11, *King James Version*), and "the Son of Man did not come to be

served, but to serve" (Matt. 20:28). Not only did Jesus teach servant leadership, he practiced it. An example is seen as he washed his disciples' feet, a job usually reserved for a servant, and then told them to do likewise (John 13). Jesus Christ trained servant leaders through word and example (Focht, 2011).

Through observation, study, and experience, Greenleaf realized that influence develops as a result of willingness to serve rather than a desire for position or status (Greenleaf, 1977). Larry Spears identified the ten most frequently mentioned servant leadership traits in Greenleaf's writings as listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of people, and community building (Greenleaf, 1991). According to Greenleaf (1977, p. 27) the 'best test' of whether servant leadership is occurring is "Do those served grow as persons? Do they, while being served, become healthier, wiser, freer, more autonomous, and more likely themselves to become servants? What is the effect on the least privileged of society, and will they benefit or at least not be further deprived?" Greenleaf admits that validating the 'test' is difficult, and requires a good deal of study and experience.

Servant Leadership Applied to the Online Classroom

A multiple-case study examined the effects of servant leadership in online courses (Chapter 3). Triangulation of interviews with instructors of online servant leadership courses and analysis of course artifacts identified that servant leadership principles are able to transition to and have influence in the higher education online classroom. This study also described what servant leadership in this venue looks like, affirmed the presence of mentoring, and concluded that servant leadership is an effective pedagogical approach for higher education online learning.

Characteristics

Transference of servant leadership into the online classroom is not only possible, but is a natural result of incorporating servant leadership into who one is as a person. The online venue is conducive to the practice of servant leadership characteristics, as it provides regular opportunities for teacher and students to slow down and listen. The online classroom also supports the growth of both introverts and extroverts, as all students are expected to participate and have a voice. As an instructor is concerned with characteristics such as growth, listening, and healing, it will change the way they interact with and influence others, both face-to-face and online.

> *By inculcating servant leadership into...who you are as a person and who you are trying to be in the world and in relation to students and the learning environment, it will then impact the way in which you approach teaching* (P3).

This study corroborates the literature about the application of servant leadership into the face-to-face classroom and confirms its application to the online learning environment.

Triangulation from the interviews identified that the transference of servant leadership into the online classroom is predominantly accomplished by focusing on what one is, rather than on what one does, and this is a developmental and an ongoing process for both students and teachers. In addition, servant teachers recognize the need to serve as models for students as they are developing towards servant leadership. One teacher commented on the impact of effective modeling in the classroom:

> *Students pay attention to what is being modeled. As teachers teach, sell, talk, persuade, relate, and then model consistently and congruently, it has a powerful impact (P2).*

These themes align with what has previously been identified as ways in which servant leadership has influence in the face-to-face classroom (Bowman, 2005; Crippen, 2005; Drury, 2005; Hannay, Kitahara, & Fretwell, 2010; Harris, 2004; Hays, 2008; Johnson & Vishwanath, 2011; Steele, 2010).

The literature describes how servant leadership traits such as listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of people, and community building are naturally incorporated in a servant teacher's face-to-face classroom (Bowman, 2005; Crippen, 2005; Drury, 2005; Hannay et al., 2010; Harris, 2004; Hays, 2008; Johnson & Vishwanath, 2011; Steele, 2010). This study, through triangulation interviews with servant leadership instructors, course shadowing, and analysis of course documents, discussion boards, and announcements, revealed that servant teachers in the online classroom incorporated characteristics of servant leadership. Examples of what instructors said about application of these characteristics into their courses are as follows:

Listening: *I am always trying to listen as carefully as I can to what students are saying, whether it is in their discussion board or papers or email...and really try to understand what questions they are asking (P3).*

Empathy: *To have empathy for somebody else, we have to have empathy for ourselves. To get there, we have to go into some healing and forgiveness...I try to model the process of empathy. Once people see it, they respond to it (P2).*

Healing: *I think of teaching as more about being a healing presence in the life of others and having them be a healing presence in my life (P1).*

Awareness: T*eachers can try to have the greatest possible awareness of themselves and of each student, and then try to encourage greater self-awareness (P3).*

Persuasion: Persuasion occurs when a person comes to their own decision on an issue from their own reasoning. In other words, there is no coercion and no manipulation....[they] come to a decision as an independent adult person…not because of their need for approval from the professor or their fear of disapproval (P2).

Conceptualization: It involves creative learning—interpreting what we perceive and ideas that are trying to emerge, and to put it into a product and test it and come up with a result (P2).

Foresight: In order for students to increase their ability to use foresight, teachers must consciously develop, affirm, and acknowledge it in the classroom. It is really accessing another form of knowledge and bringing it into awareness (P2).

Stewardship: Stewardship requires constantly striving to assess that we are teaching what we think we are teaching, and constantly improving courses. Are students getting what we are trying to communicate to them? (P2)

Commitment to the growth of people: There are always students at the end of the course who say they have come through with a stronger sense of their own commitment to others, and their own desire to continue to grow as a servant leader (P3).

Community Building: In order to develop leaders who would take the value of community building into their institutions I would put it as a central purposeful focus inside the course and build assignments and activities that would accomplish that into the modules, and then have them take the learning out into the community (P1).

While the above characteristics are often built into the course topics, they can also be incorporated into the framework of any course.

Statistical analysis revealed that students in servant leadership courses perceive their instructors as having significantly better listening and persuasion skills than non-servant leadership instructors (Chapter 4). While no significance was found for the other servant leadership traits, a large effect size was found for awareness, foresight, conceptualization, stewardship, commitment to the growth of people, and community building, indicating that given a larger sample size significance may become evident. These findings support the findings of previous studies on servant leadership in face-to-face classrooms, and calls for additional research in terms of a servant teacher's impact on students in the online classroom.

Analysis of servant leadership traits in the classroom and self-efficacy revealed that instructors who were high in pedagogical self-efficacy perceived themselves also high in the servant leadership skills of listening, healing, conceptualization, commitment to growth of people, and building community. In contrast, those who scored high in technological self-efficacy perceived themselves low in the servant leadership traits of persuasion, awareness, foresight, and stewardship, healing, conceptualization, and commitment to the growth of people. This suggests that additional research with a larger sample size may reveal significance.

In addition, the more experience an instructor had teaching for BYU-Idaho, the more confident they felt about their online technological skills, and the lower the student satisfaction in their course (Chapter 2, Article 1). This would suggest that additional

research concerning personalities and values as they relate to technology should be conducted.

Teaching Presence

This study confirmed the necessity of teachers having a presence and being available in the online classroom. This correlates with previous research which emphasizes the importance of teaching presence in creating an online community of inquiry and having a positive influence on student outcomes (Anderson, Rourke, Garrison, & Archer, 2001; Shea & Bidjerano, 2010). However, one teacher emphasized that presence does not mean being present all the time. "That would be an imbalance of servant leadership… So for a person to be healthy and be present means to be present in meaningful ways" (P1).

While the quantitative data (Chapter 4) found no significant difference in teaching presence, cognitive presence and social presence (as measured by the CoI) between servant leadership and non-servant leadership courses, the qualitative data revealed that the teaching presence of the servant leader instructors had an impact on student experience.

Good feedback. Challenging my world view. Providing a broader perspective of leadership and leadership development (S8)

Personal stories about his own experience and challenges with servant leadership and feedback on posts and papers, especially in the form of questions (S12).

The non-servant leadership classroom evidenced no such comments.

The CoI describes teaching presence as incorporating both course design and instructor behavior (Arbaugh, Cleveland-Innes, Diaz, Garrison, Ice, Richardship, & Swan, 2008). This study found that when servant leadership is present not only in the instruction, but is inherent in the course from its very beginnings, its influence becomes part of the very

foundation of the course, and it creates a more holistic, influential learning experience for students. When an online course incorporates the different components necessary for optimal learning (experience, reflection, action, and integration) the whole person is educated and grows. One professor suggested:

> *Whatever class it is, I would just frame it to be an engager of the whole person…..*
> *Online course developers can be taught how to design assignments that encourage*
> *students to [develop more fully]. Application activities can be developed to practice*
> *the characteristics, and servant leadership principles can be filtered into the way the*
> *topics are set up (P1).*

Another important theme which emerged from the interviews was that teachers in any discipline can be servant teachers by inculcating servant leadership into their personhood, as servant leadership transcends all topics and allows engagement at deeper levels. It must be noted, however, that institutions which want to move in a servant leadership direction need to provide their new instructors with extensive teaching and mentoring right from the start.

Andragogy and Best Practices

Strong evidence of best practices of effective teaching were found in these online servant leadership classrooms. This is likely a result of the similarities between best practices of teaching and servant leadership principles and characteristics. Both best practices of effective teachers and servant leadership principles have overlap with principles of andragogy. All can be naturally applied into the online classroom.

Interviews and course documents revealed that servant teachers encourage purposeful learning. One professor indicated that he strongly encourages this in his courses.

Knowledge is important, but until it becomes alive through experience you really

don't have it. So that is why we always try to say 'integrate your experience with the

knowledge,' and that way we come to know it and reflect on it (P2).

This concurs with Chickering & Gamson (1987) who suggest that effective teachers

help students see relevance and purpose in learning, and andragogical learning theory

suggests that adults seek learning which is purposeful and designed to meet a specific need

(Knowles, Holten, & Swanson, 2012).

In addition, this study revealed that servant teachers convey an attitude of respect to

their students. Best practices suggest that teachers treat students with respect and fairness

(Bhada, 2002; Delaney, Johnson, Johnson, & Treslan, 2010; Murry, Gillese, Lennon,

Mercer, & Robinson, 1996). Respect is also inherent in an andragogical approach to

learning (Knowles et al., 2012).

Some of the prevalent themes which emerged in triangulation with course artifacts

and interviews are also listed as best practices of effective teachers. Examples are:

- Listening was one of the topics most discussed in interviews and discussion

boards; best practices suggest that effective teachers communicate well and are good

listeners (Hannay et al., 2010; Ramsey & Fitzgibbons, 2005).

- Triangulation revealed that building community was a prevalent theme

throughout these courses; effective teachers are described as appreciating diverse ways of

learning and working to develop a collaborative community (Chickering & Gamson, 1987).

- Commitment to the growth of others was evident throughout the study;

effective teachers have been described as having high expectations and empowering

students (Bhada, 2002; Chickering & Gamson, 1987; Delaney et al., 2010; Murry et al.,1996).

Triangulation revealed that instructors also applied the principles of being learning-centered, including the principle of 'first among equals,' valuing previous life experience, acknowledging internal motivation of students, and flowing learning to the interest of the students. Malcolm Knowles' andragogical learning theory assumes that adults move from being dependent toward being self-directed, that the learner has a great deal of experience when they enter the educational situation, and they are motivated by internal factors such as self-esteem and self-actualization (Knowles et al., 2012; Merriam, Caffarella, & Baumgartner, 2007).

This study revealed that online servant teachers valued ongoing feedback to and from students, and employed a variety of traditional online teaching tools and methods to accomplish this. This included the usage of discussion boards, emails, assigning projects and papers, posting announcements, asking questions, and reviewing student evaluations. One instructor commented:

> *I make a lot of comments on their papers. I spend a lot of time on that and try to give useful, encouraging comments. I try as much as possible to be very sensitive to what is going to be most helpful for students to hear…. I emphasize the strengths, post questions where I see weaknesses, and invite them to think through a particular section…. I try to encourage students in many ways, including appreciating their writing skills and nurturing potential….Sometimes it is just a deep appreciation for the remarkable spirit that you find in people. For those and other reasons, it is a great joy for me to read papers (P3).*

Instructors reported using a lot of questions in their feedback, and that allowed additional learning opportunities.

The better learning comes from asking questions. If I read something in a student's paper that either strikes me as not understanding [the topic] accurately, I will try to ask questions designed to spark student thought to reconsider whatever the particular point was (P3).

In a similar way, one of the best practices of effective instructors has been described as providing prompt and clear feedback, and this practice is even more crucial online than it is in the face-to-face classroom (Bhada, 2002; Delaney et al., 2010; Murry et al.,1996). Prompt and clear feedback is an important aspect of creating teaching presence in the online classroom, and strengthening the Community of Inquiry (Arbaugh et al., 2008).

Mentoring

Mentoring is described as one of the three most important jobs of a university, and at least as important now as it was in Colonial times when students lived and studied with their tutors (Christiansen & Eyring, 2011). Mentoring in higher education has been linked to student success including increasing retention rates, timely degree completion, academic success, scholarly productivity, and subsequent career achievement (Campbell & Campbell, 1997; Nakamura & Shernoff, 2009).

With the growth of online learning, it is vital that institutions find a way to mentor students in this realm, providing group and individual encouragement, guidance, and introspection (Christiansen & Eyring, 2011). Servant leadership applied to the online classroom may inform the field of e-mentoring, providing opportunities for students to connect with their instructor or a facilitator in this regard (Thompson et al., 2010).

Mentoring in online learning also correlates with improved Communities of Inquiry in terms of increasing teaching presence.

Through triangulation of interviews and analysis of course artifacts, this study (Chapters 3 and 4) revealed that a professional level of mentoring is occurring in the servant-led online classroom.

Evidence of Success

Triangulation confirmed that everything in the servant leadership course was aimed towards satisfying Greenleaf's 'best test', which examines the impact on those served as the ultimate measure of servant leadership success. According to one professor,

[Greenleaf's 'best test'] is the essential way in which servant leadership is determined to be present or absent, or present in some degree. And it informs the way I go about teaching this course (P3).

Interviews, document and discussion board analysis, and student feedback provided evidence of growth being realized, and Greenleaf's 'best test' being satisfied. Not only do instructors see growth in their students, but they grow as a result of the courses as well, reaffirming the concept of servant leadership as a developmental and an ongoing process.

Indeed, at the end of each course I have felt like I have learned at least as much from students as I imagine they have learned from me (P3).

Data from Chapter 4 indicated that, although quantitative data in both servant leadership and non-servant leadership courses showed an equal amount of growth. However, students in servant leadership courses indicated that growth had been transformational as well. For example, one student commented:

I think I have developed a different perspective not only when identifying with

leadership and who I want to be as a leader, but also a different perspective on life

and how I want to live in general (S11).

This verifies a statement made by one of the servant leadership teachers who participated in this study that if you have a legitimate interior learning theme that every student can see, there will be growth in more than just the subject. "If you have courses in which you don't have anything like that, then they are going to progress, but probably just in the intellect of whatever they are learning."

Chapter 4 also revealed differences in terms of students who reported no growth in the class. One was from the servant leadership course, and one was from the non-servant leadership course. However, their reasoning was very different. The one from the non-servant leadership course did not take responsibility, and blamed the teacher stating "There was very little feedback in the course or room to really be challenged or to grow" (S10). In contrast, the person from the servant leadership course who reported no growth as a result of the course claimed responsibility for their experience, and said, "I should devote more time to the subject matter" (S11). This person concluded that he or she did not grow because of a lack of personal effort.

Servant Leadership as a Pedagogical Approach

Servant leadership was found to be an effective pedagogical approach for higher education online learning, and could be transformational for both the student and teacher. Instructors emphasized that this approach to teaching can be used in any classroom situation.

I think it is about human development and human relationships. You could take these principles and apply them to online teachers across the board to impact students in a positive way. I really believe that if all faculty members would be engaged that way, it would enhance their students and their engagement, whether it is face-to-face or online (P2).

Servant leadership themes prevalent in a servant teacher's online classroom are in line with best practices of online learning, and support principles of andragogy. In addition, servant leadership in the classroom results in a strong teaching presence, and hence an online community of inquiry which provides an effective educational experience for students. One instructor concluded that servant leadership applied to teaching in any forum brings vitality and engagement to any learning community.

When you have those types of professors, somebody who actually is a legitimate servant leader professor, I have never seen one that students wouldn't love to take classes from. Those classes are amazing (P1).

It has been suggested that educational institutions have a responsibility to create a strong foundation for moral literacy and caring learning communities (Goodlad, Mantle-Bromley, & Goodlad, 2004). The findings in this study suggest that servant leadership applied in the online classroom may help to fulfill that mandate in the virtual classroom. As one instructor stated, "Servant leadership isn't servant leadership unless it is moral leadership. Unless you are at least striving for moral leadership" (P2). Servant leadership's reliance on Greenleaf's 'best test' as evidence of servant leadership taking place, as well as the focus on the ten characteristics described by Spears (1995) is supportive of 'moral literacy' and 'caring learning communities.'

Examining the influence of servant leadership teacher training on teachers in non-servant leadership courses in all fields may be beneficial in informing online learning. It may also be helpful to approach this as a longitudinal study, and measure the long-term effectiveness of servant leadership training on instructors.

A study which included a servant leadership training program, as well as a control group, may assist in understanding the potential impact of servant leadership training on the educational outcomes of students and the online learning experience of both students and instructors. This training could include teachers from a variety of disciplines to further identify the potential impact across fields. Additional research could be conducted examining the impact of course design which incorporates servant leadership principles throughout. This would provide additional insights into the potential of servant leadership as a pedagogical approach to higher education online learning.

This study of servant leadership informs the online teaching field about how to increase teaching presence and to effectively apply andragogical principles into the higher education online classroom. Since a strong teaching presence is the foundation for creating a strong online community of inquiry, those seeking to expand online teaching in their organizations should be especially cognizant of finding ways to increase instructor effectiveness in this regard. In addition, since research indicates that mentoring increases one's overall success in life, and mentoring is inherent to the servant leadership approach, implementing the servant leadership model in online learning can enhance the instructor's effectiveness and the student's success.

References

Allan, I. E., & Seaman, J. (2013). *Changing course: Ten years of tracking online education in the United States.* Babson Survey Research Group. Retrieved from http://files.eric.ed.gov/fulltext/ED541571.pdf.

Anderson, T., Rourke, L., Garrison, D.R., & Archer, W. (2001). Assessing teaching presence in a computer conference environment. *Journal of Asynchronous Learning Networks, 5*(2), 1-17.

Arbaugh, J. B., Cleveland-Innes, M., Diaz, S., Garrison, D. R. Ice, P., Richardson, J. C., & Swan, K. P. (2008). Developing a community of inquiry instrument: Testing a measure of the Community of Inquiry framework using a multi-institutional sample. *Internet and Higher Education, 11*, 133-136.

Berg, G. A. (2013). Distance learning. In *Encyclopedia Brittanica*. Retrieved from http://www.britannica.com/EBchecked/topic/1482174/distance-learning.

Bhada, Y. K. (2002, Nov/Dec.) Top of the class. *BizEd*. 22-27.

Bowman, R. F. (2005). Teacher as servant leader. *The Clearing House*, *78*(6), 257-259.

Campbell, T., & Campbell, D. (1997). Faculty/student mentoring program: Effects on academic performance and retention. *Research in Higher Education, 38*(6), 727-742.

Chickering, A. W., & Gamson, Z. F. (1987). Seven principles of good practice in undergraduate education. *AAHE Bulletin, 39*(7), 3-7.

Christiansen, C. M., & Eyring, H. J. (2011). *The innovative university: Changing the DNA of higher education.* San Francisco: Jossey-Bass.

Crippen, C. (2010). Serve, teach, and lead: It's all about relationships. *Insight: A Journal of Scholarly Teaching*, *5,* 27-36.

Delaney J, Johnson A, Johnson T, & Treslan D. (2010). Students' perceptions of effective

    teaching in higher education. *26ᵗʰ Annual Conference on Distance Teaching &*

    Learning. Retrieved from

    http://www.uwex.edu/disted/conference/Resource_library/handouts/28251_10H.pdf

Drury, S. (2005, August). Teacher as servant leader: A faculty model for effectiveness with

    students. In *Servant Leadership Research Roundtable*. Symposium conducted at

    School of Leadership Studies, Regent University. Retrieved from

    http://www.drurywriting.com/sharon/drury_teacher_servant.pdf

Focht, A. (2011). *Identifying primary characteristics of servant leadership: A Delphi study.*

    Regent University.

Goodlad, J. I., Mantle-Bromley, C., & Goodlad, S. J. (2004). *Education for everyone:*

    Agenda for education in a democracy. Jossey-Bass, San Francisco, CA.

Greenleaf, R. K. (1977). *A journey into the nature of legitimate power & greatness.* NJ:

    Paulist

Greenleaf, R. K. (1991). *The servant as leader.* Indianapolis, IN: The Robert K. Greenleaf

    Center.

Hannay, M., Kitahara, R., & Fretwell, C. (2010, March). Student-focused strategies for the

    modern classroom. *Journal of Instructional Pedagogies, 2,* 1-16.

Harris, B. A. (2004) *Learning to serve: How Robert K. Greenleaf's theory of servant*

    leadership can be applied by the adult educator with learners. Unpublished

    manuscript, School of Professional Studies, Fresno Pacific University.

Hays, J. M. (2008, Winter). Teacher as servant application of Greenleaf's servant leadership

    in higher education. *Journal of Global Business Issues, 2*(1), 113-134.

Johnson, A. C., & Vishwanath, K. R. (2011). Servant professorship and its implications. *International Journal of Education Research, 6*(1), 135-146.

Knowles, M. S., Holton, E. F., & Swanson, R. A. (2012). *The adult learner: The definitive classic in adult education and human resource development* (7th ed.). New York, NY: Routledge.

McClellan, J. L. (2007). The advisor as servant: The theoretical and philosophical relevance of servant leadership to academic advising. *NACADA Journal*, *27*(2), 41-49.

Merriam, S. B., Caffarella, R. S., & Baumgartner, L. M. (2007). *Learning in adulthood: A comprehensive guide* (3rd ed.). San Francisco, CA: Jossey-Bass.

Murry, H., Gillese, E., Lennon, M., Mercer, P. & Robinson, M. (1996). Ethical principles in university teaching. *Society for Teaching and Learning in Higher Education.*

Nakamura, J., & Shernoff, D. J. (2009). *Good mentoring: Fostering excellent practice in higher education.* San Francisco, CA: Wiley & Sons.

Ramsey, V. J. & Fitzgibbons, D. E. (2005). Being in the classroom. *Journal of Management Education, 29,* 333-356.

Shea, P., & Bidjerano, T. (2010). Learning presence: Towards a theory of self-efficacy, self-regulation, and the development of a communities of inquiry in online and blended learning environments. *Computers & Education, 55*(4), 1721-1731.

Steele, N. A. (2010). Three characteristics of effective teachers. *Update: Applications of research in music education, 28*(2), 71-78.

Spears, L. (1995). Tracing the growing impact of servant leadership, in Spears, L. (Ed.), *Insights on Servant Leadership: Service, stewardship, spirit, and servant leadership,* (pp. 1-12). New York, NY: John Wiley and Sons.

Taylor, L., & Huang, H. (2010). *Student perceptions of face-to-face, hybrid, and online courses and their engagement in online communication.* Paper presented at the International Conference of Web 2.0 and Education, Jhongli City, Taiwan.

Thompson, L., Jeffries, M., & Topping, K. (2010). E-mentoring for e-learning development. *Innovations in Education and Teaching International, 47*(3), 305-315.

Van de Bunt-Kokhuis, S. (2012). Servant leadership: The online way! E-learning where community building is key. *European Journal of Open, Distance and E-Learning, 12*(1).

Ward, M. E., Peters, G., & Shelley, K. (2010). Student and faculty perceptions of the quality of online learning experiences. *The International Review of Research in Open and Distance Learning, 11*(3).

APPENDICES

Appendix A

Demographic Instructor Survey Information

Directions: Please answer the following questions as they relate to your current teaching situation.

I am a:
- ○ Male (1)
- ○ Female (2)

Age:
- ○ less than 25 (1)
- ○ 25-34 (2)
- ○ 35-44 (3)
- ○ 45-54 (4)
- ○ 55-64 (5)
- ○ 65+ (6)

How long have you taught online for BYU-Idaho?
- ○ less than one semester (1)
- ○ 1-2 semesters (2)
- ○ 3-5 semesters (3)
- ○ over 5 semesters (4)

Have you ever taught online for other universities?
- ○ Yes (9)
- ○ No (10)

Answer If Have you ever taught online for other universities? Yes Is Selected

Q54 For which other university(ies) have you taught online?

Answer If Have you ever taught online for other universities? Yes Is Selected

How long have you taught online for other universities?
- ○ less than one semester (1)
- ○ 1-2 semesters (2)
- ○ 3-5 semesters (3)
- ○ over 5 semesters (4)

In what department/subject area do you teach?
- ○ Art (1)
- ○ Biology (2)
- ○ Business (3)
- ○ Communications (4)
- ○ English (5)
- ○ Foundations (6)
- ○ Home and Family (7)
- ○ Language (8)
- ○ Math (9)
- ○ Pathway (10)
- ○ Religious Education (11)
- ○ Science (12)
- ○ Sociology/Psychology (13)

How were you prepared to teach? Check all that apply.
- ❑ Undergraduate teacher education program (teacher certification) (1)

❑   Graduate program of one year beyond bachelor's degree (2)
❑   Combined undergraduate and graduate programs (3)
❑   Doctorate level program (4)
❑   Online teacher training program (5)
❑   Other specialized trainings (6)

Would you be willing to participate in a confidential focus group discussing your teaching group experience?
❍   Yes (9)
❍   No (10)

Appendix B

Online Instructor Self-Efficacy Survey

Online Instructor Self-efficacy Survey

adapted from the Online Educator Self-Efficacy Scale (OESES), the Online Technologies Self-Efficacy Sale (OTSES), Lee's Self-efficacy Instrument, and Tschannen-Moran & Hoy's Teacher Efficacy Construct.

This assessment is divided into two sections. Section I includes information about the survey and asks for your willingness to participate. Section II contains items designed to assess the self-efficacy of online teachers' pedagogical skills, technical skills, and subject matter expertise.

SECTION I: Informed Consent

You are invited to participate in a survey. The goal of this research study is to identify self-efficacy of instructors in online learning at BYU-Idaho. This study is being conducted by Heather (Bosworth) Carter, Jeffrey Hochstrasser, Rachel Huber, and Brett Yadon, in association with the University of Idaho. In order to participate in this study you need to be an online learning instructor at BYU-Idaho. Participation in this study is voluntary. If you agree to participate in this study, you would be asked to complete a short survey. The survey includes questions about your demographics, perception of your teaching in terms of use of technology, subject matter expertise, and online instruction pedagogy. Participating in this study may not benefit you directly, but it will help us learn how to improve instructor training and professional development for online education. You may skip any questions you don't want to answer and you may end the survey at any time. The information you will share with us if you participate in this study will be kept completely confidential to the full extent of the law. Your information will be assigned a code number that is unique to this study. When the study is completed and the data have been analyzed, the list linking participant's names to study numbers will be destroyed. Study findings will be presented only in summary form and your name would not be used in any report. If you have any questions about this study, please contact us. If you have questions about your rights as a research participant, please contact University of Idaho IRB. YOU WILL BE GIVEN A COPY OF THIS FORM WHETHER OR NOT YOU AGREE TO PARTICIPATE.

Your responses will be kept confidential. Thank you for completing this survey.

Do you agree to participate in this survey?
- ○   Yes (9)
- ○   No (10)

SECTION II:

Online Instructor Self-efficacy Survey

Directions: For each of the following topics, select the box that best indicates your level of confidence in performing the described teaching task.

Pedagogical skill: Assess your level of confidence in accomplishing the following pedagogical techniques online.

Q11 Addressing the diverse needs of students
- Very Confident (1)
- Somewhat Confident (2)
- Not Very Confident (3)
- Not Confident At All (4)

Q61 Responding promptly to student questions and concerns
- Very Confident (1)
- Somewhat Confident (2)
- Not Very Confident (3)
- Not Confident At All (4)

Q12 Successfully teaching difficult students
- Very Confident (1)
- Somewhat Confident (2)
- Not Very Confident (3)
- Not Confident At All (4)

Q13 Exerting a positive influence on the personal development of my students
- Very Confident (1)
- Somewhat Confident (2)
- Not Very Confident (3)
- Not Confident At All (4)

Q63 Exerting a positive influence on the academic development of my students
- Very Confident (1)
- Somewhat Confident (2)
- Not Very Confident (3)
- Not Confident At All (4)

Q22 Crafting critical questions for students (questions that require analytical thinking)
- Very Confident (1)
- Somewhat Confident (2)
- Not Very Confident (3)
- Not Confident At All (4)

Q62 Developing critical thinking skills in my students
- ❍ Very Confident (1)
- ❍ Somewhat Confident (2)
- ❍ Not Very Confident (3)
- ❍ Not Confident At All (4)

Q23 Preparing students for the workforce
- ❍ Very Confident (1)
- ❍ Somewhat Confident (2)
- ❍ Not Very Confident (3)
- ❍ Not Confident At All (4)

Q15 Requiring my students to think beyond content toward application and discovery
- ❍ Very Confident (1)
- ❍ Somewhat Confident (2)
- ❍ Not Very Confident (3)
- ❍ Not Confident At All (4)

Q14 Supporting student interaction in asynchronous online discussions (forums or discussion boards)
- ❍ Very Confident (1)
- ❍ Somewhat Confident (2)
- ❍ Not Very Confident (3)
- ❍ Not Confident At All (4)

Q59 Supporting student interaction in synchronous class settings (Adobe Connect or Skype)
- ❍ Very Confident (1)
- ❍ Somewhat Confident (2)
- ❍ Not Very Confident (3)
- ❍ Not Confident At All (4)

Q16 Building a community where students interact with and learn from each other
- ❍ Very Confident (1)
- ❍ Somewhat Confident (2)
- ❍ Not Very Confident (3)
- ❍ Not Confident At All (4)

Q64 What has had the biggest impact in your feelings of confidence in teaching online?

Technological skill: Assess your level of confidence in performing the following technical skills online.

Q28 Copying and pasting content
- ❍ Very Confident (1)
- ❍ Somewhat Confident (2)
- ❍ Not Very Confident (3)
- ❍ Not Confident At All (4)

Q26 Bookmarking a website
- ○   Very Confident (1)
- ○   Somewhat Confident (2)
- ○   Not Very Confident (3)
- ○   Not Confident At All (4)

Q27 Creating a hyperlink and sharing the hyperlink with students
- ○   Very Confident (1)
- ○   Somewhat Confident (2)
- ○   Not Very Confident (3)
- ○   Not Confident At All (4)

Q29 Downloading (saving) an image from a web site to your computer
- ○   Very Confident (1)
- ○   Somewhat Confident (2)
- ○   Not Very Confident (3)
- ○   Not Confident At All (4)

Q30 Uploading or attaching an image to classroom notes or announcements
- ○   Very Confident (1)
- ○   Somewhat Confident (2)
- ○   Not Very Confident (3)
- ○   Not Confident At All (4)

Q31 Chatting live via a synchronous chat system such as Adobe Connect or Skype
- ○   Very Confident (1)
- ○   Somewhat Confident (2)
- ○   Not Very Confident (3)
- ○   Not Confident At All (4)

Q32 Reading messages from one or more members of the synchronous chat system (Adobe Connect/Skype)
- ○   Very Confident (1)
- ○   Somewhat Confident (2)
- ○   Not Very Confident (3)
- ○   Not Confident At All (4)

Q33 Answering a message or starting my own message in a synchronous chat system (Adobe Connect/Skype)
- ○   Very Confident (1)
- ○   Somewhat Confident (2)
- ○   Not Very Confident (3)
- ○   Not Confident At All (4)

Q34 Using video and microphones in a synchronous chat system (Adobe Connect/Skype)
- ○   Very Confident (1)
- ○   Somewhat Confident (2)
- ○   Not Very Confident (3)
- ○   Not Confident At All (4)

Q36 Logging on and off the my BYUI email system
○ Very Confident (1)
○ Somewhat Confident (2)
○ Not Very Confident (3)
○ Not Confident At All (4)

Q37 Sending an email message to more than one person at the same time using the mail system in I-Learn
○ Very Confident (1)
○ Somewhat Confident (2)
○ Not Very Confident (3)
○ Not Confident At All (4)

Q38 Attaching a file to an email message
○ Very Confident (1)
○ Somewhat Confident (2)
○ Not Very Confident (3)
○ Not Confident At All (4)

Q45 Updating course notes and announcements
○ Very Confident (1)
○ Somewhat Confident (2)
○ Not Very Confident (3)
○ Not Confident At All (4)

Q39 Creating a new thread in an online discussion board
○ Very Confident (1)
○ Somewhat Confident (2)
○ Not Very Confident (3)
○ Not Confident At All (4)

Q41 Replying to students' discussion board messages and questions
○ Very Confident (1)
○ Somewhat Confident (2)
○ Not Very Confident (3)
○ Not Confident At All (4)

Q42 Uploading a file to a discussion board thread
○ Very Confident (1)
○ Somewhat Confident (2)
○ Not Very Confident (3)
○ Not Confident At All (4)

Q44 Creating a screencast or podcast
○ Very Confident (1)
○ Somewhat Confident (2)
○ Not Very Confident (3)
○ Not Confident At All (4)

Q46 Sharing video and audio files with students
- ❍   Very Confident (1)
- ❍   Somewhat Confident (2)
- ❍   Not Very Confident (3)
- ❍   Not Confident At All (4)

Q65 What task do you feel most confident about executing in terms of using technology to teach online?

Q66 What task do you feel least confident about executing in terms of using technology to teach online?

Knowledge of subject matter: Assess your level of confidence in understanding the subject you teach.

Q51 Answering students' questions about the subject outside the textbook or course materials
- ❍   Very Confident (1)
- ❍   Somewhat Confident (2)
- ❍   Not Very Confident (3)
- ❍   Not Confident At All (4)

Q56 Providing an alternative explanation or example when students are confused
- ❍   Very Confident (1)
- ❍   Somewhat Confident (2)
- ❍   Not Very Confident (3)
- ❍   Not Confident At All (4)

Q57 Teaching students about the subject in simple yet engaging ways
- ❍   Very Confident (1)
- ❍   Somewhat Confident (2)
- ❍   Not Very Confident (3)
- ❍   Not Confident At All (4)

Q49 Understanding the subject well enough to effectively teach both high-performing and struggling students
- ❍   Very Confident (1)
- ❍   Somewhat Confident (2)
- ❍   Not Very Confident (3)
- ❍   Not Confident At All (4)

Q58 Increasing my content knowledge and expertise outside of the classroom
- ❍   Very Confident (1)
- ❍   Somewhat Confident (2)
- ❍   Not Very Confident (3)
- ❍   Not Confident At All (4)

Q47 Being aware of new discoveries in my field of study
- ❍ Very Confident (1)
- ❍ Somewhat Confident (2)
- ❍ Not Very Confident (3)
- ❍ Not Confident At All (4)

Q48 Sharing new discoveries in my field with my students
- ❍ Very Confident (1)
- ❍ Somewhat Confident (2)
- ❍ Not Very Confident (3)
- ❍ Not Confident At All (4)

Q52 Presenting practical, work-related knowledge of the subject to my students
- ❍ Very Confident (1)
- ❍ Somewhat Confident (2)
- ❍ Not Very Confident (3)
- ❍ Not Confident At All (4)

Q67 What do you feel has the biggest impact on your ability to teach your subject of expertise online?

Appendix C

BYU-Idaho End of Semester Course Evaluation

BYU-Idaho End of Semester Course Evaluation

Please evaluate the following instructor and course. When you are finished, click on the SUBMIT button at the bottom of the page. Your identity is completely anonymous. Please be as thorough and as accurate as possible. Your feedback is highly valued. It is used by your instructor and the school's administration to improve teaching.

Instructor:

Course:

Section:

Items about your performance in this class:

(NA = not applicable; SD = strongly agree; D = disagree; SWD = somewhat SWA = somewhat agree; A = agree; SA = strongly agree; VSA = Very strongly agree)

		A	D		WD	WA		A	SA
.	I was prepared for each class.								
.	I arrived at class on time.								
.	I was an active participant in online or face-to-face class discussions.								
.	I sought opportunities to share my learning with others outside of class.								
.	I worked hard to meet the requirements of this class.								
.	I sought opportunities to reflect on what I had learned in the class.								
.	I feel that I made important contributions to the learning and growth of fellow classmates.								
.	The course as a whole has produced new knowledge, skills, and awareness in me.								

Items about the course:

(NA = not applicable; SD = strongly agree; D = disagree; SWD = somewhat SWA = somewhat agree; A = agree; SA = strongly agree; VSA = Very strongly agree)

		A	D		WD	WA		A	SA
.	Course objectives were clear								
.	Course was well-organized.								
.	Student responsibilities and expectations were clearly defined.								
.	Instructional resources—textbook(s), course guide(s), online material, etc.—were useful and helped me to achieve course objectives.								
.	Assessment activities—exams, quizzes, papers, hands-on demonstrations, presentations, etc.—accurately and fairly measured the knowledge and abilities I acquired from the course.								
.	Class assignments contributed to my learning and growth.								
.	The course provided opportunities to learn from and teach other students.								
.	Group work, if assigned, was beneficial and meaningful.								
	Students were actively involved in this								

.	class through discussions, group work, and teaching.								

Items about the instructor:
(NA = not applicable; SD = strongly agree; D = disagree; SWD = somewhat SWA = somewhat agree; A = agree; SA = strongly agree; VSA = Very strongly agree)

		A	D		WD	WA		A	SA
.	The instructor effectively modeled problem-solving and application of subject matter.								
.	The instructor made good use of class time.								
.	When given, examples and explanations were clear.								
.	The instructor gave helpful feedback of my work.								
.	The instructor responded respectfully and constructively to student questions and viewpoints.								
.	The instructor was available to me when I requested assistance, in class or outside of class.								
.	The instructor motivated me by his or her enthusiasm to want to learn about the subject.								
.	The instructor starts/dismisses class at scheduled times.								
.	The instructor held me accountable for coming to each class prepared.								
0.	The instructor provided appropriate opportunities for me to be an active participant in the class.								
1.	The instructor provided opportunities to reflect upon my learning and experiences in the class.								

Items about core values:
(NA = not applicable; SD = strongly agree; D = disagree; SWD = somewhat SWA = somewhat agree; A = agree; SA = strongly agree; VSA = Very strongly agree)

		A	D		WD	WA		A	SA
.	Appropriately brings gospel insights and values into secular subjects.								
.	Inspires students to develop good character.								
.	Helps students prepare to live effectively in society.								
.	Is spiritually inspiring insofar as the subject matter permits.								

Overall rating:
(VP = very poor; P = poor; F = fair; G = good; VG = very good; E = excellent; EP = exceptional)

		P				G		P
.	What is your overall rating of this instructor.							
.	What is your overall rating of this course.							

Other information:
(GDL = a great deal less; ALL = a little less; AS = about the same; ALM = a little more; GDM = a great deal more)

		DL	LL	S	LM	DM
.	Compared to other college courses you have taken, would you say that you learned...					
.	Compared to other college courses you have taken, would you say that your satisfaction is...					

The approximate number of hours per week that I have spent in outside preparation for this class is									+

My class attendance has been	9 0% to 100%	0%	5%	0%	a ttended

This course fills requirements for my...	ajor	inor	GE/Fo undations	lective	ther

The grade I expect from this course...					ther

Open-ended questions:
Is there anything about this course and/or instructor that was particular good? If so, what?
What could be done to improve this course to help you learn more?

Appendix D

BYU-Idaho and University of Idaho IRB Approval

BYU
IDAHO

October 21, 2013

Dear Heather,

Your request to use human subjects for the study entitled *Assessment of Online Learning and Technologies in Higher Education* is approved for 12 months from the date of this letter.

Please notify the IRB if you intend to make any significant modifications to the study's design or implementation.

Good luck with your study.

Regards,

Scott J. Bergstrom, Ph.D.
Chair, BYU-Idaho Institutional Review Board

University*of*Idaho

September 19, 2013

To: Linda Taylor

C.C. Heather Carter, Jeffrey Hochstrasser, Rachel Huber & Brett Yadon

From: Traci Craig, PhD

Chair, University of Idaho Institutional Review Board
University Research Office
Moscow, ID 83844-3010

Title: 'Assessment of Online Learning and Technologies in Higher Education

Project: 13-201

Approved: 09-19-13

Expires: 09-18-14

On behalf of the Institutional Review Board at the University of Idaho, I am pleased to inform you that the protocol for the above-named research project is approved as offering no significant risk to human subjects.

This approval is valid for one year from the date of this memo. Should there be significant changes in the protocol for this project, it will be necessary for you to resubmit the protocol for review by the Committee.

Traci Craig

Traci Craig

University of Idaho Institutional Review Board: IRB00000843, FWA0000563

Appendix E

Interview Questions

Interview Questions

1. **Listening:**
   How do you apply the servant leadership trait of "listening" in your online classroom?
   a. How does your understanding of listening impact your teaching?
   b. How do you see this influencing your students?
   c. How do you teach your students to listen as a servant leader, other than by example?
   d. Do you perceive your students improving their servant leader-type listening skills as they participate in your course?
   e. Describe how you are flexible in your teaching in order to meet the diverse needs of your students.
   f. What activities or assignments do you have that require reflection? By the end of the course are the students' responses to these reflection questions lengthier? More articulate? More detailed or substantial?

2. **Empathy:**
   How do you apply the servant leadership trait of "empathy" in your online classroom?
   a. How does your understanding of empathy impact your teaching? How do you know this influences your students?
   b. How would you describe the level of trust between you and your students?
   c. How do you teach your students to empathize as a servant leader, other than by example? How do you know that you have been successful in accomplishing this?

3. **Healing:**
   How do you apply the servant leadership trait of "healing" in your online classroom?
   a. How does your understanding of healing impact your teaching? How does this influence your students? How do you measure your success in this area?
   b. How do you stay alert to the needs of your students?
   c. When you sense that a student may need extra care or concern, do you approach the students with an offer of help? If so, how?
   d. How do you maintain a happy, positive school environment? How do you create a sense of wellness in your class?

4. **Awareness:**
   How do you apply the servant leadership trait of "awareness" into your online classroom?
   a. How does your understanding of awareness impact your teaching? How does this influence your students?
   b. Are you aware of what is going on in your students' lives, and able to adapt lesson plans accordingly?

    c.   Describe if and how you remain a student of your students, seeking feedback on strengths and weaknesses, and using that feedback to map courses of change.

    d.   How do you strive for congruency—making connections between what you know and believe, and what you say and do? How do you encourage your students to do the same?

5.   Persuasion:
How do you apply the servant leadership trait of "persuasion" in your online classroom?

    a.   How do you work on improving your skill at persuading students, rather than relying on coercive power?

    b.   How does your understanding of persuasion impact your interactions with your students?

    c.   Do you use stories in your teaching as a teaching aid to increase your persuasive influence? Would you say the purpose of these stories is to inform, entertain, and/or inspire? Describe what this looks like.

    d.   How do you teach your students to use persuasion as servant leaders, other than by your example? How do you measure if you have been successful in accomplishing this?

    e.   How do you attempt to discover what motivates your students?

    f.   How do you attempt to identify students' values, attitudes, and beliefs?

    g.   How do you maintain academic professionalism, consistency, reliability, and a solid emotional character in your virtual classroom?

    h.   How do you build consensus and share power in your classroom?

6.   Conceptualization:
How do you apply the servant leadership trait of "conceptualization" in your online classroom?

    a.   How are you able to state and adjust goals, evaluate, analyze, and foresee contingencies a long way ahead?

    b.   How do you nurture their students' ability to dream great dreams?

    c.   Are you able to see the big picture, and to work effectively within it?

    d.   Are you able to conceptualize the lesson, the day, the week, etc., and look beyond the day-to-day realities of the class to long-term needs?

    e.   How do you strive every day to make small differences in the lives of your students?

    f.   How do you help students see complexities of issues, and then equip them with tools to work through those issues?

7.   Foresight:
How do you use the servant leadership trait of "foresight" in your online teaching?

    a.   What role do you see that your own experience plays in your ability to use foresight?

    b.   In what way are you able to focus on experiential learning in the online classroom?

    c.   In what way are you able to develop a shared vision with your students? How do you see that influencing them?

8.   Stewardship:
How do you apply the servant leadership characteristic of "stewardship" in your online classroom?
    a.   How does a sense of accountability to the institution play a role in your teaching?
    b.   How do you focus on the needs of the student, keeping a learning-centered approach to teaching?
    c.   How do you focus on long-term results and sustainability with your students?

9.   Committed to the growth of people:
    1.   How do you apply the servant leadership trait of "commitment to the growth of people" in your online classroom?
    a.   How does your understanding of this trait impact your teaching and your interactions with your students?
    b.   How do you proactively recognize students' accomplishments?
    c.   It has been said that servant professors will ask themselves, "What are three things I can do this week to hold myself accountable for the growth of others." Do you do this type of thing? If so, what does that look like?
    d.   How do you try to instill this value in your students, other than by your example? How do you know you have been successful accomplishing this? – How do you measure your success in this area?

10.   Build community.
    1.   How do you apply the servant leadership trait of "building community" to your online classroom?
    a.   How do you help your students experience a true sense of community and connection with their peers in your online classroom? Describe the methods you use to make this happen.
    b.   How do you help students learn to genuinely care about each other?
    c.   How does your understanding of community building impact your teaching and your interactions with your students?
    d.   How do you try to instill this value in your students so that they will continue to strive to build community in the other institutions and organizations they are part of?
    e.   What does your online classroom look like in terms of roles—do students and teacher interchange in their roles of expert and apprentice or student and teacher?

11.   Overall
    a.   What changes have you made in applying servant leadership to the online classroom, which you did not (or would not) do in the face-to-face classroom?
    b.   According to Greenleaf's best test, we know we are being servant leaders when those served grow as persons, and become healthier, wiser, freer, more

autonomous, more likely themselves to become servants (Greenleaf, 1991). Do you see this result in your students, and if so, to what extent? What percentage of students?

c.   Do you see you leading your students toward self-actualization as they progress through this course? If so, do you have some stories about that? What percentage?

d.   Do you perceive servant leadership is an effective philosophy for online courses? If so, why? What makes it effective? What makes it better than other approaches?

Appendix F

Community of Inquiry (CoI) Survey Instrument

Community of Inquiry (CoI) Survey Instrument

Arbaugh, J.B., Cleveland-Innes, M., Diaz, S.R., Garrison, D.R., Ice, P., Richardson, & Swan, K.P. (2008). Developing a community of inquiry instrument: Testing a measure of the Community of Inquiry framework using a multi-institutional sample. *The Internet and higher Education*, 11(3-4), 133-136

1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

		D			A
Teaching Presence					
Design & Organization					
	The instructor clearly communicated important course topics.				
	The instructor clearly communicated important course goals.				
	The instructor provided clear instructions on how to participate in course learning activities.				
	The instructor clearly communicated important due dates/time frames for learning activities.				
Facilitation					
	The instructor was helpful in identifying areas of agreement and disagreement on course topics that helped me to learn.				
	The instructor was helpful in guiding the class towards understanding course topics in a way that helped me clarify my thinking.				
	The instructor helped to keep course participants engaged and participating in productive dialogue.				
	The instructor helped keep the course participants on task in a way that helped me to learn.				
	The instructor encouraged course participants to explore new concepts in this course.				
	Instructor actions reinforced the development of a sense of community among course participants.				
Direct Instruction					
	The instructor helped to focus discussion on relevant issues in a way that helped me to learn.				
	The instructor provided feedback that helped me understand my strengths and weaknesses.				
	The instructor provided feedback in a timely fashion.				
Social Presence					
Affective expression					
	Getting to know other course participants gave me a sense of belonging in the course.				

I was able to form distinct impressions of some course participants.					
Online or web-based communication is an excellent medium for social interaction.					
Open communication					
I felt comfortable conversing through the online medium.					
I felt comfortable participating in the course discussions.					
I felt comfortable interacting with other course participants.					
Group cohesion					
I felt comfortable disagreeing with other course participants while still maintaining a sense of trust.					
I felt that my point of view was acknowledged by other course participants.					
Online discussions help me to develop a sense of collaboration.					
Cognitive Presence					
Triggering event					
Problems posed increased my interest in course issues.					
Course activities piqued my curiosity.					
I felt motivated to explore content related questions.					
Exploration					
I utilized a variety of information sources to explore problems posed in this course.					
Brainstorming and finding relevant information helped me resolve content related questions.					
Online discussions were valuable in helping me appreciate different perspectives.					
Integration					
Combining new information helped me answer questions raised in course activities.					
Learning activities helped me construct explanations/solutions.					
Reflection on course content and discussions helped me understand fundamental concepts in this class.					
Resolution					
I can describe ways to test and apply the knowledge created in this course.					
I have developed solutions to course problems that can be applied in practice.					
I can apply the knowledge created in this course ton my work or other non-class related activities					

Appendix G

Servant Teacher Inventory

Servant Teacher Inventory: LEADER PROFILE ASSESSMENT

Please circle the numeral for the response that best / most often describes the leader / leader's actions assessed.

1. Endeavours to understand; expresses interest in what I or others say. Really wants to know what we are thinking.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

2. Shows he / she understands us.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

3. He or she really cares about me (or others) and how we are doing.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

4. Helps us understand.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

5. Knows what is going on in the classroom (team, situation) and adjusts accordingly.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

6. Has a vision for us; wants us to become the vision.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

7. Helps us see the big picture, how everything relates and fits together, how each activity and topic we cover add and build into something more important.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

8. Clearly committed to my learning, growth, and improvement.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

9. More concerned with doing the right thing in the long-term than doing what is easiest or most attractive today.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

10. Sees us as a community; strives to create a shared culture and environment that fosters the greatest learning.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

11. Actively listens.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

12. Sensitive to our feelings.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

13. Helps me to improve.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

14. Creates opportunities for us to see or do things differently.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

15. Knows what he or she is doing that is helping or hurting, and adjusts accordingly.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

16. Knows where we are and where we are going; knows what might be holding us back and what we need to do differently.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

17. Makes sure we don't get caught up in trivial matters, pedantic debates, or insignificant facts or definitions and ensures we see the more important principles, concepts, and applications.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

18. Creates a conscious culture of learning.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

19. Cares about our welfare, both in and out of the classroom.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

20. Strives to help us find and express our individuality, while creating an appreciation and tolerance for diversity.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

21. Makes everyone feel involved. Makes us want to participate.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

22. Tries to "connect" with us.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

23. Accepts responsibility for previous or current problems and tries to make things better so that we all benefit.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

24. Wants us to think for ourselves.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

25. Helps us appreciate the complexity of the situation and understand it more fully and objectively.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

26. Sees opportunities for learning, change, and improvement.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

27. Helps us visualise difficult ideas and abstract concepts and make sense of things that seem unrelated or irrelevant.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

28. Shows an interest in his or her own learning and development.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

29. Goes above and beyond the "call of duty" in serving us.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

30. Helps us see that while we are all in different places, we are all on the journey together.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

31. Criticises me or other learners. Makes me / us feel "wrong" or irrelevant.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

32. Doesn't blame me or others; sees him- or herself as part of the problem and is willing to change and adapt.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

33. Helps us understand what we are doing (or thinking) that might be holding us back and so see things more positively and take more effective action.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

34. Tells us what to think. Makes us feel that only he or she is right.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

35. Is reflective.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

36. Looks at the big picture and helps us understand it; takes us from being buried in the trees to seeing the forest from above.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

37. Finds meaning and relevance in issues, events, facts, situations, and experiences.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

38. Knows his or her own strengths and weaknesses, and works to improve and change.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

39. Sees him- or herself as "the boss" as, thus, deserving of greater respect and privilege than us.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

40. Facilitates building a vision of learning we all believe in and strive for.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

41. Shows that we all have something interesting and relevant to say; finds value in our comments.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

42. Tries to put him- or herself into our shoes and see our point of view.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

43. Cares about making the world a better place.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

44. Talks about what is important, what matters; and helps me to discover what I believe is important.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

45. Helps us develop our own skills and practice of reflection and mindfulness.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

46. Committed to doing the right thing, not the expedient or simplest thing.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

47. Helps us see the different sides of issues, events, situations, and experiences, and consider their implications.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

48. Sees him- or herself – and us – as on a continuous journey of learning and change; doesn't stop at some arbitrary terminal destination; there is no "end point" to learning, just the first step on the start of a new level or direction of learning and improvement.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

49. Provides skills, knowledge, and attitudes that will serve us long into the future, and helps us see their value.

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always

50. This is a democratic environment; we all have a voice, and our voice matters!

1	2	3	4	5
Never - Seldom	Infrequently, but Occasionally	Half the Time	More Often than Not	Very Often - Always