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An Investigation into the Training of Instructors of Online Graduate Education Courses at Institutions of Higher Education

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An Investigation into the Training of Instructors of Online Graduate Education Courses at Institutions of Higher Education

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Title: An Investigation Into the Training of Instructors of Online Graduate Education Courses at Institutions of Higher Education

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Historically, courses offered at institutions of higher education took place within the confines of brick and mortar classrooms. Over time, opportunities to enroll in distance education courses through higher educational institutions have been available in many different formats; however, the most recent is online instruction and online learning. Online instruction requires a different type of preparation than traditional face-to-face instruction. It requires varied instructional, technological, and pedagogical tools. It has been found that little or no effective training is provided for instructors to teach online courses at the higher education level, and therefore instructors proceed to teach in a similar manner as a face-to-face classroom course, or in the way they were instructed as students. One of the flaws in online education is that instructors do not know how to be supportive of student engagement because of the limited pedagogical knowledge the instructors have of how to create an engaging online course as well as limited knowledge of the integration of technology.

This research study includes surveying and interviewing instructors teaching an online graduate education course at an institution of higher education. This research will fill the gap in the literature that exists in regard to the training of online graduate education instructors as well as the instructors' perception of that training. A non-random mixed methods approach was utilized to examine the training online graduate education instructors receive prior to teaching an

online course. It includes qualitative and quantitative components to measure the data received from the surveys and the interviews. Instructors who teach online graduate education courses at the three institutions of higher education were invited to participate in the study via email. The surveys were emailed to the sample population. The survey inquired about participation in an interview. Ten percent of those respondents who were interested in participating in an interview were contacted and interviews were scheduled. The analysis of the data identifies the instructors' training, comfort level, and perceived skill level of the participants to instruct in an online environment.

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DEDICATION

For Joe, this dissertation is dedicated to you.

Without your love, patience, support, and understanding,

I never would have been able to finish. Thank you for being you.

For Joshua and Justin, both of you give me so much joy, love, and laughter.

I love you more than words can express. Thank you for being you.

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CHAPTER 1

INTRODUCTION TO THE STUDY

Introduction

Historically, the courses offered at institutions of higher education took place within the confines of a brick and mortar classroom, and served those that could afford to attend face-to-face classes (Distance Education, 2011). Over time, opportunities to enroll in distance education courses through higher educational institutions have been available in many different formats; however, the most recent is online learning. This broadened form of education at the university level has provided students the opportunity to enroll in college level courses using formats other than the face-to-face classroom. The ability to learn at one's own pace, coupled with the flexibility of learning that is most conducive to a student's schedule, are advantageous to those who are in need of such constraints. Additionally, online education can be delivered at a cost much less than a face-to-face course, which renders a cost savings to the student and the institution (Distance Education, 2011). There is a reduction in the needed classroom space; a physical classroom is not needed, so the costs tend to be lower. Moreover, online education allows for an increase in student enrollment without the increased cost.

The environment in which teaching and learning takes place can be critical. In an online educational environment, instructors need to expand the realm of pedagogy so learners can become active participants like those in a face-to-face environment, instead of passive consumers of content (McLoughlin & Lee, 2007). Students who use social software use it as a set of tools, and software strategies, as well as an alternative set of concepts, practices, and attitudes that define its meaning. Today's learners seek autonomy and connectivity but also social learning through sharing, collaborating, customizing, and personalizing their learning (McLoughlin & Lee, 2007). The online environment is one that is described as an approach that protects and

celebrates identity, but also supports multiple levels of socializing and encourages the development of communities of inquiry. A successful online learning environment results in a model of learner need that derives the learning process, not technology (McLoughlin & Lee, 2007).

The emphasis of environmental factors and the importance of an instructor's beliefs under certain environmental conditions researched by Gregory and Jones (2009) found that instructors may need to adopt alternative approaches including contextual factors of:

- extensive and intensive procedures for course development;
- intensive procedures for monitoring and reviewing teaching;
- team teaching;
- large classes;
- heavy teaching loads;
- inappropriate rooms (p. 770).

Contrary to this belief, literature suggests the application of student-centered or teacher-centered approaches are affected by the educational environment, regardless of the teacher's perceptions. Lindblom-Ylanne, Trigwell, Neugi, & Ashwil (2006) suggested that the same instructor teaching in a different environment "may adopt a different approach to teaching" (p. 96). This research also suggests that the student centered approach to teaching is considered best practice. This approach is considered higher level teaching than a teacher-centered approach that will "result in deeper and higher quality learning outcomes for students" (Gregory & Jones, 2009, p. 771). Gregory and Jones (2009) continued to suggest "that different teaching approaches may be adopted in different environments and that different approaches will be appropriate for different cohorts of students" (p. 77).

Gregory and Jones (2009) further explored the connections between the educational environment and the instructor. These connections lead to the instructional approach or strategies that the professor chooses to use to teach. Further studies have been conducted that measure the environment of distance education and have reported that rich distance educational environments such as media-rich communication technologies for both instructor and students, support high rates of student satisfaction, as well as better communication between students and instructor (Schiefelbein, 2012). It is important to note that development of an online course based on a face-to-face course requires more than just uploading materials and learning to use the technology. The development of an online course includes the anticipation of student needs when reconfiguring and rethinking course material (Kelly, 2012). Kelly (2012) stated that everything that works in a face-to-face environment will not necessarily work in an online environment. Some components of the course may be used in the online environment; however, other information may require an entirely different methodology, even though the goals and objectives may remain the same. However, just as a face-to-face educational environment may require changes as the semester progresses, so does an online educational environment.

Historically, the learning environment was mostly limited to today's model of the face-to-face environment where students consumed information. In the online environment, learners participate in a networked society, accessing ideas, resources, and communities and engage in creating knowledge (McLoughlin & Lee, 2007). Research has suggested that learning can be more effective if the student has control over one's own learning (McLoughlin & Lee, 2007). Sener (2007) suggested a move toward student generated content could ultimately increase student engagement, develop critical thinking skills, and foster a sense of community.

A student's perception of learning is associated with the sense of social presence enabled in the course (Duncan & Barnet, 2009). Perceptions of social presence and interaction appear to be concerns of both instructors and students. On the contrary, face-to-face instructors barely engage in pedagogical dialogue (Capra, 2011). Tello (2007) reported that students who perceive a lack of social interaction or instructor presence may be inclined to withdraw from the course. Students also have a tendency to earn lower grades compared to students in a face-to-face environment when social interaction or instructor presence is not evident (Tello, 2007).

Revere and Kovach (2011) found that online education is well established. However, there is uncertainty as to how effective course design and student engagement may be. Some faculty volunteer or are assigned an online course without any formal training or learning experiences, except for preparation they may have received to instruct in a face-to-face environment (McQuiggan, 2007), or from their own educational experiences. Online education has provided students and instructors a platform for direct interaction via technology that would engage in educational dialogue across the world. Enrollment in online courses at institutions of higher education has grown since such technological origins (Revere & Kovach, 2011). The number of students participating in online courses coupled with the demand for these courses has raised increased concerns relative to online effectiveness.

Within the context of online learning lies the concern of whether or not professors are prepared to teach in this format. Revere and Kovach (2011) have documented that online instruction requires a different type of preparation than traditional face-to-face instruction. Online instruction requires varied instructional, technological, and pedagogical tools (Trippe, 2002). It has been found that little or no technological or pedagogical training is provided for instructors to teach online courses at the higher education level, and therefore instructors proceed

to teach in a similar manner as a face-to-face classroom course (Ray, 2009), or in the way they were instructed as students. One of the flaws in online education is that instructors do not know how to be supportive of student engagement. The limited knowledge the instructors have of how to create an engaging online course, as well as, limited knowledge of the integration of technology such as discussion boards, chat sessions, blogs, and web-based and mobile applications such as Twitter, Skype, and YouTube (Revere & Kovach, 2011). Such technology allows a learner centered approach to support student engagement and interaction because online students need to be encouraged to develop relationships and identify how they will work together as teams to ensure work is equitable. Ray (2009) postulated the need for online faculty training that focuses on methods of instruction and pedagogy which may be necessary to facilitate and to instruct successfully in online courses. However, the question remains if online instructors have actually been trained to teach in the higher education arena, and if so, what it is that they have been trained to do. For the purposes of this research, the focus will be on the type of training, if any, that is provided to instructors of online graduate education courses, and the instructor's perception of training effectiveness.

Online education has grown rapidly since its inception, but the capability of higher education to employ instructors to successfully teach online courses has been left to the interpretation of each institution. Teaching online courses requires instructors to possess technical knowledge as well as subject matter content; specifically, the training of online pedagogy and explicit online training necessary to facilitate a successful online course (Okojie, Olinzock, & Okojie-Boulder, 2006). Colleges continue to offer online courses in an effort to meet increased student demands (Capra, 2011). In fact, over 90% of institutions offer courses online (Collapy & Arnold, 2009) which help to break down the geographical barrier that has

been built. However, the withdrawal rates from online courses far surpass the withdrawal rates of face-to-face courses by at least 20% (Aragon & Johnson, 2008). Instructors tend to teach the way in which they prefer to learn, or the way in which they were taught.

Sieber (2005) found instructors often believe they can simply shift lectures and exams from the face-to-face environment to an online format, and consider that delivery mode online instruction. However, after those instructors taught an online course for the first time they indicated a need to specifically focus on different methods of instruction and pedagogy necessary to instruct and facilitate a successful online course. Furthermore, online instructors understood they must not only master the technology involved in online education, but pedagogy as well, including the knowledge of how to guide and motivate students (Sieber, 2005). There are managerial, pedagogical, technical and social considerations when teaching in the online environment. Trippe (2002) believed online instructors should be *required* to attend training to teach in an online environment. The disconnect between the preparedness of instructors in these various areas of teaching online for the first time and the lack of training to successfully conceptualize, design, and deliver an online course necessitates participation in pedagogical training (Trippe, 2002).

Online instructors attempt to use the same instructional tools in an online format as they would use in the face-to-face environment. They often attempt to replicate the interaction, activities and events that take place during face-to-face instruction within the context of the online environment (Dolloph, 2007; Sieber, 2005). Online instructional strategies may be similar to those face-to-face strategies; however, how they are implemented requires planning and creativity. The use of pedagogical approaches that have engaging, interactive activities with deliberate explicit actions of instructors enables online instructors to assess student learning. The

Association to Advance Collegiate Schools of Business (2010) reported that students need to be intentionally engaged, or little or no learning will take place. Conversely, Revere and Kovach (2011) found that the design of the online learning environment and the level of student engagement continue to emerge. Bates and Watson (2008) indicated a need for pedagogical training by identifying specific skills that must be taught to instructors of online courses. As such, formal training may ensure quality online instruction, appropriate design of courses, effective use of activities, and a thorough understanding of technology. Much like face-to-face instructors, online instructors are responsible for building communities; where they facilitate learning through virtual peer interaction or where the instructor mingles with students within the online community (Bober & Dennen, 2001). Bates and Watson (2008) also indicated that instructors cannot shift from teaching in a face-to-face environment to an online environment and keep everything else the same. At the conclusion of their study, Bates and Watson (2008) reported that online instructors recognized that teaching in an online environment requires a different set of teaching skills and methods.

Background

Online education is the current trend of what has been referred to over time as distance education. Distance Education (2011) provided earlier examples of distance learning. One example of distance learning is mail correspondence courses, in which students read the assigned information and then use the postal system to communicate and submit materials. Educators have discovered ways to use technology to provide learning experiences in various formats, hereby making education accessible to more students across the globe (Distance Education, 2011).

Regardless of how distance education methodologies have been implemented, instructors and students need ways to communicate. Online education uses several methods for

communication including email, discussion forums, podcasts, and video conferencing (Falloon, 2011). Falloon (2011) described asynchronous communication as communication between participants during varied time segments. Traditionally, online courses have been delivered using asynchronous communication systems, whereby students log on to a website on a regular basis and download assigned articles, documents, readings, and assessment information for participation in discussions via postings or chat rooms. This type of communication provides students and instructors the independence and flexibility regarding how and when to communicate and complete assignments (Falloon, 2011).

It has been found that students choose online education for the independence and flexibility of their learning (Schullo, Hilbelink, Venable, & Barron, 2007). The ongoing interaction between individuals improves attitudes, test performance, allows deep and meaningful learning opportunities, increases retention rates, and builds learning communities (Schullo, Hilbelink, Venable, & Barron, 2007). The need for synchronous communication, which is regular communication between students and instructor, as well as between students, is necessary in order for students to educationally succeed. The use of synchronous communication enhances student motivation and provides an engaging atmosphere for students and instructors. Additionally, synchronous communication assists and supports with group identity and community formation, allows for timely, high quality feedback conditions, and lastly, structures their learning and studying habits in a positive manner (Collis, 1996).

Statement of the Problem

The statement of the problem is the lack of research in the area of successful online teaching which creates a gap in the literature. The transition from traditional classroom instruction to the online format of instruction needs to be addressed through the training of the

online instructors. Teacher preparation programs have traditionally been preparing educators to effectively teach in brick and mortar classrooms. As stated, the delivery of online instruction is different than face-to-face instruction (Ray, 2009). The increase of enrollment in online courses has compelled institutions of higher education to evaluate the way in which instructors are prepared to teach. Platforms of distance education are rapidly changing, so too must the educational training of those who choose to teach in an environment other than the traditional, or face-to-face environment since there may be significant differences with respect to how students learn and instructors effectively teach. Ray (2009) stated that courses that have been taught in a face-to-face environment cannot simply be transposed to an online format without pedagogical considerations. The benefits of online learning include flexible scheduling, independence, and decreased cost (Ray, 2009). This study describes how instructors of online graduate education courses are trained and provides data and future implications for teaching in an online environment. Surveys were distributed and interviews were scheduled with online instructors at three institutions of higher education that offer online graduate education courses.

"One reason online education is not typically designed to foster student engagement and peer interaction is due, in part, to an educator's limited time and knowledge about how to create an engaging online course" (Revere & Kovach, 2011, p. 114). The students of the 21st century yearn for more technology whether it is for building relationships through social media, having the opportunities to communicate in real time or even collaborating within the online community (Revere & Kovach, 2011). Feiman-Nemser (2001) believed that learning to teach begins with a teacher education preparation program, but extends throughout a teacher's career. The disconnect between the beliefs a new teacher may have and the future of our next generation of students leaves many unanswered questions about how to create and sustain the academic needs

of the next generation and how to develop learning environments and opportunities that will provide all students the chance to learn (Feiman-Nemser, 2001). Learning to teach may in fact, begin as early as the start of a student's educational career.

Adams (2007) reported an online learning environment that engages students and provides opportunities for them to direct their own learning requires the instructor to consider the overall goals of learning. The instructor needs to determine the knowledge acquisition requirements, as well as the knowledge application activities and strategies that foster learning. Adams (2007) also reported that promoting peer interaction through group assignments and assessments increased student performance and enhanced student satisfaction. The skill to successfully engage students while taking a learner-centered approach has decreased the attrition rates of online education (Angelino, Williams, & Natvig, 2007). Sugar, Martindale, & Crawley (2007) agreed that a learner-centered approach is valuable in the face-to-face environment, but trying to replicate those interactions, activities and events for the online environment is virtually impossible. There is a need for training of online instructors that specifically focuses on various pedagogical methods that facilitates a successful online course (Diaz & Botenbal, 2000; Arabasz, Pirani, & Fawcett, 2003; Okojie, Olinzock, & Okojie-Boulder, 2006; Cook, Dickerson, Annetta, & Minogue, 2011).

Purpose of the Study

The purpose of this study is to investigate the training that online graduate education instructors receive prior to teaching in the online environment and their perceptions of the training. The sample population consists of online graduate education instructors who taught online courses at three institutions of higher education during the fall of 2012.

The data was gathered from the online graduate instructors using an online survey tool, Survey Gizmo as well as interviews conducted with online graduate education instructors. The goal of this study was to establish the types of training received by online graduate education instructors, and to describe the perceived effectiveness of instructor training.

The results of this study provide data regarding the training of particular online teaching skills and methods received by instructors of online graduate education courses in a higher education setting. Institutions of higher education that offer online graduate education courses will be able to make decisions using the data collected about the training of online instructors in technical and pedagogical knowledge. Through this study, the researcher reports on the training of online graduate education instructors, and the perception of those instructors trained in their preparation in technology and pedagogy to teach online education courses. Furthermore, this researcher will focus on online graduate education instructors employed by select institutions of higher education.

Research Questions

This study focuses on online graduate education instructors who taught graduate education courses in an online higher education environment during the fall of 2012, using purposive sampling. The sample was a targeted population of online graduate education instructors (Wadsworth Cengage Learning, 2005). The research questions for this study are as follows:

Research Question 1: How are online graduate education instructors trained to teach in an online environment?

Research Question 2: Do instructors perceive they have been effectively trained to teach online graduate education courses at institutions of higher education using technology and online pedagogy?

Significance of the Study

The expansion of course offerings at the graduate level in higher education is a result of the growing enrollment in online courses (Neely & Tucker, 2010). Institutions utilize online education as a strategy to reach more students, but at the same time reduce costs. As state funding for higher education is cut and university endowments decrease in value (Stratford, 2009) colleges have looked at distance education as a method to reach more students while lowering educational costs to the student (Neely & Tucker, 2010). The results of this study provide data for institutions seeking to formalize training for online instructors, and enhance online courses and programs. The investigation towards successful online teaching and what it looks like was examined in the area of training instructors to teach online.

Definitions of Terms

Asynchronous communication: Communication in which faculty and students interact at different times (e-mail, message boards, threaded discussions).

Blog: An online forum which allows its users to post, or write entries typically in regard to similar themes within each.

Chatroom: The platform by which participants are able to have discussions in real-time.

Distance learning: Learning that takes place in which instructors and students are separated by space.

Face-to-face instruction: The platform by which instructors and students interact in a traditional, or face-to-face classroom or environment.

Graduate level education: The levels of education that one is enrolled beyond a bachelor's degree.

Instructor: One who is employed by a college or university and whose main purpose is to teach.

Learning Management System (LMS): The platform by which online courses are offered. This includes the software for the creation of the course, and communication and assessment platforms.

Online education/ learning: Learning that occurs via the internet for students who are enrolled in an online college course(s).

Online environment: The setting by which learning occurs and students and faculty are separated by space and do not meet in a traditional classroom.

Pedagogy: The instructional methods used by an instructor to teach.

Real time: Interaction of participants whereas both parties are logged into the online course, or LMS at the same time.

Synchronous communication: Communication that occurs between parties at the same time (chatrooms, conversations, physical settings).

Threaded Discussion: A discussion that occurs electronically, whereas participants communicate with each other.

Virtual Classroom: The environment by which students learn course content and communicate with other students and faculty.

Wiki: A website which allows its users to alter the content.

Organization of the Study

This dissertation is comprised of five chapters. The first chapter is an overview of the study and includes the background information of distance and online education, as well as the purpose for this study to be conducted.

Chapter two is a synthesis of the literature relevant to distance and online education. Chapter three provides the methodology of this research study. This study is a mixed methods

study that used quantitative and qualitative data collection instruments to examine the training that online graduate education instructors received prior to teaching in the online environment. Instructors of online graduate education courses were surveyed using an electronic survey instrument sent via e-mail. Interviews were conducted to examine the training online graduate education instructors received prior to teaching in the online environment.

Chapter four is a discussion of the results of the study including survey and interview data analysis. Chapter five of this dissertation provides a conclusion, summary and recommendations for further research for the training of online graduate education instructors.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Introduction and Criteria for Selecting Literature

In this chapter, there will be a review of the literature that describes the training of online graduate education instructors in the field of education at higher education institutions. Included in this literature review is research regarding the training of online graduate education instructors and how training to teach such courses is perceived by those instructors. Information was gathered using the EBSCO database system, specifically ERIC as well as JSTOR. National reports were used from research based organizations such as the United States Department of Education, the Pennsylvania Department of Education, and peer reviewed journal articles, to investigate the training of online graduate education instructors in the field of education. This research does not attempt to evaluate online graduate education courses, programs, or instructors but attempts to examine the training of online graduate education instructors, as well as to fill the gap in the literature about the importance of training instructors who teach online graduate education courses. The literature that was found to support the need for online training of instructors was vague. This dissertation provides a basis, but also describes the importance of training instructors how to teach in an online graduate environment.

Historical Background of Educational Preparation

Since the 1980's, the United States has shown minimal progress in educational achievement and no real reduction in the educational achievement gap after the gains of the 1960's and 1970's, especially when compared to international countries (Darling-Hammond, 2010). In fact, educational ground has been lost. Darling-Hammond (2010) noted that the demands of a knowledge-based society require more sophisticated teaching of complex skills.

Teacher education calls for expertise of effective practice, but also the need to construct a more knowledgeable and skillful professional teaching force. An increase in induction mentoring and professional development, as well as, the transformation of the role the instructor is expected to play, is being considered for teacher preparation programs. To incorporate such components into training higher education instructors would model current teacher preparation programs in higher education (Darling-Hammond, 2010).

Research has supported the need to diverse the roles and competencies instructors develop in an online environment as compared to teaching in a face-to-face environment (Berge, 1995; Goodyear, Salmon, Spector, Steeples, & Tickner, 2001; Ragan, 2009; Smith, 2005; Varvel, 2007, Stone & Perumean-Chaney, 2011). Morris and Finnegan (2008-2009) utilized Berge's (1995) model of the four roles instructors have identified themselves as, for moderating online discussions. It was discovered that instructors were engaged in online activity; however, pedagogical comments were rare for those instructors that were novices in online instruction. Online instructors took on multiple roles to engage students and increase student success, while meeting educational needs (Morris & Finnegan, 2008-2009).

Educators must meet the diverse needs of learners while addressing higher order thinking skills (Darling-Hammond, 2010). Highly effective preparation for all instructors is a necessity. The teacher education profession is in need of the fundamentals that educators should learn, and how they should learn them. Educational preparation can be quite powerful regardless of the instructor's teaching platform. The preparation of the instructor can also be quite powerful and the transformation from teaching in a traditional face-to-face environment to an online environment provides the opportunity for instructors to teach content using different pedagogy, methods and teaching modalities (Darling-Hammond, 2010). The background of an instructor's

educational experience may also contribute to how an instructor manages a classroom. The vast majority of all instructors have been educated in a traditional classroom, therefore, they do not have the background experience of an online classroom in either a K- 12 or in a higher education environment.

Distance Education

The occurrence of distance education has been found as far back as the 1830's and 40's. In Europe, distance education was considered to be in existence as students enrolled in composition courses or shorthand courses through the postal system (Tracey & Richey, 2005). These types of courses are also known as correspondence courses, where there was communication between instructor and students, but there was significant physical distance between them as well. In the United States, early examples of distance education were associated with the University of Chicago (Harting & Erthal, 2005). "Designers and consumers of distance education have always used the technology available at the time to teach and learn" (Distance Education, 2011). In the past, the references to technology did not always refer to electronic devices. The link of distance education from the historical approach of postal delivery service to online instructional delivery systems is linked by the instructional mode because the instructor is not in the same place at the same time as the student (Casey, 2008).

In 1852 one of the first courses available was the Pitman Shorthand training program that brought stenographic practices to the United States. Secretaries were self-taught through these courses, and then would mail their exercises to the Phonographic Institute in Cincinnati, OH (Casey, 2008). Once the secretaries would complete all of the required coursework, they would receive a certificate of expertise. Additional distance education learning was provided by the Colliery School of Mines in Wilkes-Barre, PA in 1890. This was an instructional delivery system

to teach mine safety to miners, and the enterprise eventually became known as the International Correspondences Schools (ICS) and continued to offer training not only to miners, but to iron and railroad workers as well. By 1923, ICS had over 2.5 million students enrolled (Moore & Kearsley, 1996). In 1970, Coastline Community College was the first college without an actual campus; however, by 1972 colleges in Miami-Dade, FL, Costa Mesa, CA, and Dallas, TX offered distance education courses (Kersey, n.d.).

As electronic devices evolved, instructors found ways to use them educationally. Distance education has used several different types of electronic devices such as radio, television, satellite communication, video and audio cassettes and the internet (Distance Education, 2011). These types of electronic devices have been used; however, how they have been used to make learning possible are the advantages of distance education. Through distance education, it is still possible for students to learn from the instructor, as well as from each other (Distance Education, 2011). It is a process in which students must have the motivation to learn, but learning from others is also an important concept.

Cook, Dickerson, Annetta, & Minogue (2011) found that learning is a social process whereby students interact with others. Providing learning opportunities and activities that allow students to actively engage with each other deters feelings of isolation often experienced among online students. Online students must be engaged in socially interactive learning environments. As such, they can co-construct the understandings of course content with other students as well as with the instructor; including the facilitation of the social construction process involving discussions between students and instructors (Cook, Dickerson, Annetta, & Minogue, 2011). Successful students enrolled in online learning tend to be more self-directed than students who are enrolled in a traditional face-to-face college course. Furthermore, students need to be flexible

in order to successfully manage course workload while balancing other life challenges (Distance Education, 2011; Carlson & Jesseman, 2011). The process of learning affects both students and instructors, regardless of the educational environment, or the tools used to educate.

The increase in the educational usage of the internet for teaching and learning in higher education requires online instructors to have the necessary training to learn about online content preparation, material design, lecturing, and course facilitation (Uca-Gunes & Gumus, 2010). Often, online instructors only have experience in face-to-face lecturing and typically do not have any knowledge or training towards teaching online courses. For example, at Anadolu University, online instructors participate in a one hour training session that includes the technical software features that is utilized to facilitate distance education (Uca-Gunes & Gumus, 2010). At this university, course books are still the main material in printed format. Content experts and course designers assist the instructor in creating the course content. The course is finally produced for the online environment by an application team (Uca-Gunes & Gumus, 2010). Course content is designed in a Word document format that may include texts, tests, exercises, open-ended questions, hints, attention to reading texts, definitions for short video shoots, and suggestions for images and animations (Uca-Gunes & Gumus, 2010). In an online facilitation of services, a virtual classroom environment is used; but audio, video, and text can also be used for instruction purposes. Instructors will answer students' questions using various interaction tools. Announcements and links are published and the facilitation service is active two to three hours a week at certain times. This particular course design also includes a face-to-face laboratory application at the end of two semesters which last for one month (Uca-Gunes & Gumus, 2010). The process of designing and implementing online courses takes on a team approach whereas each person involved has a particular task to complete. Uca-Gunes & Gumus (2010) also reports

that online instructors are able to work with the team to successfully design and implement courses; however, this process requires planning, execution, and reflection on the part of the instructor.

Online instruction not only provides an opportunity for students to learn. Learning for an instructor even occurs in a successful online environment when the instructor critically reflects on his or her own teaching, and then makes changes and revisions based on those reflections (Uca-Gunes & Gumus, 2010). There are many that have questioned the quality of online instruction and so it is necessary to identify *how* instructors are prepared to teach online. Online education remains a mystery to those who have not had prior experience learning or teaching in an online environment. Proper training (hardware and software) for online courses is essential, but training in online pedagogy is a critical element for online instruction (Yusel, 2009). Specific online teaching methods are necessary for online instructors to teach effectively. The opportunities that technology provides are limitless, but instructors are in need of proper training on how to use the technology successfully for educational purposes (Yusel, 2009).

History of Online Graduate Education

For the purpose of this literature review, the definition for online courses is those taught via the internet. Face-to-face content delivery is comprised of those courses in which students physically come together to learn (Allen & Seaman, 2010). Other definitions of online learning include instruction delivered to students that are not in the same physical room and could occur synchronously or asynchronously. There is also a variance in time and/or location (McQuiggan, 2007). Online instruction is considered an innovative approach for delivering classroom instruction to a distant audience while using the internet as the mode (Khan, 1997). Online instruction allows students and faculty to engage in cooperative and collaborative learning,

regardless of geographic location or time (LeNoue, Hall, & Eighmy, 2011). In the United States, distance education flourished for three specific reasons: 1. the distance between students and educational institutions, both geographically and socio-economically; 2. the thirst students had for education; and 3. the rapid advances of technology, which appeared to be the most developmentally compelling factor (Casey, 2008). With the use of interactive methods and multi-media resources, educators have more varied ways to connect learners than in the past (LeNoue, Hall, & Eighmy, 2011). The availability of such new technology is the impetus for instructors to be trained in how to best utilize such for educational purposes.

Research conducted through The Alfred P. Sloan Foundation, included a poll of 4,511 colleges and universities. Collected survey responses (n=2,500) provided insight into essential questions regarding the nature and scope of online instruction (Allen & Seaman, 2010). Furthermore, the data collected was completed in conjunction with the College Board and the Babson Survey Research Group. Student enrollment in online courses has grown substantially faster than overall enrollment in higher education. The 2011 Survey of Online Learning reported that the number of students enrolled in at least one online course has surpassed 6 million. This accounts for nearly one-third of all students in higher education (Allen & Seaman, 2011). The expectation of academic leaders expected online enrollments would continue its substantial growth for at least another year (Allen & Seaman, 2010; LeNoue, Hall, & Eighmy, 2011). During the fall 2009 term, more than 5.9 million students were taking at least one online course. This is an increase in nearly one million students since the previous academic year (Allen & Seaman, 2010). This increase represents a growth of 21% in online enrollment, compared to less than two percent for growth in the overall higher education student population (Allen & Seaman,

2010). Many colleges and universities have not only expanded online course offerings, but have created new offerings to address the growing enrollment (Neely & Tucker, 2010).

The online environment for education has been considered the primary context for adult/ post-secondary education and training because of the convenience and accessibility (Allen & Seaman, 2007; Kim & Bonk, 2006; McLoughlin & Lee, 2007). With a startling number of higher education courses and degrees offered online, there are varied modes of training online instructors. The innovation of technology forces institutions of higher education to examine online teaching pedagogy. The dynamics of an online classroom are much different than the dynamics of a face-to-face classroom (Allen & Seaman, 2007). Zheng & Smaldino (2003) and Muirhead (2000) concluded that the roles and responsibilities of online instructors are not the same as instructors that teach in a face-to-face environment. The challenges, barriers and successes online instructors encounter when teaching an online course should be examined as a component to student success.

Asynchronous Communication

Asynchronous communication is communication among students and instructors that can occur at any time that is convenient for each. Participants are required to log in to a website on a regular basis to obtain documents relevant to the course or to participate in online discussions related to the course or topics within the course (Falloon, 2011). Examples of asynchronous communication are blogs, which are web-based applications that allow postings of online content such as short essays, brief interviews, sharing of learning, topic discussions, comments on course assignments or forums to ask questions and post answers (Shim & Guo, 2009). Another example is a wiki, which is technology that can be used as a group or class which promotes student collaboration and for them to create and edit online content (Meyers, 2008). Cook, Dickerson,

Annetta, & Minogue (2011) reported that the advantages of asynchronous communication promotes student collaboration on assignments, facilitates peer interaction, encourages learning, provides support for students to overcome feelings of disconnection and isolation, encourages peers to co-construct meaning, and facilitates reflection. The disadvantages include the composition of the group which could affect performance due to socialization issues, and the equity of work may not be equal among group members (Cook, Dickerson, Annetta, & Minogue, 2011).

Synchronous Communication

Synchronous communication between online instructors and online students include real time communication, which represent similarities to face-to-face courses than does asynchronous communication. Synchronous communication typically provides immediate feedback and answers to questions posed (Cook, Dickerson, Annetta, & Minogue, 2011). Such examples of synchronous communication include text chats, audio or video conferencing, and chat sessions. Dammers (2009) reported that synchronous communication in distance learning is a relatively new experience for instructors and students, yet there are positive and negative implications to synchronous communication.

Research has supported the advantages and disadvantages of synchronous communication. The advantages have included peer interaction, the support of student driven content, the creation of a supportive climate, and the fostering of spontaneous student interaction as there are no communication delays (Dammers, 2009). Research conducted by Schullo, Hilbelink, Venable, & Barron (2007) indicated that synchronous communication between participants tends to improve attitudes, encourages earlier completion of coursework, improves test performance, provides opportunities for deep and meaningful learning, increases retention

rates, and builds learning communities. The disadvantages include the lack of deep analytical and evaluative skills, student participation; typing skills which could hinder participation, as well as a tendency for out of sync contributions (Cook, Dickerson, Annetta, & Minogue, 2011).

Whether the instructor chooses to utilize synchronous or asynchronous communication in an online course, the pedagogical implications for the type of communication utilized could be the defining factor for success of an online student. The quality of the communication and interaction between both instructor and student is what may promote success for both parties.

Online Learning versus Face-to-face Learning

There are pedagogical as well as theoretical issues of online education that naturally differ from face-to-face learning. One such difference is how online education changes both teaching and learning (Sherman & Beaty, 2007). Instead of focusing on technology to drive online learning, Adams and Morgan (2007) found there should be more emphasis on pedagogy and technological designs that support instructional methodology (also known as online learning as first and second generation e-learning). First generation e-learning focused on the development of technical skills, whereas, second generation e-learning augmented pedagogy. Both approaches are valuable and are needed for quality online learning to occur. Each approach is useful in multiple contexts, but also for achieving different instructional objectives (Adams & Morgan, 2007). Moller, Robison, and Huett (2012) also includes third generation of distance education which includes technology-enabled learning environments.

First generation e-learning is technology driven where the instructor is in control. The origin of this approach was Computer Based Training (CBT) for using technology to provide timely and cost-effective online instruction (Adams & Morgan, 2007). CBT provided educational products and services in an online environment. Delivery of textbooks, manuals,

training courses, lessons and workshops became available in a different environment. Adams and Morgan (2007) found that the instructor was in control of the entire linear learning process. First generation applications in an online environment were not sophisticated enough to keep up with the technology that was being developed. These researchers also found this approach assumes there are right and wrong answers and the assessment system within this approach determines if competence is being met. It has been determined through research that first generation e-learning was ineffective because learners failed to absorb the content (Adams & Morgan, 2007).

The second generation of e-learning is described as the student is in control of achieving applied and performance-oriented learning (Adams & Morgan, 2007). The model of this approach is based on an adult, self-directed learning model that puts the student in control of their own learning within the course; the content is offered in a non-linear fashion so the student can choose the process in which the course is completed. Second generation e-learning is built from the ground up so the student has the opportunity to experience a network of interconnected learning opportunities (Adams and Morgan, 2007) and can integrate personal experiences into learning. No distinction concluded which approach is better due to the slight amount of available literature, but rather to report on the differences between them.

Models of Online Graduate Education

Education is not a new concept, although the way in which students and instructors learn has evolved over time. Several online universities offer training to their faculty prior to teaching in the online environment; however, the online training curriculum remains a mystery. Capella University, an online university advertises that they require specialized training for each of their faculty members in a distinctive approach to online learning once they are hired, but examples of what that approach involves was not made available. A search of other online universities

revealed the same results, with the exception of the University of Phoenix. Research of this university's online training yielded more specific information pertinent to this research study.

The University of Phoenix is considered one of the pioneers of online education. The University of Phoenix has been an online campus since 1989. It was created to meet the needs for accessible, quality higher education that catered to the adult student in an innovative way to meet the needs of today's students (Academic Annual Report, University of Phoenix, 2011). The University of Phoenix offers a free University Orientation workshop that informs students of the time and effort required to be successful online students prior to enrolling in the University. Approximately 80% of students who attend the Orientation enroll in the University (Academic Annual Report, University of Phoenix, 2011). The University also offers the Phoenix Prep Center, which is a resource where students can learn about the University, but also learn about their own learning styles, college readiness, and technology (Academic Annual Report, University of Phoenix, 2011).

Additionally, students have the access to virtual student support services and educational tools to assist and support student development and success. There is a portal for online students and instructors which serves as an entry point for the virtual classroom. There is also access for the student that allows the review of personal information, registration of classes, payment of tuition, online meetings with representatives, transcript requests, submission and receipt of assignments, and grade retrieval (Academic Annual Report, University of Phoenix, 2011). In addition, there are workshops that are available to improve basic skills to assist in student success. The workshops that are offered on a weekly basis are accounting and finance, computer skills, math and statistics, personal skills, and writing.

During the mid-1990's the University of Phoenix launched libraries into the 21st century by developing a virtual library. Virtual libraries offer textbooks and educational resources (Academic Annual Report, University of Phoenix, 2011). The Academic Annual Report for the University of Phoenix (2011) stated the University's electronic library has over 105,000 periodicals as well as a library of books of interest, including an ebook collection of more than 2,000 electronic textbooks.

The University of Phoenix online library system offers an array of resources to assist in student success. Another way in which student success is supported is the requirement of the five learning goals in every course. These goals are: 1) professional competence and values, 2) critical thinking and problem solving, 3) communication, 4) information utilization, and 5) collaboration. Math and writing tutorials, simulations, virtual laboratories (mannequins for nursing students) and virtual organizations (realistic web-based businesses schools, health care and government organizations that provided problem-based learning environments) in courses are all available to students.

The University of Phoenix offers an online customizable grade book to instructors where they can organize and monitor assessments, allocate grade points, and provide feedback, both qualitatively and quantitatively to students (Academic Annual Report, University of Phoenix, 2011). The instructors are also able to set up and assign learning teams, which has the capability to automatically and immediately communicate to students so instructors do not have to communicate separately via email or other media. Through an Early Alert System, instructors can notify administration if a student is not making satisfactory academic progress. The instructor completes an Early Alert Form which is automatically transmitted to the appropriate

academic advisors in order for them to contact students to assist them academically (2011 Academic Annual Report, University of Phoenix).

Personal and professional development are also available to both on-campus and online instructors via the portal at the University of Phoenix. Workshops available to instructors include course-specific training, computer skills, and facilitation skills which include critical thinking, faculty tone, and handling difficult students. Administrative services which are also available include course management and University policies (Academic Annual Report, University of Phoenix, 2011).

PhoenixConnect is the social media of the University of Phoenix, which allows a means of connectivity in the educational environment. PhoenixConnect is a closed academic network of students, faculty, and alumni that enables social and emotional connections, which affect students' perceptions of relevancy. The connections allow students and instructors to discuss academic topics, meet new friends with similar interests, and reach out to alumni, and form professional groups. The lack of social and emotional connections could lead to disengagement (Academic Annual Report, University of Phoenix, 2011).

In 2011, the University of Phoenix launched the Phoenix Mobile App which is an academic application available for students to post online forums, receive alerts when grades are posted or when the instructors posts new information, and participate in discussion forums. The result of the advances in all of this technology is the potential to increase student engagement by creating a more personalized learning environment (Academic Annual Report, University of Phoenix, 2011).

In February 2010, the First-Year Sequence was implemented at the University of Phoenix, which designed a sequence of courses using the laddering approach. This approach

introduces concepts and skills in early classes, and continues to be reinforced in classes later in the program. Second Year Experience assists students in digging deeper into their major field of study by enabling them to take ownership of their individual degree programs, and to focus on selecting the appropriate courses needed to stay on track to graduate (Academic Annual Report, University of Phoenix, 2011).

The University of Phoenix has campuses and learning centers in 40 states, District of Columbia and Puerto Rico. It is regionally accredited by the Higher Learning Commission and since 1978 has been commission member of the North Central Association of Colleges and Schools. In addition, the University holds four programmatic accreditations, including the Teacher Education Accreditation Council (TEAC) (Academic Annual Report, University of Phoenix, 2011).

Students are surveyed several times throughout their tenure at the University of Phoenix. Students rate their experiences as positive in all surveyed areas on End-of-Course (rates faculty, curriculum, and services), End-of-Program (rates enrollment counseling, academic advising, financial aid services, quality of instruction, and availability of faculty), and Alumni surveys including the quality of faculty, curriculum, and services (Academic Annual Report, University of Phoenix, 2011).

There are certain qualifications one needs to be an instructor at the University of Phoenix. A master's or doctorate degree from a regionally accredited U.S. institution or international equivalent in the subject area of interest, a minimum of five years of work experience in the field of interest, as well as current knowledge and experience in the related field of interest are all minimum qualifications.

Lynch (2002, p. 67) stated that "it is only by actually experiencing the online environment as a student that teachers finally understand student fears, stress, frustrations, and joys in learning in the Web-based environment." The University of Phoenix requires instructors to participate in an initial four-week certification training program that focuses on the learning environment and skills for facilitating discussion-oriented classes; during the first course one teaches, a seasoned faculty member mentors the new instructor and assists with facilitation of the first course; for potential doctoral faculty, an additional two-week program focuses specifically on the expectations for scholarship and leadership; invitation to join the faculty body would be extended if there is successful completion of the first course. In order to continually improve, instructors are evaluated by students, other faculty and staff members on specific performance criteria and then feedback is provided to the instructor. Professional development is provided in order to improve instruction, through attendance at workshops, participation in professional conferences, and the publication of research (which is strongly encouraged). Mentors of online instructors are recruited who possess content knowledge, excellent communication skills and experience teaching online education classes.

The University of Colorado offers weeklong web camps to online instructors in a face-to-face environment to learn how to handle online discussions and tests, but to also develop online courses and learn to teach effectively online (Gose, 2010). Other universities, such as Washington State, Trevecca Nazarene University, and Nazarene Bible College, offer the same type of courses in an online environment, so the online instructors are able to sense what it is like to be the online student. Once the learning of online instruction is completed, those who are still interested in teaching in the online environment must observe a seasoned online instructor in an additional six-week online course (Gose, 2010). Shulman (1986) determined that instructors

need to have deep knowledge of the content as well as, know how students learn the content. Shulman's concept, which was referred to as pedagogical content knowledge, provided insight into the foundation of what expert teaching across disciplines looks like and how it affects student knowledge and learning (Shulman, 1986).

Instruction needs a foundation. It has to be built from theory with a solid basis. In 2009, a survey of 182 nonprofit and for-profit institutions found that more than half of the institutions surveyed required their instructors to complete training programs to teach online courses. Other institutions reportedly offered voluntary clinics and training programs, and one on one work with professors to assist with online instruction, while others reported offering no training at all (Gose, 2010). However, the online curriculum and the pedagogical or technological strategies that were taught during the training of online instructors were not reported in this research.

Successful online learning incorporates both technological and pedagogical strategies. Cole and Kritzer (2009) describe technological strategies to make online courses more effective which include persistent online presence, discussion boards, weekly video messages, problem solving climate, content scaffolding, and organizational modules. However, few offerings have been found to teach effectively using online pedagogy. Students have reported pedagogical needs include the adaptability of the courses to the students' needs, the use of meaningful examples, student motivation, effective course facilitation, effective communication, concern for student learning, instructor visibility and concern, instructor- student relationships, structured, yet flexible, classroom environments (Cole & Kritzer, 2009). Pedagogy is an obvious need in both the face-to-face and online learning environments; however, it does not reflect the same definition in both environments. Model online institutions and their protocols for instructor

training have not influenced traditional face-to-face graduate schools that are exploring online learning for the first time.

Pedagogy

There are documented differences between online instruction and face-to-face instruction. Both require different instructional and technical tools and therefore training should be available but also required before instructing in an online environment (Diaz & Bontenbal, 2000; Barker, 2003; Tripp, 2002). A study conducted by Bates and Watson (2008) stressed the need for pedagogical training for online instructors that specifically focused on the skills needed to ensure the quality of online instruction. As such, this must take into account appropriate course design, effective use of activities, as well as a thorough understanding of technology. Furthermore, there is a need for additional instructional training, specifically focusing on methods of instruction and the pedagogy necessary to facilitate and instruct successful online courses (Bates & Watson, 2008). Cole and Kritzer (2009) identified pedagogical strategies that are effective in teaching online courses including electronic discussion boards, scaffold assignments and modules.

First time instructors of online education have indicated that online instruction was similar, if not the same, as face-to-face instruction (Ray, 2009). Sieber (2005) found that after teaching online, instructors noted the need to master technology as well as content, but also know how to guide and motivate students. These factors nurture the need for pedagogical training for online instructors. Associations have started to evolve to assist in developing online quality courses.

Quality Matters (QM) is a nationally recognized peer review process that is designed to monitor the quality of online and blended courses (QM website). The approach is peer-based and offers continuous improvement of online education and student learning through the three

primary components of the process: The QM Rubric; the Peer Review Process; and QM Professional Development. The underlying principles and processes of QM are:

- Continuous
    - The process is designed to ensure and support so that all courses that are reviewed will ultimately meet expectations.
- Centered
    - The rubric of QM is based in national standards of best practice, literature research, and the principles of instructional design.
    - The process and rubric of QM are designed to promote student learning.
    - An 85% quality goal is set for the course quality.
- Collegial
    - The review is part of a process that is peer reviewed and faculty driven.
    - The review process strives to be diagnostic and collegial.
- Collaborative
    - The review is collaborative and is based on the evidence found by the reviewers.
    - There are several ways to meet each standard, so it is flexible.
    - The team of reviewers includes three experienced online instructors in addition to the faculty on line course developer.

The development of Quality Matters acknowledges the need for training of online instructors. It also has outlined the way in which instructors can both support and be supported during an online course.

Learning Management Systems

Learning Management Systems are the catalysts for academic online instruction. Software is used within the LMS to facilitate the instructional communication between the instructor and the student while they are engaged in a course. There are several ways in which instructors and students communicate within a course that is supported by the LMS. This differs from online instructional pedagogy where instructional strategies assist in greater online learning. The opportunities that LMS provide allow all academic institutions the opportunities to offer courses in such a way to meet academic instructional needs (Casey, 2008). LMS provide instructors with the ability to create and manage sessions of course content that students can access throughout the course. It allows course information to be divided into segments, but also provides the opportunity for instructors to upload tutorials, or provide links to outside sources for tutorials or content. Videos, assignments, resources, assigned readings, worksheets, tests, quizzes, activities, and individual content can be uploaded and made available to students in the online course via the LMS. An additional feature of LMS is the availability of an online grade book which enables the course instructor to organize course grades, assignments, and due dates (Jensen, 2010).

LMS have provided suitable platforms for managing student enrollment, exams, assignments, lesson plans, syllabi, and other basic course materials, but not for the support of self-governed and problem-based activities for students (LeNoue, Hall, & Eighmy, 2011). Learning must move beyond the management system in order to engage students in active use of the internet as an educational resource (LeNoue, Hall, & Eighmy, 2011). There are numerous digitally-mediated sites that offer education delivery. There are programs that offer platforms for use with multi-modal and multi-media communication and content delivery capabilities that

assist and encourage broad and dense interaction patterns, collaborative information discovery and processing, and pedagogical opportunities for different learning styles (LeNoue, Hall, & Eighmy, 2011).

Online Pedagogy

Institutions have reported on the importance of training online instructors; however, the majority fails to provide the opportunity for training online instructors (Keramidas, Ludlow, Collins, & Baird, 2007). Many institutions do not offer training opportunities to online faculty and often permit instructors to teach in an online format without any formal training. A search for the actual curriculum available to train online instructors *how* to teach in an online environment did not provide results. Secondhand reports from individuals involved in online teaching indicated that curriculum for training online instructors was not made available unless one is employed by that university. Research uncovered what should be offered by an online instructor, but not specifics about how instructors should convey curriculum in an online environment.

A research study conducted by Kosak, Manning, Dobson, Rogerson, Cotnam, Colaric, and McFadden (2004) surveyed 125 online professors, and had responses from 83 professors, which is a 66% response rate. This is a response rate well above the typical email response rate of 31% (Sheehan, 2001). Kosak et al. (2004) found that half of the respondents in their study recognized the availability of online training for instructors. Half of the institutions in the study provided training opportunities; however, only 27% of those institutions *required* instructors to participate in the online training offered. Kosak et al. (2004) also discovered that trainings were available off-campus and almost all of the respondents reported offerings available on campus. The greatest number of off-campus offerings that were reported included conferences and web-

based tutorial options. Almost half of the respondents indicated they attended training on other campuses, other than conferences. The on campus training options that elicited the highest responses were group sessions (Kosak et al., 2004).

Kosak et al. (2004) continued to report the need for faculty members requesting more of a solid structure of support when implementing a change in curriculum. When faculty members teach online, there are implications to their teaching. They must be innovative with ways to engage students and encourage them to be active throughout the class. It is vital for university administration to recognize the major changes in instruction when faculty converts a traditional face-to-face course to an online course. From initial planning through implementation administrative support is vital (Kosak et al., 2004).

More than one half of the respondents of the study conducted by Kosak et al. (2004) indicated training was available and focused on best practices for online pedagogy, and almost three fourths of the respondents indicated the availability of technical training. Respondents indicated that best practices training covered interaction between instructor and students as well as peer interaction through discussion boards and chat, and how to set up the rules for an online classroom with students, timely feedback, and acknowledgements (Kosak, et al., 2004). Additionally, respondents who could access pedagogical training indicated they were provided the opportunities to redesign learning resources, guide students to external online resources, provide student support via online communication, and learn how to set up group activities (Kosak, et al., 2004). Technical training and information opportunities included virtual learning environments such as Blackboard and WebCT. Most respondents indicated they were offered training in the area of copyright laws, but other types of training were reported by less than half

of the respondents (Kosak, et al., 2004). The respondents indicated what was available for training; however, did not indicate anything about the quality of the training.

Chickering and Gamson (1987) found seven principles that define quality instruction. Those principles are:

- Encourage student-faculty contact;
- Encourage cooperation among students;
- Encourage active learning;
- Give prompt feedback;
- Emphasize time on task;
- Communicate high expectations;
- Respect diversity.

These principles of quality instruction were originally set for traditional face-to-face instruction, but Ritter and Lemke (2000) claimed the aforementioned principles of quality instruction are applicable to online education. Each of these principles supports successful instruction, both in the brick and mortar traditional classroom and as well as the online environment. The more instructor interactivity and availability, the more likely a student will be successful in both environments, face-to-face and online (Capra, 2011). As online education continues to increase, the significance of the instructor should not be ignored (Capra, 2011). An emphasis on collaboration and instructor training is essential because online instructors work in isolation for the majority of their courses. Since online instructors work in isolation for such a large part of their instruction, the opportunities of reflection and best practices are limited (Duncan & Barnet, 2009).

Training Instructors in Online Pedagogy

There is a need for training instructors to teach in the online environment. Because online education is relatively new to the field of education, the instructors that are teaching online do not have the experience of being a student in the online environment. Instructors in higher education have vast experiences of being a student in the traditional face-to-face environment; however, not in the online environment. Those experiences in the face-to-face environment enable the instructor to know the expectations from the student perspective. An additional missing piece of the research in the literature is *why* teaching in the online environment differs from teaching in the traditional face-to-face environment; however, this research study strives to focus on the training of online instructors and the need for them to be trained. The lack of familiarity that the instructors and students of online courses have with this environment leads to the need of training instructors to teach online, and further, how students can learn in the online environment (Stone & Perumean-Chaney, 2011). In addition to the lack of experience one has in the online environment, the number of support staff involved in the development of the online course is more substantive than those involved in developing face-to-face courses. Online courses often require the instructor to work with a variety of others to assist in the development of the course, such as instructional designers, web programmers or graphic designers, and often librarians (Stone & Perumean-Chaney, 2011). Course content needs to be reassessed so the most relevant concepts are what are focused on in the modules of online courses. Course goals, objectives, and activities are more concise and focused on the relevant course content (Stone & Perumean-Chaney, 2011). Typically, in the face-to-face environment the instructor is the only one designing the course.

Educators are expected to successfully teach a wider range of learners than they ever have in the past (Darling-Hammond, 2006). Learning to teach begins with a teacher preparation program, and continues throughout the teaching career (Feiman-Nemser, 2001). Instructor involvement and feedback were found to be important attributes of online instructors (Morris & Finnegan, 2008-2009). Educators experience a vast assortment of activities and interactions that ultimately increase their knowledge and skills which improve their teaching practices and contribute to their overall personal, social, and emotional growth (DeSimone, 2011). These experiences are both formal and informal, and range from structured in-service training, workshops, or conferences to informal discussions with other educators. Effective professional development embraces common features that lead to an increased knowledge base and instruction that translates into enhanced student achievement (DeSimone, 2011). When the opportunity is taken for proper professional development, online instructors have been found to hold high expectations and adapt their teaching appropriate to the online environment (Schrum, Burbank, Engle, Chambers, & Glassett, 2005). Crawford-Ferre and Wiest (2012) report the lack of training to prepare and support online instructors calls for the need to develop more formalized training opportunities for instructors of online courses.

There are a variety of opportunities that online learning offers students to support their achievement. Students have independence, flexibility and a choice of how, when, and where studying will occur. Furthermore, research indicates the importance of regular interaction of participants in order to succeed in online learning (Falloon, 2011). Online students typically need to possess a high amount of self-direction, motivation to learn, and be able to work in isolation (Moore, 1986). However, studies have found an increased percentage of students feeling stressed, and isolated from lack of attachment to the campus community (Carlson & Jesseman,

2011). A strategic plan is necessary to recruit and retain online students to assist them in feeling part of the campus community. Instructors should be part of this recruitment and retention process so that it is all encompassing of the students.

Developing or improving a process such as an online course or program constitutes instructor training. Training online instructors how to design an online course and how to implement online activities for students to learn content or participate with peers in online discussions focuses on just one type of professional development that is available. DeSimone (2011) analyzed the main features of effective professional development which includes:

Content focus: Activities should focus on subject matter content and how students learn the content;

Active learning: Educators should have the opportunities to observe, give and receive feedback, analyze student work or presentations, instead of being a passive participant;

Coherence: Consistency of professional development, educator knowledge and beliefs, and institution and state reforms and policies;

Duration: Professional development should include 20 hours or more of contact spread over time;

Collective participation: Groups of educators from the same area of expertise should participate in the professional development activities together to build a common understanding.

DeSimone (2011) reported these five core features of professional development must be present, although this research indicated just because they are present does not necessarily signify effectiveness. In order to decide the effectiveness of professional development, student

learning and achievement must be measured. DeSimone (2011) also found that interactive relationships must be identified using features of professional development, educator knowledge and beliefs, classroom practice, and student outcomes. Effective professional development must begin as a foundation that ultimately produces enhanced student learning and achievement (DeSimone, 2011). This foundation is essential for any and all successful educational environments.

Sherman, Crum, and Beaty (2010) stated that in order for students to be successful in an online educational setting, a social presence is necessary. Perceptions of social presence and interaction are concerns for instructors and students. On the contrary, face-to-face instructors barely engage in pedagogical dialogue about online instruction (Duncan & Barnet, 2009). Online education has the responsibility for students to have a connection to each other. It allows learning to occur by giving students opportunities to seek multiple paths of learning but it also forces instructors to connect to students in alternative ways (Sherman, Crum, and Beaty, 2010). Accomplishing this type of communication can be done through consistent and organized course content delivered in a clear and meaningful manner. Instructors are expected to provide feedback, present clear instruction, and provide opportunities for lively discussions with students (Sherman, Crum, & Beaty, 2010).

McKinnie (2008) found fundamental strategies that were considered to be effective for teaching online courses. There are three basic areas to consider when teaching an online course, which include the instructor: 1. getting to know the students, 2. knowing how to deliver content, and 3. discovering what the students already know about the topics to be covered in the course. These defined areas are components of effective communication, both online and face-to-face (McKinnie, 2008).

Elements of online communication and delivery are important to the instructor's teaching style. McKinnie (2008) believed connecting with each type of learner in an online course is just as important as making connections with students in a face-to-face course. An example of how to present online content similar to face-to-face course content could be an audio clip written in a chat window or some other type of online forum (McKinnie, 2008). Creating an online classroom where everyone in the course is an expected participant could open the communication between the instructor and the students, as well as among peers. Instructors need to be trained to teach online, specifically, how to promote interaction and communication between online learners (Jain, Jain, & Jain, 2011).

Shattuck, Dubins, & Zilberman (2011) reported on a project that addressed the need to train higher education adjunct faculty preparing to teach online for the first time. The focus of this training was in response to the need for quality, accessible training for online adjunct faculty. The study conducted was a mixed-methods approach that used surveys, reflection journals, and data collected from a course the students were enrolled in called the Certificate for Online Adjunct Teaching (COAT). This was the second part of the research project by MarylandOnline, who funded the exploratory research project to see if there was interest in a shared training program of adjunct instructors to teach online. MarylandOnline is a statewide consortium of higher education institutions (Shattuck, Dubins, & Zilberman, 2011). It was found that novice online instructors acted as managers to a limited degree and rarely posted a pedagogical comment when teaching in the online format. However, experienced instructors had multiple roles which included social, managerial, and pedagogical roles to engage students, which increased student persistence and student success (Morris & Finnegan, 2008-2009).

The COAT course was delivered completely online as a nine-week asynchronous course consisting of four modules. Eight competency areas were addressed: 1. orienting students to online learning; 2. technology skills; 3. learning management skills; 4. basic instructional design principles; 5. pedagogy and andragogy; 6. social process and presence; 7. managing assessment, and 8. legal and institution-specific policies and procedures (COAT Project, 2010b). One of the primary objectives for the COAT course was to provide training to instructors from an online student perspective. This type of training was facilitated by an experienced instructor who modeled and identified best practices. Participants would benefit by observing the practical implementation of what they were exposed to and what they observed while they were enrolled in the course (Shattuck, Dubins, & Zilberman, 2011). The course syllabus also identified the course description, teaching methods, learning objectives, and assessment methods (COAT Project, 2010c). The course standards were reflective of structured weekly content (similar to what instructors would use in their own online courses including textbooks, articles, and websites for required readings), streaming videos, the completion of written and interactive exercises, quizzes, self-reflection assignments, and interacting with other participants in discussion boards and group activities (Shattuck, Dubins, & Zilberman, 2011).

Professional development opportunities that focus on training instructors to become familiar with online teaching roles and competencies may not be available at all institutions and for all instructors (Shattuck, Dubins, & Zilberman, 2011). Seaman (2009) surveyed instructors employed at four year institutions in the United States and found 32.4% part-time faculty were more likely to engage in online teaching, whereas their full time colleagues taught only 22.2% of the time online. Allen & Seaman (2010) discovered 19% of institutions that offer online courses report no training or mentoring programs for their online faculty. Additionally, instructor training

may be offered at institutions, but it may not be available in a format that is accessible to all instructors, particularly adjunct faculty members (Allen & Seaman, 2010). Shattuck, Dubins, & Zilberman, (2011) found that trainings have been offered internally at 65% of the institutions surveyed, and informal mentoring was offered at 59% of the institutions surveyed, although the structure or the format of the trainings was not available for review. The needs of instructors vary, but it is likely there is a limitation of adjunct faculty attending on-campus trainings. Adjunct faculty are not likely to be on-campus as much as full time faculty and may be unable to participate in workshops or mentoring.

The number of online offerings continues to increase, as does the number of online instructors. Therefore, a need arises for access to quality training for full time online instructors. Training should be designed by teams of instructors, administrators, instructional designers, and technologists. It is also reported that an online training format should be offered that affords the instructors the experience of being online students (Shattuck, Dubins, & Zilberman, 2011) and provides the opportunities to the instructors to experience the successes as well as the obstacles.

Muller (2008) found that students reported several barriers that hindered their online success which factors in the ability to balance school, home and school responsibilities, dissatisfaction with the online instructor, face-to-face preference for instruction, anxiety, lack of technology support, and a feeling of being overwhelmed. However, Sherman, Crum, and Beaty (2010) reported that 80% of students noted connection to their professors and 78% indicated they felt connected to other students within the class at a high level of interaction. The needs of online students differ compared to those of students in a face-to-face environment, and those needs are to be recognized when preparing for online education. Online students require a great amount of self-direction. They need to be independently motivated and skillful with time management, but

also be able to communicate well online (Sherman, Crum, & Beaty, 2010). Schullo et al. (2007) reported findings from the perspective of the online course instructor, on how the use of synchronous communication facilitates more effective teaching. Additionally, instructors were able to formatively monitor feedback from students and assess their knowledge and understanding. The instructors then made changes to instructional strategies and content throughout the course after reflecting on student feedback (Schullo et al., 2007).

Swinglehurst, Russell, and Greenhalgh (2008) stipulated assurance of academic quality and standards in higher education. It was reported that "staff providing support to learners on flexible and distributed learning programs must have appropriate skills and receive appropriate training and development" (Swinglehurst, Russell, and Greenhalgh, 2008, p. 384). Principles for online teaching were also represented in this article. Current research supports many of the teaching principles of online instructing and the similarities of face-to-face teachings, but several are unique features for online instruction. Swinglehurst, Russell, and Greenhalgh (2008) struggled to define exactly what the unique skill set for online instruction included. However, a strong theme emerged which was identified as a personal face, whereas prior to this study, participants may have referred to online learning as remote and impersonal. Participants also identified a tutor presence as an important aspect because trust and judgments are critical in online learning. Finally, participants recommended virtual role play as a learning strategy, as well as team discussion in order to reflect on practice (Swinglehurst, Russell, & Greenhalgh, 2008). There is little or no influence of online instruction in the traditional classroom; however, there may be a need for more research on the training of traditional instructors in the higher education classroom for graduate education for adult learners.

Andragogy in Online Education

Instructors have a variety of teaching styles that encompass student involvement, responsibility for one's learning, and just as importantly, an instructor's personal understanding of educational philosophies. The approach that an instructor uses is dependent upon one's own personal philosophical belief about teaching and learning (Cuellar, 2002). The way in which an instructor is most comfortable teaching is the way in which they learned during their educational years (Cuellar, 2002). The disparity in generations of students and instructors often creates a dichotomy between them if the instructor has not been trained effectively in online pedagogy and andragogy. Instructors must transition from a didactive teaching role to a facilitative role in the learning process (Cuellar, 2002).

Studies have been conducted on the demographics of students who enroll in online programs and courses. The studies indicate online students are typically older than the student who enrolls in face-to-face courses, typically work a full time job outside the home, and are usually married. These common attributes of online learners lead them to learn differently, but also forces the online instructor to present material differently. In the 1980's, Malcolm Knowles theorized that adult learning as andragogy, which has been considered the art and theory of teaching adults (Merriam, 2001).

Merriam (2001) identified the Pillars of Adult Learning Theory compiled by theories, principles, models, and combined explanations that compose the knowledge base of adult learning. Those pillars are considered by Merriam (2001) as andragogy and self-directed learning (SDL). In 1926, the founding of adult education was considered to be a professional field of practice. Even though we have known for many years that adults learn on a daily basis, much of the early research on adult education focused on whether adults could actually learn more than

what they already knew (Merriam, 2001). The European concept of andragogy was defined as the art of science of helping adults learn, and is in contrast to pedagogy, which was the art and science of helping children learn (Knowles, 1980). Five assumptions of andragogy that describe the adult learner as someone who: 1. possesses a self-concept who can be self-directed in his or her learning; 2. has life experiences in which the student can learn from; 3. has learning needs which are related to changing social roles; 4. is focused on problems and applies knowledge immediately; 5. is self-motivated to learn. Due to these assumptions Knowles created a program planning model to design, implement, and evaluate the learning of adults (Merriam, 2001).

One principle of andragogy is adults want to know why they are learning particular material, and will search for the practicality of it (Merriam, 2001). Adult learners also have a need to be responsible for their own decisions, and want to be treated as though they have self-direction. Adult learners also have life experiences that they can connect their learning to, but are also willing to learn information that will assist them with coping with real life tasks and problems. Finally, adults are also motivated by a sense of self-esteem (Merriam, 2001). The needs of adult learners differ from others, so it is essential for instructors to recognize these differences and be trained to teach in such a way that leads to the necessity for this research.

Beck (2010) proposed that since students may not receive immediate instructor feedback in an online asynchronous course, students become dependent upon one another, thus resulting in greater collaboration among students. The focus on pedagogical skills is essential in a knowledge-based economy, including knowledge construction, critical thinking, and autonomous learning (Bates & Watson, 2008). An online learner must be an active and critical thinker and be able to interact with peers and the instructor through technology (Evans, 2008).

A controversial debate about adult learning theory occurred in the 1970's and early 1980's. Andragogy was a main point of contention and whether or not it should be considered a theory of adult learning. Hartree (1984) inquired whether andragogy could be considered an adult learning theory, or principles of good practice. Eventually, Knowles (1989) agreed that andragogy is less of a theory of adult learning than a model of what adult learning should be like and perhaps instead it is a basis for an emerging theory. Knowles (1989) decided to reposition his thinking to andragogy versus pedagogy; however, this approach would be represented on a continuum that would range from teacher-directed (pedagogy) to student-directed (andragogy). There remains a gap in the literature directly related to this continuum. The need for instructors in online graduate education to structure courses in such a way that uses the basic principles of andragogy would support the adult learner by using the principles that Knowles (1989) created.

The Community of Inquiry

In addition, the Community of Inquiry (COI) model has recently been validated as an instrument that measures presence in an online environment (McKerlich, Riis, Anderson, & Eastman, 2011). The COI model developed by Garrison, Anderson, and Archer (2000) researched interactive possibilities, hence giving a presence to distance education. COI represents the sense of being present in an online classroom for the purpose of education. Additionally, COI has grown considerably since the inception of distance education. This model was developed in the 1990's in response to the new technological and pedagogical approaches evolving in online education, which are essential strategies for all educational environments. In the first generation (postal correspondence) of distance education the sense of presence, or "being there" was non-existent, and could be referred to as a type of independent study. The second generation, or multimedia broadcast, pedagogy began to emerge as a result of

synchronous and asynchronous interaction (McKerlich, Riis, Anderson, & Eastman, 2011). Presence of students and instructors began to develop and learning activities and interactions began to progress. The third generation of distance education is comprised of courses offered in the technology-enabled space, which allows for a multitude of interactive, participative, simulation, visualization, gaming, modeling, and discovery technologies (Moller, Robison, & Huett, 2012). The COI could be a useful tool in measuring the effectiveness and quality of online educational technologies (Garrison, Anderson, & Archer, 2000).

Partlow and Gibbs (2003) researched instructional technology and found that online courses based on higher education face-to-face instruction should be relevant, interactive, project-based, and collaborative. However, at the same time, the courses should offer the students some choice and control over their learning. The development of the social climate in an online learning environment is important for students to feel included in an online course (Rourke, Anderson, Garrison, & Archer, 2001).

The COI model has been created with Dewey's practical inquiry research (Dewey, 1933). The main construct of the COI is that three types of presence enable an educational experience to occur; social presence, cognitive presence, and teaching presence (Garrison, Anderson, & Archer, 2000). The definition of presence for this research has been adopted by Lessiter, Freeman, Keogh, and Davidoff (2001), whereas, a user is described as "being there." Garrison, Anderson, and Archer (2000) describe presence from a student's educational perspective, which focuses on social presence, but also considers cognitive, and teacher related aspects in order to have a full educational experience (McKerlich, Riis, Anderson, & Eastman, 2011). A full educational experience entails several components. Rourke, Anderson, Garrison, and Archer (2001) defined social presence as the extent to which a student is projected and perceived in an

online course. Teaching presence is the direct and indirect role and influence the teacher has to ensure a meaningful educational experience (Anderson, Rourke, Garrison, & Archer, 2001).

Dalsgaard and Paulsen (2009) conducted research that supports the third generation of online learning. It focuses on content as well as students and instructors. A sense of presence emerges from this generation of online learning through both synchronous and asynchronous learning. This generation of learning focuses on the students creating and contributing content by connecting with others in the learning process (Dalsgaard & Paulsen, 2009). Those who connect the processes of learning create a sense of transparency- that act to guide, reinforce, and contrast the learning of others (Dalsgaard & Paulsen, 2009). Kauffman (2008) stated that virtual worlds are emerging educational technologies and have the potential to create a rich sense of presence, construction of and contribution to learning as well as transparent visibility to endless possibilities.

Akyol and Garrison (2008) reported the progressive and developmental nature of each of the elements of presence in the COI framework. They also explore the relationships of the three elements, as well as the perceived learning. This model is in a state of continuous process and strives to move online learners through phases of inquiry. In Akyol and Garrison's study (2008) a sense of community was positively impacted. Students reported that participation during the online course was an especially powerful component in feeling the sense of belonging to a community. The survey results of Akyol and Garrison's 2008 study revealed results with significant positive relationships between teaching presence and cognitive presence, teaching presence and perceived learning, teaching presence and satisfaction. These positive relationships strengthen the critical role of teaching presence in a community of inquiry (Akyol & Garrison, 2008). In addition, significant relationships were also discovered between cognitive presence and

perceived learning, and cognitive presence and satisfaction. Cognitive presence was found to be a more powerful factor on student's learning as compared to teaching presence, and is considered the presence that goes to the heart of the COI framework. A noteworthy relationship was found between social presence and satisfaction in Akyol and Garrison's 2008 study. Finally, results from this study confirm the important theoretical implications of the COI, although the elements develop and progress in different ways in the online environment. Furthermore, findings from this study report cognitive presence and teaching presence were important components in the influence of student learning and satisfaction. The results of this study, even though it was a small sample size, indicates the need for an integration of the three elements of the COI and they should be designed, facilitated and directed based on the purpose of the course, students' needs within the course, and technological contexts of the course of study (Akyol & Garrison, 2008).

Differences in Teaching Online versus Face-to-face Courses

Although pedagogy and content are essential elements in course development and execution, there are several components that differ in the two educational environments. Possession of technical, facilitation, and managerial skills are necessary for an online instructor to be successful (MarylandOnline, 2009). Technical skills include writing, electronic presentation, web navigation and search skills, and knowledge and use of the course LMS. Facilitation skills include the ability to engage students in an online environment, appropriate questioning, listening, and feedback skills, the ability to manage an online discussion, the ability to build online teams and promote motivation, relationship building and active learning. Managerial skills include knowing how to manage online teams, possessing excellent time management, the management of differing learning styles, the ability to involve students in

online discussions and activities, and possessing the knowledge of basic legal issues such as copyright laws and the Americans with Disabilities Act (ADA) (MarylandOnline, 2009).

Online course design is organized into sessions where students have to read assigned materials and participate in some kind of multimedia content. Students are held accountable to read and complete assigned activities, whereas instructors are expected to provide clear expectations for online classroom participation, discussions, and assignments (Treacy, 2007). The creation of an online classroom community is also a successful online strategy that provides positive communication between instructor and student, as well as between students within the course. It is essential that instructors have effective online communication skills (MarylandOnline, 2009). Similar to face-to-face classrooms, instructors must also be able to support students with varied reading levels in an online classroom, as well as provide curriculum resources in a web-based context (Treacy, 2007).

The social dynamic is also different in an online classroom. Discussions are important components of both online and face-to-face classrooms because they provide an arena for student reflection, demonstration of mastery, and interaction with peers as well as the instructor. The difference; however between the two course discussion platforms is the pace of the discussions. The face-to-face classroom discussion does not necessarily provide the opportunity for students to truly reflect, whereas the online discussion provides the time for student reflection and deeper learning because it can be asynchronous and the online classroom is available at any time of the day or night. A key component to online teaching is effective questioning techniques that permit critical thinking and deep reflection. In addition, effective writing prompts that support engagement of all students provides an additional assessment tool for the instructor to assess learning of course content (Treacy, 2007).

Although online education has made phenomenal strides in course content, assessment, and technology since its inception, challenges are still apparent in an online classroom environment. Issues with technology have been reported to instructors that sometimes halt the availability of accessing online links and web-based tools (Treacy, 2007).

Treacy (2007) offered strategies that assist in avoiding content or course issues:

- Clear expectations and deadlines should be set from the start of the course;
- Using a variety of methods, instructors should be in regular communication with students using email, phone calls (as needed), and the use of chat rooms to offer office hours;
- Be aware of online voice; stay positive, personal, professional and approachable, as well as be aware of tone of voice in emails and online discussions;
- Provide regular and timely feedback for assignments, emails, and discussions;
- Be flexible to allow students to meet individual learning needs and goals;
- Use effective questioning techniques.

Using the techniques and strategies provided improves not only online teaching, but face-to-face teaching as well. The understanding of the use of technology, the support of individualized instruction, the increase in student engagement to provide opportunities for deeper reflection and learning, and more effective questioning techniques improves all aspects of instruction, both online and face-to-face (Treacy, 2007).

Future of Online Graduate Education Programs and Instructor Training

Colleges and universities have been able to reach an underserved population by use of the internet, which has successively increased enrollment (Sherman, Crum, & Beaty, 2010). Throughout the United States, online education and the number of students enrolled in online

courses continue to rise. In the fall of 2011, there were over 6.7 million students enrolled in an online course (Sloan Consortium, 2013). Because of the increased demand for online courses and programs, colleges and universities have worked on strategic plans to implement online education. Challenges to meet demands have been recognized by Kim & Bonk (2006), which include:

- There are misconceptions and myths of the difficulty of online teaching and learning;
- The technology that is available to support online instruction;
- The support and compensation required for high quality instructors;
- The needs of online students.

The thoughts and opinions are mixed about online teaching and learning. The understanding of where online teaching and learning is headed requires an understanding of the current state of online teaching and learning (Kim & Bonk, 2006).

Kim and Bonk (2006) referred to the perfect "e-storm" which symbiotically linked pedagogy, technology and the learner's needs together. Kim and Bonk (2006) raised concerns and made predictions about the changing roles of online instructors, student expectations and the needs related to online learning, pedagogical innovation, and projected technology use for online teaching and learning. A critical component of online education is the new, yet different role of the instructor and the required training and support. Kim and Bonk (2006) continued with how important it is that faculty of online courses receive quality training for this type of instruction. Instructors play a different, but important, role than the traditional or face-to-face classroom instructor. Quality training and support can have positive impacts for the instructor with the transition from a face-to-face to an online instructor. In addition, Kim and Bonk (2006)

determined that administrative support at the higher education level is critical for faculty to receive effective support to implement changes in the teaching process.

To improve online instruction, pedagogical issues must also be reviewed. Collaboration is a critical element of online instruction. Increased attention and attendance at workshops, courses and in degree programs and how to instruct or facilitate online teaching needs to be considerations of colleges and universities and how they will respond to the increased need of training, is even more important (Kim & Bonk, 2006) than ever before. Instructors of courses in higher education need to focus on how they can develop student collaboration and evaluation skills as they use the internet as a tool for virtual collaboration, critical thinking, and enhanced student engagement (Kim & Bonk, 2006).

Of the 2,500 colleges and universities surveyed for the Babson Study, 63% indicated that online education is critical to their long-term strategy. This is a subsequent increase from the 59% reported in 2009. For-profit institutions reported the greatest increase at 61% compared to 51% in 2009. The for-profit institutions were also the most likely to have online learning included as part of their strategic plan (Allen & Seaman, 2010). A survey conducted by the Babson Survey Research Group, revealed a striking gap which more than two-thirds of the responding colleges and universities recognized that online programs are strategically important to the institution. However, less than one-half of the respondents included online programs in the institution's strategic plan (Sloan National Commission on Online Learning, 2009).

Additionally, the 2,500 colleges and universities that participated in the Sloan Foundation survey reported that nearly one-half of those institutions stated that the United States economic downturn increased the demand for face-to-face courses and programs in higher education (Allen & Seaman, 2010). Three-quarters of those institutions have seen an increase in the demand for

online courses and programs (Allen & Seaman, 2010). The long term future for online enrollment growth is unknown at this point. Two factors however, have been recognized; new institutions of higher education moving into the online arena; and institutions growing their existing programs and offerings (Allen & Seaman, 2010). The majority of this recent growth is from institutions expanding their existing programs, not from new institutions offering online programs (Allen & Seaman, 2010).

The trend for online enrollment in higher education courses has steadily risen, with growth rates exceeding the growth in the overall higher education student body (Allen & Seaman, 2010). There are several contributors to this growth. Online instructors must have a different type of understanding of the needs of this diverse student population (Bonk, 2009). Pedagogically, instructors need to focus on a student centered model instead of a teacher focused model based on collaboration instead of instruction (Tapscott, 2009).

The training of faculty to teach online has been reported by institutions of higher education according to the literature reviewed for this study. However, the training that instructors have received, as reported in the review of the literature, has been step by step technological training including how to access the LMS and how to integrate educational technology components into courses (McQuiggan, 2007). Due to the inherent gap in the literature and the lack of research in the area of training of online instructors, it is believed that there is no formal pedagogical training for most online instructors.

Tapscott (2009) termed the current generation of students the net generation because learners have the internet and are forcing a change in pedagogy. Today's students want to participate in the learning process, while at the same time have autonomy, but also have control of their environments. Students are instantly connected to any content required, yet have the

desire to control their own environments (Tapscott, 2009). Learners have unlimited access to information, and educators need to take on the role of facilitator or guide while assisting students to take charge of their own learning. Tapscott (2009) continued with the belief that online learners must be active participants in their own learning. Learning has to be interactive, not an isolated learning process.

Connection, interaction, and dialogue are considered critical elements of adult learning. Ongoing interaction is a foundational behavior that leads to success within an online course. The media chosen by an online educator will play an important role in establishing and shaping the interactions within the class (Haythornthwaite & Bregman, 2004). A virtual community space for course participants to meet and interact can encourage activities, facilitate learning objectives, and also establish emotional and cognitive presence in the online environment (Dalsgaard, 2008).

Haythornthwaite and Bregman (2004) suggested providing multiple mediums for participants to present themselves and communicate. Individuals and subgroups can choose the medium they are comfortable with and also meet needs and preferences. The online instructor uses all of the available tools of delivery modalities that would be appropriate for the content and the context to meet the needs of the diverse tools for expression, communication, and content delivery. Instructional design for online learning allows adults to self-direct their informal learning by going beyond what the instructor has provided to explore, interact, comment on, modify, or apply the set content they discover or create through the learning they participate in (Reynard, 2007). This technology offers the potential for the learning process to meet the needs of each individual learner (Reynard, 2007). Successful social software tools provide an online environment that allows instructors and students to interact with and within the online environment, as well as be able to use online resources. The online educational environment

enables learners to actively create their own learning, rather than passively consume the course content and to also recognize learning is a participatory life-long social process (McLoughlin & Lee, 2007).

Chapter Summary

The need and importance of training instructors to teach in an online environment is essential because the lack of experience that instructors have in the online environment, especially as a student, is sparse. Historically, the majority of students have been educated in the traditional face-to-face classroom, which means prior experiences and knowledge that one has in education would not mirror the online classroom. Drawing upon past experiences of teaching applies to those teaching in a traditional face-to-face classroom.

Successfully teaching in an online environment includes training and preparation as the role of instructor. The purposes of teacher preparation are evident in the literature; however, so is the difference of teaching in a face-to-face environment and an online environment. This study strives to fill the gap in the literature to investigate the training of instructors who teach in an online environment. The literature suggests online instruction is another educational modality within the higher education arena, but very little research has been done to suggest the differences in teaching in the online environment. The practices of training instructors to teach in an online environment in higher education varies from training instructors how to use a LMS to the training of pedagogy to strategies on how to teach in an online environment. Online teaching is "an approach to education in which the educators, designers, support staff, and students are engaged differently and often for purposes that have particular social and policy imperatives" (Evans, 2008, p. 215).

Current technology has enabled higher education institutions to deliver education in an online format. The rapid growth of enrollment in online courses at institutions of higher education supports the need to pedagogically and technologically train instructors who teach in the online environment. The purpose of this literature review is to investigate the training opportunities online graduate instructors have to teach in an online environment. The implications could inform training of online teaching, but it is possible the information could also be a driving force for instructors who teach in a face-to-face environment. Institutions need to recognize the value of the differences in teaching in a face-to-face environment versus the online environment.

CHAPTER 3

METHODOLOGY

Overview of the Study

Chapter three describes the methodology proposed to answer the questions of this study. An overview and purpose of the study will be followed by the sampling methods and participants of the study. The participants are described and the protocols in which they are chosen are also illustrated. The method and data collection process will be described along with the analysis of the data. The ethical and confidentiality matters are explained and then the chapter closes with a summary.

This research study includes surveying and interviewing instructors who are teaching an online graduate education course at an institution of higher education. It also includes how the surveys and interviews were conducted, and the protocol that was taken to choose the participants, and how the data were collected, tabulated and represented. Finally, a description of how this research can assist with further design of training online graduate education instructors and recommendations for further research is included.

The transition from traditional classroom instruction to the online format of instruction needs to be addressed through the training of online instructors. Teacher preparation programs have traditionally been preparing educators to effectively teach in brick and mortar classrooms. As stated, the delivery of online instruction is unlike face-to-face instruction (Ray, 2009). The increase of enrollment in online courses has compelled institutions of higher education to evaluate the way in which instructors are prepared to teach. Platforms of distance education are rapidly changing, so too must the educational training of those who choose to teach in an environment other than the traditional, or face-to-face environment. Ray (2009) stated that

courses that have been taught in a face-to-face environment cannot simply be transposed to an online format without pedagogical considerations. The benefits of online learning include flexible scheduling, independence, and decreased cost (Ray, 2009). This study describes how instructors of online graduate education courses are trained and provides data and future implications for teaching in an online environment. Surveys were distributed and interviews were scheduled with online instructors at three institutions of higher education that offer online graduate education courses.

Research Problem

There is a need for training of online education instructors that specifically focuses on various pedagogical methods that facilitates a successful online course (Diaz & Botenbal, 2000; Arabasz, Pirani, & Fawcett, 2003; Okojie, Olinzock, & Okojie-Boulder, 2006; Cook, Dickerson, Annetta, & Minogue, 2011). There is also a need for research to evaluate the effectiveness of online instruction.

Research Purpose

The purpose of this study was to investigate the training that online graduate education instructors receive prior to teaching in the online environment. The sample consists of online graduate education instructors who taught online courses at three institutions of higher education during the fall of 2012.

The data were gathered from the online graduate instructors using an online survey tool as well as interviews conducted with online graduate education instructors. The goal of this study is to establish which types of training were received by online graduate education instructors, and to describe the perceived effectiveness of instructor training.

The results of this study provide data regarding the training of particular online teaching skills and methods received by instructors of online graduate education courses in a higher educational setting. Institutions of higher education that offer online graduate education courses will be able to make decisions using the data collected about the training of online instructors in technological and pedagogical knowledge, and to also assist in such training. Through this study, the researcher reports on the training of online graduate education instructors, and the perception of those instructors trained in their preparation in technology and pedagogy to teach online education courses. Furthermore, this researcher focuses on online graduate education instructors employed by institutions of higher education.

Research Questions

The following research questions are addressed:

Research Question 1: How are online graduate education instructors trained to teach in an online environment?

Research Question 2: Do instructors perceive they have been effectively trained to teach online graduate education courses at institutions of higher education using technology and online pedagogy?

Research Design

This is a mixed methods study that utilizes qualitative and quantitative research methods to examine the training received by online graduate education instructors prior to teaching in an online environment. Mixed methods research has been described as "an approach to knowledge (theory and practice) that attempts to consider multiple viewpoints, perspectives, positions, and standpoints (always including the standpoints of qualitative and quantitative research)" (Johnson, Onwuegbuzie, and Turner, 2007, p. 13). Even though the research of mixed methods is not new, it is a new faction that has arisen because of qualitative and quantitative research. Mixed

methods research is a blend of qualitative and quantitative ideas (Johnson, Onwuegbuzie, and Turner, 2007). Bouchard (1976) claimed the findings derived from two or more methods make for a more substantial study, where the results are valid and not methodological artifacts.

However, Denzin (1978) found "the bias inherent in any particular data source, investigators, and particularly method will be canceled out when used in conjunction with other data sources, investigators, and methods" (p. 14); and "the result will be a convergence upon the truth about some social phenomenon" (p. 14). The strengths and weaknesses of qualitative, quantitative, and mixed methods research are considered to be important and needed; however, only in certain circumstances. Mixed methods research assists researchers to combine components of both qualitative and quantitative approaches in order to answer research questions (Johnson, Onwuegbuzie, and Turner, 2007).

This study answers two research questions through the utilization of a mixed methods approach. The methods add the qualitative and quantitative components to the study, so that the insight of the training of online graduate education instructors at institutions of higher education can be further examined. This research study includes surveying and interviewing instructors who have taught online graduate education courses at institutions of higher education. This research also includes how the surveys and interviews were conducted, the protocol taken in order to choose the participants, and how the data collected were tabulated and represented. Finally, a description of how this research can assist with further design of training online graduate education instructors and recommendations for further research is included.

The combination of the qualitative and quantitative research methods provides a thorough description of the training of online graduate education instructors. Utilizing a mixed methods approach provides several drawbacks which includes: more time to complete the study, the

requirement of the researcher to be competent in both types of research, the possibility that it could be more expensive to conduct, and the possibility that there could be conflicting results within the study (Johnson & Onwuegbuzie, 2004).

The methodology of this study has several parts. First, research was conducted to identify higher educational institutions that offer online graduate education courses. The researcher then determined the instructors from institutions of higher education that were invited to participate in the study by collecting names and finding email addresses of online graduate education instructors by researching the institution's website. This determination provided the researcher with a non-random purposive sample of participants for this study.

Selection of a Sample Population

Purposive sampling was chosen for this study because the intention was to target all online instructors who taught graduate education courses at an institution of higher education during the fall of 2012. This type of sampling can be used with qualitative and quantitative studies because an in-depth analysis can be performed specifically for investigating the training of online graduate education instructors (Commonwealth of Education Media Centre for Asia (CEMCA), 2008). According to the CEMCA (2008), purposive sampling is best used with a small number of individuals to understand human perceptions and needs. The goal for the purposive sample was approximately 150 instructors.

Obtaining a Sample Population

Application was made to East Stroudsburg University's Institutional Review Board (IRB) requesting permission to conduct this study with the sample population. Online instructors from three institutions of higher education in northeastern Pennsylvania were identified by the researcher to offer participation in the study. The sample population from the three institutions

was listed as the instructors of record for online graduate education courses at the represented institutions during the fall 2012 semester. These institutions were chosen based on their offerings of online graduate education courses and the physical proximity to the researcher.

Sample Characteristics

The identification of the professional characteristics of the sample population was a requirement of instructing an online graduate education course during the fall of 2012. Each participant was carefully identified by the researcher by conducting an investigation through higher educational institutional websites searching for online graduate education course instruction during the fall of 2012.

After a pilot study was requested (Appendix A) and completed, and the three institutions were confirmed, the next phase of the study began with an email (Appendix D) to the sample population inviting their participation in the study, with assurance that no individual responses would link the individual to the response. The survey link was emailed to the sample population. Approximately a week later, a follow up email was sent to remind participants of the survey, and ask them to respond if they have not already completed the survey. A final email was sent requesting participation in the study approximately two weeks after the initial request. After survey data were collected, the next phase began with interviews of instructors who indicated interest in participating in the interview. Data were collected and analyzed from each phase of the study and culminated with a thorough analysis.

Instrumentation

Description of How Instrument was Obtained

An email was sent to Bobbi H. Dubins requesting permission to use components of the survey from the MarylandOnline project, which was developed by a group of educators from

Maryland, to gather data necessary to analyze the training received by online graduate education instructors at institutions of higher education. Permission was granted via email, as well as through a written, signed, hard copy, which was mailed to the researcher. The consortium of the MarylandOnline project is comprised of 20 colleges and universities in the state of Maryland (Shattuck, Dubins, & Zilberman, 2011). Other elements of the survey instrument for this study were developed by the researcher in order to uncover the information on which this study is focused.

Instrument Description

The survey instrument (Appendix C) gathered information about the training instructors received prior to teaching online graduate education courses for institutions of higher education and the instructor's perception of the effectiveness of their training. Information gathered included (a) the comfort level of the participant with technology, (b) the technological skill level of the participant, (c) the training topics received by the participant, (d) the participants' perception of the appropriate amount of student communication, and (e) the value of the training received by the participant. The survey instrument contained both Likert-type scale items and open ended questions in order to obtain qualitative and quantitative data. Components of the survey instrument were chosen for this study to identify the training online graduate education instructors received prior to teaching online graduate education courses. The survey questions were developed to assess the need for quality, accessible training for instructors of online graduate education courses. Elements of the survey were found through a study by Shattuck, Dubins, and Zilberman (2011) entitled *MarylandOnline's Inter-Institutional Project to Train Higher Education Faculty to Teach Online.*

Some items included in the survey instrument were measured with a Likert-type scale. The skill level of the participants was measured by the following: expert, very skilled, fairly skilled, not very skilled, or not skilled at all. This information allowed the researcher to identify and rate the skill level of the participant with the training the participant received to teach in an online environment. The survey also identified the perception of the satisfaction of the training received by the participant by using the following ratings: agree, disagree, or not applicable. Each of the components in this area measured the satisfaction with particular components of the training received by the participants. The survey instrument included opportunities for the participants to indicate their perceptions of the training received to teach online graduate education courses and also how the training could benefit other instructors who teach in an online environment. The final components of the survey instrument enabled the participants to describe their pedagogical and technological training experiences and also their experiences with using the course LMS. In addition, the survey measured the importance of instructor/student interaction as well as the similarities and differences in teaching online courses versus face-to-face courses. These survey components were open ended and qualitative, leaving opportunities for the participants to elaborate on their experiences.

Validity and Reliability

The survey for the research under study was piloted by the researcher with a group of online instructors who were not a part of the sample population, to help assess the instrument's content validity and to evaluate the survey administration process. Content validity was originally determined by the researchers of the MarylandOnline research group. However, to determine if the amended survey developed for this study would measure what it was intended to

measure, the survey was distributed to three college professors to address and confirm content validity specific to this study.

Data Collection

Pilot Study

A pilot study of the survey was performed consisting of 21 participants who were requested to take the survey so the procedures and the administration of it could be evaluated. After the pilot survey results were received, feedback from the results was implemented into the survey. The survey was administered through Survey Gizmo and follow up interviews with 10% of the pilot group were conducted and included a discussion of the clarity and conciseness of the survey instrument. Feedback was utilized to amend the survey instrument to be concise and valid. Cronbach's alpha was used as the measure of reliability for this pilot survey.

Collection of Information

The researcher collected survey data from instructors via an online survey method of the training received and perceived in regard to teaching online graduate education courses. A survey link was prepared and sent via email through Survey Gizmo. A brief email (Appendix D) explanation of the study accompanied the survey and requested the participation of the sample population in the study. Participants were sent a reminder email (Appendix E) approximately a week after the initial email requesting participation in the study.

Interview Protocol

Approximately 10% of those responding to the survey were contacted and requested to participate from the list of instructors who indicated they would be willing to participate in an interview. Interviews were scheduled at times and locations convenient for both the researcher and each interviewee for 45 minute time periods. A brief overview of the study was shared with

each interview participant prior to the start of the interview. Interviews were conducted over the phone. Protocol was followed when the interviews were conducted (Appendix H). Interviewees were emailed to confirm the times arranged. The researcher recorded each interview, with permission from the interviewee so responses could be used for data analysis. Interviewees were requested to sign a consent form (Appendix G) so the information could be used for research purposes.

The interview questions were similar in nature to the survey instrument questions, including inquiry about the participants comfort level, online training prior to teaching an online graduate education course, as well as a questions of inquiry about the perception of the online training received. The questions were open ended to allow for rich discussion of the topics and to allow for the participant to elaborate.

Data Analysis

Quantitative Data Analysis of the Online Survey

All of the data collected electronically were downloaded and entered into an Excel Spreadsheet for analysis. The data were reviewed for errors and edited, and the survey responses were analyzed. The analysis of the training of online graduate education instructors identified the training, comfort level, and skill level of the participants.

Research Question 1

Research question one is addressed quantitatively through descriptive statistics for items 2, 3, 5, 7 and 9 of the survey of online instructional training in higher education.

Qualitative Data Analysis of the Online Survey and Interviews

The data for the interviews were analyzed using a phenomenological approach to identify the experiences of the participants in the study. Leedy and Ormrod (2001) described

phenomenology as how people describe things and experience them through their senses. Their assumption was that people can only know what is experienced by paying attention to perceptions and meanings. Phenomenologists focus on what is experienced to make sense of the world. This approach enables the researcher to focus on how the participants made sense of the training experiences they received to teach online graduate education courses. Answers to open ended survey questions were compared using qualitative analysis techniques and to find common themes.

Research Question 2

Research question two is addressed quantitatively through both descriptive and inferential analyses of items 4, 6, and 8 of the survey of online instructional training in higher education. The inferential analyses include tests on proportions conducted on items 6, 7, and each of the six parts of item 8, for a total of eight tests. To control for possible Type I error rate inflation, the Bonferroni correction was applied to the overall level of significance, .05, by dividing .05 by 8, the number of tests to be performed. The new level of significance for the eight tests of proportions will therefore be .006.

Research question two is also answered through items 10 through 16 through a qualitative descriptive analysis. Item seventeen seeks participation in an interview for further clarification. Item 10 seeks information about how the participant would describe instructor/ student interaction, whereas items 11 and 12 seek the importance and value of instructor/student interaction in the online environment. Items 13 and 14 investigate how the participant perceives technology and how it enhances or limits online instruction. Similarities and differences in online education and face-to-face instruction are sought in items 15 and 16. Questions 1, 17, & 18

inquire about the participant's training to teach online as well as the willingness to participate further in the study.

Interviews

Phone conferences were scheduled with one professor from each of the Universities who participated in the study by taking the online survey. The researcher chose the first professor who responded to the online survey and indicated a willingness to participate in an interview. Forty-five minutes were scheduled with each of the professors via email. Once each of the professors confirmed a willingness to participate in the interview, the consent form (Appendix G) and the interview questions (Appendix H) were sent to each professor. Each professor sent the researcher the Informed Consent form prior to the start of the interview.

The researcher phoned each of the interviewees at the time agreed upon for the interview. Once the researcher introduced herself, it was explained that a recording of the interview was desirable. Each interviewee agreed to the recording of the interview. Once the recorder was on, the interviewer asked again if the interview could be recorded. Each participant indicated yes during the recording of the interview for confirmation to the recording.

Assumptions

The assumptions of this study were:

- The survey questions were answered openly and honestly;
- This study elicited information from three institutions of higher education and it is assumed that the instructors completing the survey have been trained in some way to teach in an online environment.

Limitations

The limitations of this study include the following:

- Differences in the type of training that instructors received may have contributed to their perceptions of the value of the training, and impacted their responses to the survey items;
- The instructor's perception of online training could be skewed based on their experience of the online training.

Delimitations

This study is delimited to:

- A small sample size; therefore limited amount of data analysis can be completed by the researcher;
- Only graduate online education instructors at three institutions of higher education were surveyed and interviewed, so the study may not be generalizable to all online instructors in a larger population;
- The data collection was from three institutions of higher education in close geographic location to northeastern Pennsylvania, which may or may not lend itself to all online graduate education instructors.

Ethics and Confidentiality

Participants in this research study have the right to privacy and the belief that data will be kept confidential at all times. The right to privacy and confidentiality was reiterated to the participants. Research participants have the right to trust they will not be identified by name at any time before, during, or after the study. Each survey included an email (Appendix D) explaining the confidentiality of responses to participants as well as to allow for voluntary participation. Completed surveys were accessible to the researcher.

The intent of ethical research is to do no harm, including physical, psychological, social, economic, or legal to any of the participants. At the completion of the study, all paper data will be shredded. Participants will be informed that they have the option of not completing the survey; however, their participation will be a contributing factor to the study. The electronic files from the interviews will be transcribed after assuring the accuracy and validity of the transcription by the researcher. The interview data will be kept with the signed consent forms in an electronic and paper format. Consent forms will be kept and stored by the researcher as records of subject agreement to participate in the study.

Chapter Summary

This study includes a combination of qualitative and quantitative measures to investigate the training of online graduate education instructors at institutions of higher education. A preliminary search for online graduate education courses was conducted in order to identify the participants who were requested to participate in the study. Instructors were requested to complete an online survey, and informed that they may be requested to be interviewed regarding the training received prior to teaching an online graduate education course. The study adds to the body of knowledge of the training received by online graduate education instructors to teach online graduate education courses at institutions of higher education.

Chapter four provides the results of the surveys and interviews of the online graduate instructors. Data analysis is provided using these results and chapter five provides recommendations for further research based on this information.

CHAPTER 4

FINDINGS

Overview

Chapter four outlines the findings of the online survey results as well as the findings of the interviews. Quantitative and qualitative methods were used to analyze the results of the survey and the interviews. Instructors who teach online education courses at three separate educational institutions of higher education were surveyed. One instructor from each of those institutions was requested to be interviewed via a phone interview. This chapter includes statistical information and results of the surveys and interviews. Prior to implementing the survey, a pilot survey was distributed to determine the clarity, conciseness, and reliability of the instrument.

This study was designed to identify: (a) how online graduate education instructors are trained to teach in the online environment; and (b) if instructors perceive they have been effectively trained to teach online graduate education courses at institutions of higher education using technology and online pedagogy. This study determined how graduate education instructors are trained to teach graduate education courses in the online environment and if those instructors perceived they have been effectively trained to teach graduate education courses in the online environment.

Quantitative: Pilot Analysis

Validity and Reliability of the Instrument

The survey link for the pilot research study was emailed to 21 instructors who are known by the researcher to teach online graduate courses. The pilot sample was identified due to the researcher's personal knowledge. Following IRB's protocol and requesting (Appendix B) and

receiving permission, an email (Appendix D) was sent to each of the identified instructors explaining the research study and requesting participation in the pilot study.

The sample population who received the web link for the pilot survey was informed that they could withdraw from the study at any time, but if they decided to continue with the study confidentiality would be protected. The sample population for the pilot study was also informed that if there were questions about the protection of the subjects of the survey, they could contact the Chair of the IRB, Shala Davis. Contact information for Dr. Davis was also provided.

There were 17 of the 21 requested respondents who completed the survey. Four of the 17 respondents were removed from the sample population because each indicated no training had been received. Therefore, responses from 13 respondents were used for this pilot study. This specific survey in its entirety has not been proven to be reliable, so to measure it, a Cronbach's Alpha was calculated for the survey instrument. Reliability is important because it assesses the consistency of measurement and possible future replication of the instrument. Reliability coefficients range from 0.0, which indicates inconsistent results, to 1.0 which indicates complete reliability. Cronbach's alpha is a measure of reliability and internal consistency commonly used by researchers when individual items measure the same construct. The scores for each item were correlated with the total score for each respondent, and compared to the variability present for all individual item scores (Salkind, 2011).

There were 57 items that were scored in the sample for the pilot group of 13. Some of the items were not answered by the respondents. They were left blank. Table 1 indicates the survey instrument had excellent internal reliability. Cronbach's alpha was .90. (α=.90).

Table 1

Cronbach's Alpha Reliability for Survey Instrument Measured via Pilot Study Population

Variable	Sample Size	Cronbach's Alpha	Number of Items
Survey of the Online Instructional Training in Higher Education	13	.90	57

Salkind (2011) stresses that tests and surveys can be reliable; however, not necessarily valid. It is not possible to have a test or survey that is valid, without it first being reliable. Tests and surveys can continue to solicit the same information repeatedly, which measures reliability, but not necessarily measure what it is supposed to, which is validity.

Content Validity

Content validity is a type of validity that examines how well the pilot test/ survey samples a universe of items (Salkind, 2011). Content validity was established for the survey instrument by discussing the items of the survey with three of the instructors who teach online graduate level courses. A separate meeting was held with each of the professors to discuss the items included in the survey. Each professor confirmed the survey questions met the criteria representative of what was being established.

Qualitative: Pilot Analysis

The qualitative results from the pilot study have been reported to investigate the training that online graduate instructors receive prior to teaching in the online environment. The first qualitative pilot study survey question solicited a description of instructor/student interaction which elicited responses such as engaged, active, excellent and effective. Reponses about the perception of the value of instructor/ student interaction elicited responses such as necessary to be effective, vital to online learning, and the lines of communication are always open. The

importance of instructor/student interaction in the online environment elicited responses from the respondents that included responses such as; the interaction helped in getting to know the students, one on one feedback, critical communication and interaction, as well as the aid of interaction in meaningful discussions.

Additional questions included how technology enhances or limits instructor/ student interaction solicited responses which included common themes such as the interaction forced discussion and engagement, it gave all students a chance to respond and contribute, communication is always available and it should be immediate and timely. Respondents reported that technology limited instructor/ student interaction because nonverbal communication is limited, visual cues are missing, and not all students and instructors are sufficiently educated in the effective use of technology.

Finally, respondents of the pilot survey were asked to describe how teaching in the online environment is the same as teaching in a face-to-face environment. Responses included that it is the same because students are engaged, and forced to be interactive. It was also reported that learning and course objectives are the same, as well as subject matter, standards, and expectations. Online instruction is being described as different than face-to-face instruction because learning is more individualized, and it happens at different times because it is asynchronous. Responses also indicated online instruction is flexible; however, the instructor does not get to know the students or the personalities as in a face-to-face course. The final pilot survey question solicited responses from about interest in participating in an interview to discuss the training received to teach in an online environment. Of the pilot survey responses, 87% responded they would participate in an interview, and 13% indicated they would not be willing

to participate in an interview to discuss the online training received. The researcher chose three instructors to interview- one from each institution in the study.

In conclusion, the pilot study supported the validity and reliability standards of the survey instrument based on the feedback received from the respondents. The results of the Cronbach's Alpha also support the instrument. The pilot survey instrument was used for the actual survey for this study.

Descriptive Statistics

After the pilot study was completed, the actual study was implemented. Information was gathered about online instructors of graduate education courses at three Pennsylvania universities. The sample population was chosen because of the researcher's knowledge of the universities and graduate education courses offered in the online format.

A total of 142 emails requesting participation were sent out, but a total of 27 were returned indicating wrong email addresses. The email addresses were identified by each of the respective university's websites; however, it had then been discovered that when adjunct instructors do not teach for a semester for that university, the email address for that individual may not be valid. This was verified by a phone call the researcher made to each of the education departments at the universities in the study. One week after the initial email had been sent to the sample population with the survey link, a reminder email had been sent requesting participation to those who had not yet responded. The researcher removed the email addresses that were provided in the initial responses from the second request. A third and final attempt to request participation was emailed during the third week of the survey, although the request was rewritten in a simplified way that asked for participation from the sample population and then briefly explained the purpose of the survey (Appendix F).

Thirty-six respondents attempted to answer the survey. Twenty-six respondents indicated they had received training to teach online, so they were able to continue with the survey. The ten respondents who indicated they had not been trained to teach in the online environment received a message on the screen that thanked them for their willingness to participate in the survey; however, the study and survey had been designed to gather information from those who had been trained to teach in the online format. The data analyzed in this study has been gathered from those respondents who indicated they had been trained to teach in the online environment.

Quantitative Analysis of the Online Survey

Survey question 1 asked the respondent if he or she had received training to teach in the online environment. Of the 36 survey respondents, 26 indicated they had received training to teach in the online environment. Research Question One determined how online graduate education instructors are trained to teach in the online environment. Table 2 reflects how the respondents reported being trained to teach in the online environment, in addition to the format in which they were trained. The percentages as well as the number of respondents are reported in the table.

The most significant training is represented by 15 (93.8%) respondents reporting training that had taken place online via webinar(s), although it is also notable of the responses of the observation of other online courses. This is represented by 10 (71.4%) respondents reporting they have been trained by observing other online instructors in an online format, followed by 9 (69.2%) respondents indicating the use of mentor(s) in the online format. Training in an on-campus (any campus) format for teaching in the online environment ranged from webinar(s) at 1 (6.3%) respondent to one-on-one sessions, which were represented by 8 (57.1%) responses. Cumulatively, respondents indicated the training that had been received was approximately 38%

on campus (any campus) to 62% receiving training in the online format. Each of the eight areas that had been reported on, were areas in which instructors received some type of training.

Table 2

Training Received to Teach in the Online Format (N= 26)

Training	On Campus (any campus)	Online	Total Responses
Professional Conferences for Online Instruction	54.5% 6	45.5% 5	11
Group Session(s)	45% 9	55% 11	20
One-on-One Session(s)	57.1% 8	42.9% 6	14
Printed Materials as References	40% 8	60% 12	20
Mentor(s)	30.8% 4	69.2% 9	13
Webinar(s)	6.3% 1	93.8% 15	16
On-Going Peer Discussion	42.9% 6	57.1% 8	14
Observation of Other Online Course(s)	28.6% 4	71.4% 10	14

Research Question Two inquires about the instructor's perception about effective training to teach online graduate education courses at institutions of higher education using technology and online pedagogy. Table 3 represents the type of training in which respondents have been trained.

One hundred percent (26) of respondents indicated training in how to provide student support via online communication, as indicated in Table 3. In this research study, communication was reported as a very important component to teaching in the online environment. Pedagogically, training was received in how to set rules for the online environment by 25 (96.2%) of the respondents. For training to redesign resources for the online environment and

setting up group activities for an online environment 17 (65.4%) respondents replied affirmatively. Additionally, 24 (92.3%) respondents indicated training was received to promote interaction among online students through discussion boards or chat rooms.

Training in the use of technology for pedagogical teaching also plays a significant role in what types of training instructors are trained to teach, in the online environment. Fifteen (57.7%) of those reporting indicated training and use of sound, video, and graphics, and 19 (73.1%) reported training of how to guide students to use external resources.

Table 3

Types of Training Received (N= 26)

	Training	Percent Reporting	Total Responses
1	How to provide student support via online communication	100%	26
2	How to set rules for an online environment	96.2%	25
3	How to provide timely feedback in an online environment	92.3%	24
4	How to redesign learning resources for an online environment	65.4%	17
5	How to set up group activities in an online environment or chat room	65.4%	17
6	How to promote interaction among online students through discussion boards or chat rooms	92.3%	24
7	How to guide students to online external resources	73.1%	19
8	How to include and use sound, video, and graphics	57.7%	15

Respondents also reported on the criteria they had been trained in specific to technology. Table 4 represents the training received specific to technology. Twenty-five (96.2%) respondents were trained to navigate in a virtual environment, although only 20 (76.9%) received training in how to participate in chat rooms. In three separate reporting areas, 15 (57.7%) respondents indicated training to ensure copyright laws are not violated, how to integrate video into an online course, and also, how to integrate graphics or sound into an online course. Although other areas

indicated a high rating on the importance of communication, only 12 (46.2%) respondents indicated training of how to use instant messenger to communicate.

Table 4

Training of How to Use Technology

	Training Received in How to Use Technology	Respondents Received Training	Respondents
1	How to navigate in a virtual environment	96.2%	25
2	How to participate in chat rooms	76.9%	20
3	How to ensure copyright laws are not being violated	57.7%	15
4	How to use instant messenger	46.2%	12
5	How to integrate video into an online course	57.7%	15
6	How to integrate graphics or sound into an online course	57.7%	15

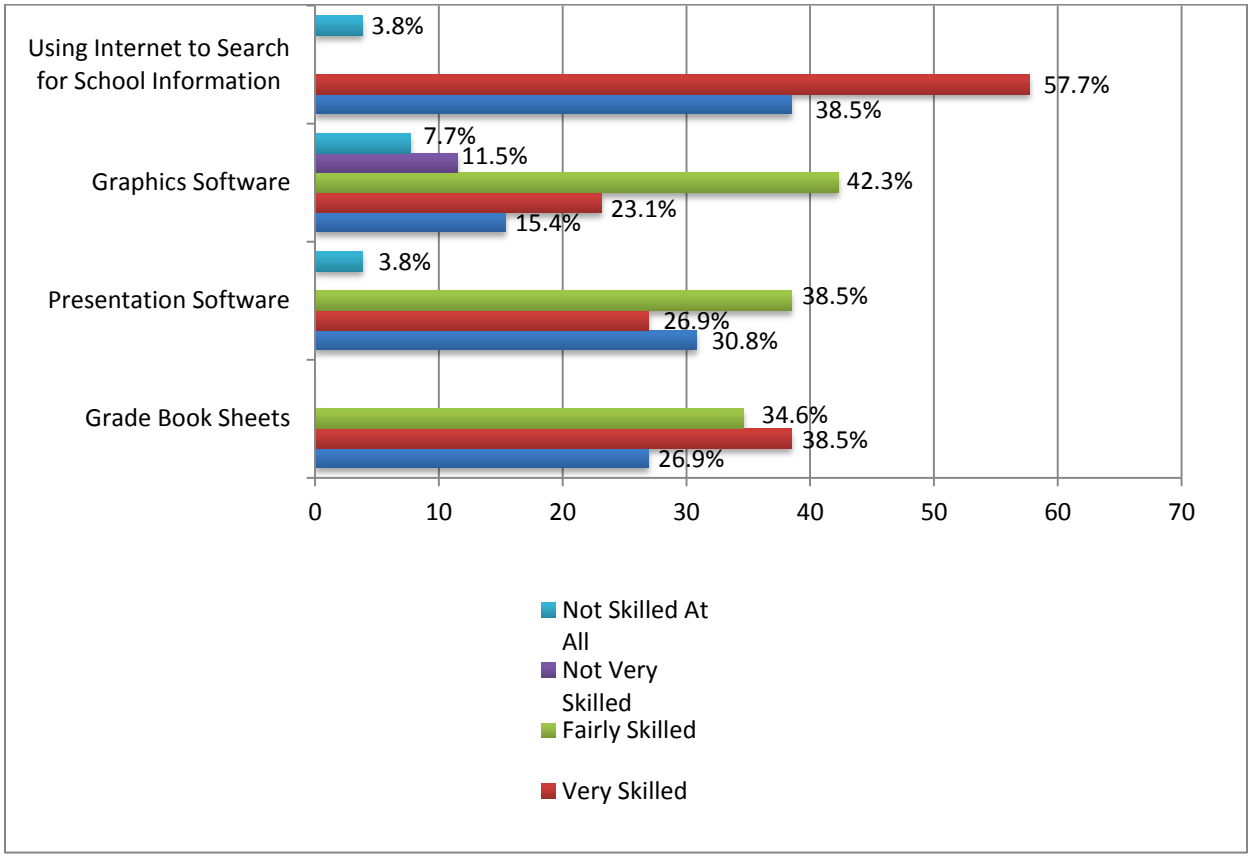
Research Question Two is also acknowledged by Table 5. There were a total of 26 respondents who responded to each of these areas. Table 5 was created using a Likert type scale including the following areas: expert, very skilled, fairly skilled, not very skilled, and not skilled at all. The respondents were requested to report their perception of what their skill level was in the areas of grade book spreadsheets, presentation software, graphics software, and using the internet to search for school information. There were 10 (38.5%) respondents who perceived their skill level of grade book spreadsheets as being very skilled; however, 9 (34.6%) respondents perceived themselves as fairly skilled, although only 7 (26.9%) considered themselves as experts in grade book spreadsheets.

Perceptions of skill for presentation software ranged from 8 (30.8%) respondents rating themselves as experts, to 10 (38.5%) respondents rating themselves as fairly skilled. However, 1 (3.8%) of the respondents perceived himself or herself as not skilled at all in presentation software. Graphics software had different ranges of perceptions. Four (15.4%) respondents rated himself or herself at the skill level of expert, 11 (42.3%) respondents rated themselves as fairly

skilled, and 2 (7.7%) rated themselves as not skilled at all. Using the internet to search for information yielded higher numbers in the areas of expert, which was 10 (38.5%) and very skilled, 15 (57.7%). It is noted that 1 (3.8%) of the respondents perceived himself or herself as not skilled at all.

Table 5

Perception of Online Technology Use

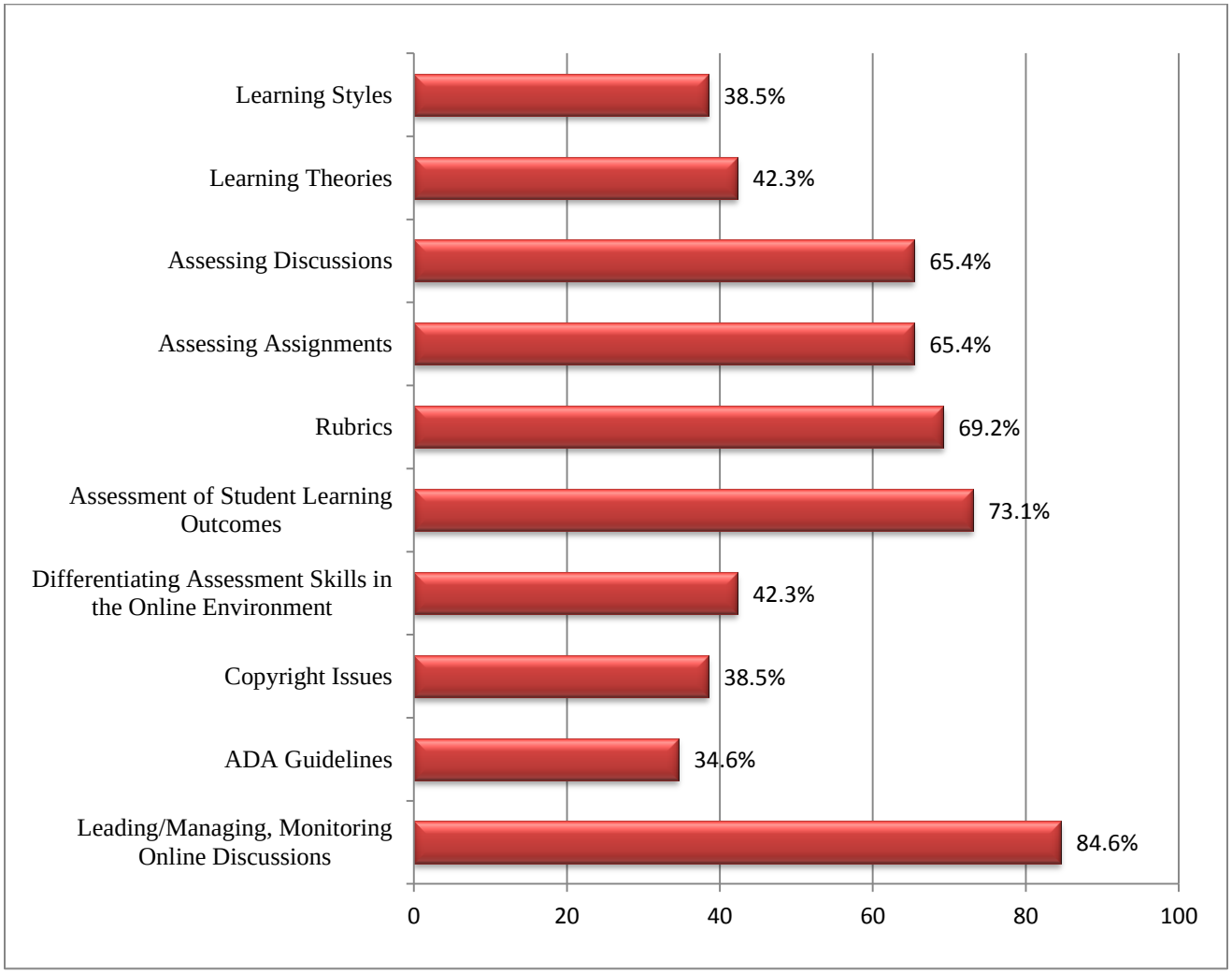


Teacher education training has been available for many years. Th**e** transition to online education has brought about a need for different training of instructors for teaching in the online environment. Table 6 represents ten components of training that respondents have reported. Leading/ managing, monitoring online discussions was an area that received 22 (84.6%) responses in which instructors indicated they have been trained. Other components of training which received relatively high response rates and are considered to be areas of assessment were:

assessment of student learning outcomes, 19 (73.1%) responses; rubrics, 18 (69.2%) responses; assessing assignments, 17 (65.4%) responses; and assessing discussions, 17 (65.4%) responses. Pedagogically, 11 (42.3%) respondents reported training in Learning Theories (such as behaviorism & cognitivism) followed by Learning Styles (auditory, visual, & kinesthetic) with 10 (38.5%) respondents. Training in the area of copyright issues was received by 10 (38.5%) respondents. The lowest percentage reported was for ADA guidelines were 10 (38.5%) respondents.

Table 6

Training Received Specific to Online Instruction



One-hundred percent of the respondents indicated that the training was easily available to them. Of the respondents who indicated they had been trained to teach in the online environment, 92% reported the training was also relevant to their online instruction however, 8% indicated the training was not relevant to their online instruction.

Overall, the perception of training to teach in the online environment yielded fairly positive results. Table 7 indicates an overall total of 88.67% of respondents reporting they agreed with the components of the survey question, whereas 11.33% of respondents disagreed with components of training to teach online. One-hundred percent of the respondents indicated the training received was well organized and that the content met the objectives. Ninety-two percent of the respondents found the online platform easy to navigate. Eighty percent of the respondents found the design of the training helped to understand what a quality online course can look like, and the skills relevant to teaching online. Eighty percent of respondents also indicated they would recommend the same training to a colleague.

Table 7

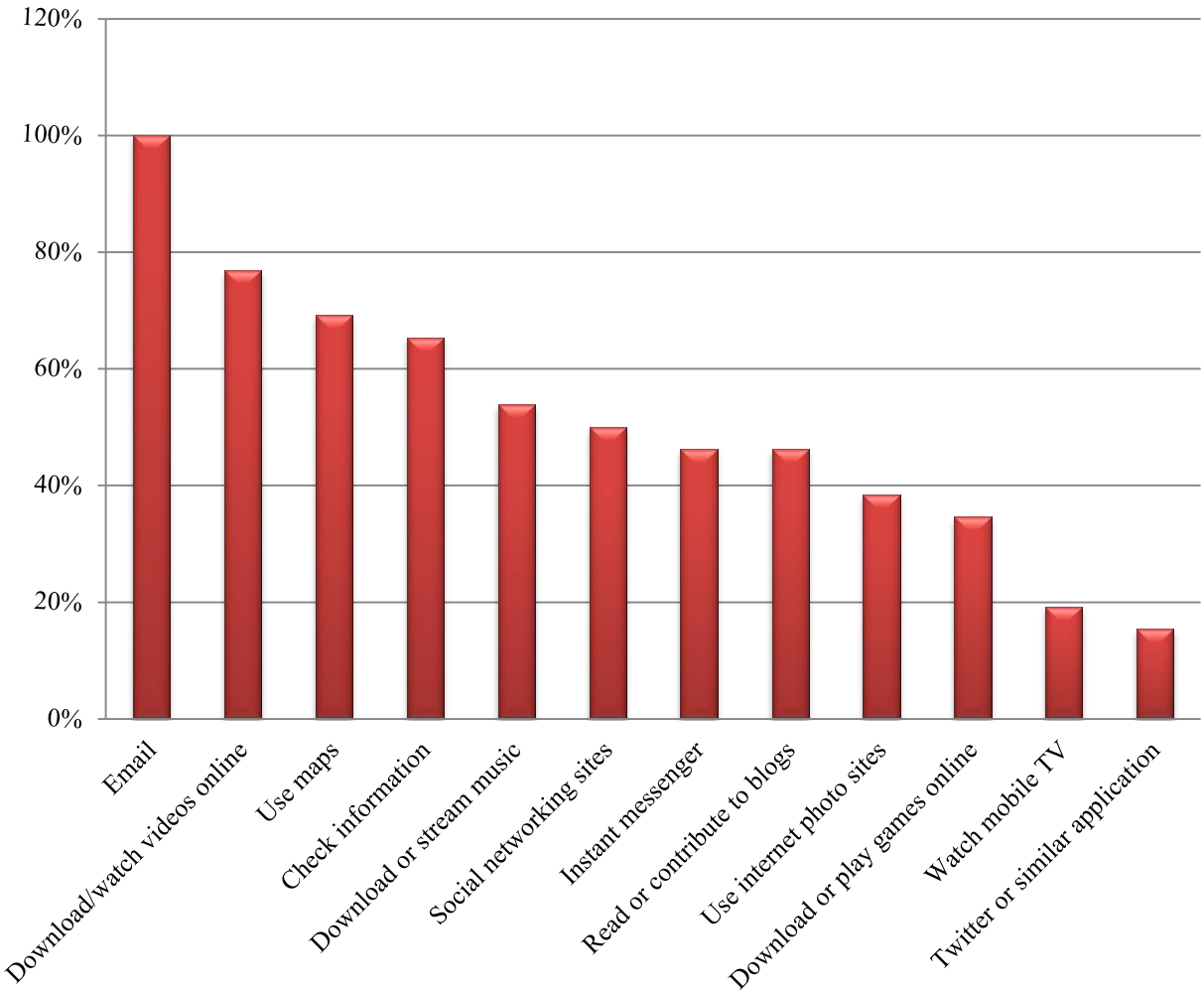
Perception of Online Training (N= 25)

	Agree	**Disagree**
The training was well organized.	100% 25	0% 0
The design of the training helped me to understand what a quality online course can look like.	80% 20	20% 5
The training content met the objectives.	100% 25	0% 0
I found the online platform easy to navigate.	92% 23	8% 2
I would recommend the same online training to a colleague.	80% 20	20% 5
This training has helped me understand the skills relevant to teaching online.	80% 20	20% 5

Technology training was also a reporting area. Respondents were requested to share which educational features of the LMS they had engaged in with an electronic device. One hundred percent of respondents indicated their use of email, whereas only 50% used Social networking sites such as Facebook or LinkedIn, and 15.4% reported using Twitter or a similar application. Each electronic activity listed could be a component of an LMS system, depending on the system in use. Table 8 represents the activities the respondents have engaged in:

Table 8

Activities Engaged in with Electronic Devices



A *t*-test (Table 9) was performed to analyze the respondents who agreed or disagreed that training has helped to understand the skills relevant to teaching online with each item in survey question 4, which included the skill level in grade book spreadsheets, presentation software, graphics software, and using the internet to search for school information. Significant differences between the agree/disagree groups were found for Items 4A (grade book spreadsheets), 4B (presentation software), and 4C (graphics software), as indicated in Table 9. However, there was no significant difference for Item 4D (using the internet to search for school information).

Table 9

t-Test Results for Selected Variables

VARIABLE	*N*	*Mean*	*SD*	t-Score
Item 4A				
Disagree	5	2.00	.000	6.85***
Agree	20	3.10	.718	
Item 4B				3.46**
Disagree	5	1.60	.894	
Agree	20	3.05	.826	
Item 4C				4.12***
Disagree	5	.80	.837	
Agree	20	2.60	.883	
Item 4D				1.16
Disagree	5	2.60	1.517	
Agree	20	3.40	.503	

Note. SD= standard deviation: The first line for each variable represents the statistics for respondents who disagree, and the second line is for respondents who agree.
** $p < .01$. *** $p < .001$.

Qualitative Results

Qualitative data was collected from survey questions 10- 16. Each response from the qualitative portion of the survey was downloaded into an Excel spreadsheet. Responses for each question were transferred onto a separate sheet of paper according to each number, by the researcher. For example, each respondent's answer to question 10 was recorded on one sheet of

paper, question 11 on another sheet, etc. Once all answers were on separate papers, common themes for each question were highlighted with different color markers. Common themes emerged from each question, and were reported.

Results for each question are reported using qualitative data reporting. Question 10 collected information about how the participant would describe instructor/ student interaction in the online environment. Responses were gathered and common themes emerged. The type of instructor/ student interaction that was reported by respondent 3 included respect of each other; however, respondents, 3 and 11, reported instructor/ student interaction was also determined as support from the instructor. It was stated by respondent 13 that students and instructors are expected to be patient with communication and with the understanding of content within an online course. Response time of students and instructors is typically not instantaneous because time often passes in between the request for assistance and the help, and online learning is typically asynchronous. There is often lag time between emails and discussion boards, which may include the student or instructor searching for answers to questions or for other information. Respondents 5, 19, and 25 reported that the interaction between students and instructors appears to be less formal. Suggestions from respondents 4, 8, and 10 included making the course as interactive as possible as well as spontaneous. Respondent 20 reported that today's students actually interact more online than in a face-to-face classroom, even though respondent 17 stated that the tone of communication is difficult to interpret in the online environment. The students seem to desire the interaction of other students and of the instructor in the online environment.

Question 11 asked the participant to provide information on his or her perception of the value of instructor/ student interaction in the online environment. The value of instructor/ student interaction was reported as better than or closer to a face-to-face classroom by respondent 2.

Respondent 22 offered a suggestion about instructor/ student interaction and how it could be improved if the institution took additional steps to provide not only more, but higher quality training for online teaching.

The value of instructor/ student interaction was considered by respondents 3, 4, 6, 12, and 16 to be very high because interaction has critical value in an online course. Strong connections with instructors and other students were reported by respondent 12, 13, 18, 19, 20, 21, 22, 23, 25, and 26 to be vital to student success. In addition, it was reported by respondents 15 and 22 that courses and assignments also need to be well organized and designed because if they are not, more time is spent by the instructor explaining what is expected, hence diminishing learning.

Question 12 requested information about the importance of instructor/student interaction in the online environment. A majority of respondents (3, 4, 5, 7, 13, 15, 18, 19, 20, 21, 22, 23, 24, and 25) reported that interaction was extremely important and that meaningful communication was essential. The importance of interaction resulted in a theme of a sense of community or relationships to be built within an online course, which was collected from respondents 1, 6, 10, 12, and 23. The establishment of relationships is a critical element for online success, as well as to the success of a course, but to also make students more comfortable.

How technology enhances instructor/ student interaction was the purpose of question 13. Responses indicated that technology allowed for a more personalized online experience, and also allowed for more engaged interaction. Respondents 3 and 4 reported that the many different choices in technology provide the ability to communicate as alternatives to face-to-face environments. The ability to use Skype, and other types of digital or virtual office hours allows communication to be similar to the face-to-face environment is how respondents 1, 4, 6, and 7 reported on how technology enhanced instructor/ student interaction. Respondent 5 indicated that

technology should be easy to use, so the focus of online courses can be on the actual content, rather than on how to find the content. Technology was reported by respondent 10 as using it to extend educational opportunities. Respondent 17 reported that technology built bridges for student understanding. Finally, students often appreciate the anonymity and that they can post freely on discussion boards without being judged, as reported by respondent 23.

Question 14 gathered information on how technology limits instructor/ student interaction. The response from respondent 19 indicated that one limit is that the student or instructor tends not to type everything that should be stated within a communication. Instructors or students may shorten responses; however, doing so may alter the meaning of the response. Respondents 12, 15, and 25 reported that non-verbal responses are difficult to assess, and visual cues are missing in the online environment. In the face-to-face environment instructors often have visual cues from students which often indicate if the content or concept is understood. Respondent 7 reported that online courses do not have that type of human interaction or non-verbal communication. Respondent 23 stated that instructors would not even be able to recognize their online students because instructors do not really get to know their online students. Respondents 3, 5, and 6 discussed another limit of technology, which is when it does not work. According to respondent 12, when technology does not work, it is stressful, and may cause a delay in the course and may reflect badly on an instructor.

Question 15 solicited information about the online and face-to-face courses similarities. The importance of building relationships is extremely important in both environments as reported by respondents 11, 12, and 23. Respondents 18 and 24 indicate that there are learning outcomes, goals, objectives to be met, as well as assignments to be completed which are evident in both environments. Encouraging communication in both environments leads to stronger

relationships in the course, whether online or face-to-face, according to respondents 6 and 12. Pedagogically, respondent 6 stated that information and resources are presented in both environments, as well as skilled questioning, the facilitation of groups, and communication when working together on projects, as well as instructors and students communicating via email, phone call, chat room, and through message board. Communication is vital in both the face-to-face and online environment; however, how it is conveyed in different formats could alter the meaning of its intention.

How teaching differs in the online and face-to-face environments was the focus of question 16. Teaching in the online environment is different than teaching in the face-to-face environment in several ways. Respondent 3 stated that the design of the course must be organized and exact throughout each phase of the course. There is an effort to also make communication techniques seamless according to respondent 6; however, instructors and students need to know the criteria and expectations of communication. Another emerging theme from respondents 1 and 9 is that there needs to be care taken when responding to students, whether it is in assignment feedback, or in an email or discussion board. Since online instructors and online students lack tone and facial expressions, it is importance to make every effort to convey the meaning that was intended when responding. Additionally, when questions are posed in the online environment, respondent 2 claims there is time for a student to reflect on the question, and respond according to that reflection. Respondent 13 adds that in a face-to-face classroom, instructors tend to expect a response shortly after posing a question, not necessarily allowing enough time to truly reflect.

In order to continue with the study of the training of online instructors, further data were examined. Question 17 asked the respondent if he or she would be willing to participate in an

interview, and if so, the respondent was requested to provide his or her name and contact information in order to move forward with the possibility of an interview.

Based on the results of the qualitative information gathered from the online survey, communication is one of the most important factors of online instruction. Because online instruction has asynchronous opportunities, there is sufficient time to reflect upon experiences when questions or scenarios are posed, but then there is also ample time for students to respond. Similar to an on campus course, students still need the support from the instructor of an online course, and communication is crucial to that support. Because there is not a face-to-face environment for students to be embarrassed when answering a question, most students will respond to questions or participate in discussions openly and honestly because they are not judged by their peers like in a face-to-face environment. Interaction between peers and the instructor is important because human interaction is still essential, whether it is in a face-to-face or in the online environment, hence building a sense of classroom community. Technology assists with building a sense of community. The type of technology that is available today enables the instructor to develop online classrooms where students can interact.

Interview Results

A total of three universities were chosen for this research study, referred to as University A, University B, and University C for the purposes of confidentiality. University A and University B are privately funded universities which offer online graduate education courses. University C is a state funded university which offers online graduate courses in education. However, the way in which these three universities offer online graduate education courses differ. University A and University C offer graduate online education courses asynchronously, so the students and professors can work at their own pace. University B offers online graduate

education courses in real time, which means students and the instructor, must be on line at the same time. Each of the professors indicated that training to teach in the online environment was available; however, each indicated they were also provided training to teach online at other institutions, as well as being self-taught.

Ten respondents of the survey indicated a willingness to participate in an interview. The researcher contacted the first participant who responded to the survey from each of the institutions to request and arrange an interview. Each participant indicated a phone interview was preferable. Days and times were arranged that fit the schedules of both the researcher and the participant. One hour of time was arranged for each of the participants for an interview. The researcher emailed the Informed Consent form to each of the participants, as well as the interview questions. Prior to the start of each interview, the researcher explained that the interview would be recorded so that all information could be captured. Each participant agreed. Once the recorder was started, each participant was again asked if the interview could be recorded, just for confirmation. These participants will be referred to as University A, University B, and University C. Respondents were asked the same questions during each of the interviews.

The first question asked during each interview was about the training that was received to be an online instructor. Each respondent indicated some type of training had been received in regard to technological training. Each indicated training in a particular LMS or technical training. Pedagogical training and online training strategies were made available to University A and University C. Each of these instructors also indicated specific facilitator training was available; however, to participate in that training, the instructor was expected to view the training from the eyes of a student. Each of these instructors was required to be students in an online

course prior to becoming an online instructor. The instructor from University B reported being self-taught in technological and pedagogical areas.

The qualification each instructor possessed to teach in the online environment was being content area or subject matter experts in the field. Another commonality for this question was that each of the instructors had prior teaching experience, which each instructor indicated helped to make them qualified to teach in the online environment.

The pedagogical advantages of teaching in the online platform were reported by University A, B and C as each one of their students had the opportunity to contribute to class discussions. Students are able to learn from peers, as well as make national and international connections, thus learning about other cultures and school systems. University B indicated that technology has made advancements to the point that it is almost like teaching a face-to-face course when you teach online. Responses from University A and University C stressed communication between instructor and student as being an important pedagogical component of online learning. The questioning techniques in which the instructors need to use in order to facilitate the course are essential in order to understand the information that the students have learned. University A and University C indicated that organization of the online course is extremely important, as well as the variation of the assignments. Assignments often have to be tailored to the online environment.

Responses to how each instructor has grown professionally from teaching in the online environment solicited different replies from each instructor. University A indicated that laws and regulations from many different states are often changing. Teaching in the online environment forces this instructor to learn about the other states and countries as well as their educational system. The instructor from University A quoted another member from the department about

online education, “in this place, you have to run fast in order to stay in place, and run twice as fast to get ahead.” The quote indicates that the world of online education is constantly changing and in order to get ahead, we need to think in terms of what the future will bring. University B reported that the professional growth that has been gained by teaching in the online environment is that it makes one rethink education because different strategies are needed in order to convey the content to online students. Different strategies are needed, and in some cases, different assignments to attain the same outcomes. University C reported that more of an effort was needed to learn about the students and who they are. The online environment offers very rich diversity because there is more of a global perspective than in the face-to-face environment, especially when there are international students in the course.

Each instructor who was interviewed was asked to explain instructor/ student contact with students when teaching in the online environment. Communication in the online environment has been reported as being extremely important. University A believes that the professors should always be the first to communicate with students through a welcome email including an introduction. The establishment of guidelines for online learning, including email etiquette, discussion forum post etiquette, and the guidelines for submitting assignments are also important components for online instruction for University A. The amount of communication which happens between instructor and student depends on the make-up of the class, just like a face-to-face class. Online courses for University B are offered in real-time, or synchronously. Participation in course conversations during those course times is optional, just like in a face-to-face course. University A and University B reported that all students are expected to participate in course communication even though each of these professors teach asynchronous courses.

University C reports that students communicate and learn in several ways. They communicate and learn from professors, but peer to peer interaction supports ongoing communication and learning. In addition, self-discovery learning is expected as well as instructor to student. Allowing students to communicate freely allows discussions to flourish. Since it has been reported that there is not a lot of communication between instructor and student, even though it's reported as important, the instructor offers extensive feedback on each of the written assignments in the course. The instructor's cell phone and office phone numbers are available to the students; however, office hours by appointment are preferred. University C has a policy in which emails are expected to be returned within twenty-four hours of the original being sent. Class size has been reported to be important because the instructor often works seven days a week answering emails and answering students concerns, so the number of emails and phone calls could potentially be excessive.

Each instructor was asked about the training received to assess student learning outcomes in an online environment. Various responses from each of the respondents were reported. University A received extensive training in data and statistics. These data and the statistics are always available to the professors at University A. Every education course at this institution includes key Pennsylvania State Standardized Assessments (PSSA) in each of the course syllabi. Data are available if the instructor requests it.

University B has received no training in the assessment of student learning outcomes. It is assumed that instructors know how to teach, so the expectation is that the online courses and assignments are to be altered to fit the online course appropriately. This instructor indicated that professors are expected to train themselves to teach in the online environment, and use the resources that are available. University C reports assessment is no different in an online

environment than it is in a face-to-face environment, nor should it be. The only training in regard to assessment was the management of quizzes, tests, and the online grade book. This instructor reports that assessment should always be driven by objectives.

Training that has been received that would benefit other institutions was reported by each of the universities. University A indicated that the training of facilitator skills and how to effectively be an online facilitator was extremely helpful in the transition from an on campus instructor to be an online instructor. This professor also believed the interactive webinars were of value because they allowed faculty to be trained while using the LMS. Finally, ongoing training which is made available to those instructors who teach in the online environment would be beneficial to other instructors teaching in the online environment. University B reported that making the proper resources available to online instructors would be useful as well as purposeful. More importantly, this instructor highlighted the necessity of designing and implementing a plan for online courses. However, even when there is a plan for online education courses, the amount of work seems to be underestimated. Finally, there is support from administration reported by University C, in addition to a design of an Office of Global Online, which is an on campus resource. Furthermore, the training should also include online training in pedagogy as well as technology and LMS training. Lastly, the creation of online learning webinars for use with iPads, iPhones, and applications was a suggestion from the instructor from University C.

Chapter Summary

Based on the quantitative and qualitative data that have been collected from the online survey and from the interviews, the training of online graduate education instructors is offered in a variety of ways. Online graduate education instructors have been trained in a variety of

technological and pedagogical ways. Findings have indicated that the training received has been effective in several different areas; however, more training is desired. Quantitative and qualitative results revealed the majority of the survey respondents and the instructors who were interviewed stressed that the design of the training, the navigation of the online platform including successful communication and online discussions, and the implementation of the training, assisted in the success of online graduate education instructors. The training in pedagogy to teach in the online platform is necessary because it is different than teaching a face-to-face course. Questioning techniques are extremely important, as is the way in which teachers instruct. Instructors need to learn how to include all students in the online classroom and then be able to accurately assess student learning outcomes.

CHAPTER 5

CONCLUSIONS, SUMMARY AND RECOMMENDATIONS

Summary

Most of teacher training has focused on face-to-face teaching in the K-12 classroom. The rapid evolution of online instruction at the higher education level as well as at the K-12 levels supports the need for instructors to be trained to teach in the online environment. This study investigated the training received by instructors of online graduate education courses at institutions of higher education. Moreover, the study examined *how* instructors were trained to teach in the online environment and the instructors' perceptions of the training received. Data were collected through online surveys and also through interviews. This study supports the need for both instructors and institutions of higher education to make a commitment to the investment of time and effort of training. It is imperative for representatives in higher education to make this commitment so they have the competence, pedagogical understanding, as well as effective teaching strategies to successfully teach in the online environment.

The data collection included a sample population from three institutions of higher education which offered online graduate education courses during the fall of 2012. The sample population was surveyed using the online instrument, Survey Gizmo, which included both quantitative and qualitative survey questions, as well as phone interviews with one instructor from each of the institutions chosen for this study. There were a total of 142 emails sent to online instructors of three institutions which offered online graduate education courses during the fall of 2012. Fourteen emails were sent back with addresses which were no longer valid. Thirty-six instructors attempted to respond to the survey; however, ten respondents indicated they were not trained to teach in the online environment. Twenty-six respondents were able to respond to the

survey because they indicated they had been trained in some capacity. The findings of the surveys and interviews are discussed to answer the research questions which are used as a basis for this research study. The findings are organized through the particular skills In addition, this chapter also presents conclusions and recommendations for future research.

The two research questions in which this study examined are:

Research Question 1: How are online graduate education instructors trained to teach in an online environment?

Research Question 2: Do instructors perceive they have been effectively trained to teach online graduate education courses at institutions of higher education using technology and online pedagogy?

The online instructors chosen for this study met the criteria that the researcher set forth, which included having taught an online graduate education course during the fall of 2012 at one of the institutions the researcher chose for this study. Close proximity of the university to the researcher was also desired. The researcher was familiar with several online graduate education courses at several institutions in close proximity to the researcher; however, the researcher limited the population to three of the known institutions.

Discussion of Findings

Professional Characteristics

This study focused on the training of instructors of online graduate education courses, who taught an online course during the fall of 2012 at one of the institutions of higher education chosen for the study. This was the only criteria that needed to be met in order for the instructors to be eligible for the study, including the survey and the interview. The instructors who were chosen to be interviewed from those who answered the survey were all full time faculty members at their respective university, although this was not a component of the criteria for being interviewed. The first instructor who took the survey and indicated willingness to participate in

an interview from each institution was asked to participate in the interview for this study. Those who participated in the online survey may or may not have been full time faculty members at their respective universities. The instructors were surveyed via an online survey tool, Survey Gizmo, which inquired about the training that had been received prior to teaching in the online environment as well as the instructor's perception of the training received. The training received by the instructors varied from online training to face-to-face training. It also varied by the availability of the training, including online webinars, the creation of campus-based centers for online teaching (which are considered to be support centers for online instructors), to no training at all.

One participant of the interview reported that online instructors were expected to train themselves since instructors are considered to already know how to teach subject area content. Contrary to this instructor's perspective, research has supported that there is faculty acceptance of online learning when training or a collaborative approach is taken for the implementation of it and the faculty are involved (Lacey, 2013). Others reported that training, if available, had to be sought, which takes self-motivation on the part of the instructor. Regardless of the opportunities available to be trained to teach in the online environment, it takes motivation by the instructor to not only participate in the training, but to apply the knowledge and skills learned in his or her online course. Three broad categories of knowledge will be addressed, which are skills that are desired for online instructors to possess; technical skills, facilitation skills, and managerial skills (MarylandOnline, 2009). Technical skills include an online instructor possessing the skill to write, created electronic presentations, web navigation and search skills, and the knowledge and use of the LMS. Facilitation skills include an instructor being able to engage students in an online environment, question students appropriately, listening and feedback skills in the online

environment, be able to facilitate an online discussion, build online teams, promote motivation, and facilitate relationship building and active learning. Managerial skills include to manage online teams, possess excellent time management skills, have the ability to involve students in online discussions and activities, and possess the knowledge of basic legal issues such as copyright laws and how the Americans with Disabilities Act (ADA) affects the online classroom (MarylandOnline, 2009).

The research questions answered by this study are:

Research Question 1

How are online graduate education instructors trained to teach in an online environment?

Results of the survey and the interviews indicated that there were a variety of ways the respondents were trained to teach in the online environment. Examples of these ways were online tutorials, which were self-guided web-based tutorials; face-to-face training, where the instructors were trained by a facilitator for skills implementation of the technology and the use of online pedagogy in a face-to-face environment; self- taught, which indicates that the instructor learned what was needed on a basis of trial and error through self-discovery; and finally, other instructors reported attending regional conferences for online teaching and training in the areas of pedagogy and technology.

Instruction of technical skills was revealed through the survey and the interviewed that were conducted. Training of technology skills application allowed for the extension of instructional opportunities within the online environment. This research study has revealed that training in the technological components of online instruction has surpassed the training in the pedagogical components, but not necessarily more effectively. Instructors have reported that they have received training in how to use the LMS, but training in how to enhance the delivery of the content through the LMS has been limited. Claims about teaching and learning in higher

education have to be examined whether or not the educational practices are evidence of the lack of technological training, or a lack of a scholarly approach to teaching in the higher education environment (Kirkwood & Price, 2013). Often, training is offered to enhance the technological skills of an instructor, rather than the teaching of pedagogical skills (Kirkwood & Price, 2013). Training in technology should include not only *how* to use the LMS and all of the capabilities of it, but *why* these capabilities should be used. There have been challenges because instructors need to be able to know how to use the available capabilities in both the technological and pedagogical approaches, but the training should be designed to be systematic and on-going.

Facilitation skills for the online environment are important components for instructors to learn in order to properly facilitate a successful online learning environment. Without the proper pedagogical training to teach in the online environment, online learning for students simply becomes a read and respond type of environment. Effective teaching promotes effective learning in all areas of education. It is vital for online instructors to be able to engage online students through appropriate questioning, listening, and providing useful feedback to students (MarylandOnline, 2009). Since online instruction lacks some of the vital components of face-to-face instruction, such as visual cues, human interaction, tone, and immediate instructor or peer responses, the importance of an instructor knowing how to incorporate all of these components into the online environment is significant in order to create and facilitate a successful online course.

In the asynchronous online educational environment, where students and instructors can communicate at various times, it was found through the survey and the interviews that instructors expect all of their students to contribute to discussion posts by a given deadline. Due to the physical barriers of the online environment, students typically do not know each other

personally, so they often have the opportunity to respond without hesitation or fear of how to respond or be judged. There is also time to reflect and then respond in the asynchronous online environment, which results in deeper and more reflective responses. The interviews revealed that facilitation skills, such as questioning techniques and the design of online assignments are important skills for online instructors to be trained in because of the nature of the online educational environment.

Development of online teaching skills includes a pedagogical understanding of online learning and how the transformation of on campus teaching to online teaching evolves. There is an overwhelming amount of technological and pedagogical skills that instructors need to learn. Gradual, yet continual learning of these elements is necessary. Teaching online requires different technological and pedagogical skills than teaching in a face-to-face environment. These skills need to be cultivated, as well as the skills of how to facilitate and manage the online environment.

In Kline's 1977 book entitled, *Why Professors Can't Teach,* it was reported that instructors in higher education focus heavily on research, rather than on teaching or the delivery of research. This research study uncovered that 42.3% of those who answered the online survey reported that they had been trained in using learning theories as a component in their online training. Managerial skills are vital for online instructors to possess. Online instructors need to know appropriate questioning and listening skills, yet also be able to provide useful and valuable feedback to online students (MarylandOnline, 2009). Wood et. al. (2011) suggested that there is a need to find a comfortable balance between research and teaching, along with the focus of the needs of those who teach in an online environment. In addition, the responses to the research that Wood et. al. (2011) conducted implied that certain online teaching strategies were needed in

order to familiarize instructors with the technological tools and training programs which are available to instructors. The respondents also indicated there was a need to enhance support for handling specific teaching challenges such as following the American with Disabilities Act (ADA), familiarity with copyright issues, and teaching to the learning styles of the students within the course. Furthermore, there were indications that training was desired beyond the initial induction training received, further indicating the need to fill the gap for on-going professional development for training instructors in higher education. It was also reported that proper resources are needed in order for instructors to be successful, including both financial and educational support. Managerial skills, which are vital for online instructors to learn, also contribute to a successful online learning environment.

Over the last 20 years, there has been a major increase in the need of instructional approaches including more student and learning centered approaches, instead of traditional approaches (Lindholm, et al, 2005) in the online learning environment. This research study has revealed that teaching in the online environment is different than teaching in the face-to-face environment because there is more instructor effort needed to organize and design the online course. Since face-to-face contact is missing in the online environment, online instructors report there is a lack of personable interaction with the students. Instructors also report that it is actually easier to grade student work because the instructor does not really know the student personally. The lack of student interaction and communication expose the need for on-going training using educational and financial resources that are available.

There are a significant amount of human and financial resources that have been funneled to reform pedagogical approaches at the higher educational level, but there is little evidence if these approaches have been employed or sustained (Cox, McIntosh, Reason, & Terenzini, 2011).

The lack of evidence indicates that instructors in the higher education environment may be relying on past experiences and personal beliefs of how to teach in the online classroom (Aitken & Sorcinelli, 1994). A culture of effective instructional practices is often pursued by university administration; however, instructors' beliefs, values and past experiences deter what administration often tries to achieve. A commitment to teaching and the assessment of the effectiveness of teaching is often sought by university administration, but the organizational structure may hinder the true effectiveness of instruction (Cox, McIntosh, Reason, Terenzini, 2011). Respondents reported that it is difficult to have truly authentic discussions in the online environment compared to the face-to-face environment. Teaching technology skills, facilitation skills, and managerial skills to online instructors gives them the necessary skills to successfully facilitate and manage authentic discussions in the online environment. The teaching of these skills is essential because students learn from each other through rich discussions and interactions, and online instructors need to know how to provide this type of learning environment.

Research Question 2

Do instructors perceive they have been effectively trained to teach online graduate education courses at institutions of higher education using technology and online pedagogy?

Instructors reported that there is a lack of effective training to engage online students using technological and pedagogical practices. During one interview an instructor reported attending numerous online national conferences over the years, which provided opportunities for collaboration with other online instructors, but no formal training was received that was viewed as effective to teach online courses using technology or pedagogy. It was found that training was available to the instructors who were surveyed and interviewed, but it was not considered

effective in the use of technology or pedagogy. According to MarylandOnline (2009), instructors should possess or be trained to teach online using technical, facilitative, and managerial skills. The technical, facilitative, and managerial skills that have been taught to online instructors will be reviewed in this section in regard to answering Research Question 2.

In order to be an instructor in the online environment, being able to use the technology is the first step toward success. The first step in learning how to be an online instructor is knowing how to use the LMS, and the technological features that it encompasses. Just as important, is knowing how to use the technological features to instruct students using online pedagogy.

Regardless of the training that has been offered or attended, teaching in the online environment forces instructors to re-examine the assignments that have been typically used in the face-to-face environment. The assignments have to be designed so that the application of the objectives, knowledge, and skills is apparent in the online environment. Often, in the online environment students are required to read and respond to questions or assignments; however, there are certain questioning techniques that instructors can employ in order to elicit responses from students and facilitate within the course. These techniques include the use of and connection to prior knowledge as well as application of information through deep reflection. When instructors employ these types of facilitative skills, students are stimulated to respond in a more reflective manner.

Facilitating appropriate communication is a key component to an educational environment, both in the face-to-face environment as well as the online environment. It allows students and instructors to make connections not only to course content, but to each other and to their prior experiences. Building relationships with other students and with the instructor are vital to a successful online environment. Through the online survey and interviews, it was reported by

online course instructors that more training is needed in the areas of learning how to communicate with online students effectively and learning questioning techniques that will allow students to reflect rather than ask more questions. There is more of a global perspective when a diverse population is enrolled in the online course, which becomes obvious through student communication. Students learn from others on national and international levels. In the online environment, an instructor has to not only make more of an effort to get to know the students, but also to make connections with the students and get to know them and their needs. It is important for both instructors and students to develop relationships with each other. Building relationships was reported by those surveyed and interviewed as very important in the online environment, between students and instructors. Therefore, training instructors to use these types of facilitative skills is important.

There are several ways that communication is supported in the online environment, where instructors can get to know their students. However, possessing the technical, facilitative, and managerial skills is vital if the online course is synchronous. Some online courses require synchronous communication, where students need to be in class during real time, which is where all students in the course are logged into the class at the same time. This allows for immediate communication between peers and instructors. Instructors need to be able to use their managerial skills in order to involve students in this type of environment including managing online discussions and setting rules for such discussions. One out of the three instructors who was interviewed for this study reported synchronous communication as a component of that particular university's LMS. The instructor reported that it was convenient for some topics of the course; however, synchronous online courses did not allow for deep reflective thinking. The other online instructors who were interviewed reported that their online courses allowed for asynchronous

communication, which is where students and instructors log into the online classroom at different times to respond to posts or work on assignments. This type of communication allows time for students to reflect and then respond to other posts or questions.

Often, each student in an online course is required to respond to discussion posts or discussion threads, whereas in the on campus environment it is not possible to require everyone to respond. Involving students in the online discussions is an element of managing an online course. The requirement of a response from each online student allows the instructor to evaluate the knowledge the students are acquiring, or what skills need to be retaught. In addition, written posts allow for the instructor to re-read the posts at a later time and provide more deeply reflective responses. This type of a requirement in a face-to-face classroom is not feasible. Due to the nature of the online course, sometimes students may need additional clarification if they cannot understand the information through written questions and responses. Because of this, professors sometimes provide personal cell phone numbers for students if additional clarification is needed by a student, or the professors may post real time office hours so that questions and responses are immediate via the online chat room or blog. Possessing the technical, facilitative, and managerial skills to enhance online courses, assist with success for all (MarylandOnline, 2009).

Implications for Practice

This study has revealed that online instructors are comfortable with teaching the content of an online course; however, the deficiency of training in *how* to teach the content in an online environment is apparent. Surveys and interviews from this research study revealed that an active effort is needed for instructors to truly learn not only about the students in an online course, but about student's skills and abilities. Being able to facilitate and manage an online course

successfully mandates that these skills be evident for an online instructor to be effective. In a review of the survey and interview results, questioning techniques and modification of assignments to align with the online environment were found to be necessary in order to assist with the online technological and pedagogical structure. As in a face-to-face course, there are expectations in the online environment to which students need to comply. Instructors need to know how to effectively convey information to the students so that expectations are clear and students are comfortable in the course. Facilitating the engagement of students by appropriate questioning techniques and providing applicable feedback assists active learning (MarylandOnline, 2009).

Developing relationships and building a sense of community are important in the online environment because students need to feel comfortable in the online classroom, and instructors need to know how to foster this type of setting. Results of the surveys and the interviews revealed that training of *how* to be an effective online instructor would be valuable. How to be an effective online instructor includes technological, facilitative, and managerial skills such as making training resources available for an ongoing basis. Making these available while the instructor is actually using the LMS during an online course and making ongoing purposeful training resources available would allow online instructors to use them on an as needed basis in regard to technology and pedagogy. Gonzalez (2010) found that when instructors use the following concepts the student's learning experience in an online course is enhanced; providing clear information to students, allowing for intentional communication between students, engaging students in the online environment, and supporting knowledge-building skills. This study revealed the need to employ these skills; however, there is a lack of continuous available training.

Technological skills were reported by the respondents of the survey. Responses are displayed in Table 9 for Items 4A (grade book spreadsheets), 4B (graphics software), and 4C (presentation software) as showing a strong significance between receiving online instructional training and the skills acquired by the online instructor through training. There was no significance indicated for Item 4D (using the internet to search for school information). A possibility of no significance in regard to training for using the internet to search for school information is that many use the internet on a daily basis, so perhaps since the respondents in this study already knew how to use the internet, the need for training in this area was not requisite enough for them to report it as such (although, conversely, one in five Americans still do not use the internet (Internet World Stats, 2012). Among those who do not use the internet are minorities, the poor, the disabled, the elder population, and those who did not finish high school (Gahran, 2012). In 2012, the population of North America was 348,280,154 and of that population 273,785,413 were internet users, which is 78.6% of the population (Internet World Stats, 2012).

Recommendations for Further Research

Online Instructional Components

The first recommendation for further research is to focus on the activities and assignments instructors require throughout online courses that incorporates some or all of the components which are considered to support effective online graduate education. Results from the literature review, surveys and interviews of this study indicated the need for online graduate education instructors to incorporate more intentional communication in their courses to develop relationships with students, but also *how* and *why* to incorporate this type of communication. Effective instruction in the online environment includes the use of discussion boards, chat

sessions, blogs, Twitter, Skype, and YouTube video clips. Instructors who use these resources as well as intentional communication can expect to have a more successful online graduate education course. Course retention rates could be measured using the courses designed with the aforementioned components against courses that do not implement these components.

The participants in this study reported that to teach in the higher education environment, training to do so is not necessarily required at most higher educational institutions. It has been found through this research study that institutions do not always provide ongoing training and support for online instructors and is therefore not required of instructors. Up until recently, the majority of education has been delivered in a brick and mortar classroom. Instructors only have experience in seeing and participating in the type of an educational environment in which they were taught. Typically, they do not have the experience learning or teaching in online educational environments, therefore do not know what is expected pedagogically unless they receive ongoing training to do so.

Training for All Instructors of Higher Education

A second recommendation for further research is to replicate this study with the focus on training face-to-face instructors. This training includes those instructors who have not had teacher training, but who teach in the higher education environment. Respondents of the survey and the interviews have indicated that there has been some type of training made available in regard to teaching in the online environment; however, the amount as well as the type of training that has been offered has been minimal. Research indicates the need to communicate and interact with students in both the face-to-face and online environment and is essential although training in *how* to communicate and interact has been minimal, if at all (Miller, Amsel, Kowalewski, Beins, Keith, & Peden, 2011). Miller et. al (2011) also found that in order to promote student

engagement instructors need to create the conditions that nurture engagement. The authors stress the importance of techniques that should be provided in order to support engagement.

Respondents of this research study indicated the need for interaction and communication, but the training in *how* to interact and communicate online has been lacking. Instructors who teach face-to-face courses at institutions of higher education are typically considered experts in their field, but conveying that expertise to online students has yet to be perfected. In fact, an argument could be made as to whether instructors of on campus courses can effectively convey their expertise to their on campus students because they lack teacher training. Not only should on campus instructors be trained to teach, but transitioning from an on campus instructor to an online instructor should be well supported, and the ongoing training and resources to do so should be made available to the instructor in order for him or her to be successful.

On going Professional Development

A third recommendation for further research is on-going professional development. Successful professional development, whether it focuses on face-to-face classroom teaching or online classroom teaching, should be more than just one day of training on a certain topic. Technology is constantly changing, so too must the way in which instruction is delivered. Requiring universities to offer, and instructors to attend professional development in regard to instruction may assist with well-developed courses, both face-to-face and online. In a research study conducted by Wood, et. al. (2011), professional development for teaching in higher education was reported to be poor for the respondents of the universities that were represented. The survey was anonymous, so it is not clear as to how many universities were represented. It was revealed that over one-third of the 111 respondents to the study had no formal training for teaching and learning in the higher educational environment, either online or on campus. For

most, the training that was received prior to teaching in a higher educational environment was the induction sessions when the jobs first began. Respondents also reported on ideas that they would like to see presented for future trainings. Some noted that they would have like to have had some training in areas in which there are typically on-campus concerns such as large class sizes, working with international students, and students with varying degrees of background knowledge. Furthermore, it is evident that these concerns were not addressed during the induction training that these respondents received.

This research study found that institutions have implemented online courses and programs without an effective plan for how courses or programs would be successfully implemented, and in some cases, who would even teach the online courses. Teaching in an online environment has similarities to teaching in a face-to-face classroom, including assignments; however, pedagogically and technologically they are different. Future research should focus on developing a plan for how online courses and programs will be developed and supported, which is different than the development of an on-campus, face-to-face course. Instructors should be involved in the planning phase of the professional and course development, as well as the execution of it. Instructors must believe in the effectiveness of online education before they can be a part of it in any way. Transitioning from a face-to-face instructor to an online instructor is more complex than one may think, whether the instructor has had any type of training to teach in any higher educational environment.

Characteristics of Successful Online Students

A fourth recommendation for further research is how an online instructor can teach to each learning style in the online environment. It is often difficult for an instructor to know how his or her students learn, but learning ways to become familiar with online students would

certainly assist with knowing a student's learning style. There are certain characteristics of successful online students such as self-motivation, perception of self-ability, and self-direction, although these characteristics do not define a student's individual learning style. Developing assignments that meet the learning styles of the students would assist in student understanding and success.

In addition, providing students with a learning style inventory would assist the instructor with knowledge of the types of learning styles that are in the online course. Once the inventory is completed by each student, the instructor could provide assignments in which service the learning styles identified by the learning style inventory. The delivery of online course material can also be adapted to meet the needs of each of the students according to the learning styles that are in the online classroom so that student success can be cultivated.

Characteristics of Successful Online Instructors

The fifth recommendation for research is to define what characteristics make a successful online instructor. There have been few studies conducted that identify personal characteristics of what makes an online course instructor effective; however, there are certain skills more prevalent is successful online instructors. This topic needs further research, but it is recommended to identify these characteristics from the perspective of the student and to also identify *why* those certain characteristics of the instructor are important. The instructor needs to compensate for the lack of physical presence by creating a supportive online environment. Students need to feel comfortable and also know that the instructor is accessible.

Online Mentoring

A sixth recommendation is to research the mentoring opportunities available to online instructors. Preliminary research of this topic has revealed little evidence of online instructor

mentoring. In the traditional face-to-face environment, there are opportunities for professors to gauge his or her effectiveness based on classroom dialogue and interaction. There are also mentoring opportunities for instructors. The physical distance between online instructors and online students poses a barrier for instructor feedback due to the lack of visual cues and student/ instructor dialogue. Mentoring in an online course is important because if the only educational awareness one has is face-to-face, then the online environment is an unknown entity. Mentoring provides guidance. Furthermore, if the instructor is being mentored, certain deficiencies may be identified such as technology difficulties, course requirements, issues with communicating in an online format, information exchange difficulties, and knowledge construction (Panda & Juwah, 2012). The lack of experience in an online classroom as a student or instructor supports the need for online instructor mentoring and further research of it.

Conclusions

The number of online learners lends itself to the need to improve the overall online training instructors receive prior to teaching in the online environment. Most instructors have experience in what a traditional face-to-face classroom looks like and what is expected. The traditional K- 12 brick and mortar classroom is what most professors of today have experience. The understanding of what is expected in face-to-face classroom instruction is common; however, instructors have not had extensive online K- 12 or a higher education experiences, hence, lack the knowledge of what is expected in this type of classroom in the higher educational environment.

Although the findings of this study reveal common themes between online and face-to-face instruction, the differences are important to note. With the high number of online enrollments in higher education, institutions need to employ and provide ongoing resources for

instructors to effectively teach those students. Well planned and executed online courses and programs lead to success for instructors as well as students.

The results of the surveys and the interviews revealed the training that graduate education instructors receive prior to teaching in an online environment. It was reported that online instructors have received face-to-face training, online training, webinars, and have attended national and international conferences to enhance teaching skills, although most of the training focused on the use of technology. Furthermore, the results indicated when instructors did attend the training that was available, they found it to be helpful, although it was reported that there is a need for ongoing training for online instructors rather than just a one-time professional development session. Instructors need the chance to attend training, apply what they have learned, and then be able to attend training again to clarify questions once they had experienced being an online instructor. Being able to use what has been learned is powerful if there is an opportunity for clarification.

Emerging from this study are implications that closely affect education. Historically, teacher training has focused on the teaching of a face-to-face classroom of students. With the development of online education, the need for training to teach in the online environment is necessary in the areas of technology and pedagogy. Throughout this study, it was evident that the lack of pedagogical training to teach in the online environment forced instructors to learn to teach online as they progressed through each course. Determining the important skills and content of a course often leads an instructor to re-evaluate the ways in which they have taught in the face-to-face classroom.

Finally, it has been determined through this research study that the training to teach in the online environment has been successful more so in technology, than in online pedagogy. Online

instructors perceived their training as useful; however, what was reported focused on technology more so than pedagogy. There are pedagogical differences in teaching online than teaching in a face-to-face environment. Specific ongoing training which focuses on pedagogy is crucial in order for an online instructor to be successful in a course. Furthermore, institutions of higher education need to recognize the differences in face-to-face teaching and online teaching, and require and provide the necessary training to online graduate education instructors.

References

Adams, J., & Morgan, G. (2007). "Second generation" e-learning: Characteristics and design principles for supporting management soft-skills development. *International Journal on ELearning, 6*(2), 157-185. Retrieved from http://search.proquest.com/docview/210355324?accountid=28588

Adams, N. B. (2007). Toward a model for knowledge development in virtual environments: Strategies for student ownership, *International Journal for Social Sciences, 2*(2), 71-77.

Aitken, N. D., & Sorcinelli, M. D. (1994). *Academic leaders and faculty developers: Creating an institutional culture that values teaching*. Stillwater, OK: New Forum Press.

Allen, I. E., & Seaman, J. (2010). *Class differences: Online education in the United States, 2010*. Retrieved from http://sloanconsortium.org/sites/default/files/class_differences.pdf

Allen, I. E., & Seaman, J. (2011). *Going the distance: Online education in the United States, 2011*. Retrieved from http://sloanconsortium.org/publications/survey/going_distance_2011

Akyol, Z., & Garrison, D. R. (2008). The development of a community of inquiry over time in an online course: Understanding the progression and integration of social, cognitive, and teaching presence. *Journal of Asynchronous Learning Networks, 12*(3-4).

Anderson, T., Rourke, L., Garrison, D. R., & Archer, W. (2001). Assessing teaching presence in a computer conferencing context. *Journal of Asynchronous Learning Networks*, 5(2). Retrieved from http://www.aln.org/publications/jaln/v5n2_anderson.asp

Angelino, L. M., Williams, F. K., & Natvig, D. (2007). Strategies to engage online students and reduce attrition rates. *The Journal of Educators Online*, 4(2), 1-14.

Arabasz, P., Pirani, J. A., & Fawcett, D. (2003). Supporting e-learning in higher education. *EDUCAUSE Center for Applied Research,* 3. Retrieved from http://www.educause.edu/

ir/library/pdf/ers0303

Aragon, S., & Johnson, E. (2008). Factors influencing completion and non-completion of community college online courses. *American Journal of Distance Education, 22*(3), 146-158. Retrieved from ERIC Database.

Association to Advance Collegiate Schools of Business. (2010). Eligibility procedures and accreditation standards for business accreditation. Tampa, FL: AACSB International.

Barker, A. (2003). Faculty development for teaching online: Educational and technical issues. *The Journal of Continuing Education in Nursing*, *34*(6), 273-278.

Bates, C., & Watson, M. (2008). Re-learning teaching techniques to be effective in hybrid and online courses. *Journal of American Academy of Business,13*(1), 38-44.

Beck, V. S. (2010). Comparing online and face-to-face teaching and learning. *Journal on Excellence in College Teaching, 21*(3), 95-108.

Berge, Z. (1995). Facilitating computer conferencing: Recommendations from the field. *Educational Technology, 35*(1), 22-30.

Bober, M. J., & Dennen, V. (2001). Intersubjectivity: facilitating knowledge construction in online environments. *Educational Media International, 38*(4), 241-250.

Bonk, C. J. (2009). *The world is open: How web technology is revolutionizing education.* San Francisco, CA: Jossey-Bass.

Bouchard, T. J. (1976). Unobtrusive measures: An inventory of uses. *Sociological Methods and Research, 4,* 267-300.

Capra, T. (2011). Online education: Promise and problems. *Journal of Online Learning and Teaching, 7(*2). Retrieved from http://jolt.merlot.org/vol7no2/capra_0611.htm

Carlson, J., & Jesseman, D. (2011). Have we asked them yet? Graduate student preferences for

web-enhanced learning. *Quarterly Review of Distance Education, 12*(2), 125-134.

Casey, D. M. (2008). A journey of legitimacy: The historical development of distance education through technology. *TechTrends, 52*, 2.

Chickering, A.W., & Gamson, Z.F. (1987). Seven principles for good practice in undergraduate education. Retrieved from http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/7princip.htm

COAT Project. (2010b). *COAT course competencies*. Retrieved from http://www.marylandonline.org/coat/documents/COAT_Course_Competencies.pdf

COAT Project. (2010c). *Syllabus*. Retrieved from http://marylandonline.org/coat/documents/COAT_syllabus_webpage.pdf

Cole, J. E., & Kritzer, J. B. (2009). Strategies for success: Teaching an online course. *Rural Special Education Quarterly*, *28*(4), 36-40.

Collapy, R., & Arnold, J. (2009). To blend or not to blend: Online and blended learning environments in undergraduate teacher education. *Issues in Teacher Education, 18*(2), 85-101. Retrieved from ERIC Database.

Collis, B. (1996). *Tele-learning in a digital world: The future of distance learning.* London: Thompson Computer Press.

Commonwealth of Education Media Centre for Asia (CEMCA). (2008). Chapter 13: *Manual for Educational Media Researchers Know Your Audience*. Retrieved from http://ebookbrowse.com/chapter-13-pdf-d106962377

Cook, M. Dickerson, D. L., Annetta, L. A., & Minogue, J. (2011). In-service teachers' perceptions of online learning environments. *Quarterly Review of Distance Education, 12*(2), 73-79.

Cox, B., McIntosh, K., Reason, R., & Terenzini, P. (2011). A culture of teaching: Policy, perception, and practice in higher education. *Research in Higher Education, 52*(8), 808-829.

Crawford-Ferre, H., & Wiest, L. R. (2012). Effective online instruction in higher education. *Quarterly Review of Distance Education, 13*(1), 11-14.

Cuellar, N. (2002). The transition from classroom to online teaching. *Nursing Forum, 37*(3), 5.

Dalsgaard, C. (2008). Social networking sites: Transparency in online education. *Proceedings of* ENUIS 2008, Arhus, Denmark. Retrieved from http://eunis.dk/papers/p41.pdf

Dalsgaard, C., & Paulsen, M. (2009). Transparency in cooperative online education. *International Review of Research in Open and Distance Learning, 10(3).*

Dammers, R. (2009). *Utilising Internet-based videoconferencing for instrumental music lessons.* Applications of Research in Music Education, 28(1), 17-24.

Darling-Hammond, L. (2010). Teacher education and the American future. *Journal of Teacher Education, 61*(1-2), 35-47.

Darling-Hammond, L. (2006). *Powerful teacher education: Lessons from exemplary programs.* San Francisco, CA: Jossey-Bass.

Denzin, N. K. (1978). *The research act: A theoretical introduction to sociological methods*: New York, NY: Praeger.

DeSimone, L. M. (2011). A Primer on Effective Professional Development. *Phi Delta Kappan, 92*(6), 68-71. Retrieved from EBSCOhost.

Dewey, J. (1933*). How we think* (Rev. ed). Boston, MA: D.C. Heath.

Diaz, D. P., & Bontenbal, K. F. (2000). Pedagogy-based technology training. *Teaching and Learning in a Network World,* 50- 54.

Distance Education (2011). Distance Education Website. Retrieved from http://www.b1dcity.

com/index.php?option=com_k2&view=item&id=4

Dolloph, F. M. (2007). *Online higher education faculty: Perceptions, learning, and changes in Teaching.* (Doctoral dissertation, West Virginia University). Retrieved from https://eidr.wvu.edu/files/5296/Dolloph_Frances_dissertation.pdf

Duncan, H., & Barnett, J. (2009). Learning to teach online: What works for pre-service teachers. *Journal of Educational Computing Research, 40*(3), 357-376. Retrieved from ERIC Database.

Evans, T. (2008). Section II: The Transformation of Teaching and Learning at a Distance, International Handbook of Distance Education. In Evans, T., Haughey, M., & Murphy, D., & Glenn, J. C. (Eds.) *Handbook of Research Methods*. Jaipur, IN: Global Media.

Falloon, G. (2011). Making the connection: Moore's theory of transactional distance and its relevance to the use of a virtual classroom in postgraduate online teacher education. *Journal of Research on Technology in Education, 43*(3), 187- 209.

Feiman-Nemser, S. (2001). From preparation to practice: Designing a continuum to strengthen and sustain teaching. *Teachers College Record, 103*(6), 1013-1055.

Gahran, A. (2012). E-books spur reading among Americans, survey shows. *CNN Tech*. Retrieved from http://www.cnn.com/2012/04/05/tech/gaming-gadgets/e-reader-survey-pew-gahran/index.html

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

Gonzalez, C. (2010). What do university teachers think eLearning is good for in their teaching? *Studies in Higher Education, 35*(1), 61-78.

Goodyear, P., Salmon, G., Spector, J. M., Steeples, C., & Tickner, S. (2001). Competencies for online teaching: A special report. *Educational Technology Research and Development, 49*(1), 65-72.

Gose, B. (2010). Learning the art of virtual instruction. *Chronicle of Higher Education, 57*(11), B8-B10.

Gregory, J., & Jones, R. (2009). Maintaining competence: A grounded theory typology of approaches to teaching in higher education. *Higher Education, 57(*6), 669-785.

Harting, K., & Erthal, M. J. (2005). History of distance education. *Information Technology, Learning, and Performance Journal, 23*(1), 35-44.

Hartree, A. (1984). Malcolm Knowles' theory of Andragogy: A critique. *International Journal of Lifelong Education, 3*(3), 203-210.

Haythornthwaite, C., & Bregman, A. (2004). Affordances of persistent conversation: Promotingcommunities that work. In C. Haythornthwaite & M. M. Kazmer (Eds.), *Learning, culture, and community in online education: Research and practice* (pp.129-143). New York, NY: Peter Lang.

Internet World Stats (2012). Usage and population statistics. Retrieved from http://www.internetworldstats.com/stats.htm

Jain, P., Jain, S., & Jain, S. (2011). Interactions among online learners: A quantitative interdisciplinary study. *Education, 131*(3), 538-544. Retrieved from http://findarticles.com/p/articles/mi_qa3673/is_3_131/ai_n57259192/pg_3/

Jensen, L. A. (2010). Extend instruction outside the classroom: Take advantage of your learning management system. *Computers In Libraries, 30*(6), 76-78.

Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed

methods research. *Journal of Mixed Methods Research, 1,* 112-133.

Kauffman, S. (2008). *Reinventing the sacred: A new view of science, reason and religion.* New York: Basic Books.

Kelly, R. (2012). Practical advice for going from face-to-face to online teaching. *Faculty Focus*. Retrieved from http://www.facultyfocus.com/articles/online-education/practical-advice-for-going-from-face-to-face-to-online-teaching/

Keramidas, C. G., Ludlow, B. R., Collins, B. C., & Baird, C. M. (2007). Saving your sanity when teaching in an online environment: Lessons learned. *Rural Special Education Quarterly, 20*(1), 28-39.

Kersey, J. (n.d.). Distance learning: It started earlier than you think. Retrieved from http://www.degree.com/articles/distance-learning.htm

Khan, B. (1997). Web-based instruction: What is it and why is it? In B.H. Khan (Ed.), *Web based instruction* (pp. 5- 18). Englewood Cliffs, NJ: Educational Technology Publications.

Kim, K-J., & Bonk, C. (2006). The future of online teaching and learning in higher education: The survey says…*Educause, 29*(4).

Kirkwood, A., & Price, L. (2013). Missing: Evidence of a scholarly approach to teaching and learning with technology in higher education, *Teaching in Higher Education, 18*(3), 327-337.

Kline, M. (1977). *Why the professor can't teach*. New York, NY: St Martin's Press.

Knowles, M. S. (1980). *The modern practice of adult education: From pedagogy to andragogy. (2nd ed)*. New York, NY: Cambridge Books.

Knowles, M. S. (1989). *The making of an adult educator*. San Francisco, CA: Jossey-Bass.

Kosak, L., Manning, D., Dobson, E., Rogerson, L., Cotnam, S., Colaric, S., & McFadden, C. (2004). Prepared to teach online? Perspectives of faculty in the University of North Carolina System. *Online Journal of Distance Learning Administration, 7*(3). Retrieved from http://www.westga.edu/~distance/ojdla/fall73/kosak73.html

Lacey, K. (2013). Administrators and Faculty Split on Online Learning's Value. *University Business*. Retrieved from http://www.universitybusiness.com/article/administrators-and-faculty-split-online-learning%E2%80%99s-value

Leedy, P. D., & Ormrod, J. E. (2001). *Practical research: Planning and design*. Upper Saddle River, NJ: Prentice Hall.

LeNoue, M., Hall, T., & Eighmy, M. A. (2011). Adult Education and the Social Media Revolution. *Adult Learning*, *22*(2), 4-12. Retrieved from EBSCOhost.

Lessiter, J., Freeman, J., Keogh, E., & Davidoff, J. (2001). *A cross media presence questionnaire: The ITC-sense of presence inventory.* Presence, 10(3), 282-297.

Lindblom-Ylanne, S., Trigwell, K., Neugi, A., & Ashwin, P. (2006). How approaches to teaching are affected by discipline and context. *Studies in Higher Education*, *31*(3), 285-298.

Lindholm, J. A., Szelenyi, K., Hurtado, S., & Korn, W. S. (2005). *The American college teacher: National norms for the 2004-2005 HERI faculty survey*. Los Angeles, CA: Higher Education Research Institute, UCLA.

Lynch, M. M. (2002). *The online educator: A guide to creating the virtual classroom*. New York, NY: Routledge Falmer.

MarylandOnline (2009). *Are you a good candidate for online teaching?* Retrieved from www.marylandonline.org

McKerlich, R., Riis, M., Anderson, T., & Eastman, B. (2011). Student perceptions of teaching presence, social presence and cognitive presence in a virtual world. *Journal of Online Learning and Teaching, 7*(3). Retrieved from http://jolt.merlot.org/vol7no3/mckerlich_0911.htm

McKinnie, R. (2008). *Best practices for delivering virtual classroom training*. White paper.

McLoughlin, C., & Lee, M. J. W. (2007). Social software and participatory learning: Pedagogical choices with technology affordances in the Web 2.0 era. *Proceedings of Ascilite Singapore*. 664-672.

McQuiggan, C. A. (2007). The role of faculty development in online teaching's potential to question teaching beliefs and assumptions. *Online Journal of Distance Learning Administration.* University of West Georgia, Distance Education Center.

Merriam, S. (2001). Andragogy and self-directed learning: Pillars of adult learning theory. *New Directions For Adult & Continuing Education, (89)*, 3.

Meyers, S. A. (2008). Using transformative pedagogy when teaching online. *College Teaching, 56*(4), 219-224.

Miller, R. L., Amsel, E., Kowalewski, B. M., Beins, B. C., Keith, K., & Peden, D. (2011) *Promoting student engagement (Vol. 1): Programs, Techniques, & Opportunities*. Teaching of Psychology.

Moller, L., Robison, D., & Huett, J. B. (2012). Unconstrained learning: Principles for the next generation of distance education.

Moore, M. (1986). Self-directed learning and distance education. *Journal of Distance Education 1*(1). Retrieved from http://cade.athabascau.ca/vol1/moore.html

Moore, M. G., & Kearsley, G. (1996). *Distance education: A systems view*. Belmont, CA:

Wadsworth.

Morris, L. V., & Finnegan, C. L. (2008-2009). Best practices in predicting and encouraging student persistence and achievement online. *Journal of College Student Retention: Research, Theory and Practice*, *10*(1), 55-64.

Muirhead, W. D. (2000). Online education in school [Electronic version]. *The International Journal of Educational Management, 14*(7), 315-324.

Muller, T. (2008). Persistence of women in online degree-completion programs. *International Review of Research in Open and Distance Learning, 9*(2).

Neely, P. W., & Tucker, J. P. (2010). Unbundling Faculty Roles in Online Distance Education Programs. *International Review of Research In Open & Distance Learning, 11*(2), Retrieved from http://www.irrodl.org/index.php/irrodl/rt/printerFriendly/798/1543

Okojie, M. O., Olinzock, A. A., & Okojie-Boulder, T. C. (2006). The Pedagogy of Technology Integration. *Journal of Technology Studies, 32*(2), 66-71. Retrieved from http://scholar. lib.vt.edu/ejournals/JOTS/v32/v32.pdf#page=67

Panda, S., & Juwah, C. (2012). Professional development of online facilitators in enhancing interaction and engagement: A framework. *Interactions in online education: implications for theory and practice*, 207-227. New York, NY: Routledge.

Partlow, K., & Gibbs, W. (2003). Indicators of constructivist principles in internet-based courses. Journal of Computing in Higher Education, 14(2), 68-97.

Quality Matters Website (QM website). Retrieved from http://www.qmprogram.org/research-grants/fipse/principles

Ragan, L. (2009). Defining competencies for online teaching success. *Distance Education Report, 13*(9), 3-6. Retrieved from http://www.magnapubs.com/distance education/

Ray, J. (2009). Faculty perspective: Training and course development for the online classroom. *Journal of Online Learning and Teaching, 5(2).*

Revere, L., & Kovach, J. (2011). Online technologies for engaged learning: A Meaningful Synthesis for Educators. *Quarterly Review of Distance Education, 12*(2), 113-124.

Reynard, R. (2007). Hybrid learning: Challenges for teachers. THE Journal. Retrieved from http://thejournal.com

Ritter, M., & Lemke, K. (2000). Addressing the seven principles for good practice in undergraduate education with internet-enhanced education. *Journal of Geography in Higher Education, 24*(1), 100-108. Retrieved from ERIC Database.

Rourke, L, Anderson, T., Garrison, D.R., & Archer, W. (2001). Assessing social presences in synchronous text based computer conferencing. *Journal of Distance Education, 14*(2), 50-71.

Salkind, N. (2011). *Statistics for People Who (Think They) Hate Statistics*. Thousand Oakes, CA: Sage Publications.

Schiefelbein, J. (2012). Media richness and communication in online education. Faculty Focus. Retrieved from http://www.facultyfocus.com/articles/online-education/media-richness-and-communication-in-online-education/

Schrum, L., Burbank, M. D., Engle, J., Chambers, J. A., & Glassett, K. F. (2005). Post-secondary educators' professional development: Investigation of an online approach to enhancing teaching and learning. *Internet and Higher Education, 8*, 279-289.

Schullo, S., Hilbelink, A., Venable, M., & Barron, A. (2007). Selecting a virtual classroom system: Elluminate Live vs Macromedia Breeze (Adobe Connect Professional). *Journal of Online Learning and Teaching, 3*(4), 331-345. Retrieved, from http://jolt.merlot.org/documents/hilbelink.pdf

Seaman, J. (2009). Online learning as a strategic asset. *Volume II: The paradox of faculty voices*. Washington, DC: Association of Public and Land grant Universities. Retrieved from http://www.sloanconsortium.org/sites/default/files/APLU_online_strategic_asset_vol2-1.pdf

Sener, J. (2007). Category: Student generated content. Retrieved from http://www.sloan-c-wiki.org/wiki/index.php?title=Category:student-Generated_content

Shattuck, J., Dubins, B., & Zilberman, D. (2011). *MarylandOnline's inter-institutional project to train higher education adjunct faculty to teach online.* The International Review of Research in Open and Distance learning, 12(2).

Sheehan, K. (2001). E-mail survey response rates: A review. *Journal of Computer-Mediated Communication, 6*(2), 1-20. Retrieved from http://www.ascuse.org/jcmc/vol6/issue2/sheehan.html

Sherman, W. H., & Beaty, D. M. (2007). The use of distance technology in leadership preparation. *Journal of Educational Administration, 45*(5), 605-620.

Sherman, W. H., Crum, K. S., & Beaty, D. M. (2010). Perspectives on distance technology in leadership education: Transfer, meaning, and change. *Journal of Research on Leadership Education, 5*(13), 589-610.

Shim, J. P., & Guo, C. (2009). Weblog technology for instruction, learning and information delivery. *Decision Sciences Journal of Innovation Education, 7*(1), 171-193.

Shulman, L. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, *15*(2), 4-14.

Sieber, J. E. (2005). Misconceptions and realities about teaching online. *Science and Engineering Ethics, 11*(3), 329-340.

Sloan Consortium (2013). *Babson Study: Over 6.7 million students learning online.*

Retrieved from http://sloanconsortium.org/news_press/january2013_new-study-over-67-million-students-learning-online

Sloan National Commission on Online Learning (2009). Retrieved from http://www.aplu.org/NetCommunity/Document.Doc?id=1877

Smith, T. C. (2005).Fifty-one competencies for online instruction. *The Journal of Educators Online, 2*(2). Retrieved from http://www.thejeo.com/%20

Stone, M. T., & Perumean-Chaney, S. (2011). The benefits of online teaching for traditional classroom pedagogy: A case study for improving face-to-face instruction. *Journal of Online Learning and Teaching 7*(3).

Stratford, M. (2009, January 26). University set to slash budgets. *The Cornell Daily Sun.* Retrieved from http://cornellsun.com/node%20/user/2645?page=2064

Sugar,W., Martindale, T., & Crawey, F. E. (2007). One professor's face-to-face teaching strategies while becoming an online instructor. *The Quarterly Review of Distance Education, 8*(4), 365-385.

Swinglehurst, D., Russell, J., & Greenhalgh, T. (2008). Peer observation of teaching in the online environment: an action research approach. *Journal of Computer Assisted Learning, 24*(5), 383-393.

Tapscott, D. (2009). *Growing up digital* [Electronic version]. New York, NY: McGraw-Hill.

Tello, S. F. (2007). An analysis of student persistence in online education. *International Journal of Information and Communication Technology Education, 3*(3), 47-62.

Tracey, M. W., & Richey, R. C. (2005). The evolution of distance education. *Distance Learning, 2*(6), 17-21.

Treacy, B. (2007, October). What's different about teaching online? How are virtual teachers Changing teaching? *Kentucky Virtual High School Newsletter*. 1, 2.

Tripp, A. P. (2002).Training for distance learning faculty. *Distance Education Online Symposium, 12*. Retrieved from http://www.ed.psu.edu/acsde/deos/deosnews/deosnews12_3.asp

Uca-Gunes, E. P., & Gumus, S. (2010). Instructors' transformations during early online teaching experiences. *Procedia: Social and behavioral sciences*, Retrieved from http://www.sciencedirect.com/science/article/pii/S1877042810023505

University of Phoenix (2011). Academic Annual Report.

Varvel, V. E. (2007). Master online teacher competencies. *Online Journal of Distance Learning Administration, 10*(1). Retrieved from http://www.westga.edu/~distance/ojdla/

Wadsworth Cengage Learning (2005). Sampling methods. Research Methods Workshops. Retrieved from http://www.wadsworth.com/psychology_d/templates/student_resources/workshops/res_methd/sampling/sampling_29.html

Wood, L. N., Vu, T., Bower, M., Brown, N., Skalicky, J., Donovan, D., Loch, B., Joshi, N., & Bloom, W. (2011). Professional development for teaching in higher education. *International Journal of Mathematical Education in Science & Technology, 42*(7), 997-1009.

Yusel, I. (2009). Instructor competencies for online courses. Procedia; Social and behavioral Sciences, *1*(1). World Conference on Education. Retrieved from ttp://www.sciencedirect.com/science/article/pii/S1877042809003085

Zheng, L., & Smaldino, S. (2003). Key instructional design elements for distance education. *The Quarterly Review of Distance Education, 4*(2), 153-166. Retrieved from EBSCO host database.

Appendix A

Pilot Survey Request to Participants

Good Evening,

As some of you may know, I am in the process of writing my dissertation and completing a research study entitled *An Investigation Into the Training of Instructors of Online Graduate Education Courses at Institutions of Higher Education*. The purpose of this study is to research the training of online instructors that specifically focuses on various pedagogical methods that facilitates a successful online course.

My research study has full Institutional Research Board (IRB) approval which includes a pilot study. I am requesting your participation in the pilot study so that the procedures of the survey and administration of it can be validated. After the results are received, I will ask 10% of the respondents to participate in a discussion of the clarity and conciseness of the survey instrument. Feedback will be utilized to amend the survey instrument to be concise and valid.

If you choose to participate, you are in no way representing the institution that you attend, or are employed by. All results will be kept confidential.

In order to participate in this pilot study, you must be 18 years of age of older, and are teaching or have taught an online graduate course. If you have questions or wish to withdraw from the research study, please contact me at lisa.lobasso@scranton.edu or 570-941-7459. If you have questions or concerns about IRB approval, please contact Dr. Shala Davis at 570-422-3336 or sdavis@po-box.esu.edu.

If you wish to participate in this pilot study, please click:
http://edu.surveygizmo.com/s3/1009696/Survey-of-Online-Training

I truly appreciate your participation in this pilot study.

Sincerely,

Lisa M. LoBasso
Doctoral Candidate
Indiana University of Pennsylvania

Appendix B

Email to IRB Chairpersons

To Whom It May Concern:

My name is Lisa LoBasso and I am in the beginning stages of implementing my dissertation study, *An Investigation into the Training of Instructors of Online Graduate Education Courses at Institutions of Higher Education*. Once my study is complete, I will receive my Doctorate of Education in Educational Leadership from Indiana University of Pennsylvania.

I will be requesting participation from graduate education department faculty who teach in the online environment of your institution. The purpose for this research study is to explore the training online instructors receive in pedagogy and technology prior to teaching in an online environment.

The survey should take the participants no longer than 20 minutes. The survey questions are focused on the training the online instructors have received prior to teaching a graduate online education course. The responses will be kept confidential. If the participant elects to answer yes to the last question of the survey (*I would like to be contacted so I can discuss my training further*) I may contact the participant for further discussion. There is minimal risk to the participants of the survey in which there could be a breach of confidentiality; however, precautions are being taken to prevent this. Those precautions include a secure survey website as well as survey results being stored in a locked cabinet in a locked office for one year, and then destroyed.

I have obtained the prospective participant's email address through the information made available through your institution's website. This study will not reflect on the online education instructor or on your institution in any way.

Included with this communication is my NIH certificate. This study is being conducted under the Institutional Review Board (IRB) at East Stroudsburg University. If you wish to contact the IRB, the Chairperson is Dr. Shala E. Davis, who can be reached at 570-422-3336.

If you have questions, or would like to discuss this research study, please email me at lisa.lobasso@scranton.edu or call me at the number listed below.

Thank you in advance.

Respectfully Submitted,

Lisa M. LoBasso
Doctoral Candidate
Indiana University of Pennsylvania
570-941-7459

SURVEY OF THE ONLINE INSTRUCTIONAL TRAINING IN HIGHER EDUCATION

This survey has been designed to investigate the perception and training that online instructors receive prior to teaching in the online environment.

Components of this survey have been influenced by the Maryland Online- Online Adjunct Training Project (Marylandonline, 2009).

1. **Have you been trained to teach an online course?**

   ____Yes-- Please continue with survey.

   ____No – Please discontinue and submit survey.

2. **Please indicate the types of training for online instruction you have received and where the training took place:**

Type of Training	**On Campus** (any campus)	**Off Campus**
Professional Conferences for Online Instruction		
Group Session		
One-on-One Session		
Printed Materials as References		
Mentors		
Webinar		
On-Going Peer Discussion		
Observation of Other Online Courses		

3. **Indicate which of the following you have been trained in:**

   <u>Pedagogy</u>- In regard to teaching in the online environment

   ____How to provide student support via online communication
   ____How to set rules for an online environment
   ____How to provide timely feedback in an online environment
   ____How to redesign learning resources for an online environment
   ____How to set up group activities in an online environment or chat rooms
   ____How to promote interaction among online students through discussion boards or chat rooms
   ____How to guide students to online external resources
   ____How to include and use sound, video, and graphics

<u>Technology</u>- In regard to using the online delivery system

____How to navigate in a virtual environment
____How to participate in chat rooms
____How to be ensure copyright laws are not being violated
____How to use instant messenger
____How to integrate video into an online course
____How to integrate graphics or sound into an online course

4. **As a result of your training to become an online instructor, please indicate your skill level of the following:**

	5 Expert	**4 Very Skilled**	**3 Fairly Skilled**	**2 Not Very Skilled**	**1 Not Skilled at All**
Grade Book Spreadsheets					
Presentation Software					
Graphics Software					
Using internet to search for school information					

5. **The following descriptors typically have universal application for instruction. Please identify the following in which you have received training specific to online instruction. Mark all that apply:**

____Leading/ Managing, Monitoring Online Discussions
____ADA Guidelines
____Copyright Issues
____Differentiating Assessment Skills in the Online Environment
____Assessment of Student Learning Outcomes
____Rubrics
____Assessing Assignments
____Assessing Discussions
____Learning Theories (behaviorism, cognitivism)
____Learning Styles (auditory, visual, kinesthetic)

6. **The training I received to teach online was relevant to my online instruction:**

___ Yes

___ No

7. **The training of online instruction was easily available to me:**

   ___ Yes

   ___ No

8. **Indicate your perception of training to teach in an online environment:**

	2 Agree	**1 Disagree**
The training was well organized.		
The design of the training helped me to understand what a quality online course can look like.		
The training content met the objectives.		
I found the online platform easy to navigate.		
I would recommend the same training for online teaching to a colleague.		
This training has helped me understand the skills relevant to teaching online.		

9. **Learning Management Systems (LMS) often make educational features available to online instructors. Which activities do you engage in with an electronic device? Select all that apply.**

____Instant messenger
____Email
____Twitter or similar application
____Social networking sites (Facebook, LinkedIn, etc)
____Download or play games online
____Download or watch videos online
____Watch mobile TV
____Download or stream music
____Use internet photo sites
____Use maps (find places, get directions, plan routes)
____Read or contribute to blogs
____Check information (news, weather, sports)

10. How would you describe instructor/ student interaction when you teach in the online environment?

11. How do you perceive the value of instructor/ student interaction in the online environment?

12. What is the importance of instructor/ student interaction in the online environment?

13. How does technology enhance instructor/ student interaction?

14. How does technology limit instructor/student interaction?

15. In your experience of teaching in an online environment, how is it the *same* as teaching in a face-to-face environment?

16. In your experience of teaching in an online environment, how is it *different* from teaching in a face-to-face environment?

17. Would you participate in an interview to discuss your training to teach in an online environment? If so, please provide your name and contact information:

Name: _____Phone: _____E-mail: _____

Appendix D

Email Sent To Study Participants

Greetings Fellow Educator,

My name is Lisa LoBasso and I am in the beginning stages of implementing my dissertation study, *An Investigation into the Training of Instructors of Online Graduate Education Courses at Institutions of Higher Education*. Once my study is complete, I will receive my Doctorate of Education in Educational Leadership from Indiana University of Pennsylvania. I am conducting this survey to explore the training received by online graduate education instructors.

I would greatly appreciate it if you could click on the link below and answer questions in regard to the training you have received prior to teaching a graduate education online course. Your responses will be kept confidential; however, if you elect to answer yes to the last question of the survey (*I would like to be contacted so I can discuss my training further*) I may contact you so we can have further discussions.

I have obtained your email address through the information made available through your institution's website. This study will not reflect on you or on your institution in any way.

In order to participate in this study, you must be 18 years of age, and are teaching or have taught an online graduate education course. This survey should not take longer than 10 minutes of your time, and again would be greatly appreciated.

Included with this communication is my NIH certificate. This study is being conducted under the Institutional Review Board (IRB) at East Stroudsburg University in conjunction with Indiana University of Pennsylvania. If you wish to contact the IRB, the Chairperson is Dr. Shala E. Davis, who can be reached at 570-422-3336.

Your completion of the survey serves as your consent to participate in the study; however, if you have questions or wish to withdraw from the study, please contact me at lisa.lobasso@scranton.edu or 570-941-7459.

I sincerely appreciate your time in participating in the study by completing the survey. If you choose to participate in the study, please click this link: http://edu.surveygizmo.com/s3/1009696/Survey-of-Online-Training

Sincerely,

Lisa LoBasso
Doctoral Candidate
Indiana University of Pennsylvania

Appendix E

Reminder Email Sent To Study Participants

Greetings Fellow Educator,

Approximately a week ago I sent you an email requesting your participation in a study that I am conducting to explore the training received in pedagogy and technology prior to an instructor teaching in an online environment.

My name is Lisa LoBasso and I am in the beginning stages of implementing my dissertation study, *An Investigation into the Training of Instructors of Online Graduate Education Courses at Institutions of Higher Education*. Once my study is complete, I will receive my Doctorate of Education in Educational Leadership from Indiana University of Pennsylvania.

The survey should take no longer than 10 minutes and I would greatly appreciate it if you could click on the link below and answer questions in regard to the training you have received prior to teaching a graduate education online course. Your responses will be kept confidential; however, if you elect to answer yes to the last question of the survey (*I would like to be contacted so I can discuss my training further*) I may contact you so we can have further discussions.

I have obtained your email address through the information made available through your institution's website. This study will not reflect on you or on your institution in any way.

In order to participate in this study, you must be 18 years of age, and are teaching or have taught an online graduate education course. Again, your participation in the study would be greatly appreciated.

If you have questions or wish to withdraw from the study, please contact me at lisa.lobasso@scranton.edu or 570-941-7459. If you have questions about my IRB, please contact chairperson, Dr. Shala Davis at 570-422-3336.

I sincerely appreciate your time in participating in the study by completing the survey. If you choose to participate in the study, please click this link:

http://edu.surveygizmo.com/s3/1009696/Survey-of-Online-Training.

Sincerely,

Lisa LoBasso
Doctoral Candidate
Indiana University of Pennsylvania

Appendix F

Last Request for Participation Email

Greetings,

The purpose of this follow up email is to request your participation by taking my survey, which can be found by clicking the following link: http://edu.surveygizmo.com/s3/1009696/Survey-of-Online-Training . The survey will close on Wednesday, March 27 at noon. I have obtained your email address through the information made available through your institution's website. This study will not reflect on you or on your institution in any way.

My study aims to explore the pedagogical and/or technical training received prior to an instructor teaching in an online environment.

The survey should take no longer than 10 minutes. Your responses will be kept confidential; however, if you elect to answer yes to the last question of the survey (*I would like to be contacted so I can discuss my training further*) I may contact you so we can have further discussions.

In order to participate in this study, you must be 18 years of age, and are teaching or have taught an online graduate education course. Again, your participation in the study would be greatly appreciated. If you have questions or wish to withdraw from the study, please contact me at lisa.lobasso@scranton.edu <mailto:lisa.lobasso@scranton.edu> or 570-941-7459. If you have questions about my IRB, please contact chairperson, Dr. Shala Davis at 570-422-3336.
I sincerely appreciate your time in participating in the study by completing the survey.

Sincerely,

Lisa LoBasso
Doctoral Candidate
Indiana University of Pennsylvania

Appendix G

Informed Consent Form

Dear Instructor:

This email invites you to participate in a research study entitled *An Investigation Into the Training of Instructors of Online Graduate Education Courses at Institutions of Higher Education*. It is important for you to make an informed decision to participate in this study. If you have any questions regarding this study, please do not hesitate to ask. You have been chosen to participate in this study because you are an online instructor of at least one graduate education course at an institution of higher education.

The purpose of this study is to investigate the training of online graduate education instructors at institutions of higher education. The goal of this study is to identify the training that instructors receive prior to teaching in an online environment.

Your participation in this study will require approximately 45 minutes of your time. The information you provide will give greater insight into the effective pedagogical and technological training you have received prior to teaching in an online environment. Your participation in this study is voluntary. You are free to withdraw from the process at any time if you decide not to continue in the study.

Participation in the study will be kept confidential. The information you provide may be published in an educational format or at presentations; however, your identity will be kept confidential.

If you are willing to participate in this study, please write your name electronically (which will serve as your signature) on the statement below and return it as an email attachment to the Project Director via e-mail (lisa.lobasso@scranton.edu) or via fax at 570-941-5819. Please keep a copy for yourself. Thank you for your time and participation in this study.

Project Director:
Lisa LoBasso
Primary Researcher
Leadership and Administration
76 Riley Rose Lane
Honesdale, PA 18431
Phone: 570-470-4437

Faculty Advisor:
Dr. Douglas Lare
Faculty Sponsor
Professional and Secondary Education
Stroud Hall
East Stroudsburg, PA 18301
570-422-3431

This research study has been approved by the East Stroudsburg University Institutional Review Board on February 14, 2013 for the Protection of Human Subjects (570-422-3336).

VOLUNTARY CONSENT FORM:

I have read and understand the information on the form and I consent to volunteer to be a subject in this study. I understand that my responses are completely confidential and that I have the right to withdraw at any time. I have received an unsigned copy of this form to keep in my possession.

Name (PLEASE PRINT) _____

Signature_____ Date_____

I certify that I have explained to the above individual the nature and purpose, the potential benefits, and possible risks associated with participating in this research study, have answered any questions that have been raised, and have witnessed the above signature.

_____ _____

Date Investigator's Signature

Appendix H

Interview Protocol and Interview Questions

The following protocol will be followed for the instructor interview:
Date:
Time:
Place:
Interviewer:
The following statement will be read to each interviewee:
This interview is being conducted for the purpose of research. Information obtained during this interview will be analyzed, and with your permission, included in the findings of this study. This interview will be recorded once your verbal consent is given. You may withdraw from this interview at any time without any penalty. Once I begin taping, I will again ask you if you consent to the recording of this interview. Do you have any questions before we begin? Do you consent to the recording of this interview?

Begin recording: *"Do you consent to the recording of this interview? Please be advised that you may withdraw from this interview at any time without any penalty. Please state your name and position. I will ask you a series of questions, which have been previously been made available to you. Please feel free to add additional comments if you feel they will enhance the answers to the predetermined questions."*

Interviewee: _____ Date: _____

Time Start: _____Time End: _____

Interview Questions:

1. Explain the training you received to be an online instructor.
2. What makes you qualified to teach the content of the courses you teach online?
3. What are the pedagogical advantages of teaching in an online platform?
4. What is your professional growth from teaching online?
5. Explain your interaction with students when you teach online?
6. What training have you received to assess student learning outcomes in an online platform?
7. What, if any of the training you have received to teach online courses from your institution offer lessons or insights that might be of value to other universities?

What, if any of the training you have received to teach online courses from your institution offer lessons or insights that might be of value to other institutions?