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Best practices in adult online learning

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BEST PRACTICES IN ADULT ONLINE LEARNING

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Doctor of Education in Organizational Leadership

by

Autumn Luscinski

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DEDICATION

This project is dedicated to my family. Their unfailing love and support gave me the courage to pursue the dream of having a doctoral degree. Thanks to my parents, Paul and Kay. My mother is the quintessential adult learner who never stopped pursuing one degree after another while providing a wonderful life for her family. Her commitment to education and to us has been my north star. My father's love of the English language (and a few others) impressed on me the importance of writing to enhance ones own life and the lives of others. Knowing that he would drive from Texas to see me at the drop of a ten-gallon hat has provided such comfort and security these few years. Thank you to my stepparents, Ron and Julia. Both have been full of love for my brother Matthew and me and are themselves amazing examples of the value of education. Thanks to my grandparents, Claire and Henry, who came to this country stripped of everything but their education and turned their lives into masterpieces. Grateful exiles indeed. Grandpa Tom and Grandma Cordia – we've come a long way from Portales, but those deeply American values have anchored my life and given me an unshakable core with roots as deep as the crops you planted and a belief in myself as big and bright as the New Mexico sky. My dear children, Quinn and Aidan, thank you for your support for these three long years. I know it has not been easy but not once did you ask me to stop, even when toast became our go to dinner. I love you both more than I can say and I'm so thankful for the gifts you bring daily. No matter what degrees I have, being your mom is my greatest joy.

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Pepperdine University – you have been good to me. This is my second degree at the Graduate School of Education and Psychology, and I have become a better educator, administrator, friend and parent through these experiences. I am thankful to the Pepperdine community which models a life built on faith in God and love of others. I will always strive to live a life of purpose, service and leadership

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VITA

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Viewpoint School, Calabasas, CA, 2008 - 2010
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ABSTRACT

Students in the United States are obtaining more college degrees than ever before. In 1975, 21.9% of Americans held bachelor's degrees, and in 2012, 33.5% of Americans held bachelor's degrees (Rampell, 2013). A study in 2011 indicated that Americans possessing a bachelor's degree earn approximately $2.27 million, those with master's degrees earn $2.67 million and those with doctoral degrees earn $3.65 million over their adult lifetime, dwarfing those with some college, who earn $1.55 million, or no college, who earn $1.30 million (Burnsed, 2011).

Unfortunately, the increase in college degree attainment in the United States does not include all Americans. Among low-income students, degree attainment has been fairly flat for several decades (Mortenson, 2016). Although education can be a great equalizer and opportunity generator, among lower income students it is often times an insurmountable challenge to obtain a bachelor's or post baccalaureate degree. College students can have challenges in obtaining learning opportunities due to factors beyond their control, such as geography and access to quality instruction.

In order to provide equity and opportunity for nontraditional students who either working, have family responsibilities, or are low income or first generation college attenders, it is important to make every effort to connect these students with meaningful and attainable opportunities to obtain a college degree. One such delivery model of curriculum is online learning. Online learning in higher education - in which students are obtaining bachelors, masters, or doctoral degrees - takes place either partially or fully in a virtual environment accessible from e-learning devices such as laptops, tablets, or smartphones.

The goal of this study was a greater understanding the best practices in adult online education. The participants in the study were asked to help identify both the challenges and

successes experienced in their online learning environments. While success in both teaching and learning is subjective, the data revealed a number of common themes, which indicated similar elements that lead to success in an online environment in areas of curriculum design, classroom management, and use of technology.

Chapter 1. Introduction and Background

> Learning is not attained by chance; it must be sought for with ardor and attended to with diligence.
>
> - Abigail Adams, *in a letter to John Quincy Adams*

Obtaining an advanced college degree was once the goal of a small portion of the American people. In 1975, 21.9% of Americans held bachelor's degrees and in 2012, 33.5% of Americans held bachelor's degrees, which is an 8.8% increase from the 24.7% reported in 1995 (Rampell, 2013). The increase in college attendance over the between 1995 and 2012 can be attributed in part to new jobs requiring degrees, which have increased the wage gap between people with college degrees and those without. Quite simply, the higher the level of education an individual has, the more likely he/she is to both be employed and to earn more. A study in 2011 indicated that Americans possessing a bachelor's degree earn approximately $2.27 million, those with master's degrees earn $2.67 million and those with doctoral degrees earn $3.65 million over their adult lifetime (Burnsed, 2011).

Unfortunately, the increase in college degree attainment in the United States does not include all Americans. Among low-income students, degree attainment has been fairly flat for several decades, with many students taking on large amounts of debt but not obtaining their degrees (Mortenson, 2016). Although education can be a great equalizer and opportunity generator, among lower income students it is often times an insurmountable challenge to obtain a bachelor's or post baccalaureate degree. Among parents in the lowest income quartile in the United States, one in 10 had children who obtained a bachelor's degree by the age of 24, whereas seven out of 10 children from parents in the highest income quartile obtained their degree by age 24 (Mortenson, 2016). Clearly, there is a lack of parity in the obtaining of a college degree

between children in high income and low-income families. The discrepancy in the obtaining of a college degree based on income level leads to greater amounts of disparity as the income gap continues to widen based on employment opportunities. No matter the field of study, those with bachelor's degrees earn much more than those with some or no college. The $2.27 million earned by those possessing a bachelor's dwarfs those with some college, who earn $1.55 million, or no college, who earn $1.30 million (Burnsed, 2011).

The unemployment rate for 4-year college graduates in 2012 between the ages of 25 to 34 was over 7% below those with only a high school diploma. In 2011, the median salary of an employee with a bachelor's degree was $56,500, whereas the median salary of a high school graduate with no college degree was $35,400. As workers age, the gap between those with and without college degrees widens even more. For 25-29 year olds, there is a $15,200 difference and $32,000 for 45-49 year olds between individuals with and without a bachelor's degree (Baum, Ma, & Payea, 2013). The higher earning potential and steady employment enjoyed by those with a college degree is of such significance that all avenues should be explored when creating educational delivery models so that a wide variety of learners are included in the opportunity.

College students can have challenges in obtaining learning opportunities due to factors beyond their control, such as geography and access to quality instruction. If a student desiring a college degree does not have the means to live off campus in a traditional institution of higher learning, or lives prohibitively far from a college or university, the difficulties of attending school can be insurmountable. Even for those students who are able to attend a traditional institution of higher education, there are still differences in the experience of instruction. In a face-to-face format, lessons may be taught in a manner either too fast or too slow to fully engage the learner. Some students may be too shy to participate in classroom discussions. A student's

ability to participate fully in a learning environment can also greatly influence the quality of the educational experience (Lips, 2010).

In order to provide equity and opportunity for nontraditional students who either working, have family responsibilities, or are low income or first generation college attenders, it is important to make every effort to connect these students with meaningful and attainable opportunities to obtain a college degree. The development of a curriculum delivery method that allows learning to take place remotely and without schedule constraints addresses the needs of adult learners who have a multitude of other responsibilities that preclude them from participating in traditional learning environments (Ross-Gordon, 2011).

One such delivery model of curriculum is online learning. Online learning in higher education - in which students are obtaining bachelors, masters, or doctoral degrees - takes place either partially or fully in a virtual environment accessible from e-learning devices such as laptops, tablets, or smartphones. Online education uses one or more of these technologies to deliver curriculum to students who are not meeting in person with the instructor. In an ideal online higher education learning environment, regular and meaningful interactions between instructor and student as well as students and students occur regularly (Akaneghu, 2012). In this environment, students are learning either synchronously, in which students and instructor are online at the same time or asynchronously, in which students and instructors are online at different times (IPEDS Data Center, 2012). The ability to meet at flexible times and locations, limited only by the user's ability to connect online, is a highly attractive feature of online learning. Adult online learning education programs are growing exponentially in popularity. This phenomenon is due in part to technology, portability of computers, new information, and also the growing number of adult learners who prefer to learn digitally (e-

learning) due to constraints on time, family obligations, and the flexibility to attend institutions outside of their state of residence (U.S. Department of Education, National Center for Education Statistics, 2016).

The U.S. Department of Education, National Center for Education Statistics released a 2016 study in which researchers found that students enrolled in fully online degree programs typically attend a for-profit university, and the second largest number of online learners are enrolled in a public 2-year institution and take at least one of their courses online (Allen & Seaman, 2013). In fall of 2013 in the United States, 20,375,789 students were enrolled in undergraduate or post-baccalaureate courses. Of this number, 14,853,595 were taking no online courses, 5,522,595 were taking some online courses, and out of that number, 2,659,203 were taking exclusively online courses (U.S. Department of Education, National Center for Education Statistics, 2016). Therefore, the percentage of undergraduate and post baccalaureate students taking no online classes is 73%, some to all online classes is 27%, and exclusively online classes is 13%. The percentage of undergraduate and post baccalaureate students at public schools who take no online classes is 75%, some classes is 25%, and exclusively online classes is 9%. At private nonprofit schools, 80% of students take no online classes, 20% take some online classes, and 13% take exclusively online classes. At private for-profit schools, 41% of students take no online classes, 8% take some online classes, and 52% take exclusively online classes. The highest percentage of classes being taken in a fully online format is 52% at the private for-profit level, followed by 13% at private nonprofit schools, and 9% at public schools (U.S. Department of Education, National Center for Education Statistics, 2016).

Higher education institutions that offer online classes continue to grow in both number and overall university employee acceptance. According to a 2002 study sponsored by Pearson,

less than 50% of administrators working in higher education reported that implementation of online education was crucial to their long term business plan, whereas in 2013, almost 70% of higher education administrators did, an increase of 40& in just over ten years (Allen & Seaman, 2013). Another study showed that 69.1% of leaders in academia believe that online learning played a significant role in their online strategy during the period of 2003-2013 (Allen & Seaman, 2013). These findings suggest that among administrators and leaders, in higher education, positive views of online learning are growing.

Those adult learners who have experience in online learning think more positively about online learning than those with no experience: 39% say that an online course offers equal educational value as one taken while physically on campus, whereas 27% who have not taken an online course feel that online courses offer equal educational value (Parker, Lenhart, & Moore, 2011). In addition to the favorable opinion of online learning at the college and university level, the number of students enrolled in online courses has been growing at a consistent rate for between 2000 and 2015. In 2002, approximately 1.6 million students had been enrolled in at least one college or university level online course, and by 2011, 6.7 million students were enrolled, an increase of over four fold in less than 10 years. Online enrollment has increased from 9.6% in 2002 to 32% in 2011, increasing each year anywhere from 1.8% between the fall of 2002 and 2003 and 4.8% between the fall of 2004 and 2005 (Allen & Seaman, 2013). This suggests that being enrolled in an online course is important to students' approval of online learning.

Adult learners are often juggling multiple roles other than student, such as employee, spouse, parent, or caregiver (M. Knowles, 1984). Although these roles can often preclude traditional college attendance, as well as the allocation of time spent on both academic study and

on-campus organizations, they can add to the diversity of the experiences the student can bring to his or her learning environment. These life experiences can add to the richness of classroom discussions by making connections to theoretical constructs that often remain abstract to younger students (Jenkins, 1981; M. Knowles, Holton, & Swanson, 2005).

Online learning is of particular interest to adult learners, or *nontraditional* students. Adult learners have been a continuously expanding presence on college campuses over the past thirty years and studies indicate that this growth may soon overtake that of traditional learners. The National Center for Education Statistics indicate that in 2015, 38% of the 18 million students enrolled in college were 25 years or older (U.S. Department of Education, National Center for Education Statistics, 2016). Other research indicates that between the years of 2007-2018, this number will increase or remain stable (Hussar & Bailey, 2009).

In addition to the number of adult learners classified as such by being at least 25 years of age, the term nontraditional student can be defined more broadly by including the following seven characteristics not typically associated with traditional college attendance: entry from high school to college delayed by 1 or more years, having dependents, being a single parent, full time employment, financial independence, part time college attendance, or the lack of a high school diploma (Choy, 2002). Many adult learners are able to participate in the attainment of a college degree only when it is offered in a nontraditional format such as fully online or hybrid learning.

In order to complete their college degrees successfully, adult learners must be given the opportunity to find a way to combine work and school responsibilities. A 2003 report titled, "Work First, Study Second," found that 56% of adult students identified as employees primarily and students second. Only 18% of those adult learners indicated that they did not work while in school (Jenkins, 1981). Of those students who did identify first as workers, then as students,

more than half were married, adding the additional role of spouse and frequently parent. These students are less likely to complete their degree in 6 years or less (Ross-Gordon, 2011).

One of the unique features of online learning is the flexibility of learning location and meeting time. Traditional face-to-face institutions of higher education have typically involved some students taking classes during weekday work hours while either living on or commuting to their school campuses (Burnsed, 2011). Often, the barriers faced by adult learners have prevented those who work, have families, have limited access to transportation, or live in a part of the world with limited access to traditional schooling from obtaining a college degree. For many students, the inability to be physically on the campus during regular working hours makes the dream of obtaining a college degree and the benefits of this degree unreachable (Burnsed, 2011; Choy, 2002). Rather than excluding those students for whom a traditional college education is not possible, online learning has opened up opportunities for education previously unavailable to nontraditional college students managing various life circumstances. The great advantage of online education is that identical content can be delivered to an unlimited amount of students without being held to any restrictions such as time or location (Akaneghu, 2012; Santally, 2005). This similarity of content and ease of delivery creates a more level playing field for students for whom the logistics of college or university attendance, rather than the ability to master the content, prevent them from realizing their dreams of upward mobility that they could gain from having a college degree (Choy, 2002).

Online learning has unique benefits such as flexibility of scheduling, the ability to pause instruction to research terms and concepts, and the ability to participate in class remotely. It is rare for these benefits to be found in a traditional learning environment. The ability to learn asynchronously and at one's own pace provides the ability for students to absorb material with

greater flexibility than traditional learning platforms (Allen & Seaman, 2013; Lips, 2010). In 2015, Dr. Karee Dunn and Dr. Glenda Rakes conducted a study among graduate students taking an online class; six of the seven participants reported building greater mastery of time management as a study strategy. Students also reported a change in understanding how powerful one's thoughts can be in determining academic success (Dunn & Rakes, 2015).

Unlike a traditional lecture or class discussion, an online learning environment allows students to pause multiple times during curriculum delivery to obtain greater clarity. Viewing a pre-recorded lecture given by an instructor allows a student to stop playback if a concept is beginning to be unclear and then use a textbook, dictionary, or online resource to clarify the concept before continuing the lectures. This ability to self-pace instruction is also helpful for those students who may have other family or work responsibilities, allowing them to listen to the lecture at times that permit pausing the instruction and resuming it at a more convenient time (Berge & Clark, 2005). Additionally, students' ability to self-pace and retake short quizzes more frequently and receive feedback instantaneously is easier in an online format. Being able to view lectures and then return to concepts that are unclear and either listen again or pause the lecture to acquire further explanation from other sources are pedagogical innovations that are not feasible for traditional face-to-face learning, but are indeed possible in an online environment (Pritchard, 2013). This ability to self pace, one of the key characteristics of online learning, can allow for more meaningful comprehension to develop, as students can direct their own learning experience.

Statement of the Problem

While there are more students in the United States taking online classes for their baccalaureate or post baccalaureate degree each year, some university students and faculty still

perceive online learning as having a bit of a stigma. Among some, there is a belief that online learning doesn't approach the level of both teaching and learning achieved in the traditional bricks and mortar face-to-face setting. According to Santally (2005), faculty at institutions of higher education believe that using the web simply as a new delivery method does not add value to the teaching and learning process and that that the lack of face-to-face classroom connectivity leads to a general sense of disconnectedness for students (Santally, 2005). Some research suggests students who are in online courses are at a higher risk of dropping out because they are not physically present with students, faculty, and administrators, nor are they participating in on-campus experiences. These studies suggest that the nature of traditional bricks and mortar institutions provides a sense of community and support for students (Bejerano, 2008).

Many well known online degree-granting schools are for-profit institutions, which adds to the public's general perception of numbers-driven schools that have an incentive to admit as many students as possible. Traditionally selective schools can have acceptance rates as low as 5% at Stanford, 6% at Harvard, or 7% at Columbia University (Education Corner, 2016). In contrast, some of the better-known fully online universities have very high rates of admission, such as 97% at both Kaplan University and Westwood College and 96% at Liberty University (College Atlas, 2016). Acceptance into online college programs are often less competitive than traditional colleges due in part to the lack of space restrictions which cap enrollment numbers at bricks and mortar institutions (Friedman, 2016). The high admit rates of online institutions can contribute to a perception of lower quality of education, which can deter some students from pursuing an online degree (Lapovsky, 2015).

Purpose Statement

This study determined the best practices used among faculty in creating effective online learning experiences in higher education at the graduate level in the United States. The study examined the various strategies utilized by faculty in creating and delivering effective curriculum. The unique challenges of teaching adult learners in a fully online environment were examined, and recommendations suggested for future development of effective online learning in the higher education environment. The research examined what factors make online learning more effective and meaningful at colleges and universities. The stories and lived experiences of faculty members who teach one or more online classes at colleges or universities in the United States guided the research methodology. Respondents were asked questions regarding online learning that invite stories that may lead to personal and/or research epiphanies. These interviews were anecdotal, with open-ended interview questions, which began with questions such as *what* or *how*. These question starters created a conversational tone, rather than *why*, which can hinder natural and spontaneous answers, as it seems to present a question that has a correct answer rather than many possible answers.

Research Questions

The following research questions (RQs) were addressed in this study to investigate effective practices in online learning (Refer to APPENDIX A):

- RQ1: How do faculty define a successful online learning experience?
- RQ 2: What strategies and practices are used by faculty to create successful online learning in institutions of higher educations?
- RQ 3: What challenges are faced by faculty in creating and implementing these strategies and outcomes?

- RQ4: What recommendations do you have for the future development of successful online learning environments?

Significance of the Study

Existing research focuses primarily on the academic portions of online learning. This study focused on not only quality and content of curriculum delivered in online programs, but also other measures of satisfaction of online learning in higher education, such as class participation, completion of course, and depth of student comments. The shared experiences of faculty who have taught in both face-to-face and online environments offered valuable insights into best practices for teaching and engaging online learning.

A key assumption in the study was that online learning can be beneficial in providing quality academic deliverables to students who might otherwise be unable to obtain an education. Some research indicates that online learning can sometimes be even more beneficial than traditional learning platforms (Berge & Clark, 2005; Worm & Jensen, 2013). Online learning provides the ability for students to study at places and times convenient to them and to pace themselves, which is helpful for those students who may have other family or work responsibilities, allowing them to listen to the lecture at times that permit pausing of instruction and resuming it when convenient (Berge & Clark, 2005).

The findings of this study will be used to share best practices to advance the quality of online teaching and learning in graduate level programs. Feedback gathered from faculty teaching online classes at colleges and universities will inform best practices in creating and teaching curriculum to adult students in an online environment. Effective strategies and practices used by faculty members will be shared so that faculty around the globe will become aware of best practices as well as challenges in online learning in environments of higher education. The

recommendations shared by the faculty involved in the study should inform the continued exploration of how to design and deliver curriculum to adults in an online environment that is both engaging and effective.

Additionally, it is hoped that the contributions from this research will support college and university administration to support faculty in creating more effective and engaging methods of connecting with students academically and create communities within virtual environments, leading to greater student satisfaction, retention, and therefore, matriculation. Using research on both best practices in andragogy as well as online teaching will support continued improvements on ways to better serve adult learners in the online environment. Other curriculum delivery outside of the realm of higher education may also benefit from this research, such as creating effective online certificate or professional development programs.

Limitations and Assumptions

The faculty who participated in this study work at institutions that offers both online and face-to-face courses. Therefore, faculty who have taught a college or university course only online or only in bricks and mortar institutions were excluded. This study didn't take into account the experiences of faculty who have only taught in one type of environment Additionally, faculty members who have taught in an online environment but stopped 5 or more years ago were excluded from the study in order to observe the most current experiences and use of technology. This may have excluded more seasoned voices of those who were involved in the early days of online teaching and learning.

Definition of Terms

The subsequent definitions of terms were given to provide greater clarity in their use in this study. These words and phrases may need further explanation in order to be understood fully in the context of the study.

Admit Rates. The number of applications to a school that are accepted divided by the total number of applications received for admittance. College selectivity measures the difficulty or ease for students to get admitted. The greater the selectivity of a school, the lower the percentage of students who are admitted (College Data, 2016).

Best Practices. A method that has been deemed more effective than other alternatives due to the positive outcome produced. A best practice is a technique or methodology that has been shown by experience and/or research to lead to a desired result. Best practices typically gather information from a variety of sources to determine what factors lead to success (Rouse, 2016).

Blended/Hybrid Learning. A course that has a substantial amount of online delivery - typically 30-79% - in addition to in person delivery. A large portion of the content is delivered in an online format, necessitating fewer face-to-face meetings. Students participating in blended/hybrid learning have the opportunity to spend a portion of their class time face-to-face with classmates and students as well as meeting online (Allen & Seaman, 2013).

Setting. A traditional business, organization, or school, that serves its customers, clients, or students in a building, in contrast to an online business. There is an actual location where people are required to be present in order to participate successfully. This term is used to differentiate businesses and schools in which customers and students come to a specific location

in person and environments in which participation is possible online (Bricks and mortar setting, n.d.).

Doctorate Degree. A doctorate is a graduate level academic or professional degree. Typically a doctorate degree is obtained after a master's degree, though some programs combine the two degrees. It is considered to be the highest or terminal degree an individual can earn in a given field of study in the United States and takes approximately 4-6 years to complete (College Atlas, 2014).

Faculty. The teaching and administrative force of a university, college, or school or the members of a learned profession. Typically used to identify those who teach in a college or university. Derived from the Old French word *faculty*, which means "skill, accomplishment, or learning" (Faculty, 2016).

For-Profit University. A university that runs in order to earn a profit. For-profit universities are typically run by companies that report to investors. These schools are managed privately and the expectation is that they earn money for their owners (National Association for College Admissions Counseling, 2016).

Graduate Schools. A type or division of a university offering degrees that require a bachelor's degree as a condition of admission. Graduate programs usually focus on a particular academic discipline or profession. Graduate schools can be either academic and research-oriented or professional, the latter of which trains students for a particular career (University of California, Berkeley Career Center, 2016).

Higher Education. Education that extends past high school, which is obtained at colleges, universities, vocational or trade schools. Typically, this education is in the pursuit of a

degree. A college or university beyond the secondary level provides this form of education. (Education Corner, 2016).

Master's Degree. An academic degree that assumes completion of a bachelor's degree. It generally requires 30 credits of coursework and 1-2 years of study. Master's degrees sometimes require the passing of comprehensive exams and/or the effective completion of a thesis in addition to the coursework. A bachelor's degree is necessary to apply to a masters degree program, though some schools combine a bachelors and masters degree combined (Kuther, 2016).

Online Learning. A course where online content is delivered for 80% or more of the content with few to no face-to-face courses. Adult learners who wish to advance their education while maintaining other priorities such as work or family often utilize online learning. Online learning occurs remotely, often without constraints as to meeting times, allowing greater flexibility in scheduling (Allen & Seaman, 2013).

Traditional Learning. Course where information is delivered orally or in writing and no online technology is used. Traditional learning programs take place on campus at certain times and days. Often in colleges or universities of traditional learning, there is a component of social life or activities for the students on or around the physical campus (Allen & Seaman, 2013).

Virtual Learning Environment. Online environments in which teaching and learning tools are available that enhance a student's learning experience. Most virtual learning environments separate curriculum into sections that are completed by students and then assessed and graded. These environments provide online support for both students and faculty, such as email, discussion boards, and submission portals (TechTarget, 2016).

Web Facilitated Learning. Courses that use up to 29% web-based technology to teach a course using a course management system. Web facilitated learning may post class syllabi and assignments using a course management system. Some web-facilitated learning use web pages to manage course content (Allen & Seaman, 2013).

Chapter Summary

Many educators are committed to reaching their students using whatever means are available and practical. It is not surprising that educators are investigating and implementing online learning to meet the needs of their students. Universities have been early adopters of online learning (Zucker & Kozma, 2003), and existing technology (i.e., email, video conferencing, websites, etc.) enables students to receive a college degree entirely online. Many institutions of higher education are partially or fully embracing the opportunity to deliver online education (Allen & Seaman, 2013; Worley, 2011).

A potential benefit of online learning is the ability for students to receive their education at any location and at any time, permitting students, especially adult students, to pursue their education while juggling the demands of work and family. Another benefit is the ability for students to self-pace themselves, stopping recorded lectures in order to replay them or gain greater insight using additional resources (Leonard & DeLacey, 2001). A potential drawback to online learning is the quality of education possible in an online environment. Students with few to no technological skills may find the online learning environment challenging (Lee & Choi, 2011). Forging close personal connections with faculty and fellow students in an online environment can also be challenging, due to the lack of face-to-face interaction and the ability to connect in informal ways that are made possible in traditional learning environments

(Monke, 2004). The study examined both the best practices and challenges of faculty teaching in institutions of higher education in an online environment.

Chapter 2. Literature Review

This research attempted to determine the characteristics of online learning environments that lead to the highest rate of satisfaction and graduation among adult learners. Best practices in the teaching of adult or nontraditional learners were examined, as well as the ways in which online learning can best support the pursuit and attainment of a college degree. An array of online learning platforms and methods were analyzed. Differences between synchronous and asynchronous learning were considered as well as the ways in which teachers interact with students and the types of assignments given in an online environment. This research was not limited by field of study, but instead focused on the adult students' attainment of a degree at either private or public colleges and universities.

This qualitative research investigated best practices of faculty teaching online. Qualitative research is a means of exploring a problem by collecting data in an interview and interpreting these data (Creswell, 2013; Willis, 2007). A desired outcome of the research was to determine ways to deliver learning content virtually in a manner that supports meaningful learning and fosters connections between students and faculty. The literature and research determined best practices for creating the most successful adult online learning environments and the design of online curriculum in institutions of higher education. Best practices in adult learning, or andragogy, were examined. The strategy of inquiry was ethnography, in which the researcher studies a group and collects interview data based on lived realities (Creswell, 2009).

The specific experiences and needs of adult learners are vastly different from those of children and teenagers (M. Knowles, 1984). Adult education in an online environment must be impactful for learners who are also having major life experiences outside of the classroom, typically at work or with their own families (TEAL Center, 2011). Research pertaining to the

variety of methods to achieve learning success for adults was investigated (CAGS, 2011). Differences between synchronous and asynchronous learning were studied, as well as optimal classroom management and content delivery methods.

The best practices in adult learning, or andragogy, were examined. It is thought that adult education in an online environment needs to be impactful in order to meaningfully impact learners who are also having major life experiences outside of the classroom, typically at work or with their own families (M. Knowles, 1984; Lee & Choi 2014). A significant characteristic of adult learners is the participation in life roles other than full time student. It is likely that adult learners are either working full time, married, parents, supporting extended family members, active in their communities, or a combination of some or all of these roles (M.S. Knowles, 1980, Lindeman, 1926). While these roles may be helpful in the amount and depth of social support received, these relationships and experiences may also be helpful in the ability of adult learners to make sense of theoretical concepts that may be inaccessible to younger learners without as many life experiences. Conversely, the number and variety of these roles in the lives of most adult learners can present significant challenges to the allocation of time for study and academic or social participation in the life of the learning institution (Lewis-Fitzgerald, 2005; Ross-Gordon, 2011).

History of Adult Learning

It is rare for learning to occur separately or apart from the learner's world (Jarvis, 1987; Leonard & DeLacey, 2001). Learning - particularly adult learning - pertains to the ways humans interact with their external and internal world (Jarvis, 2006). Adult learning is simultaneously very old and very new. In ancient times, the most revered teachers such as Confucius, Lao Tse, Jesus Christ and Aristotle, were primarily teachers of adults, not children. Confucius was thought

to teach primarily adults, and he frequently called upon students to think for himself and make a concerted effort to learn from their own prior knowledge (Chin, 2007). He stated:

I do not enlighten those who are not eager to learn,

nor arouse those who are not anxious

to give an explanation themselves.

If I have presented one corner of the square

and they cannot come back to me with the other three,

I should not go over the points again. (Confucius, as cited in Chan, 1963, p. 1)

Lao Tse continued this long tradition of Confucianism, helping to establish this philosophy in many Far East Asian countries. His teaching supported adult learning theories, as it affirmed the notion of active learning. He stated, "Tell me, I may listen. Teach me, I may remember. Involve me, I will do it" (Lao Tse, as cited in Finney, n.d., p. 3). This proverb summarizes the long term learning effects of active learning on its recipients. Lao Tse also taught about the benefits of experience, stating:

Experience is a riverbed

Its source hidden, forever flowing:

Its entrance, the root of the world,

The Way moves within it:

Draw upon it; it will not run dry. (Lao Tse, as cited in Finney, n.d., p. 1)

Throughout the four gospels - Matthew, Mark, Luke, and John - Jesus taught spiritual principles by using parables that were understandable by adults, whether they were fishermen, farmers, housewives or merchants. These parables used everyday events that were easily recognizable and relatable for most adults (Edersheim, 1953). Jesus also asked open-ended

questions of his followers, such as, “But who do you say I am?” (Mark 8:29, The New International Version), or “Who is my mother, and who are my brothers?” (Matthew 12:48-49, The New International Version). Jesus’ manner of teaching, like many great teachers of adults, involved acknowledging the whole personhood as well as encouraging learning by posing open-ended questions.

Perhaps the most well known ancient teacher of adults was the Greek philosopher Socrates, who taught around 400 BCE, His teachings were inquiry-based and gave students questions rather than answers. Socrates understood that the highest benefit of this method was to allow people to think critically and question their teachers and fellow students in order to birth their own ideas (Maxwell, 2015; Paul & Elder, 1997). His students were continually probed and encouraged to focus on the elements of reasoning in a way that encouraged self-assessment. Today, the Socratic method is used as a teaching and learning method that shares goals, objectives, questions, problems, concepts, ideas, and information. All of these factors are desired traits in adult learning environments in which the instructor works to spur student discussion with probing questions, keep the discussion focused and to encourage as many students as possible to participate in the discussion (Maxwell, 2015; Paul & Elder, 1997).

These well known historical teachers of adults knew that education was best presented in an *inquiry and discussion* model, rather than what later became the more accepted *stand and deliver* lecture model (King, 1993). Many ancient teachers used a variety of techniques that deeply engaged adult learners, such as the case method, which encourages learners to explore possibilities and solutions, as well as the Socratic method, in which a problem is posed and the group collectively discusses possible answers (Reich, 2003). These ancient teachers understood

the importance of engaging adult learners in ways that acknowledged their personhood and intrinsic value to the classroom discussion (Maxwell, 2015; Paul & Elder, 1997).

Pedagogy

The specific experiences and needs of adult learners are vastly different from those of children and teenagers, about whom a great deal of educational research has been conducted. The Greek word *paidagogos* refers to a teacher of children (van Manen, 1999). Pedagogy is thought to have its roots in the monastic schools of Europe during the 7th through the 12th centuries. By the 7th century in Europe, schools became focused on teaching children, specifically young boys preparing for the priesthood. The premise of pedagogy is that the instructor is the sole possessor of knowledge, which he or she transfers to the minds of the young students (Freire, 1972). The skills were often basic and necessary life skills, such as reading and writing. This model of teaching was adopted and used as elementary schools spread throughout Europe and North America during the 17th and 18th centuries (van Manen, 1999). Teachers of these young students developed ideas concerning teaching and learning, which became known as pedagogy. Pedagogy is concerned with appropriate ways of teaching and providing assistance to children and young people (van Manen, 1999).

The pedagogical style of teaching assumed that the learners were blank slates upon which learned teachers would deposit their knowledge. This pedagogical framework continued through the mid-20th century, as up until that point, intellectual development was thought to be at its peak in childhood and adolescence. Typically, pedagogy makes certain assumptions about students that place a heavy responsibility for learning on the teacher. A pedagogical framework assumes the learner's dependence on the instructor for all learning and the teacher's responsibility for what is taught and how it is learned (Freire, 1972; King, 1993). It assumes that

the learner is coming to the classroom environment with very little experience that could shape the direction or focus of the curriculum. The instructors typically let students know what skills need to be mastered in order to advance to subsequent levels of learning. Often times, young learners are not perceived as internally motivated to learn, but rather have external pressures placed on them by parents or other adults, including the completion of courses, obtaining good grades, and the potential consequences of failing to obtain these goals (Educational Technology and Mobile Learning, 2016).

Andragogy

Alexander Kapp, a German high school teacher, is believed to have first used the term andragogy in 1833. In his book titled *Platon's Erziehungslehre* (Plato's Educational Ideas), he detailed man's need and ability to learn throughout adulthood. He argued that the education of the mind and character, combined with self-reflection, are of primary importance in human life (Reischmann, 2004). Kapp's writing includes patterns that are used repeatedly in the ongoing history of andragogy: the education of subjective character traits as well as objective competencies and the concept of learning occurring not only through teachers' instruction, but also through the students' own life experiences and self reflection (Reischmann, 2004).

The study of andragogy became more prevalent in the United States in the 1920s, as increasing numbers of educators and psychologists began to feel that learning did not stop in adolescence; in response, they began to study the ways in which adults learn. In the 1920s, Lindeman (1926) discussed the uniqueness of the adult learner in the book, *The meaning of adult education*. Due to the circumstances of their lives - work, recreation, family, and community - adults learn differently than children and adolescents. Dr. Lindeman hypothesized that adults would be motivated to learn when the subject matter is needed, and that the text and teachers

played a secondary role in their education. Based on his findings, he suggested that the adult learner's life was the education and his/her experience was the textbook; what had become the traditional manner for teaching children - authoritative, pedagogical, and rigid - would not be effective in adult education. Rather, adult learners who choose to further their education learn best examining real world situations in conjunction with their own past experiences solving problems as a primary source with texts secondary (Lindeman, 1926; Mezirow, 2000).

Carl Rogers (1969), one of the leaders/founders of modern psychology, developed a theory of human learning that investigates the means by which students are motivated and also acknowledges the learner as a whole person. He stated that human beings have both a potential and affinity for learning as well as a natural curiosity that remains a key factor in intellectual growth, unless experiences within the educational system discourage this curiosity. He believed that adult learners experience deeper learning when the subject matter is thought to be relevant in their lives. Rogers felt that the most significant learning was achieved by doing, stating, "Placing the student in direct experiential confrontation with practical problems, social problems, ethical and philosophical problems, personal issues, and research problems, is one of the most effective modes of promoting learning" (p. 159). He also felt that the most significant and lasting learning takes place when self-evaluation and criticism are of greater importance than that given by others. Rogers stressed the importance of the freedom to not only make mistakes but to also then process, evaluate, and learn from mistakes leads to self and subject mastery.

American adult educator Malcolm Knowles (1980) developed a model for the teaching of adults based on a variety of assumptions that differ from traditional pedagogical models. He defined adult learners in the following ways:

- Biological Definition: The age at which an individual can reproduce.

- Legal Definition: The ages that an individual can vote, drive, marry, etc.
- Social Definition: When an individual begins to perform adult roles such as full-time worker, participating citizen, spouse, parent, etc.
- Psychological Definition: When an individual develops a self-concept of being responsible for his or her own life. (M.S. Knowles, 1980)

Knowles stated that adult learners differ from children or young adults due to the following characteristics:

1. The need to know – Adults need to know why they need to learn something before undertaking to learn it.
2. The learner's self-concept – Adults have a self-concept of being responsible for their own decisions, for their own lives. Once they have arrived at that self-concept they develop a deep psychological need to be seen by others and treated by others as being capable of self-direction.
3. The role of the learner's experience – Adults come into educational activity with both a greater volume and a different quality of experience from youths.
4. Readiness to learn – Adults become ready to learn those things they need to know and be able to do in order to cope effectively with their real-life situation.
5. Orientation to learning – In contrast to children's and youths' subject-centered orientation to learning (at least in school), adults are life-centered (or task centered or problem-centered) in their orientation to learning.
6. Motivation – While adults are responsive to some external motivators (better jobs, promotions, higher salaries, and the like), the most potent motivators are internal

> pressures such as the desire for increased job satisfaction, self-esteem, quality of life and more. (M. Knowles et al., 2005, p. 57-63)

Adult Learning Environments

Adult wisdom is now seen as an important component of the learning spectrum, with value given to the experiences and knowledge that the adult learner brings to the learning environment (King, 1993; M. Knowles, 1984). An adept teacher of adults knows that he or she is there for more than telling and the students for more than listening (King, 1993). The online learning environment, in partnership with a constructivist style, with its goal of fostering student understanding of the material rather than rote memorization, lends itself to a successful adult learning environment (Gagne, 1984).

Using an inquiry-based approach to instruction seems to be of far greater benefit to students than traditional teaching modalities of direct instruction (Bernstein, 2015; Jarvis, 1992). Incorporating an inquiry-based curriculum encourages students to take ownership of their learning by allowing them to make connections between what they are learning in class and their prior knowledge and experiences (Center for Inspired Teaching, 2008). This process is particularly beneficial for adult learners, who come into academic settings with a wide variety of proficiencies. Correlating new information taught in instructional settings with what the adult learner can contribute authentically and experientially not only is respectful of the learner but also allows for greater knowledge retention (M. Knowles, 1984; Lindeman, 1926).

In the 1950s, Harvard University researcher Jerome Bruner brought attention to the study of creative problem solving and became a well-regarded expert on education and development (Sanderson, 2006). He developed what later became known as the *inquiry method* of teaching. In this method, the teacher rarely dictates to the students what they should know;

instead allowing them the opportunity to inquire and to find answers themselves. Inquiry-based learning uses questioning as its basic mode of discourse as it leads to unsuspected possibilities, much like the Socratic method (Maxwell, 2015; Paul & Elder, 1997; Sanderson, 2006). Greater importance is placed on interactions between students, rather than those between teachers and students. Inquiry-based learning views learning not as a terminal event but as a process and therefore refrains from summarizing ideas or positions taken by students, as such behavior is thought to have the effect of ending further thought or discourse (Bruner, 1977).

In the 1980s, Malcolm Knowles researched the differences in learning styles of adults and children. His work disseminated the concept of andragogy in comparison with pedagogy. He hypothesized that adult learners have several factors in common: they are more interested in self directedness in their learning process, they make use of their own life experiences to facilitate learning, they are drawn to further their learning when they choose or are asked to assume new social or life roles, they want to quickly apply what they learn in the classroom environment to their work and/or personal lives, and find that internal, rather than external forces motivate them (M.S. Knowles, 1980). Adults are typically fully engaged in the workforce and appreciate being able to apply the knowledge obtained in the classroom directly to the workplace. This tendency causes adults to choose degrees and programs that will enhance their professional lives (M.S. Knowles, 1980, Leonard & DeLacey, 2001).

In looking at the concept and process of andragogy, a distinction must be made between the terms *education* and *learning* in order to differentiate between a sound curriculum taught by capable faculty and an experience in which students themselves become subject masters. Education refers to the activity that is undertaken to initiate change in knowledge or skill, whereas learning emphasizes the person in whom this activity is taking place (M.S. Knowles,

1980). The change that occurs in this individual is known as the learning process, and the goal of educating adults is to equip the learner to be more able to interact with his or her environment (M. Knowles et al., 2005; Tough, 1971).

Adult learners report two common themes in goal orientation: internal motivation and learning. When pursuing an online graduate degree, students stated that they needed to consider internal, rather than external motivation (Dunn & Rakes, 2015). Rather than looking only at external motivation, such as grades, students noted that focusing on coursework could make them a better worker, friend and parent. Students also noted the importance of focusing on learning and then processing this new information, and to view the acquisition of knowledge as its own success, and not just a means to an end (Dunn & Rakes, 2015).

Learning for adults is more self-directed than for younger students, who rely more on teachers for direction on lessons and subject matter mastery (Ross-Gordon, 2011). Adult learners require less oversight and structure and prefer to work independently while checking in with both teacher and fellow students for guidance and direction (TEAL Center, 2011; Withnall, 2005). Adults are also less likely to accept new information implicitly and are more likely to challenge new concepts by comparing them with existing acquired knowledge (CAGS, 2011).

Adult Learning Principles

M. Knowles, Holton & Swanson, (2005) delineated six main principles of adult learning: The learners' need to know demonstrates that adults typically need clarity as to the need to know a concept prior to going through the effort of learning. Adult learners benefit from clarity as to how this knowledge can assist their lives outside of the classroom. Instructors can support the learners' need to know by conducting a needs assessment

prior to beginning the course and sharing clear goals and expectations of the course as well as clearly defining the roles of the student. (p. 129)

The self-concept of the learner refers to adults desiring a certain degree of autonomy and responsibility in their learning while still having a structured learning environment. The learner's self concept can be enhanced with clear expectations, the opportunity to become involved in a collaborative learning experience, and the ability to set his/her own goals. Adults bring a great deal of prior knowledge and experiences to their learning environment (Freire, 1971; M.S. Knowles, 1980). If these experiences are not acknowledged or affirmed, it can be seen as a rejection not just of the experiences of the adult learner but also of the adult learner him/herself. It is important to tap into adult learners' prior experiences by using them in class discussions, suggested readings, and instructor comments (King, 1993; Jenkins, 1981; M. Knowles et al., 2005; Mezirow, 2000).

Adults' readiness to learn recognizes that learning needs of adults are frequently motivated by real life events at work or at home (Jenkins, 1981; M. Knowles et al., 2005). Their pursuit of knowledge is often motivated by a desire to navigate these environments more capably. Additionally, when determining the adults' readiness to learn, it is important to acknowledge that the need for assistance among adult learners is fundamentally different that those for children, who often require more direction but less support (M. Knowles, 1984).

The adult learner's orientation to learn is enhanced when he/she is allowed to set his or her own learning goals while providing opportunities that allow independent problem solving (M. Knowles et al., 2005). Adult learning is enhanced when the learning is both contextual and experiential and allows for an immediate application of the learning while encouraging reflection and self-evaluation (Tough, 1971). It is important for adult learners to put their learning into

practice outside of the classroom environment, and determine how the academic theories can be implemented in the workplace or other environments (M. Knowles et al., 2005).

The motivation for adults to learn can be seen as consisting of four main factors: success, volition, value, and enjoyment (M. Knowles et al., 2005). Adult learners' motivation is primarily internal, as adults typically make decisions to pursue advanced degrees by themselves and pay for them independently, in contrast to traditional baccalaureate seeking learners, whose parents or other family members are intimately involved in decisions regarding and payment for higher education. Adults are motivated to learn concepts that allow them to solve problems in their own worlds. They determine the success of their learning by how these concepts are successfully applied to their everyday lives (M. Knowles, 1984).

Advances in information and communication technology are affording new possibilities that are drastically changing the ways in which education can be offered. Traditional learning environments, buildings in which students are taught face-to-face in real time, are still relevant, but hybrid or fully online classes are becoming increasingly common (Means, Toyama, Murphy, Bakia & Jones, 2010). Student centered, constructivist learning methods focusing on the student while creating flexible learning spaces promote these blended or fully online learning environments are becoming more widespread (Chen, 2007). A quality of a successful online learning environments is one which seeks to construct meaningful virtual learning communities using collaborative strategies that place greater ownership and responsibility on the student, rather than uniquely with the teacher, which in common in children's learning environments (Allen & Seaman, 2013).

Many researchers are also recognizing that adult brains are in some ways more primed for learning than children and teenagers. Renowned psychoanalyst Erik Erikson's (1950) studies

proposed that there may be positive cognitive outcomes to aging that differentiate adolescent from adult thinking. Researchers now increasingly acknowledge that humans do indeed have the ability to learn through adulthood and even into old age (TEAL Center, 2011). Researchers have found that as people age, synapses in their brain actually make it easier to recognize the central theme or the big idea of a new concept. This may be due to the pathways created in adult brains that allow the recognition of patterns, significance, and solutions much more quickly than the younger brain. If the brain is kept stimulated by learning new information, it can continue to recognize patterns through continued use of pathways that allow its owner to recognize significance and solutions more quickly than a younger person (Strauchdec, 2009; TEAL Center, 2011). This ability to recognize adults' ability to learn thematically is important to incorporate into lesson planning for adult learners.

Online Learning

Technology has been implemented in education in the U.S. for well over 100 years. In the 1880s, the U.S Postal Service was involved in the creation of correspondence courses. At that time, the Postal Service posited that there would come a time in which the school work done by correspondence would exceed that done in classrooms and that students sharing work via mail would far outnumber those making face-to-face presentations (Berge & Clark, 2005). For over 130 years, educators have embraced and attempted to use new communication methods to meet students' needs more effectively. Upon his invention of motion picture technology in 1922, Thomas Edison posited that the motion picture industry would revolutionize the education system to the point of supplanting the use of many if not all textbooks (Monke, 2004). Similar claims have been made for radio and two-way video, which ultimately have had a limited influence on education. Online learning utilizing computers and the internet, however, seems to

have found a strong and lasting foothold in the education arena; therefore, it important to examine its effectiveness in delivering academic content while creating student connection and retention (Dewath, 2004; Parker et al., 2011).

Today, adult education programs that are delivered in online, distance, or blended modalities are growing exponentially in popularity, due in part to technology, portability of computers, new information, and the growing number of adult learners who prefer to learn digitally (Allen & Seaman, 2013; Tough, 1971; Worley, 2011). In the United States, online classes are now offered by over 75% of colleges and universities, and 23% of college graduates have taken an online course (Parker et al., 2011). For more recent graduates matriculating in 2000-2010, the number increases to 46%. Adult learners who have previously taken an online course feel more positively about online learning than those who have not: 39% say online courses provide similar value as a traditional course, a belief held by just 27% of those who have not taken online classes (Parker et al., 2011).

Online learning in higher education makes use of learning platforms, search engines, web-based surveys, and a variety of software. Online learning can occur with or without the presence of a teacher or a classroom, but does require that both teacher and student are committed to using technology to utilize learning module in instructing and completing assignments (Means et al., 2010; Tu & McIsaac, 2002). Successful online learning requires that the student be involved actively in the learning process, searching out information rather than receiving it passively (Palloff & Pratt, 2013).

Both the creation of and enrollment in classes in the United States offered at institution of higher education in an online learning environment have increased rapidly between 2005-2015:

- 25% of students enrolled in at least one online course at the associate's degree level, compared to 17% at the bachelor's degree level.
- 71% of leaders of for-profit colleges and universities report that their institutions offer classes online, and more than half (54%) say these classes offer the same value as classes taken in person.
- 61% of the presidents of 4-year liberal arts colleges report that their institutions offer classes that are taught exclusively online, compared to 79% of presidents of research universities and 82% of those at community colleges.
- 15% of college students who have taken a class online have earned a degree entirely online.
- 71% of leaders of for-profit colleges and universities report that their institutions offer classes online, and more than half (54%) say these classes offer the same value as classes taken in person. (Akaneghu, 2012)

Currently, online learning is more common in public than private colleges and universities, with 89% of public college and university presidents reporting that their institution offers classes online, compared to 60% of private institutions. Apparently, presidents of private colleges and universities do not see as much value in online learning delivery methods. Approximately one half of 4-year public university presidents believe that online courses provide the same value as a class taken in person compared with one third of private university presidents (Parker et al., 2011). This reluctance to adopt online curriculum in private universities is perhaps due to the small class sizes and high amount of instructor contact experienced and expected at many private 4-year colleges. Students in traditional bricks and mortar institutions of higher education report being highly satisfied with their experiences and believe that their colleges and

universities are delivering a good education (Parker et al., 2011). The Cooperative Institutional Research Program (CIRP) at UCLA's Higher Education Research Institute administers an annual survey of first year college students nationwide. In 2009, over 26,000 students from 457 institutions participated in this survey and reported very positive feelings concerning their initial year at a college campus; 79.1% stated that they were satisfied or very satisfied with the quality of teaching, 68% with the relevance of classes to their planned career, and 78% with their interactions with fellow students (McKeown, 2012).

Although online course offerings have become more common, the general public and college presidents have different points of view on their educational value. Research conducted in 2011 indicated that just three in 10 American adults say a course taken online provides an equal educational value to one taken in a classroom (Parker et al., 2011). Fully half of college presidents believe that online courses provide the same value as in-person classes. Ninety percent of 2-year colleges offer online courses, and their teachers and administrators are more likely to believe that online learning is comparable to traditional learning. Two-thirds of the presidents of 2-year colleges believe online courses and traditional courses provide equal educational value as in-person courses. Seventy-one percent of for-profit college and university administrators state that their institutions offer classes online and over 50% believe that these classes are as valuable as classes taken in a face-to-face format (Parker et al., 2011).

Barriers to Online Learning

Although online learning and advances in technology can greatly improve access to education by providing pathways to many subjects in diverse settings, there remains concern among some university faculty and students that online education may be of a lower quality than face-to-face learning (Bejerano, 2008). A common refrain among those who are not proponents

of online learning is that the lack of personal connection with the instructor depersonalizes the education process (Jacobs & Hyman, 2013). Joseph E. Aoun (2012), President of Northeastern University, discussed the benefits of a traditional college setting, stating:

> The chance encounters that come with membership in a diverse intellectual community. Whether a guest lecture, a conversation with a peer majoring in a different field, or the experience of befriending someone from a different background, place-based encounters can spark new interests and set students on fulfilling paths they might never have traveled otherwise. (para.16)

Additionally, the friendships developed at a traditional college often lead to both personal and professional networks that continue long past graduation. Traditional college experiences are also often a student's first opportunity to move away from his/her home and develop adult skills needed to successfully navigate new relationships and develop personal responsibility (Wechsler & Nelson, 2010). The lack of face-to-face connection among students in an online environment could possibly affect the ability to closely connect in ways that provide networks beneficial outside of the learning environment (Bejerano, 2008).

In addition to a lack of human connection inherent in the virtual classroom, there may also be barriers to using online learning technology in colleges and universities. One such barrier pertains to institutional challenges, such as the absence of institutional policies and coherent strategic planning at the level of program planning, and insufficient funding to create meaningful online curriculum. Another barrier pertains to faculty buy-in, as many faculty do not feel that they have time or support to create online courses while teaching their regular required classes (Dignan, 2015). The perceived or actual lack of institutional support and preparation time and

technological support, can contribute to faculty's reluctance to implement fully online or hybrid learning (Dignan, 2015; Mumtaz, 2000).

Another limitation of successful adult online learning pertains to problems that students report encountering in both learning and communication in an online environment. Some students cite issues such as poor bandwidth and insufficient infrastructure as preventing a seamless learning experience (Akaneghu, 2012). Students also indicate that sociological and psychological barriers exist in online learning settings and have expressed problems in communicating with instructors and fellow students (Jacobs & Hyman, 2013). The lack of meaningful interaction can be a critical barrier to success in online learning environments of higher education and can lead to such impediments as anxiety, negative emotions, and lack of motivation, all of which can detract from the learning process and the students' own feelings of self efficacy (Gutiérrez-Santiuste, Gámiz-Sánchez, & Gutiérrez-Pérez, 2015).

Students who are less familiar with technology are shown to have less satisfaction with online courses, feeling that the need to master technology is equally challenging as, if not more challenging than, the course content itself (Jonassen, Howland, Moore, & Marra, 2003). More experienced users of the Internet and technology display higher levels of satisfaction with online learning. To fully participate in online learning environments and robustly, students need to have familiarity with the use of computer hardware, software, and basic Internet navigation skills. Lacking the required skills and technology can become a barrier to learning, leading to feelings of disconnectedness and dissatisfaction (Jonassen et al., 2003; Rodriguez, Ooms, & Montañez, 2008).

In an online learning environment, there is by definition a lack of personal face-to-face connection. The benefits of knowing and being in a relationship with one's teachers and fellow

students are implicit, and the loss of those face-to-face relationships can also lead to the feeling that online learning institutions are inferior (Bowen, Chingos, Lack, & Nygren, 2013). In traditional learning environments, the teacher-student relationship is seen as crucial to student engagement and success (Bejerano, 2008; Bernstein, 2015). In addition to a teacher being able to give immediate and face-to-face feedback, he or she is also able to check in and use nonverbal communication to determine if a student needs extra encouragement. Teachers in traditional classrooms also have the ability to sense the mood of the classroom and guide discussions that are straying off topic or in which one student is dominating the discussion. Part of an instructor's responsibility in a traditional classroom setting is to engage students who aren't participating fully by calling on them during discussions (Bejerano, 2008).

Since an instructor would intuitively guide discussion and participation in a face-to-face environment, some instructors may need training to learn how to do so in an online environment so they can manage their virtual classroom properly using whatever format they choose: videoconferencing, synchronous discussions, or group projects (Berge & Clark, 2005). Face-to-face instructors can call upon classroom management skills used in traditional classrooms to motivate and engage their online students as well (W. Bowen et al., 2013). Instructors can reflect back on classroom management skills that have served them well in motivating students and encouraging them toward success in order to find those that might work online as well (Aragon, 2003; Bejerano, 2008).

In terms of measuring dissatisfaction among online students, one study cited that the main reasons for students dropping out of courses was a level of discontent generated by misalignment of personal and professional goals, the way the course was structured, a feeling of mistrust in the online experience in general, and incompetence in using virtual classroom software (Allen &

Seaman, 2013; Bejerano, 2008). Other studies point to technical and content issues as well as interaction with professors as causes for dissatisfaction (Jonassen et al., 2003; Mumtaz, 2000): specifically, dissatisfaction with teaching related to their training of students in how to use the learning platform, how assessments were conducted, difficulty understanding content, and unsuitability of the content (Gutiérrez-Santiuste et al., 2015). When students feel incapable of managing the technology required in their program or when the technology is flawed and difficult to navigate, that also creates feelings of frustration and dissatisfaction, which can at times lead students to withdraw from the course (Gutiérrez-Santiuste et al., 2015).

Students also expressed dissatisfaction with the graphic and organizational content of their online courses. Difficulty following forum threads was cited as a barrier to tracking comments, making it difficult to keep up with the conversation and reflection (Jonassen, 1999). Students also cited sociological issues including differences of ideology, culture, or religious concepts as leading to a sense of disunity during classroom discussions. Students noted that often times in discussion, other students simply offered up unrelated ideas without considering the instructor's question (Gutiérrez-Santiuste et al., 2015).

Benefits of Online Learning

Just as there are wide varieties of quality in traditional learning, so too are there in online learning. While some e-learning curriculum involves little effort on behalf of either the teacher or the student, such as simply posting video-recorded lectures, some involves much more effort, such as uploading materials, tests, and syllabi to class websites, as well as sophisticated and interactive learning involving teacher and peer feedback. There are currently many institutions of higher education offering quality online education to adult learners using best practices in adult

learning combined with innovative technology (W. Bowen et al., 2013; Moeller & Reitzes, 2011).

Research shows that when adult online learning curriculum is well developed, using a variety of modalities and strong instructor and peer interaction, online classes have similar outcomes to traditional learning environments (Gruber, 2015; McKeown, 2012). One study at Carnegie Mellon University sought to test the efficacy of online learning by designing a randomized trial using students taking both an online and traditional statistics class at various universities. In 2011, 605 of the 3,046 students enrolled in a statistics class volunteered to participate in the study. These students took statistics either in a hybrid format, with a combined 1-hour of face-to-face instruction and 2 hours of online learning, or in a traditional format of 3 hours classroom instruction weekly. This study found no notable difference in learning outcomes as measured by quiz and test scores, pass/fail rates, and final grades (W. Bowen et al., 2013).

This particular statistics course was created at Carnegie Mellon University and was thought to be a model for ILO (Instructor Led Online) courses with the majority of the information delivered in an online format. This online delivery method was augmented by a 1-hour traditional session in which students received individual and targeted assistance, making the delivery method hybrid (W. Bowen et al., 2013). This finding suggests that a thoughtful use of interactive web based courses using data to customize instruction and enable instructors to personalize teaching methods and content can be highly effective (Jonassen et al., 2003).

Online learning can sometimes be even more beneficial than traditional learning platforms. Online learning provides the ability for students to pace themselves. Viewing a pre-recorded lecture given by an instructor allows a student to stop playback if a concept is beginning to be unclear. This student can use a textbook, dictionary, or online resource to obtain

clarity on the concept before continuing the lecture (Akaneghu, 2012; Palloff & Pratt, 2013). This ability to self-pace instruction is also helpful for those students who may have other family or work responsibilities, allowing them to view the lecture at times that permit pausing of instruction to be resumed when convenient (Berge & Clark, 2005). Additionally, students' ability to self-pace, take and retake short quizzes more frequently and receive feedback instantaneously can be easier in an online, rather than a face-to-face, format. Being able to view lectures and then return to concepts that are unclear and either listen again or pause the lecture to acquire further explanation from other sources are innovations which that are not feasible for traditional face-to-face learning, but are possible in an online environment (Allen & Seaman, 2013; Pritchard, 2013).

Another benefit of online learning is that it can be done anywhere and anytime, given the proper hardware, software, and Internet access. Currently, adult online learning occurs within offices, homes, hotels, learning centers, and classrooms, usually using a variety of digital screens. As adult learners have adapted to portable technologies such as laptops, smartphones, and tablets, they are able to plug into their learning environments virtually anywhere (Allen & Seaman, 2013; Aragon, 2003). For adult learners between the ages of 18 and 35 years, the Internet and the digital world is an expected part of daily life. These learners, frequently referred to as the *Net Generation,* are accustomed to learning in digitally mediated environments (Worley, 2011). Online learning environments are by nature free from constraints of space, as long as the student has access to the appropriate Internet connectivity (Akaneghu, 2012; Hillage & Aston, 2001).

Online learning may indeed be the method by which Americans' educational attainment is improved by making postsecondary education more attainable to a larger number of people.

(Jaschik, 2009). The nature of online education is one of flexibility, which is helpful for adult learners with myriad other obligations (Kolowich, 2010). Additionally, many online programs are currently beginning to replicate some of the attributes of a traditional program, combining virtual activities within their online learning communities as well as advisors offering to facilitate face-to-face connections and activities for students in similar areas. It is not implausible to imagine a future in which students in online programs create local communities for networking, creating clubs, and sports teams (McKeown, 2012).

The question remains, is it possible for online classes to deliver education as effectively as traditional classes? Recent studies seem to indicate that it is. In 2010, the U.S. Department of Education did a meta-analysis of available research and found that students learning identical material in an online environment performed slightly better than those in a traditional environment. This study also found that success in online learning approaches is not limited to only one type of student, but rather that a wide variety of online learning approaches are effective among undergraduates, graduates, and professionals (Means et al., 2012).

Online Class Design

Effective and meaningful teaching typically starts with effective and meaningful planning. The goal of instructional design is to plan learning events by utilizing the principles of learning and instruction. An instructional system, also known as a lesson plan, promotes learning using a variety of resources and procedures. The principles of instructional design are drawn from various disciplines including cognitive science and psychology, which emphasize the learner's own cognitive and affective learning processes (Center for Inspired Teaching, 2008; Chen, 2007). It is now believed that students are not simply blank slates upon which information is deposited, but instead come to the learning environment with memories and unique thought

processes that, combined with instruction, serve to generate strategies for knowledge acquisition (King, 1993). In order to increase the likelihood of successful learning, educators should use an instructional process that facilitates the learners' internal cognitive structures (Gutiérrez-Santiuste et al., 2015).

Rogers's (1969) theory of learning defined the role of the teacher as a facilitator of learning and that "the primary task of the teacher is to permit the student to learn, to feed his or her own curiosity" (p. 18). He postulated various principles of teaching that emphasize learner agency and are therefore of particular interest for teachers of adults in an online environment, stating, "The facilitator has much to do with setting the initial mood or climate of the group or class experience" (p. 164). When the instructor is sharing knowledge from a place of humility or kindness, this will be reflected and emulated by the students in the learning community (Gutiérrez-Santiuste et al., 2015).

In traditional environments, the instructor can set a welcoming tone in a variety of ways such as the instructor greeting students by name, smiling or otherwise expressing a friendly expression or walking around the room to check in on individual students. In an online environment, this can be accomplished by the instructor greeting students online by name when they enter the virtual learning environment, affirming their participation in discussion groups, and sharing encouraging posts (Harasim, 1995). Allowing students the freedom to select modules, exercises, or other learning resources that are of particular interest is also possible in an online environment; "In responding to expressions in the classroom group, (the teacher) accepts both the intellectual content and the emotionalized attitudes, endeavoring to give each aspect the approximate degree of emphasis which it has for the individual or group" (Rogers, 1969, pp. 165-166).

Another helpful tool in developing effective adult online learning environments is the understanding of cognitive structures, which are the basic mental structures people use to organize and make sense of information (Bhattacharya & Han, 2001). Symbolic representation includes language (both verbal and nonverbal), music, math, graphics, multimedia, and drawing. Logical reasoning structures combine abstract thinking with a systematic process in order to generate information. This includes reasoning, logic, hypothetical thinking, cause and effect relationships, synthesis and problem solving (Garner, 2007). It is important for educators to identify and utilize these cognitive structures in classroom and curriculum design and not assume that these processes will occur naturally. In an online learning environment, the intentional embedding of these processes is even more important in order to create a context in which multiple styles of learning are engaged so students are able to make meaningful connections to the information (Cavanaugh, 2005).

When designing instruction, the instructional designer or teacher may choose to clearly define instructional objectives and organize them by domains and types of desired learning outcomes, selecting instruction methods based on those learning outcomes (Dick, Carey, & Carey, 2005). These objectives should be placed in a logical order and then evaluated in order to determine whether or not these goals have been met. This approach is known as objectivist, as the teachers are informing the students about the goals and objectives, presenting instruction, and then assessing this instruction according to evaluation (Chen, 2007).

One study conducted in Munich, Germany looked at dropout and participation in online courses at the Ludwig-Maximilians-Universität from a quantitative standpoint, accounting only for observable variables within their research. The university has a total of over 40,000 students enrolled in one of 18 divisions. Among these, the Faculty of Psychology and Educational

Sciences has approximately 6,300 active students. Most of the 20-25 courses offered each term use computer support, but no more than five were fully online. Three of these courses were the subjects of the study (Nistor & Neubauer, 2010).

The researchers focused on certain variables related to online courses, including: students making a personal introduction; participating in the preliminary session, email contact with the instructors after registration, before the beginning of the course, and at the outset of the course; the number of messages sent; the length of messages sent; students' active participation in online discussions; and the final course evaluation (Nistor & Neubauer, 2010). Within this study, approximately one fourth of the students dropped out of the course. The researchers found that those students who dropped out participated significantly less with the instructor and students and posed fewer questions to the instructor regarding assignments (Nistor & Neubauer, 2010). All of these factors are seen as being very connected to students' sense of connectivity to the class in general and can help to predict the behavior that indicates lack of interest leading to dropping the course, allowing instructors to be proactive about reaching out to students (Jenkins, 1981; Lee & Choi, 2011, Monke, 2004).

Online Learning Environments

Certain elements are required in any online learning environment. The use of adult learning theories enhances the experience of adults participating in online coursework, but in order for a class to be defined as an online experience, certain fundamental pieces must be present. The U.S. Department of Education, National Center for Education Statistics (2016) delineated these components as follows:

- Technology
- Course content

- People (instructors, students, staff)
- Goals/learning tasks (U.S. Department of Education, 2016)

In an online learning environment, students interact with faculty, students, and the course material by completing learning tasks. When viewed as a whole, these learning tasks make up the course and guide the curriculum design and its desired learning outcomes. In order to deliver the learning content successfully, there needs to be a support system, including technical, learning, and social support (Edutopia, 2008; Palloff & Pratt, 1999). These systems are critical in traditional learning environments but are found to be even more so in an online environment. When students and teachers rely on technology to deliver content, connect the group together remotely, and allow collaboration and interaction, a support system is critical (Palloff & Pratt, 1999). A lack of technological support can result in challenges that greatly impede the online learning process. It is vital to embed an easily accessed technical support system to ensure both students and teachers are comfortable in the delivering and receiving of course-related information (Leonard & DeLacey, 2001).

A deliberately created and supported social support system is also vitally important in an online environment. In an ideal online learning community, members trust one another and are able to share information openly without fear of criticism or judgment (Chen, 2007; Ross-Gordon, 2011). Special considerations must be made when designing learning environments for adult learning. Some researchers believe that in order to effectively engage adult students with the curriculum, the instructor should design a learning environment that adapts to the learners' individual characteristics, such as attitudinal, physical, material, and structural (M. Knowles, 1984).

Many of the methods and practices of teaching that informs traditional learning are also helpful in informing online learning. They are, however "(a few) instructional method(s) among many, each better at achieving some instructional objectives than others" (Bejerano, 2008, p. 21).

Instructional Strategies

Traditional courses and methods of curriculum delivery cannot simply be duplicated into an online learning environment. In order to ensure rich and engaging online learning environments and curriculum delivery, a variety of modalities, which utilize technology and increase learner engagement in an online environment should be examined. Some instructional strategies transfer to the online environment, however, and the use of effective traditional teaching strategies can be helpful points of reference (Bejerano, 2008).

Some instructional strategies work differently in traditional versus online learning environments. The practice of students forming their own collaborative work groups impacts student learning differently in a face-to-face environment, in which students are physically present at the same time and able to create groups, rather than an online environment, in which students are not in the same location and are participating at different times and days (Lewis-Fitzgerald, 2005). In the asynchronous online environment, for example, it can be difficult to form teams of two or more as students are logging on at a variety of times and may not receive or respond to a team request in a timely manner (Palloff & Pratt, 1999). In this situation, it would be recommended that the instructor modify this learning activity to be more suitable for an online asynchronous environment by pre-assigning groups (Jonassen, 1999).

To create effective and engaging online learning communities, students should be encouraged to engage in "autonomous, self directing and self regulating learning in which students become learner partners who can feel comfortable in questioning and exploring issues

relevant to the learning outcomes" (Weiner, 2013, p. 13). It is also important that instructors work to create continuity and a sense of seamlessness by connecting the course progression, content, and interactions. Students consistently rank the amount and timeliness of instructor feedback and the interaction with other students as crucial in creating class satisfaction (Chen, 2007; Weiner, 2013). This suggests the importance of teacher engagement in student satisfaction.

In examining successful online learning environments, some research indicates that online learning instructors who incorporate this learner-centered mode of teaching enjoy greater levels of student success, engagement, and retention. Understanding and creating learner-centered environments while promoting a strong social presence are factors, which seem to lead consistently to positive learning outcomes with most adult online students (Jonassen et al., 2003). Technology has allowed a shift from a focus on instructor centered learning to student centered learning. Rather than measuring learning by the amount of time spent physically in the classroom, meaningful educational experiences and measurable student outcomes are becoming desired learning outcomes (Cavanaugh, 2005; Creswell, 2009).

Other research suggests that adult learners in online environments benefit from instructors having a social presence. This presence can be thought of as "the degree of feeling, perception and reaction to another intellectual entity in the online learning environment" (Tu & McIsaac, 2002, p. 146). Some studies show that the greater the instructor's level of social presence, the more students perceive them as positive and effective. Students see teachers with skills in connecting in a timely manner in an online environment as valuable instructors (Chen, 2007; Tu & McIsaac, 2002).

A workshop on adult online learning held at Harvard University suggested some curricular and classroom management tools for successful online learning for adults. The study

indicated that ample amounts of group activities in an online environment build community and reinforce the idea of learning as a social activity. Online learning activities should connect classroom learning to life experiences, which provide a context for using new knowledge. Assignments should include practicing a class concept outside of the classroom environment in order for students to gain subject mastery through practice (Jonassen, 1999).

In both the online and traditional environment, it is important for the instructor to be prepared, and also to be flexible. An instructor should always have a lesson plan, discussion questions and accompanying visual supports, but remain open to student led discourse that enhances the lesson plan (Center for Inspired Teaching, 2008). Regarding both traditional and online teaching, Weiner (2013) stated that:

> You don't go to a classroom or online with a carefully prepared lecture - one with all the examples, transition, questions (maybe even answers), links to previous material, sample problems ready to go on visually impressive PowerPoint slides. You go well prepared with a repertoire of material at your disposal - you have a carefully packed toolbox, and, like any expert working on location, you know what you'll need most of the time. Even so, chances are that some days you won't have everything you need. In this case, you trust your experience with the content, with learning, and with students. Something else from the toolbox may work or you'll be able to make do until you can get what you need. (p. 13)

Online Student Interaction and Engagement

A variety of components may help make an online environment socially relevant and welcoming to adult students such as: a welcome message, viewable student profiles (including photos), smaller class sizes, using audio, and creating collaborative activities that foster learning

in dyads or small groups of students. Instructors are the architects of this environment and it is important that they contribute frequently to the discussion boards, reply quickly to student questions via phone or email, use students' names, tell personal stories that humanize them, and use humor and emoticons to express their feelings. Students report higher levels of online class satisfaction when faculty is intentional about setting a welcoming tone (Aragon, 2003). Studies also show that the social relationships established by instructors play a role in student satisfaction in an online learning environment. This seems to indicate the critical role instructors play in setting the tone for a supportive classroom environment (Huba & Freed, 2000). Students tend to view immediate feedback from professors as beneficial, citing that this type of communication provides greater psychological closeness and contributes to an environment that is safe and interpersonal. When instructors reply in a timely and encouraging manner, students are more likely to feel supported and engaged. When examining effective social communication from a student perspective, the social presence of the instructor is shown to be the most significant factor in determining student satisfaction (Huba & Freed, 2000; Woods, Baker & Hopper, 2004).

Students frequently express greater feelings of connectivity when given the opportunity to learn about one another through collaboration and evaluation (Aragon, 2003; Bernstein, 2015; Cavanaugh, 2005). Group work conducted in an environment of trust can lead to deeper subject understanding from the variety of experiences represented among the students. The online learning social environment can be enhanced when students create introductory paragraphs that are shared prior to the first class. These introductions serve to humanize their fellow classmates and allow students to find threads of commonality in areas such as work, family, hobbies, geography, interests, and more (M. Knowles, 1984; Woods et al., 2004). This process can lead to feelings of support and affirmation amongst the student group, which often leads to greater

retention. It is also important for instructors to share some of their own background, sometimes choosing to share their own publications or CV in links made available to the students (Huba & Freed, 2000). This openness on the part of the instructor fosters a positive and respectful online environment and promotes trust among students (Huba & Freed, 2000; Tu & McIsaac, 2002; Woods et al., 2004).

While creating this supportive and encouraging online environment, it is essential to remember that there is a difference between a learning environment and a purely social online environment such as Facebook or posts on personal blogs (Edutopia, 2008). In the online classroom environment, while the discussion postings will certainly reflect the individual students' backgrounds and beliefs, the comments should be grounded in the assigned reading. While there are certainly benefits of students and instructors creating relationships, posting in a purely personal or informal manner is not seen to enhance learning. In order to demonstrate subject knowledge, discussion post replies should reflect an understanding of class lectures, assigned readings, or both, rather than simply personal opinions and experiences. Teachers' comments should guide students strategically in creating a community of inquiry by providing structure and feedback rather than only casual or social comments (Edutopia, 2008; Gruber, 2015). Students report higher levels of satisfaction in learning environments in which the instructor creates a space where students feel safe sharing personal information (Monke, 2004). Another factor contributing to student satisfaction is the students' prior experience with technology and the program's willingness to support the technology involved in learning.

In addition to the importance of teacher attentiveness in the online learning environment, interactions between students using online platforms also are seen as adding to the effectiveness and enjoyment of the learning (Leonard & DeLacey, 2001). When students participate in

discussion boards, sharing thoughts and asking questions of one another, it promotes critical thinking, self-confidence, and communication. Students generally review Internet class forums positively; moreover, consistent peer-to-peer contact has positive impact in-group work in both classroom and work environments (Worm & Jensen, 2013). Instructors must regularly monitor and provide feedback for student's work and activities to encourage continuous collaboration. Students in an online environment also must make substantial commitments in their learning experience both in singular activities such as reading and viewing lectures and also in coordinating with other students for group projects and discussions (Chen, 2007).

Social Environments Online

It is important to leave space for multiple stories and multiple viewpoints in the online environment to ensure that the human stories of both students and teachers are heard (Gruber, 2015). Learner-centered andragogies create a place in both learning environments and research that acknowledges and honors multiple stories and multiple approaches to online learning methodology (Huba & Freed, 2000). An instructor in an online environment must be intentional about allowing and encouraging a wide variety of viewpoints to be shared in online discussions and activities.

Northern Arizona University professor Sibylle Gruber (2015) was an early adapter of online learning environments. Professor Gruber began using online discussions within the classroom using intranet technology, which allowed multiple computers in the same classroom to communicate with one another. She noted that students who were quiet or reluctant to share in the face-to-face environment would often engage more frequently and more meaningfully in online discussions (Gruber, 2015). This finding, combined with other research, suggested that online communication, particularly asynchronous learning, led to increased discussions with all

students. In this online learning environment there was also a greater sense of equity, as gender and race were indeterminable in the online environment. Leaving out visual cues allowed the discussions to remain focused on class interactions and online discussions (Gruber, 2015; Hawisher & Selfe, 1999).

In the online classroom environment, it is crucial for the instructor to monitor the group's interactions carefully. When issues pertaining to group dynamics arise in the traditional learning environment, instructors are able to ascertain and solve the problem within the allotted classroom time period. In online courses, however, instructors are not able to rely on auditory and visual cues that are easily observable in the traditional learning environment (Gruber, 2015). More careful observation is required for online classroom instructors to become aware of potential problems in the process. It is beneficial for online classroom instructors to provide as many tools as possible to facilitate online interaction and collaboration, such as online chat, email, phone, threaded discussion, and private rooms for group work (Dunn & Rakes, 2015).

The discussion component of online learning can move the focus from a teacher-based lecture model to a student-based approach, which encourages active student engagement and participation in the virtual classroom environment. The focus is therefore more on learning and less on teaching, encouraging inquiry, critical thinking, and problem solving (Huba & Freed, 2000; Jonassen, 1999). Successful online learning environments follow learner-centered approaches in which the idea of a course covering content switches to a course constructing a variety of learning environments and activities. These environments need to take into account students' interests and motivation and understand how to create environments that lead to learning and communication (Jonassen et al., 2003). In the design of learner-centered online courses, faculty need to understand the ways in which adults learn and communicate best, as well

as being engaging and encouraging participation based on what interests and motivates the students (Chen, 2007). It is also important to allow a measure of choice as well as autonomy and control to adult learners while providing feedback, which fosters a learning community. Both the instructor and the students need to proactively respect the backgrounds, experiences, and talents of adult learners in the online learning environment (Huba & Freed, 2000; Jaschik, 2009).In order to create an authentic and supportive online learning community, it is helpful to design courses using a variety of methods, learning techniques, and tools that are used intentionally to increase interchange and dialogue among students and faculty (Jonassen, 1999). One method that encourages student online participation is the incorporation of online discussion into course grades, which indicate the amount of time and energy spent participating in online discussions. Instructors could include the recommended amount of discussion threads expected to earn a certain grade in the syllabus (Berge & Clark, 2005; Chen, 2007). This expectation would motivate students to complete reading and engage with one another in discussion threads, which could lead to greater subject matter understanding (Lapovsky, 2015).

Students' Self Efficacy in Online Learning

Self-regulation plays a significant part in limiting dropout rates in online classes and programs. Self-regulation in the academic environment is defined by some as a volitional process in which the academic goal is attained by the learner's own thoughts, strategies and beliefs (Barling & Beattie, 1983; Corno & Sanaullah, 2014). Self-regulation in the online academic environment is thought to increase achievement, so it is vitally important that instructional designers and teachers understand how to help behave in such a way that increases self-regulation (Dunn & Rakes, 2015). Some of the elements of the process of self-regulation include persistence in spite of obstacles, determination and academic achievement. These two

components are seen as critical to successful navigation and completion of adult online courses and programs (Dunn & Rakes, 2015; Lee & Choi, 2011).

One international study looked at students' satisfaction with their e-learning experience to determine if satisfaction is relevant to their completion of the online course. This model included three factors: the learners' self-efficacy (or confidence in their ability to achieve benchmarks needed for academic success), the multimedia formats, and the interaction environments (Chu & Tsai, 2009). The research showed that all three factors were compelling, but perceived that self-efficacy was the most significant predictor of success. Additionally, students were more likely to be successful and complete the online learning courses when they felt that the material was useful (Chu & Tsai, 2009). Another study looked at adult learners in the United States and their decisions to either drop out of or remain in their online learning programs. Research showed that the learners' individual characteristics were less of a factor in persisting in their courses than the learners' perception of support from family and work organizations, as well as the learners' perception of course usefulness and relevance (Creswell, 2009).

Self Regulation in Online Environments

Research does indicate that self-regulation can be taught, but these studies have primarily been in the K-12 and undergraduate student range and in face-to-face settings. The lack of research regarding learning self-regulation in higher education could perhaps be due the assumption of high levels of self-regulation among students who have been able to successfully navigate graduating from high school and then college or university with a bachelor's degree. This is not necessarily a correct assumption, however, as graduate level graduation rates are not as high as the attainment of a bachelor's degree (Sowell, Zhang, Redd, & King, 2008). Online

graduate programs have even lower rates of retention and graduation (Allen & Seaman, 2013: Lee & Choi, 2014). As self-regulation is known to predict student retention, it would be helpful for further research to examine the self-regulatory activities of graduate students and ways to improve their success. Determining how to increase graduate students' levels of self regulation is particularly important in nontraditional learning environments, as there is frequently less personal interaction and more autonomy in the online environment than is found in traditional environments, both of which can predict less successful self regulation (Lee & Choi, 2014).

Barling and Beattie (1983) identified issues that lead to problems in students' self-efficacies. They were in alignment with four themes: content specific efficacy, fear of failure, help seeking and focusing on mistakes. If adult students fear that they will not be able to complete a task, they are apt to give up before completing the task or avoid the task all together. Students' fear of failure was found to lead to feelings of anxiety that inhibited studying for tests, leading to poor test scores. The lack of help seeking was also found to be a deterrent to self-efficacy, as students who feel unable to complete assignments are often less likely to seek help than students who feel that they are able to complete assignments, but need some clarification or guidance (Barling & Beattie, 1983). The final theme that emerged as one which leads to a lack of self-efficacy was when students focused on their mistakes. When students focus on what they are doing wrong, rather than what they are doing right, they lend significant weight to what others are thinking about their mistakes and then become less likely to engage in discourse, which is a vital part of the online learning environment (Chu & Tsai, 2009; Dunn & Rakes, 2015; Van der Bijl & Shortridge-Baggett, 2002). Instructors in an online environment can enhance their students feelings of self-efficacy by pointing out the growth and development of their students.

Managing goals is another important component of adult online learners at the graduate level achieving success (Lee & Choi, 2011). Adult learners have stated that setting goals is challenging due to the many other responsibilities that demand their time. With work and family obligations, setting personal goals can seem futile, and the prioritizing of those goals can seem selfish if completing one's own work takes time away from children's school and extracurricular activities, maintaining connections with close and extended families and work responsibilities (Dunn & Rakes, 2015). Adult learners may benefit from coaching which allows them to feel comfortable with making their education a priority, and not another obligation, which simply takes time away from their families or other responsibilities.

In order to increase feelings of self-efficacy among online graduate students, three themes emerged from the research. The first theme was to focus on the positive: acknowledging strengths and what students do well increases their self-efficacy (Van der Bijl & Shortridge-Baggett, 2002). Shifting away from blaming oneself or one's teacher for perceived failures and instead acknowledging that making mistakes is an acceptable and healthy part of the learning process helps increase students' self efficacy (Chu & Tsai, 2009). Also, recognizing that the learning process includes making mistakes and creating an environment in which perfection is not expected is also thought to increase self-efficacy (Gutiérrez-Santiuste et al., 2015). Finally, seeking help when faced with learning challenges also increases students' self-efficacy. Students with lower test scores tend to reach out to their instructors less than students with higher test scores. If students can proactively determine to seek out help at any time, and not simply when they feel fairly confident about their school performance, they are able to get needed assistance in subject matter questions and can improve their subject mastery, which is thought to encourage retention and matriculation (Dunn & Rakes, 2015).

Constructivism

Robert Gagne (1984) and other developmental psychologists questioned the idea that learning could be identified as a single process, and instead identified five distinct domains in information attainment: motor skills, verbal information, intellectual skills, cognitive strategies, and attitudes. It would then seem to follow that a good curriculum would incorporate these modalities into its curriculum. The transmittal model of learning assumes that students' brains are like empty vessels into which the instructor is pouring his or her knowledge. In this model, the teacher is seen as the central figure in the learning process, transmitting information into the minds of the students who can later reproduce this information on an exam (Gagne, 1984; Jenkins, 1981). This view of learning assumes passivity on the behalf of the students rather than an active stance (Freire, 1972). This mode of teaching, known as *the sage on the stage*, is seen as outmoded and not effective for today's students. Moreover, the workers of the future will be expected to work collaboratively, sharing ideas in groups, solving problems and process, and producing knowledge, not just reproducing it (King, 1993).

The concept of constructivism suggests, "knowledge is individually constructed and socially re-constructed by learners based on their interpretations of experiences in the world" (Jonassen, 1999, p. 217). This perspective shifts the responsibility for information dissemination from solely the teacher to include the student (Freire, 1972; Jarvis, 2006). This concept is especially applicable in the area of andragogy, or adult learning, as adults come to the learning environment with real world experiences including collaboration and negotiation. Involving the adult learner more meaningfully in the educational process leads to greater class engagement and substantive learning (M.S. Knowles, 1980).

In constructivist thinking, knowledge is not only available in books, journals, or computer files to be transmitted from teacher to student; instead, it is viewed as a process. The acquisition of knowledge is seen as:

> A state of understanding [existing] only in the mind of the individual knower, as such, knowledge must be constructed. By each individual knower through the process of trying to make sense of new information in terms of what that individual already knows. (King, 1993, p. 30)

In constructivist learning, students use prior knowledge and experiences to help them make sense of new information. Relationships are generated and connections are made between new ideas and materials with students' memories to make meaningful learning opportunities that honor the lives and learning of adult learners (Jonassen, 1992).

Using constructivist theory in instructional design leads to a variety of instructional strategies that engage the adult learner (Jonassen, 1992). Curriculum can be presented in the framework of real world problems, which creates an environment of learning that is both flexible and meaningful to the adult learner who has navigated a variety of situations that might provide practical insight in problem solving (Moeller & Reitzes, 2011). Allowing the learner to be involved in determining assessment methods relies on negotiation skills that the learner has also experienced, as well as encouraging ownership in the learning process. These instructional guidelines are now used more frequently by instructors of adults and found to be effective in adult learning (Jonassen, 1999; Palloff & Pratt, 2013).

An increasing number of online course instructors and instructional designers are now using the constructivist approach to develop and deliver online courses. Advances and innovations in technology are increasing the amount and quality of online communication tools

available to instruction designers (Jonassen et al., 2003). Many online learning platforms support a wide variety of third party plugins, which allow up to date and innovative programs and apps to be incorporated into the course design and changed as newer versions become available (Jonassen et al., 2003; Moeller & Reitzes, 2011). This type of instructional design requires a significant commitment from the teacher/designer in order to develop an innovative and engaging learning environment with ample and varied opportunities for connections between teacher and student and among students (Lee & Choi, 2014). Ever increasing access to information via the Internet shifts the role of the learner from absorber of unknown information to active participant and contributor to the dissemination and comprehension of information (Lenhart & Moore, 2011; TEAL Center, 2011). Whereas in the past, instructors would teach from primary written sources that they knew intimately, today, even the most respected and learned faculty member could not be expected to know more about all of their curriculum than the sum total of their students, who have immediate access to constantly changing and updated information sources online. Adult learners using technology will have access to the most up to date research and findings, thereby shifting the role of instructor from the traditional sage on the stage to that of learned guide and co-leader (Woods et al., 2004; Worm & Jensen, 2013).

Unlike the transmittal model of learning in which the instructor lectures in the classroom and students take notes for further testing assessment, the constructivist model has students, rather than teachers, at the center of the learning experience. In the constructivist model, students are active participants in the classroom, making sense and meaning of content by active discussion rather than simply listening to instruction. The instructor is still assumed to be a content expert who is responsible for organizing and presenting course material, but in a way that encourages students to meaningfully interact with the content. It is also important for adult

learners relating this new information to their existing knowledge and experiences. The instructor is a facilitator of the students' interaction with the new material and with their fellow students in order to acquire and maintain new knowledge (M.S. Knowles, 1980).

Moving from the transmission model of information to the constructivist model requires a paradigm shift in teaching and learning for both the student and the instructor. In order for students to participate in active learning successfully, they must become engaged and involved with the material, analyzing and evaluating new information rather than simply receiving, transcribing, and regurgitating (Jenkins, 1981). Active learning usually involves the generation of a new idea or product in order to demonstrate understanding. King (1993) stated that for every new principle or concept the instructor shares or that students read, a meaning generating activity should exist. Students need the opportunity to work on projects or activities to internalize learning. In an online environment particularly, it is helpful to have multiple learning modalities in order to meet the needs of a wide variety of students virtually. Instructors need to step back from simply sharing information with students, instead truly guiding them into using incorporating new information in tandem with existing knowledge and past experiences in meaning making activities to solidify learning (Center for Inspired Teaching, 2008; Chu & Tsai, 2009; King, 1993).

Online Classroom Management

Face-to-face instructors can call upon classroom management skills used in traditional classrooms to motivate and engage their online students as well. Online instructors should reflect on classroom management techniques that have been found to be effective in a traditional learning environment in order to manage the online learning environment (M.S. Knowles, 1980). In their 2013 book, *Lessons from the Virtual Classroom: The Realities of Online Teaching,* Rena

Palloff and Keith Pratt encouraged online instructors not to assume that students' lack of checking in and participating is due to a lack of motivation. Instead, the authors invite instructors to assume the student may have a legitimate reason for absence and check in with the student to bring him/her back into the online learning environment. The reality of adult learning is one in which many factors which are completely out of the learners' control, such as family or work issues, may intervene and make it difficult to participate (M. Knowles et al., 2005; Lindeman, 1926). The online instructor should reach out to gently inquire and encourage the student to get back on track, offering help or advice if needed (McKeown, 2012).

Researchers also suggest that the types of conversations that occur in an online environment might be more thoughtful and meaningful, as students have time to reflect prior to posting their comments (Gruber, 2015). Online discussions can also give students who might traditionally be less likely to participate in face-to-face discussions due to shyness or cultural constraints the opportunity to participate more robustly. The asynchronous learning environment acts as a participation equalizer, in which there is less opportunity for some students to dominate conversations and others to decline to participate (Gruber, 2015; Harasim, 1995).

Chapter Summary

Online learning is increasing in both popularity and acceptance due to the increases in technological effectiveness and innovation, combined with the increasing need for distance and lifelong learning (CAGS, 2011; Santally, 2005; TEAL Center, 2011).This sought to examine what types of fully online learning environments lead to the highest rate of graduation and satisfaction among adult learners. In order to deliver learning content virtually in a manner that supports meaningful learning and fosters connection between students and faculty, effective adult online learning environments will be examined. A review of literature pertaining to adult

online learners will help guide the conversation to determine best practices in designing online curriculum in institutions of higher education (Creswell, 2009).

The continued study of andragogy is critically important in order to engage and interest adult learners (Educational Technology and Mobile Learning, 2016; Jarvis, 2006). Using online learning technology as a way to facilitate the learning process for adult learners, who have many other obligations, is now a common practice. Research shows that adult learners need to feel their learning is meaningful, so curriculum designers need to incorporate strong practical instruction as well as ways for adult learners to connect with the instructors, the students, and their environment in order to achieve and maintain student satisfaction and measurable learning outcomes (Chu & Tsai, 2009; M. Knowles, 1984).

Although the research seems to indicate that it is possible to have robust online learning communities for adults pursuing degrees in higher education, further studies should be conducted that examine fully online programs as well as the satisfaction and retention rates of both students and faculty. A variety of modalities should be examined to determine which are most effective in an online environment. Differences in learning platforms, the effectiveness of synchronous or asynchronous learning, community building, and learning outcomes can be examined more closely. Retention of faculty and participation in alumni activities post-graduation would all be good indicators of faculty and student satisfaction.

Chapter 3. Research Design and Methodology

The purpose of this study was to examine the strategies for success used by faculty and instructors who teach at least one online class in an institution of higher education. The shared experiences of faculty who teach in an online environment in higher education were obtained and organized by using a qualitative research design employing a phenomenological approach (Creswell, 2013). This chapter details both the process of qualitative research design, phenomenological approach and its suitability for this study. Sampling methods, population selection, and human research consideration are discussed in the chapter. Methods used to ensure validity and reliability, along with the potential for researcher bias, are addressed. The chapter concludes with a review of the data analysis procedures, including the recording, transcription, and classification and coding of the data.

Restatement of Research Questions

To investigate effective practices in online learning, the following RQs were addressed in this study of faculty/instructors who teach at least one online class in a college or university setting.

- RQ1: How do faculty define a successful online learning experience?
- RQ 2: What strategies and practices are used by faculty to create successful online learning in institutions of higher educations?
- RQ 3: What challenges are faced by faculty in creating and implementing these strategies and outcomes?
- RQ4: What recommendations do you have for the future development of successful online learning environments?

Nature of the Study

It was determined that the shared experiences of faculty who teach in an online environment in higher education could be obtained and organized most efficiently by using a qualitative research design employing a phenomenological approach. Qualitative studies are used to collect relevant data that address the research questions and to explore, understand and describe the meaning attributed to a particular phenomenon (Creswell, 2013). Qualitative research methods are used to conduct investigative research that seeks to answer a question by systematically using a set of predefined procedures and to collect evidence that produces non-predetermined findings, which are anticipated to be useful beyond the immediate framework of the study. Using a qualitative research method acknowledges the importance of narrative information in exploring the feelings, emotions, and behaviors of individuals, which can be both contradictory and intangible, yet offer valuable insight into a complex topic (Creswell, 2013; Denzin & Lincoln, 2000).

This research method was selected because it attempts to understand a topic from the viewpoint of the population affected by the issue in order to ascertain the opinions, experiences and social frameworks of said population (Creswell, 2013; Wolcott, 1994). Unlike some research methodologies, which may be held in a lab or other controlled environment, qualitative research takes place in a real world setting, so that the participant is in his/her natural environment (Creswell, 2013). The researcher does not attempt to create or control the conditions in which the data is gathered, which allows a natural and uninterrupted flow of information.

This study of effective teaching and learning for adults in an online environment is a relatively new concept that should be understood better both due to its importance in the field of education and the fact that the research on this subject has not been extensive. Qualitative

research is known to be exploratory and useful when all important variables are not yet known, such as examining more recent topics without a great deal of existing research (Creswell, 2013; Willis, 2007). The researcher is able to use logic and reasoning when examining the data, offering a well-rounded and substantive account of a topic, which is complex, yet not fully understood.

A qualitative study is recommended when the research questions begin with a *how* or *what* as a way to examine what is going on. Quantitative studies often begin with a *why* and compare groups or variables to determine cause and effect. Qualitative studies, in contrast, are often used as a way to explore a topic rather than identify one. Qualitative research is appropriate when the researcher is highly committed to study a problem to the extent that he/she will spend extensive time *in the field* collecting data and establishing rapport with the research participants. Qualitative studies are often useful when a detailed view of a particular topic is needed. This research requires the collecting of large amounts of narrative data through interviews and then sorting these data into a smaller number of themes. Lastly, a qualitative research method is useful when the researcher is in the role of an active learner himself or herself and aims to share the stories and experiences of the research participants rather than serve as an expert (Creswell, 2013; Willis, 2007; Wolcott, 1994).

When designing a qualitative study, the researcher begins by asking a question, collecting the data in response to the research question, examining the data, and bringing greater insight or clarity to the question. Understanding is gained when people share their own knowledge and experiences in reference to a question or problem. These insights are gathered by the researcher typically in response to open-ended research questions, which may change during the course of the research study due to greater clarity brought by these answers. The focus of qualitative

research is always a robust gathering and summarizing of data from a variety of sources (Creswell, 2013; Willis, 2007).

Strengths of study. A qualitative research design was determined to be most effective in gathering data to answer the research questions regarding best practices in adult online learning. The researcher gathers the relevant information through interviewing of participants and observing behavior (Creswell, 2013). Qualitative research employs open-ended questions to collect data both audiovisual or document based (Turner, 2010). This allows information to be gathered, formally through the interview questions, and informally by observing nonverbal behaviors such as tone, body language and facial expressions (Butin, 2010). Additionally, this method was determined to be most effective for this study due to the researcher's knowledge claims being based on a constructivist perspective, which gives importance to the variety of meanings of individuals' experiences. This study sought to gather data from both faculty/instructors as well as students, and the answers collected developed a theory or pattern using narrative and ethnographic strategies of inquiry. According to Creswell (2013), meaning emerges through social relationships and community interaction. As qualitative research is primarily an inductive process, the researcher is generating meaning via data acquired through conversations.

As the practice of online learning is relatively recent, there is not a wealth of data available to the deliverers (faculty/instructors) of this information or those receiving it (students). This state of affairs also points to the use of a qualitative research method, as Creswell (2013) indicated that "qualitative research is exploratory and researchers use it to explore a topic when the variables and theory are unknown" (p. 74). The results of this study attempted to enhance the growth of the knowledge base of effective online teaching and learning strategies for adults.

Qualitative research uses open ended rather than binary research questions to promote detailed, personalized, and thoughtful responses. Binary questions can be answered with a *yes* or *no* or have a limited set of answers (such as: never or often). Participants being able to respond in their own words more frequently leads to responses that are more meaningful, rich, and exploratory than quantitative research questions, as well as leading to unanticipated yet valuable data collected by the researcher. Researchers using this method can also ask follow up questions related to the why and the how of the issue and to elaborate on participants' responses (Denzin & Lincoln, 2000; Wolcott, 1994). Open-ended questions allow rich data to be gathered, promoting qualitative rather than quantitative insights (Farrell, 2016). Additionally, the use of open-ended questions acknowledges that people interpret their world by engaging in it, and express their understanding of their world by answering questions in a manner that is fluid and allows for individual expression (Crotty, 1998).

Weaknesses of study. Some of the known weaknesses of a qualitative study are found during the interview process. When conducting a face-to-face or phone interview, the information provided is indirect, and filtered through the lens and bias of the interviewee. The presence of the researcher may also cause a bias in responses given in a qualitative interview. Finally, while the interview subjects are selected because they fit into certain inclusion parameters, this does not guarantee their communication skills and perceptions. As a result, the researcher may receive information that is difficult to synthesize (Creswell, 2009).

Methodology

For this study, the phenomenological approach to research was employed in order to identify the core experiences of those involved in the phenomenon of online adult learning, specifically those who teach and those who learn in this manner. A phenomenological study is

helpful in exploring a phenomenon experienced by different people and allows the researcher to deeply understand the collective human experience (Creswell, 2013). This type of study was selected in order to best assess the lived experiences of those involved in the study in order to begin to see patterns involved in this process and track similarities. The goal of phenomenological research is to describe the lived experience of a particular phenomenon by collecting qualitative data. Phenomenology is a method of research that uses the interviews of its participants who share an experience or condition and examines the viewpoints and effects of this shared experience. Phenomenology seeks to distinguish phenomena, which is understood to be the perception from a subjective, human opinion, with noumena, which is more objective and fact based (Willis, 2007).

The researcher in this type of study creates research questions that attempt to gather in-depth information regarding the research subjects' shared experiences regarding the phenomenon under investigation. The use of interviews and the researcher's own self-reflection contribute to the gathering of information. Phenomenological research attempts to suspend all judgments or presuppositions about assumed truths until they can be confirmed by the data, a process also known as epoche (Creswell, 2013).

Structured process of phenomenology. In essence, the phenomenological method uses the stories and narration of the study participants and then examines the research answers, placing importance to the subjective responses of the participants. A phenomenon can be the shared experiences of a historical event such as a war or natural disaster, but can also be a shared condition experienced by people of different backgrounds, genders, nationalities, or ages. Phenomenology utilizes a qualitative inquiry method that can be applied to a vast number of experiences while striving to find commonality in the participants' cumulative experiences

(Bound, 2011). While qualitative in nature, phenomenological research studies have a framework within which the study is conducted. A common phenomenon experienced by a particular group of people is identified as the topic for the study (Creswell, 2013).

Phenomenological methodology is best suited for this research study, as the investigation will focus on one phenomenon, which is the experience of faculty who teach online in institutions of higher education. All participants in the study share this quality, and have therefore experienced the same phenomenon (Creswell, 2013). The data collection procedure will be comprised of interviews with participants who have personally experienced this type of teaching environment. The study will conclude with a summary of the shared experience of the participants, which details both the "how", and "what" of the phenomenon (Creswell, 2013, p. 79).

Appropriateness of phenomenology methodology. This study attempted to examine the best practices for instruction in an online environment in an institution of higher education by considering both areas of success as well as areas to improve in this unique learning setting. The study examined ways that faculty engaged students best as well as the types of support needed to provide the best environment for successful learning outcomes. The goal of the data collection and examination was to gain a deep understanding of the phenomenon by getting to its essential meaning. In order to discover the essential and most informative data in qualitative phenomenological methods, themes were abstracted from the narratives in order to understand the meaning of the data (Waters, 2016). This type of analysis was seen as most effective in determining best practices for both those who teach, as well as those who study in an online environment.

Research Design

The analysis unit in this study is faculty who teach one or more online classes at a college or university at either the master's or doctoral level. These are faculty members who have taught adults in an online and face-to-face environment at an institution of higher education. The following characteristics were identified for the study's unit of analysis:

- A male or female of any age possessing a masters or doctoral degree;
- Currently teaching in an institution of higher education;
- Have taught in both a face to face and an online environment in the past five years.

Fifteen participants who met the unit of analysis were selected as the sample for this study. Purposeful sampling was used as this population was not selected at random, but among those who met the above-mentioned criteria. Creswell (2013) writes that a saturation point is reached when no new information can be gathered from additional research participants. Creswell recommends that a sample size of ten to fifteen as an appropriate number of participants from whom rich information can be gathered (Creswell, 2013).

Purposive sampling. The sampling began by selecting a group of individuals who share a common characteristic, online learning instruction in higher education, for the purposes of this study. Purposive sampling is used when the researcher has research questions that pertain to a unique group of participants. The sampling for this study began by selecting a group of individuals who shared a common characteristic, i.e., online learning instruction in an institute of higher education. The method was purposive and used maximum variation to determine ahead of time the criteria for participants and selected participants that would maximize differences within this somewhat homogenous group.

As this study sought to determine best practices in online education in higher education, faculty who teach online in this environment were determined to be the appropriate group of participants to share experiences and suggestions. Purposive sampling was determined to be the appropriate sampling method as it provided a screening process in order to select participants who would be able to participate actively in answering the research questions due to their own experiences in the field. In order to find a group of people who have taught in an institution of higher education both online and face-to-face would be practically impossible using random sampling, as the parameters for participation would not be found among most of the general population. As all participants needed to be familiar with the topic of online learning in higher education, purposive sampling, rather than random sampling, will be employed (Creswell, 2013). Purposive sampling is not representative of the general population, but asks questions of a particular population (Laerd Dissertation, 2012).

Population. Faculty may have taught or currently be teaching in a face-to-face environment as well, but need to have had some experience in an online environment. These participants were thought to have an inherent interest in this research study, as they work in the online education environment. From this population, a sample of 15 faculty/instructors was selected to participate in the study. The criteria for the faculty/instructors were that they had obtained a master's degree or doctoral degree and were teaching at least one class online at a at the master's or doctoral level and had also taught in a face-to-face institution of higher education.

Sample size. In grounded theory research, Creswell (2013) recommends gathering information from 20 to 60 interviews. The sample was 15 faculty members in higher education who work in an online environment. This was determined to be the appropriate sample size for a

qualitative study, as it created saturation. The data from this sample size was both rich in quality and thick in quantity (Burmeister & Aitken, 2012).

It was anticipated that the experiences of fifteen participants would contribute to a saturation point at which no new information would be found from additional data collection. Creswell (2013) recommends that this level of saturation can be achieved in a group of 12 to 15 participants whose suitability to the study was determined via purposeful sampling. This sampling technique was used to identify participants who are appropriate due to the depth and breadth of their experiences within a predetermined group. Participants needed to be willing to reflect on the research questions and to spend the time needed to participate in the research study (Richards & Morse, 2013).

Sampling frame. A sampling frame is a list of potential participants and their contact information. The sampling frame is an Educause Blended Online List Serve group. Educause's forum is defined as follows:

> Higher Education is seeing exponential growth in the field of online and blended teaching and learning. This EDUCAUSE constituent group is geared at Directors, Coordinators and/or Administrators of Online and Blended Learning programs and provides a space for the exchange of ideas, tips and information related to excellent practices and policies, quality control, staffing and structure, as well as management of support services, faculty development, and Learning Management Systems. (Educause, 2016, para. 1)

The researcher joined the Educause list serve by visiting the Educause website (http://www.educause.edu/) and entering in her full name and email. The request to join the group was approved immediately. The inclusion of the researcher into this online discussion

group allowed for her to post a request for participation in the study. The characteristics for participation were listed with a request to contact the researcher if interested in participating in the study. The gathering of the identification of potential participants proceeded as follows:

- The researcher posted a request for participation in the study by emailing the entire group the study parameters.
- Those who responded were asked for the following information: Names, email addresses and characteristics such as length of time teaching face to face and online, level taught and type of school (public, private, small, medium or large) were collected over the course of two weeks after the initial posting on the list serve.
- This list was saved in a password protected file folder on the researcher's personal computer and backed up to a password protected cloud based file folder.
- Criteria for inclusion and exclusion were applied. The criteria for inclusion was men and women who possess a masters or doctoral degree who had taught at least one class online and one face-to-face in an institution for higher education in the past 5 years, and that they were available for a personal interview during January through March 2017. If the sample size would have been greater than the recommended 15 research participants, criteria for maximum variation such as age, gender, and type of institution of higher education, whether public or private would have been applied. From this population, a subsection was pursued which was defined by whether prospective participants teach at the bachelor's, master's or doctoral level, as well as the number of years they had been teaching.
- From the list of all respondents who met the inclusion and exclusion criteria, a list of eligible participants was created.

- These eligible participants were emailed a copy of the recruitment script, which discussed the research project and asked to respond if interested.
- If more than 15 eligible participants responded, maximum variation parameters would have been applied.
- The final list of 15 participants were selected and called to confirm their eligibility and willingness to participate in the study.

Human Subject Consideration

Pepperdine University's policy states that all research involving human participants must be conducted in accordance with accepted ethical, federal, and professional standards for research and that all such research must be approved by one of the university's IRBs. Guided by the ethical principles outlined in the Belmont Report, all research involving human subjects under the auspices of Pepperdine University will be performed:

> In accordance with the U.S. Code of Federal Regulations, DHHS (CFR), Title 45 Part 46 (45 CFR 46), entitled Protection of Human Research Subjects, and Parts 160 and 164, entitled *Standards for Privacy of Individually Identifiable Health Information* and the California Protection of Human Subjects in Medical Experimentation Act. Where applicable, FDA regulations on human subjects research will be followed. (Code of Federal Regulations, Title 21 Parts 50 and 56, 2016)

Pepperdine University's actions will adhere to any other federal, state, and local laws that are applicable.

The protection of the participants' rights was given careful consideration in order to comply with Pepperdine University's Institutional Review Board. The purpose of Pepperdine University's IRB office is to ensure the dignity and well being of all human subjects. An

additional goal of the IRB office is to support researchers so that their research complies with any and all applicable regulations. Thus, when a faculty member, student, and/or employee of Pepperdine University's Graduate School of Education and Psychology wishes to conduct research involving human subjects, her or his research proposal must be reviewed by Pepperdine's Graduate and Professional Schools IRB, which is responsible for reviewing research applications of investigators from the Graduate School of Education and Psychology, the Graziadio School of Business and Management, the School of Law, and the School of Public Policy. An exempt application to IRB has been submitted for review and approval prior to recruiting participants (refer to APPENDIX B). My application contains an Informed Consent form recruitment script (refer to APPENDIX C).

In order to adhere to the three fundamental principles of the Belmont Report (respect for and protecting the autonomy of all persons; minimizing risk to research subject while maximizing benefits for the research; and ensuring that well considered, non exploitative, and reasonable procedures are administered fairly), the research study will take the following 11 steps (refer to APPENDIX D):

- All faculty will be given specific information about the survey and the choice to opt in or out of the study.
- Participation will be voluntary, and all participants may drop out at any time without negative consequences.
- All faculty members will receive confidentiality, no personally identifiable or private information will be shared, and pseudonyms will be used.
- While confidentiality is assured for participants, anonymity is not possible. All methods will be used to ensure that the information is not available either internally or externally

by the use of an encrypted computer as well as the use of numerical codes to represent faculty members rather than names.

- First, questions and surveys will be shared with a licensed therapist to ensure that the questions will not cause undue psychological harm; moreover, the guarantee of confidentiality will negate any legal, social, or economic harm.
- Participants who choose to work with an instructional designer may have a benefit of greater skill and understanding of how to teach online, but this is not guaranteed.
- IRB will provide site approval, along with the Dean.
- No remuneration will be provided. It is hoped that participants will appreciate the advancement of knowledge in the area of online adult learning.
- The conflict of interest is that I am an employee of GSEP, and the study could be financially beneficial to GSEP if they can advance online learning programs as a result of the findings obtained.
- The researcher will obtain all proper software and licensing for data collection instruments not developed by the researcher.

Upon successful completion of IRB approval, emails were sent to the 13 faculty members who eventually agreed to participate in the survey. Once the participants agreed to participate in the study, another email was sent to faculty members explaining the purpose of the research as well as a copy of the research and interview questions. In order to encourage faculty members to participate in the survey, they were informed that they will be given survey results as well as other articles or information about conferences that may be of interest to those that are working or studying in an online environment. Non-respondents were to have been tracked, and if they

have not begun or completed a survey after one month, they would have received an additional email outlining the benefits not just to themselves but also to the larger education community.

Instrumentation. Data was collected from research participants over a 6-week period by using one qualitative instrument. The instrument used to gather the data was in the form of twelve open-ended interview questions that were designed to answer the four research questions. A data collection instrument was created in order to answer specific questions pertaining to online learning in institutions of higher education. The responses from faculty members who are currently teaching at least one online class will help to identify best practices in online learning in institutions of higher education. The interview instrument was created by the researcher and then revised after feedback from both the preliminary review panel and then the dissertation committee.

Data collection. The data collection process in this study involved "the process of communicating questions and obtaining a record of responses from a sample" (Settle & Alreck, 2004, p. 440). The data collection in this study came from the interview responses to the research and corresponding interview questions. In addition to the qualitative interview responses, the information collected included the age, gender, subject taught and the college or university setting (Settle & Alreck, 2004) also noted that survey research is most commonly used for obtaining attitudes, opinions, preferences, and experiences, which were important to better understand the phenomenon of adult online learning. The interview questions gave important data, which is hoped, will develop an understanding of best practices of adult online learning.

The data for this study was gathered from a population of faculty who teach classes online at a bachelor's, master's, or doctoral level. The participants were selected via LinkedIn connections. The participants were selected using purposive sampling, which relies on the

researcher's acumen in the selection of the people or other pieces of data that are being examined. Unlike probability sampling, which becomes more accurate the more pieces of data it examines, purposive sampling typically investigates a small amount of data. The goal of purposive sampling is to focus on distinct attributes of a population, which will enhance and support the investigator's ability to answer the research questions (Laerd Dissertation, 2012). Careful attention was given to safeguard the rights of participants as described by Pepperdine University's IRB.

Creswell (2013) described the collecting of data as a "series of interrelated activities aimed at gathering good information to answer emerging research questions" (p. 110). The first step of data collection is to find the people or places relevant to the study and to establish a connection. These participants must have experienced the phenomenon of teaching in both a traditional and online environment of higher education.

Participants will be contacted via email and recruited using an IRB approved recruitment script. Once participants agree to be involved in the study, they received an electronic copy of both the Informed Consent Form (APPENDIX E) and the Interview Questions (APPENDIX F). Interview times and dates were suggested until a time most convenient for the interviews to be conducted during the month of February 2017 was determined. Data was collected during these interviews using a 12-question open-ended interview instrument. These interviews took place at the participant's place of work or other convenient location of their choosing. If the participant was not available to speak in person, a Skype, Face Time or phone interview will be conducted.

At the meeting, participants were reminded of their voluntary consent and informed that this study was not mandatory and they could stop participating at any time. An interview

schedule was created and sent to all participants. Participants were asked to share several convenient dates and times which were then confirmed and appointments were set.

On the day of the in-person interview, the researcher arrived at the location of the interview approximately 15 minutes before the scheduled start time. A laptop, two audio recorders, a tablet of paper, and several pens were brought. At the outset of each interview, a few minutes of casual conversation was generated in order to put the subject at ease. The signed interview consent form was selected. The interview was recorded digitally with an iPhone and another recording instrument. A battery pack was also available to use in the recording instrument in case of power outage.

The interviewees will again be thanked for their participation and reminded that honest and thoughtful answers are valued as leading to greater understanding of the research questions regarding how to best provide online learning opportunities for adults pursuing master's and doctoral degrees. Interviewees will be instructed that they should listen carefully to the research questions and take time to answer them thoroughly. The nature of the interview will be explained as being semi-structured with planned questions, which have the potential to lead to follow up questions if needed for further clarification or greater insight. Interviewees will be told that there is no time limit but that the interview could be completed in approximately one hour. Interviewees will be informed that the data gathered from this qualitative study would assist in the gathering of knowledge and information that could be used to improve the educational experiences of adults pursuing degrees at a master's or doctoral level either partially or fully online.

The interviewer will indicate that the interview is being recorded by the recording device(s). The interviewer will remain positive and well informed rather than emotional or

negative so that the respondent remains on point. In order to encourage thoughtful and robust responses, the interviewer will reply, “Yes,” “I see,” or “Okay.” The interviewer can also reinforce thoughtful answers by using encouraging feedback instructions such as, “Thanks, that’s very helpful,” or “I appreciate you sharing some of those details.” When answers are less detailed, a different response, such as the nodding the head, reinforces the need for longer answers that are more thought out. If the researcher feels that more information could be shared, she can ask additional supporting questions, such as, “Anything else?” or “Can you tell me more about that?” (Gardner Center, Stanford University, 2003, p. 179).

Interview Protocol

The study used an interview process form, which was distributed to all participants prior to the interview, which indicated the process of asking and recording of responses during the qualitative interview. Each interview is organized using a heading, which includes the date, place, interviewer, and interviewee. There was an instruction sheet which interviewer followed to ensure that the same procedures were observed for all participants. There were several icebreaker questions at the outset of the interview followed the interview questions, which corresponded to the research questions (See APPENDIX F). Each question was followed up with a probing question, which allowed participants to share more details or otherwise elaborate on initial answers. At the conclusion of the interview, the researcher thanked the participants for their time and contacts (Creswell, 2009).

Interview questions. Research participants were asked to verify previously indicated demographic information pertaining to level of degree attainment, subject taught, length of time teaching and type of institution. Additionally, 12 semi-structured interview questions were asked which satisfy the study requirements:

IQ 1: What are the elements of a successful online learning experience?

IQ 2: What qualities have been present in some of your more successful online learning experiences?

IQ 3: What classroom management principles to you use in designing a successful online learning experience?

IQ 4: What learning activities and experiences do you use in designing a successful online learning experience?

IQ 5: What types of assignments do you use in designing a successful online learning experience?

IQ 6: How do you evaluate learning in an online learning environment?

IQ 7: What technological challenges do you face in developing a successful online learning experience?

IQ 8: What resource challenges do you face in developing a successful online learning experience?

IQ 9: What challenges do you face in training of faculty in developing successful online learning experience?

IQ 10: Are there other challenges you'd like to share?

IQ 11: Knowing what you know now, what would you have done differently when you started teaching online?

IQ 12: What other recommendations (do's and don'ts) would you share on creating a successful online learning environment?

Relationship between research and interview questions. The research questions and objectives restated and clarified the purpose statement. Research questions typically have two

forms: the “grand tour” questions (Werner & Schoeplfe, 1987, p. 37) or hypothesis as well as sub questions (Miles & Huberman, 1984). The grand tour question examines the main research questions in their most general way. This question is broad enough that the potential inquiry is not limited. Creswell (2013) recommends that the researcher pose two grand tour questions followed by no more than five to seven related sub questions. It is recommended that the research questions begin with the words *what* or *how* to encourage open-ended answers.

Research questions may expand or be elaborated upon during the course of the study. In qualitative studies, the questions are constantly under review and revision by the researcher and the committee, depending on the progress of the study. Qualitative studies begin with the broad focus of the research question and move toward a more narrow focus of the corresponding and related interview questions. These are open-ended, invite thoughtful and genuine responses and may be revised throughout the study (Creswell, 2013). The relationship between research and interview questions was expressed as:

Table 1.

Research Questions and Corresponding Interview Questions

Research Questions	Corresponding Interview Questions
RQ1: How do faculty define a successful online learning experience?	IQ 1: What are the elements of a successful online learning experience? IQ 2: What qualities have been present in some of your more successful online learning experiences?

(continued)

RQ 2: What strategies and practices are used by faculty to create successful online learning in institutions of higher educations?	IQ 3: What teaching and classroom management principles to you use in designing a successful online learning experience? IQ 4: What learning activities and experiences do you use in designing a successful online learning experience? IQ 5: What types of assignments do you use in designing a successful online learning experience? IQ 6: How do you evaluate learning in an online learning environment?
RQ 3: What challenges are faced by faculty in creating and implementing these strategies and outcomes?	IQ 7: What technological challenges do you face in developing a successful online learning experience? IQ 8: What resource challenges do you face in developing a successful online learning experience? IQ 9: What challenges do you face in training of faculty in developing successful online learning experience? IQ 10: Are there other challenges you'd like to share?
RQ 4: What recommendations do you have for the future development of successful online learning environments?	IQ 11: Knowing what you know now, what would you have done differently when you started teaching online? IQ 12: What other recommendations (do's and don'ts) would you share on creating a successful online learning environment?

Reliability and validity of the study. The reliability of the study can be demonstrated to the degree that the results are replicable. If another researcher were to conduct the same type of study, or the same researcher asked different interview subjects, the degree of reliability is the degree to which the answers would be similar or lead to comparable conclusions. The validity of

the study is substantiated by assessing the accuracy of the means of measurement (Golafshani, 2003). Creswell (2013) stated that, “Determining the accuracy of the account, discussing the generalizability of it, and advancing possibilities of replicating a study have long been considered the scientific evidence of a scholarly study” (p. 157).

For the study to be considered trustworthy, it must be able to be performed by another researcher obtaining similar results using the same research and interview questions. Internal validation of the study is determined by the ability to triangulate or find confluence using different information sources, different researchers, and different data collection procedures (Creswell, 2013). It is more difficult to achieve replication in qualitative research than in quantitative research, so reliability can also be achieved by the use of triangulation of different data sources in which information is cross checked, gathering feedback from research participants, and expert review (Simon, 2011).

Prima facie validity. The term prima facie is the Latin term for "at first look," or "on its face.” This is used to indicate that the evidence is sufficient to prove the point unless there is substantial evidence to prove otherwise (Law.com, n.d.). Prima facie was established by creating a table pairing research questions to corresponding interview questions. Twelve interview questions were designed in order to gather data related to the research questions. These questions are presented below in their prima facie validity form:

RQ1: How do faculty define a successful online learning experience?

IQ 1: What are the elements of a successful online learning experience?

IQ 2: What qualities have been present in some of your more successful online learning experiences?

RQ 2: What strategies and practices are used by faculty to create successful online learning in institutions of higher educations?

IQ 3: What teaching and classroom management principles to you use in designing a successful online learning experience?

IQ 4: What learning activities and experiences do you use in designing a successful online learning experience?

IQ 5: What types of assignments do you use in designing a successful online learning experience?

IQ 6: How do you evaluate learning in an online learning environment?

RQ 3: What challenges are faced by faculty in creating and implementing these strategies and outcomes?

IQ 7: What technological challenges do you face in developing a successful online learning experience?

IQ 8: What resource challenges do you face in developing a successful online learning experience?

IQ 9: What challenges do you face in training of faculty in developing successful online learning experience?

IQ 10: Are there other challenges you'd like to share?

RQ 4: What recommendations do you have for the future development of successful online learning environments?

IQ 11: Knowing what you know now, what would you have done differently when you started teaching online?

IQ 12: What other recommendations (do's and don'ts) would you share on creating a successful online learning environment?

Peer review validity. Peer review of the collected data can be utilized as a type of investigator triangulation by an objective outsider (Iphofen, n.d.) who is not actively involved in the data collection process, such as the principal investigator. Peer review provides a checks and balance environment to the research process. Peer review validity in this study was obtained by the participation of three doctoral students in the Organizational Leadership doctoral program at Pepperdine University who reviewed and gave feedback on the prima facie validity research and interview questions. A peer reviewer should have some experience in the field being studied with knowledge regarding the type of data being collected. These peer reviewers read and offered feedback on the research data and interpretations being drawn by the researcher, sharing feedback on both the process and the content of the study (Withnall, 2005).

Different types of peer reviews may be utilized in evaluating the data. In the *Single Blind Review* the names of the reviewers are not available to the researcher. This allows for impartiality, as authors will not influence the reviewers. The *Double Blind Review* provides anonymity to both reviewer and researcher, eliminating potential bias on the part of the reviewer due to knowledge of the author or his/her previous work. *Open Review* is a process in which both the reviewer and the researcher are known to one another (M. Knowles et al., 2005).

In peer review, the researcher created instructions for the reviewers. The researcher shared these instructions with the reviewers and along with a list of research questions and the corresponding interview questions. The researcher asked the reviewers to consider how the interview questions are relevant to the research question, and to indicate if the questions should be kept as is, deleted or modified. Peer reviewers were also invited to suggest additional

interview questions. The peer reviewers made several suggestions to edit interview questions, which were then modified for the study.

Expert review validity. Experts in the field who are familiar with the topic being studied are able to provide unique and helpful review validity. This may involve the experts independently analyzing the data or generating their own suggested categories (Brink, 1993). Once the peer review process was complete, a panel of experts consisting of dissertation committee members reviewed the list of interview questions.

Expert review is one of the strategies used to determine validity both formatively, by asking ways in which the study by improved, as well as summatively, by asking how well has the collected data answered the research and interview questions (Simon, 2011). Experts in the field who are familiar with the topic being studied are able to provide unique and helpful review validity. It is helpful to provide the experts with some type of instrument, which allows them to carefully examine all aspects of the study such as interview questions or document collection (Simon, 2011).

After the peer review, the research and interview questions were reviewed by an expert in the field of education and organizational leadership. The expert reviewer made several changes, including eliminating several questions, which were incorporated into the research study. These suggestions were helpful in focusing on more specific questions related to adult education and online learning, and improved the quality of data collected during the research process.

Interview Techniques

There are three types of interviews: structured, semi-structured and unstructured. For this study, semi-structured interview questions were used, as well as closely related follow-up questions. The phenomenological approach was selected as being most appropriate for this

particular research project. One of the advantages of using the phenomenological approach to research is the appropriateness of semi structured interview questions for data collection to collect information regarding best practices in adult online education. In a semi-structured interview, the interviewer and participants engage in a formal interview, using list of questions to be covered in a particular order. The interviewer may follow trajectories in the conversation if deemed appropriate and helpful to the study. There are several benefits of a semi-structured interview: interviewers can prepare questions ahead of time, participants can express their views freely, and the interviews as a whole can provide reliable and comparable qualitative data (Cohen & Crabtree, 2006).

In a structured interview, the interviewer asks the respondent the same series of questions; there are typically few open-ended questions and there is very little room for variation in responses. Frequently the interviewer provides self-administered questionnaires as part of a structured interview. A structured interview is recommended when there is a well-developed understanding of the research topic, which allows for the creation of an interview guide or questionnaire with appropriate responses to select for each question. This occurs when substantial and highly developed literature exists about the research topic. There is not a great deal of research presently regarding adult online learning and therefore this method was not used (Cohen & Crabtree, 2006).

In an unstructured interview, the interviewer has a clear plan in mind that guides the discussion but no structured notes or questions. Rapport between the interviewer and participant is considered to be critical in obtaining candid and open responses. An unstructured interview process is recommended when the researcher has sufficient understanding of the topic to have a clear but unscripted agenda for the discussion. As the research topic pertains specifically to ideas

of best practices in adult online learning, it was not desired that the questions go off topic or obtain unrelated anecdotal information. The responses to specific research questions were important in obtaining greater understanding into this research problem, therefore an unstructured interview model was not used (Cohen & Crabtree, 2006).

During the interview, active listening techniques were utilized to encourage a meaningful dialogue. In order to listen actively to the interviewees, immediacy behaviors such as making eye contact, and nodding encouragingly were utilized. Short, minimal response phrases, such as, "Yes," "I see," and "OK," were employed during pauses in the interviewees responses to encourage further sharing. These behaviors sent the message that the interviewee and his or her thoughts were valuable and that the researcher was paying attention (Bernstein, 2015).

Statement of Personal Bias

The researcher was a doctoral student working at an institution of higher education that offers hybrid and traditional courses and is exploring the possibility of fully online degree offerings. Additionally, as an adult learner herself (fully employed with two children), the researcher obtained two master's degrees, one in a primarily traditional delivery model and one in a primarily online model, and therefore has experienced the type of instruction being researched. This personal bias allowed the researcher to understand both the benefits and limitations of each delivery model. As a staff member at an institution of higher education whose role includes supporting faculty with administrative support and research opportunities, the researcher was intimately aware of the challenges and joys faced by faculty and instructors who endeavor to meet the needs of adult learners and prepare them to face new challenges and opportunities adequately. The researcher acknowledged that these roles of student and staff member at an institution of higher education bring multiple experiences and awareness as well as

prior knowledge to the study. Additionally, the biases of the respondents should be considered, as the research subjects could reply in ways that they think the researcher wants them to, and the answers would therefore lack full transparency. To mitigate the self-censuring of answers by respondents, the assurance of complete anonymity of all research subjects was shared at the outset of each interview to encourage subjects to be as honest as possible (G. Bowen, 2005).

Epoche. Creswell (2013) noted that bracketing, also known as epoche*,* is needed in all phenomenological research studies. Bracketing is employed by the researcher to set aside preconceived notions regarding the study to truly understand the experience of the study participants. The keeping of a journal and engaging in self-evaluation and reflection throughout the interview process was also helpful in understanding the researcher's own experiences and biases. During this phase of the research project, the researcher may choose to eliminate preconceptions or simply acknowledge and clarify the assumptions of this prior knowledge. During the research, it is important to be aware of any preconceived prejudices or assumptions that may exist pertaining to the research topic (Cresswell, 1998). For this study, the researcher will need to utilize bracketing, due to the fact that the researcher works in an institution of higher education and has been a master's degree student in both face-to-face and online learning environments.

Epoche or bracketing encourages the researcher has to recognize any possible personal bias while examining the data with as little bias as possible. The nature of phenomenological studies is to study the essence of a situation or experience that is revealed in the analysis of the data. As the interpretation of data can be seen as subjective, not objective, it is unlikely to be possible to remove all instances of researcher bias. Because of this phenomenon, it is critical for the researcher to engage in ongoing self-assessment and reflection (Rallis et al., 2007).

Creswell (2013) suggested several methods to utilize during the epoche or bracketing process. Prior to beginning the interview process, it is recommended that the interviewer record any previous biases and experiences in a journal format. For this study, the researcher wrote down the past experiences of online learning in an institution of higher education. This journal was also used throughout the research process in order to keep track of any prejudice that arose. The coded data as well as the bracketed information were recorded in order for readers to understand the potential bias.

Data Analysis

After gathering the data through interviews, the process of analysis began. In this stage of the project, the interviewer examined the data, analyzed the themes, and determined the importance and meaning of the findings. In qualitative data analysis, the data needed to be categorized in order to gain understanding of the meaning. The meaning of the data drawn from the interviews was then able to presented and conclusions drawn. The organization and interpretation of this data can often be more time consuming that all other components of the research project (Bailey, 2007).

Reading, memoing. Memoing is the process by which the researcher keeps his/her own notes and memos to himself/herself throughout the coding and data reflection procedure. This process allows the ability for reflection on the insights that emerge from the data. Additionally, memos were created regarding links, both expected and unexpected, that were observed through the data interpretation. Memoing involved the researcher posing questions to him or herself, postulating hypotheses and looking for answers to the research in the data. Memos themselves became pieces of interpretable data for the research project (Bailey, 2007).

Describing, classifying, interpreting (coding). Researchers are called upon to describe a number of elements in detail, such as the setting, communication between interviewer and researcher, and the observations made during the investigation process. Some descriptions that could emerge from these types of questions would be to whom the researcher was speaking, what the person did, where they worked, why they were chosen to participate in the research project, and how they answered the interview questions (Wolcott, 1994). Some items are not necessary to describe and serve only to distract from the purpose of the research. An example of this would be a description of the type of clothes the interview subject was wearing or the style in which his/her office was decorated. Description should be used to support the research and allow the readers to get a feeling of the issue being studied. These descriptions were used to paint a picture, which was then underscored or emphasized by the research findings (Bailey, 2007).

Data coding. Coding is the process by which data are organized into sections, rendering them are easily retrievable. The reduction and simplification of data is the goal of coding (Bailey, 2007). Initial coding, also known as open coding, is the process of organizing numerous pages of text into sections that can then be placed into groups and then subgroups. During the initial coding, interviews were read several times and then the data was coded into elements and themes. Although not every piece of data, word, or sentence, was coded, everything was read carefully to determine its usefulness to the study (Strauss & Corbin, 1990).

Interrater reliability and validity. Inter-rater reliability of the classification process was established by asking two individuals, or raters, to classify the data into predefined categories. This process increased the external validity of the study and allowed the results to have broader, more generalized value. The more people who were in consensus about a particular viewpoint, the more validity the viewpoint is thought to have. Inter-rater reliability was used to assess the

degree to which different raters/observers give consistent estimates of the same phenomenon. The overlap of these categorizations is known as inter-rater reliability. If this reliability is high, the researcher is able to use the categorizations with confidence (Gwet, 2014). Inter-rater reliability is important, as human observers do not always interpret the data in the same way. Therefore, having at least three people look at the data (i.e., the researcher and two rater) ensures greater reliability (Phelan & Wren, 2006).

After the interviews were transcribed, the researcher then coded key words into categories. Once this was done, the researcher sends the transcripts and categorizations to the peer reviewers. A group of doctoral candidates reviewed all of the data retrieved during the interview process, which had been classified. Suggestions were made which reduced the number of themes and allowed a greater number of conclusions to be drawn from the elements represented in each element. If there would have been disagreement among peer reviewers, the dissertation committee would have been asked to review and make a final decision. If the committee is not able to come to agreement, the dissertation chair would have made the final decision, which is then incorporated into the coding. This intervention was not necessary as the inter rater reliability results were in accordance with each other.

In order to ensure inter-rater reliability, the following process was followed:

1. Principal Investigator Coding: The investigator prepared the raw data acquired from the research interviews for analysis. This data were coded as described in the data analysis
2. Inter-rater Reliability/Validity: The results of the coding and the coding scheme were shared with two external reviewers. These external reviewers were doctoral candidates conducting similarly structured qualitative research. Both had completed a rigorous series doctoral research methods and data analysis courses. The two external reviewers

audited the coding results and scheme used by the researcher. If the external evaluators disagreed with the coding scheme of the investigator, discussions would be held to arrive at consensus. If consensus was not achieved, members of the dissertation committee, serving as expert reviewers, would have resolved the differences and revised the coding scheme.

3. Once step two was completed, the investigator, using the revised coding scheme, completed the coding of the remaining interview transcripts. The completed coding results were sent to the two external evaluators for review. The goal was to obtain consensus between the external reviewers and the investigators.

Summary

Chapter 3 encapsulated the qualitative phenomenological approach of this study of best practices of adult online education in institutions of higher education. The purpose of the study was to examine the strategies for success used by faculty and instructors who teach at least one online class in an institution of higher education. Obtaining and organizing the shared experiences of faculty who teach in an online environment in higher education was most efficiently achieved by using a qualitative research design employing a phenomenological approach (Creswell, 2013). This chapter detailed both the process of qualitative research design, which used a phenomenological approach and the reason for its suitability of the study. Sampling methods, population selection, and human research consideration were discussed in the chapter. Methods used to ensure validity and reliability along with the potential for researcher bias were addressed. A review of the data analysis and research outcomes closed the chapter.

Chapter 4. Presentation of Findings

In the United Stated, the attainment of an advanced degree has been shown to increase the lifetime earning potential of individuals without such a degree, by over two million dollars. Even with the creation of the community college system, which allows flexible and affordable AA completion as well as the relative ease of borrowing funds for college, there still exists a large disparity in who is actually obtaining those degrees. Among parents in the lowest 25% of income in the United States, 1 out of 10 children obtain a college degree by the age of 25 compared to 7 in 10 of those families in the highest 25% of income. The reasons for students not obtaining their college degrees are myriad: family expectations, access to education, ability to attend college while working or parenting, etc. One way to address the needs of these students is to greatly increase both access and flexibility of obtaining these degrees. Online learning can bridge the gap between students who are simply not able to participate in the traditional style education requiring regular attendance at a particular site.

Restatement of the Research Questions

The purpose of this descriptive phenomenological study was to develop an understanding of the best practices employed in successful online education of adult learners. In order to accomplish this, the following research questions were asked:

1. How do faculty define a successful online learning experience?
2. What strategies and practices are used by faculty to create successful online learning in institutions of higher educations?
3. What challenges are faced by faculty in creating and implementing these strategies and outcomes?

4. What recommendations do you have for the future development of successful online learning environments?

In order to answer these four research questions, 12 interview questions were created and then presented to a panel of two inter-raters and three experts for validation. Once validated by the inter-raters and experts, these questions were used to interview the study participants. The goal of obtaining answers to these questions was to determine best practices in delivering online education to adult learners in institutions of higher education. Study participants identified both practices and elements that led to student learning and engagement as well as areas of challenge, which then were identified in the data. The emerging themes were analyzed and discussed in the chapter. The research study examined these suggestions for best practices in adult online education in higher education environments to share success strategies and potential pitfalls to guide future program design.

Participants. Participants were selecting using a purposive sampling approach associated with qualitative research utilized frequently in qualitative research studies. Phenomenological methodology was determined to best suited for this research study as the data collection focuses on one particular phenomenon, the experience of faculty who teach online in institutions of higher education (Creswell, 2013). Purposeful sampling was used as the selection method as suitable participants taught in institutions of higher education and have taught both online and face-to-face. The study participants contributed to this study with the understanding that all of their responses and identities would remain confidential. Each participant was sent the interview questions in advance in order to provide thoughtful and meaningful responses.

These research participants were all instructors in both face-to-face and online environments. The sample pool consisted of 13 participants, though two were ultimately excluded due to a potential conflict of interest. The remaining 11 participants, who made up the sample pool consisted of 6 male and 5 female participants who taught at both public and private universities or colleges at the undergraduate and graduate levels.

Description of the Data Gathering Process

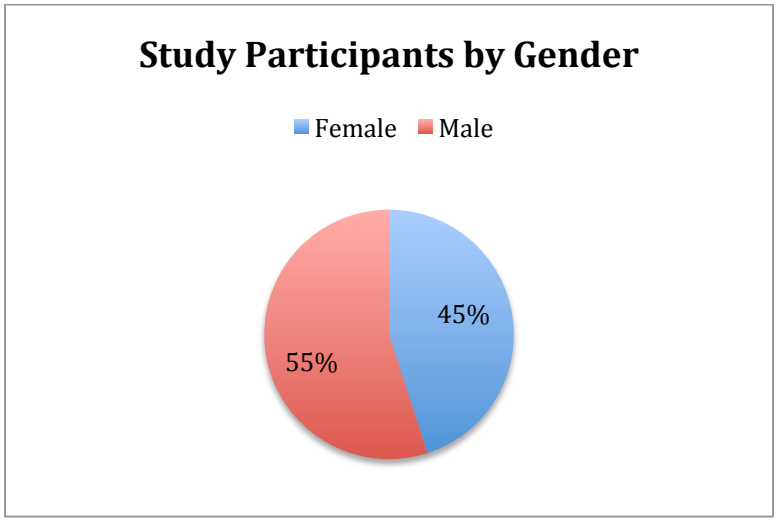

Figure 1. Study participants by gender.

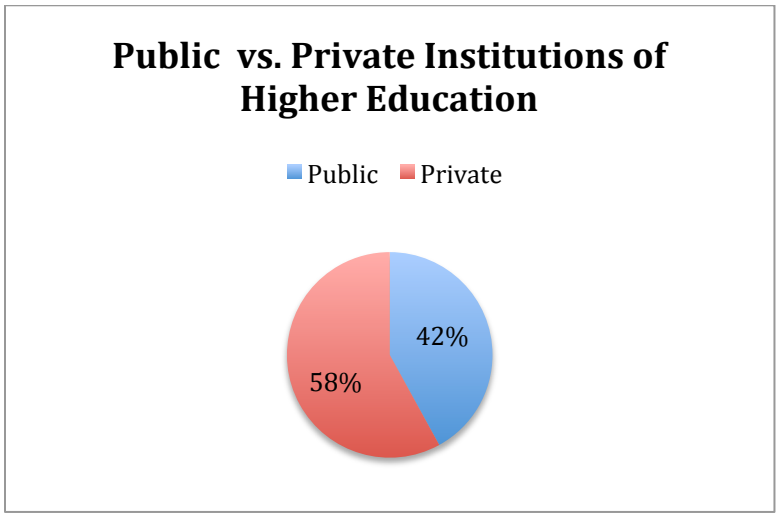

Figure 2. Type of Institution

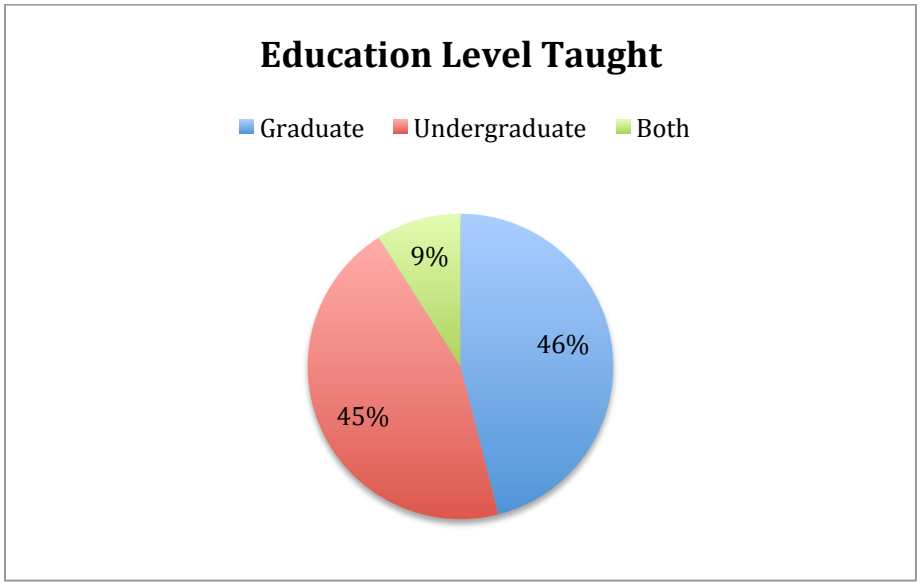

Figure 3. Education Level Taught

Data Collection

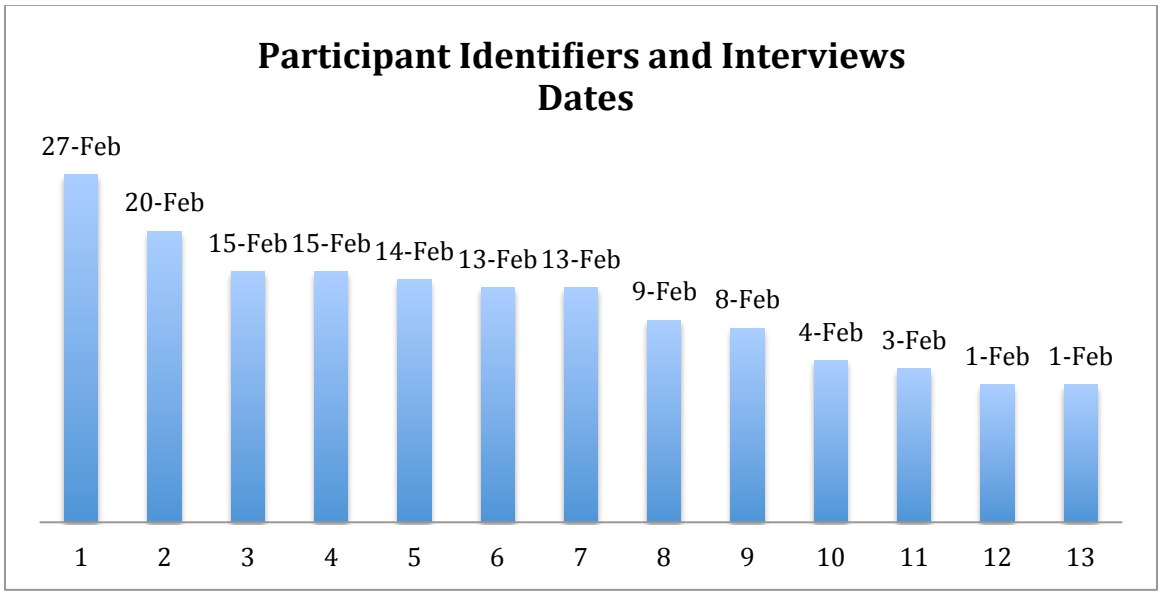

Figure 4. Participant Identifiers and Interview Dates

Interview Data Gathering Process

The data collection began on Monday, February 6 and concluded on Monday, February 27. During this time period, the researcher established initial participant contact and scheduled

interviews via email, which included a description and format of the research. If the participant expressed interest in the study, a message, which included informed consent and interview questions, was emailed to them and their full contact information was obtained. On the day of the interview, the signed copy of the informed consent was collected and any last minute questions were answered. An Apple iPhone voice memo function was used to record the interview. In order to achieve greater understanding of the best practices in adult online education, the following interview questions were asked:

IQ 1: What are the elements of a successful online learning experience?

IQ 2: What qualities have been present in some of your more successful online learning experiences?

IQ 3: What teaching or classroom management principles do you use in designing a successful online learning experience?

IQ 4: What learning activities and experiences do you use in designing a successful online learning experience?

IQ 5: What types of assignments do you use in designing a successful online learning experience?

IQ 6: How do you evaluate learning in an online learning environment?

IQ 7: What technological challenges do you face in developing a successful online learning experience?

IQ 8: What resource challenges do you face in developing a successful online learning experience?

IQ 9: What challenges do you face in training of faculty in developing successful online learning experience?

IQ 10: Are there other challenges you'd like to share?

IQ 11: Knowing what you know now, what would you have done differently when you started teaching online?

IQ 12: What other recommendations (do's and don'ts) would you share on creating a successful online learning environment?

At the point of initial participant contact, the researcher answered any questions about the interview, which consisted primarily of assurances of anonymity and basic interview details such as length of time, location and recording method. The interviews proceeded in a straightforward manner and meaningful data was collected. Of the 20 research participants who met the criteria and agreed to participate in the study, the researcher was able to interview 13. Two of these interviews were excluded based on an IRB review, which determined that due to a working relationship between two participants and the researcher, that there could be an appearance of conflict of interest. Those data collected from those interviews, therefore, was not included in the final research findings.

Data Analysis

After study participants were interviewed, the data was gathered through interviews, which were then transcribed. The transcriptions were used to begin the process of data analysis. At this stage of the project, the researcher examined the data in order to determine the importance and meaning of the findings. Using qualitative data analysis, the words, or elements, were organized into categories or themes, which were categorized in order to gain understanding of the meaning. This coding process used inter-rater reliability to ensure the integrity of the research findings. The researcher then began to interpret the meanings presented in the interviews and draw conclusions (Bailey, 2007).

All interview recordings were transcribed and then recordings were deleted from the recording devices. All identifying participant characteristics were removed from the collected data. Each transcript was carefully reviewed in order to determine the themes, which emerged from the data.

1. Data was organized into sections using the coding process, which made the elements and themes easily retrievable. The reduction and simplification of data is the goal of coding (Bailey, 2007). During the coding process, the researcher read, re-read and then coded the data. While each word was not coded, all words and sentences were carefully read to determine appropriateness of inclusion in the study (Strauss & Corbin, 1990). Emerging themes were identified from these identified elements.
2. A panel of Doctoral students from the Doctoral program in Organizational Leadership at Pepperdine University's Graduate School of Education and Psychology were used as a secondary review panel in order to validate coded results. The panel recommended combining of certain themes such as instructor presence and instructor engagement, and analytics with student monitoring. Additional themes such as real world application and lack of resource understanding were also suggested and incorporated by the researcher. After these suggestions were incorporated, charts were created for each interview question's themes, which displayed the frequency of each element's occurrence.

Data Display and Answers to Research Questions

The data was organized by four research questions and twelve corresponding interview questions. During the data analysis process, common themes emerged from the data. These themes are displayed with each interview question and a graph, which displays the frequency of each theme. While some themes are similar, this commonality is independent of each interview

question and is therefore relevant to each unique question. All participants were identified by a reference number (i.e. Participant 1, Participant 2, etc.) in order to guarantee anonymity.

Research question 1. Research question 1 sought to identify the ways in which faculty define a successful online learning experience. This question addressed such topics as the elements and qualities that are present in an online class. Additionally, respondents were invited to share effective assignments as well as recommended classroom management strategies to encourage maximum learning and engagement in an online environment.

Interview question 1. What are the elements of a successful online learning experience? What are the building blocks needed to create a learning environment that leads to student success? This question developed six common themes: pedagogy, academic rigor, instructor online presence, student success, technology and curriculum (See Figure 5).

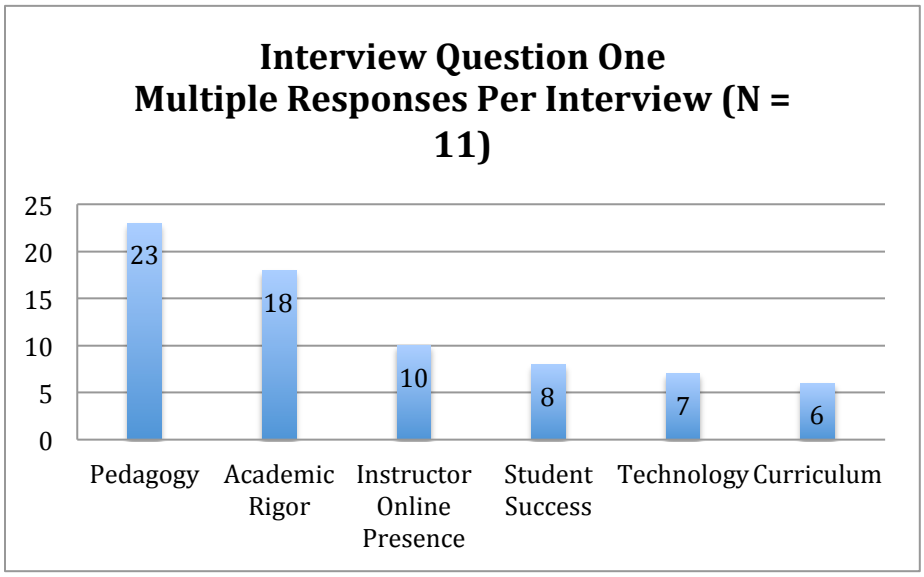

Figure 5. IQ 1: Elements of successful online learning environments.

Pedagogy. The most commonly mentioned theme mentioned by faculty asked to examine the qualities of online learning experiences was pedagogy, which was mentioned 23 times. Looking at both the theory and practice of education was clearly the most important factor

mentioned by faculty. Participant 8 stated, "…teaching adults is very different from teaching children…they're bringing a wealth of background experience and knowledge…sometimes more content knowledge or experience than I might have" (personal communication, February 12, 2017). Several respondents mentioned the element of clear and concise instruction. This class structure was seen as being even more important in an online environment than a traditional face-to-face environment. Respondent 4 stated, "…the most important (factor) to make (the online class) successful is to have consistent structure every week...(the students) need to log in at a certain time…they have to participate in the discussion boards" (personal communication, February 15, 2017).

Academic rigor. The second most mentioned element which faculty see as important in an online environment was academic rigor, mentioned by 7 of the respondents. Respondent 6 asserted, "I think the goal of a successful online learning experience is the same as the goal of a successful classroom or face-to-face learning experience. That is, the students should have an increased knowledge and a deeper understanding and appreciation of the material that's being presented" (personal communication, February 9, 2017). Respondents were very clear that the material being presented in an online environment must involve the same level of academic rigor and quality instruction as classes taught in a traditional face-to-face environment. With online students being issued identical diplomas as their traditional counterparts, the expected learning outcomes must be equal in their expectation and preparation for work or further study.

Instructor online presence. The quality of instructors being present in an online environment was mentioned by more than half of the respondents. Without personal connections forged by instructors, students can feel lost and disconnected. Respondent 8 sees this presence as being one of the most crucial elements of a successful online learning environment:

Instead of sending email responses…I click the microphone button and just say, 'Hi I just want to let you know I've been reading your discussion board postings and you are on top of it.' I have found those have been the most impactful. (personal communication February 12, 2017)

Student success: Student success was also seen as a key element of online learning, with respondents citing "class engagement", "student collaboration" and "community of students" as contributing to positive learning outcomes. Respondent 1 spoke of the importance of, " Engaging the students with the instructor, engaging the students with each other…then establishing that learning community" (personal communication, February 13, 2017).

Interview question 1 summary. Pedagogy and academic rigor were by far seen as the most important elements in creating a successful online environment, mentioned 41 times with the next four elements mentioned 31 times. Most respondents articulated the importance of clear classroom structure and expectations being simple to understand. This need for clarity is perhaps due to the nature of many online classes taking place asynchronously, making it more challenging for a student to connect with the instructor with questions. The class expectations must be straightforward enough that students do not need constant feedback or explanation of assignments by the instructor. Respondents also stressed the importance of academic rigor, both as a way to increase student engagement and to maintain equality in learning with traditional students. Themes of student engagement and connectivity along with strong instructor presence were also seen as important elements in creating a successful online environment.

Interview question 2. What qualities have been present in some of your more successful online learning experiences? These were less tangible and sought to determine the respondents experiences in creating an learning environment conducive to success. This question developed

four common themes: student engagement, instructor engagement, community building and clear expectations (See Figure 6).

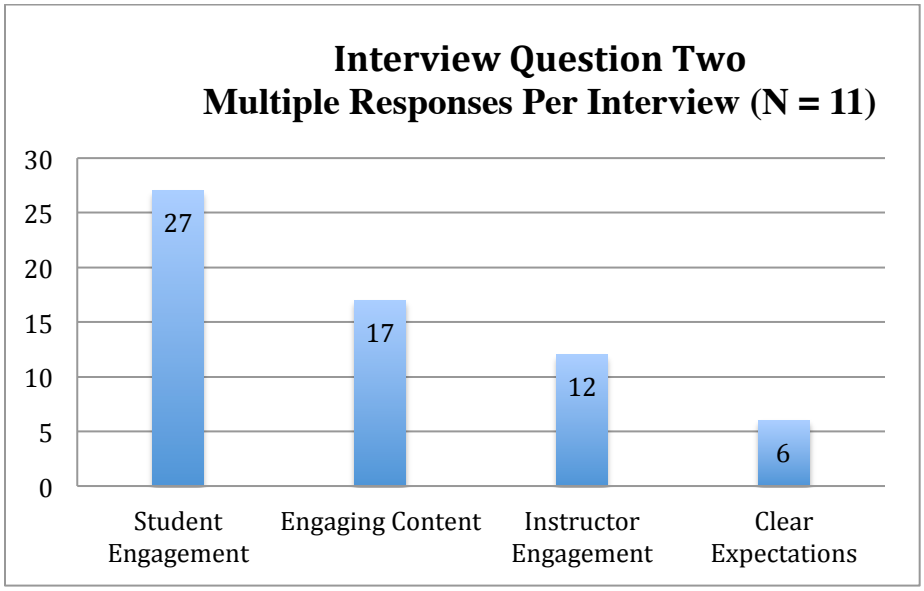

Figure 6. IQ 2: Qualities of successful online learning environments.

Student engagement. Student engagement was by far seen as the most important quality in a successful online learning environment were the top two themes, each mentioned 27 times by the respondents. Respondent 2 spoke to the importance of student engagement:

> The engagement…in terms of more short videos that I can add so people hear my voice, see my face…(this) helps to underscore…students not feeling like they're being taught by an automated system but they're being taught by a real human. (personal communication February 12, 2017)

Instructors in an online environment engage students through creative and frequent communication. Respondent 12 stated,

> (I am) trying to think about the online space as less of a transaction and more how can we, how can I as an instructor build in informal communication as well as the formal

> class communication with students, and then use chat pod for back channel communication. Then I've had cases in the past where I've had students that have been less prone to talk and so I might private chat, encourage them to say something or might even prompt them with questions, so those kinds of things I think that are interesting ways to develop just kind of connections with students so that the online space becomes more personal. (personal communication, February 21, 2017)

Engaging content. Instructors in an online environment must discover ways to engage students through innovation and creativity in content selection and presentation. Engaging content was seen as a vital quality with instructors speaking to creative ways to engage students online. Respondent 3 mentioned "an interactivity requirement", "a virtual lab", and "meaningful use of discussion boards" (personal communication, February 12, 2017). Respondent 9 spoke to the importance of out of the box thinking in order to engage online students with the class content stating, "Some of the classes are dry and you have to use your own creative skills" (personal communication, February 15, 2017).

Instructor engagement. The respondents who included instructor engagement as an important quality in the quality of the online experience affirmed that instructors should make a concerted effort to connect authentically with their students. Respondent 5 asserted:

> The goal of any education is to engage the students. To keep them engaged with the content, with the instructor and with each other…synchronous dialogue is usually better than chat boards or forums. Visually interesting elements such as videos are better than audio lectures or text lectures. (personal communication, February 1, 2017)

Respondent 9 also spoke of the importance in instructor communicating with students in real time:

> I'm kind of a believer that some component of synchronous is important…some people would disagree with that, but I think that we've found that having some synchronous components, particularly interactive ones, (brings) people together and (does) some of the engaging things you might normally do in a (traditional) classroom. (personal communication, February 12, 2017)

Clear expectations. Respondents stressed the importance of clear expectations in an online environment. Since online students are not always able to connect with their instructors synchronously, it is especially important the expectations are clearly defined so that students can work independently. Respondent 6 affirmed,

> Both the lecturer and the material must be organized so that students understand the task they've taken on…it's more important to be organized in an online course…I think it's much easier for students online to get lost. (personal communication, February 3, 2017)

Interview question 2 summary. The idea of engagement was clearly the most mentioned theme in the qualities of successful online education. Student engagement, engaging content and instructor engagement are mentioned 56 times with clear expectations mentioned just 6 times. What occurs naturally in a face-to-face environment with instructor to student and student-to-student engagement must be deliberate in an online environment. Dialog, authenticity of the instructor and understanding of the adult learner's' unique needs to be engaged on his or her timeframe, are all needed in creating engagement in an online environment. This intentional

engagement in an online environment was seen by most respondents as crucial to student success.

Research question 1 summary. Pedagogy, academic rigor and engagement were seen as the most important elements in creating a successful online classroom environment. The nature of online classes can lead to a feeling of disconnectedness, so pedagogy which contains clear expectations and highly structured curriculum and syllabi are seen as vital in making it easier for online students to follow along in an asynchronous environment. The importance of academic rigor was also seen as an important element in online education. Respondents spoke of the need for online students to have the same level of academic information and expectations as their face-to-face counterparts. This was seen as both the right thing to do to prepare students for the workforce and also as maintaining the integrity of the school's degree.

Not surprisingly, engagement and connectivity were seen as important qualities in designing a successful online experience. This may be due to the potentially disconnected nature of online learning. Engagement among students and in the student/instructor relationship occur less naturally in an online environment and must therefore be deliberately created using a variety of methods. Frequent instructor contact using a variety of modalities was seen as an effective way of making students feel cared for by their teacher. The instructor also plays a large part in fostering that connectivity between students and can do so using a variety of ways including small group discussion boards and meaningful group work.

Respondent 1 stated, "Foundational to any successful online experience is related to the outcomes. From the beginning, have it clear what the goal is…and then what the objectives are that support the goals" (personal communication, February 13, 2017). Respondent 4 also spoke to the importance of structure in an online environment stating, "I think probably the most

important to make (online learning) successful is to have a consistent structure every week. For example, students know that they need to log on at a certain time, they have to participate in the discussion boards, (they) have a quiz that's due…Structure is important where they have to do the same thing every week so they know what's expected" (personal communication, February 13, 2017).

Research question 2. Research question 2 asked, what strategies and practices are used by faculty to create successful online learning in institutions of higher educations? This question was answered using the following four interview questions:

- IQ 3. What teaching and or classroom management principles to you use in designing a successful online learning experience?
- IQ 4: What learning activities and experiences do you use in designing a successful online learning experience?
- IQ 5: What types of assignments do you use in designing a successful online learning experience?
- IQ 6: How do you evaluate learning in an online learning environment?

Interview Question 3. What teaching and or classroom management principles to you use in designing a successful online learning experience? The themes that emerged from this question were: instructor accountability, community expectations, student accountability, clear learning objectives and use of analytics (See Figure 7).

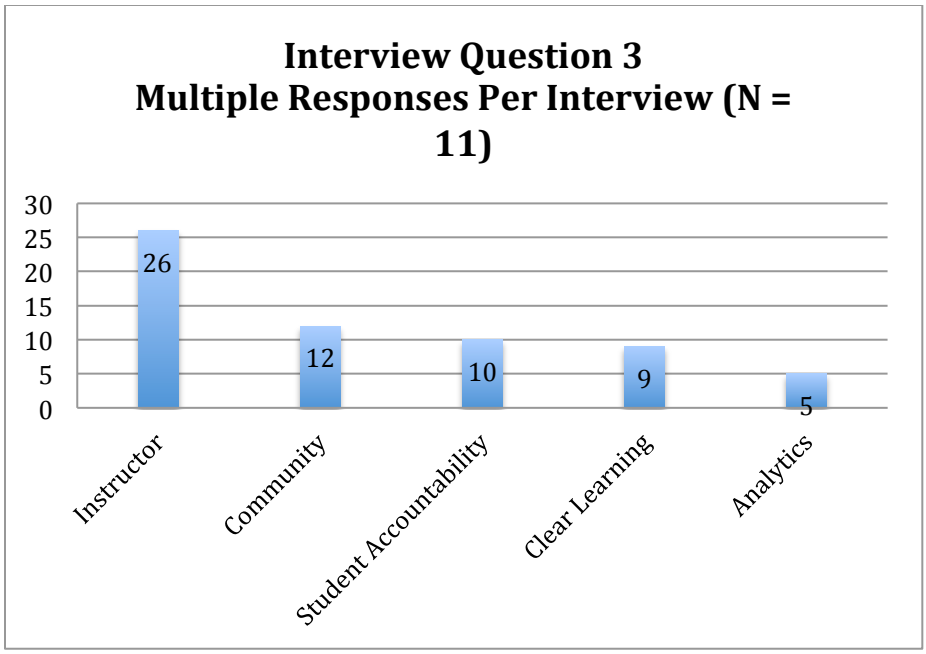

Figure 7. IQ 3: Classroom management in online learning environments.

Instructor accountability. Instructor accountability in an online environment was seen as crucial in contributing to successful classroom management with 26 elements of instructor accountability mentioned, 14 more than the second most frequently mentioned element. The onus is on the instructor to set the tone and expectations for the class. Preparation for an online class calls for different preparation on the part of the instructor. Respondent 12 discussed the additional preparation that goes into teaching online, sometimes in ways that are quite different than face-to-face classes, stating, "Probably the biggest rule of thumb is just if it's something that can be done in advance, (then) we don't necessarily need to use the precious time that we're together online" (personal communication, February 21, 2017).

Community expectations. Community expectations such as welcoming students, giving students breaks and setting clear boundaries were all seen as important in creating a set of shared values for both students and instructors. Respondents spoke to the importance of instructors being firm on requirements such as attendance and participation. Respondent 3

stated:, “You’ve got to hold everybody accountable to the same standard…if it starts at a certain time, everyone is expected to be on time, (it’s also) my responsibility to go on … and read the comments and also respond to the students” (personal communication, February 12, 2017).

Student accountability. Students, like instructors, must bear some of the responsibility of creating a classroom environment, which is engaging and orderly. In instructing of adults online, the student accountability may be different than those attending face-to-face. Adult learning theories such as Malcolm Knowles speaks to the importance of adult education being impactful as learners are often having major life experiences outside of the classroom (M. Knowles, 1984). Respondent 8 emphasized, “It needs to be meaningful and connected. I’m not penalty based learning at this level. I want to know, are you learning, changing habits, skills, knowledge and behaviors” (personal communication, February 4, 2017).

Clear learning objectives. Respondent 9 states, “I think having clear syllabi and clear directions and clear expectations for the class are really important so that students know what to expect and know what’s going to happen during that experience. What that might be might be different than it would be in the (face-to-face) classroom but I think that being organized and clear about expectations is important regardless” (personal communication, February 8, 2017).

Use of analytics. Several respondents referred to the instructor’s use of analytics as being crucial in successful classroom management. Learning management systems often have methods to observe student interaction with the material. Respondent 1 noted:

> Some educators bristle at the term analytics, but a lot of learning platforms are now offering analytic data It can be the simple stuff like is your student logging in and when are they logging in. Are they viewing the material? What material are they viewing? How

> long are they with it. If there's a weakness that can serve as *a* feedback loop to the instructor. (personal conversation, February 12, 2017)

Interview question 3 summary. This interview question attempted to answer the question of how to best manage a classroom in an online environment. Face-to-face classroom management is often done by instructors almost intuitively, a finger pointed towards a student wanting to participate in a discussion, a chat during break with a student who seems inattentive. In an online environment, these nuances can be lost. The research indicates that most onus is primarily on the instructor. He or she sets the stage in terms of content, creation of community standards and expectations of students. The use of analytics was also shown to be an important tool for instructors to check in on the participation, attendance and engagement of their online students

Interview Question 4. What learning activities and experiences do you use in designing a successful online learning experience? What do faculty who teach online believe are the best activities and experiences that lead to subject matter retention and? The respondents identified seven common themes: real world relevancy, writing, creativity, inter-student dialog, videos, presenting and reading (See Figure 8).

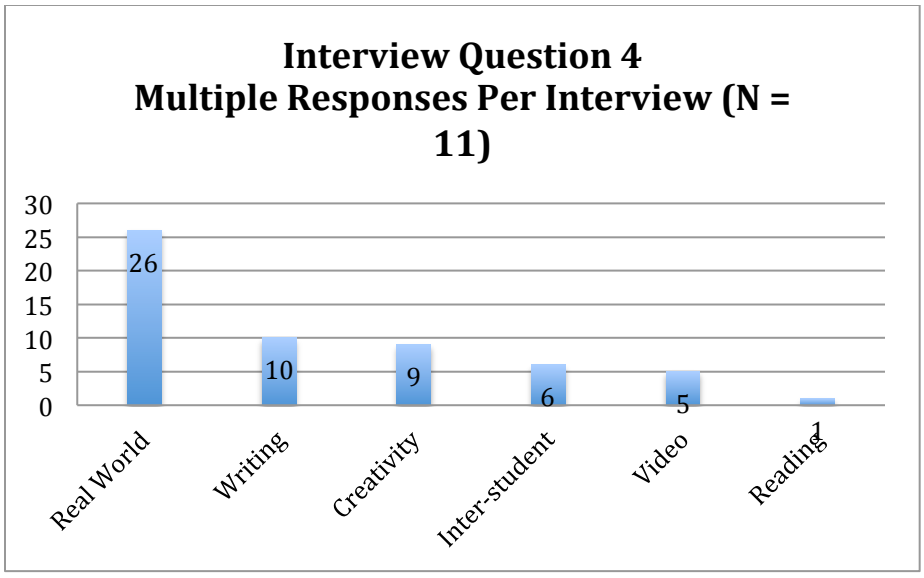

Figure 8. IQ 4: Learning activities and experiences.

Real world relevancy. The vast majority of respondents responded that the most effective online learning activities and experiences involved those with real world relevancy. This theme was mentioned 26 times and the second most mentioned theme was mentioned 10 times. 9 out of 11 respondents included examples of activities and experiences mirroring those that students would be experiencing in the real world. Respondent 10 stated, "The final grade was determining an actual, strategic plan that the students would create based on readings…and the midterm was based on an interview with ...because they actually got to talk about real-life situations" (Personal communication, February 15, 2017).

Writing. Based on the number of responses, writing was seen as the second most important factor in successful online learning experiences and assignments. Many respondents spoke of combining the most mentioned theme of real world relevancy with writing assignments such as the use of blogs, discussion boards, assignments from different perspectives and keeping a journal. Respondent 4 gives students the option of completing as assignment by writing a diary or letter home to indicate understanding of the material:

> They have the option of writing a diary or a note…they get really into it…they are describing the location…those are really interesting to read…I really enjoyed reading (these assignments) because the students are in an alternate personality…seeing the event from different perspectives. (personal communication, February 13, 2017)

Creativity. The use of out of the box activities and experiences were seen as helpful in engaging students in an online environment. Respondent two noted that when teaching face-to-face there were "…a number of activities (and) games that just can't be replicated online…" Nonetheless, this respondent stated that the ideal online class would involve "…games, simulations and activities…things to make the students actively engaged in the learning…not just passive viewers of a video or readers of text" (personal communication, February 1, 2017).

Inter-student dialog. Communication between students was also seen as an important aspect of online classroom assignments. This is due perhaps to the real world nature of group projects and the importance of establishing personal connections between students in an online environment. Respondent 12 incorporates a variety of group projects into the curriculum:

> I heavily use the breakout rooms, so I, whether that's a jigsaw activity or just preparing for in-class discussions or debates, or whatever I can do to not just have whole-class discussion, but have breakout discussion and then collaboration during the class. I really rely a lot on that so I've gotten very strategic in using the breakouts combined with collaborative documents, so I try to find ways to where we can create a product together during class. If it's on a collaborative Google sheet, or Google Doc, or some graphic organizer that we're making together, then that tends to go well in terms of putting people in groups, working on their piece, and then we all come back together and see kind of the group product that we've made. (personal communication, February 21, 2017)

Videos. Four of the respondents incorporate the making, editing and presenting of videos into their curriculum. Videos are easily incorporated into an online learning environment through the use of digital recording devices embedded in most computers, tablets and phones, which are then uploaded to the class site. Respondent 9 discussed how the use of videos in presenting in an online environment can be even more meaningful than presenting in a traditional face-to-face environment:

> I think you can use the video in ways that might be a little different than if you get up in class and do a presentation…I think the opportunity for students to send videos and then have their professors comment on them (is valuable). If I'm just giving a presentation, I don't know what I look like necessarily unless I've taken the tie to be taped. So in (an online) environment that can actually be more effective. (personal communication, February 12, 2017)

Reading. When asked about learning activities and assignments, Respondent 3 spoke about the importance of reading assignments in an online environment, stating, "Reading is one of (the assignments I use). I think there's so much nowadays where it's like you've got to have visual stimulation, but I think just standard reading is useful" (personal communication, February 3, 2017).

Interview question 4 summary. This interview question examined the types of learning activities and experiences that most enhanced online learning. The overwhelming number of responses had something to do with keeping the assignments relevant to the real world. Adult learning theory suggests that adult students need to see immediate relevancy between their course work and their work or personal world. Whether discussing current events, looking at case studies or visiting sites, only 1 out of 11 respondents did not include at least one example of

real world relevancy playing an important role in determining the types of assignments and experiences used in their online classes.

Interview Question 5. What types of assignments do you use in designing a successful online learning experience? This question sought to determine specific assignments, which lent themselves to meaningful subject matter comprehension in an online environment. The respondents identified five common themes: real world applications, writing, exams, presentations and discussion postings (See Figure 9).

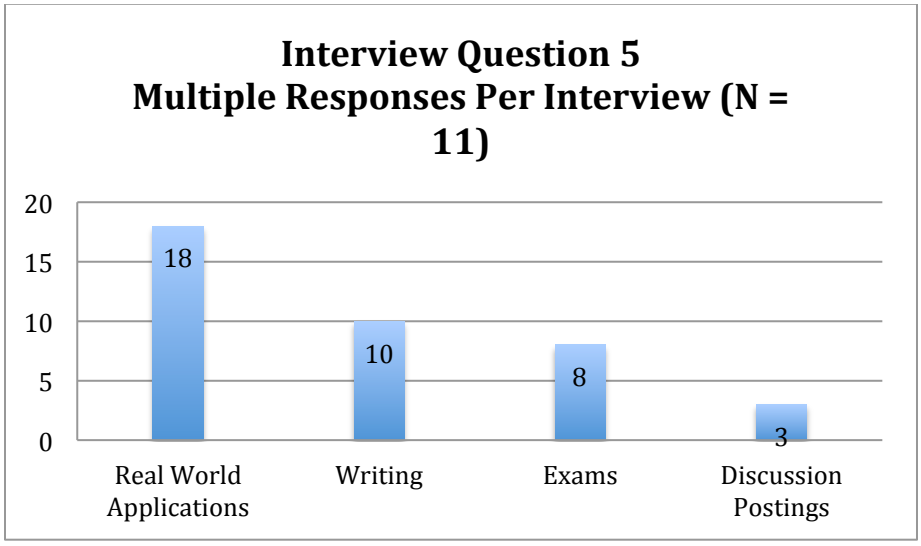

Figure 9. IQ 5: Types of assignments.

Real world applications. Similar to learning activities and experiences, respondents reported assignment types, which had real world applications as leading to the most meaningful learning. Adult learning theory indicates that adults learn best when they can bring real world examples into their education environment (Lindeman, 1926; Mezirow, 2000). Respondent 12 shared that the real world assignments given have direct and meaningful impact on the students' future employment:

> The other things that we do in the program that I teach in most is teacher training, so we do a lot of things related to their field placement. The program has a strong field component, so we do video feedback, teaching events, action research where they're in the classroom, gathering data, and then reporting out on that. (personal communication, February 21, 2017)

Writing. The second most reported assignment in an online environment is writing, mentioned by 7 of the 10 respondents. This included writing papers, journaling, diary entries, papers and blogging. Respondent 5 spoke of the high quality of writing submitted by online students specifically:

> Typical assignments would be written and oral presentations...I have seen a lot of times my online students do just as well or better at the written assignments…my suspicion is that (online students) self select into that environment and know they will do well…they tend to be very hard working because of the nature of an online program" (personal communication, February 1, 2017).

Exams. Exams were reported as meaningful assignments by almost half of the respondents. Exams are used to assess understanding in a more ongoing way, as compared to midterms or finals. This more frequent check in and assessment is suitable in an online environment in which students can get off track more easily. Respondent 7 uses frequent exams as a way of checking in to determine if students are reading the material:

> …after every 15 minutes (of lectures) I stop and have checkpoint questions…I think that helped because when I didn't have those, the students were confused and overwhelmed…by using checkpoint questions…..it taught them that this is the level I'm expecting and these are the topics I think are important if you don't have any feedback

until the final exam, you have no idea how much you are supposed to be studying. (personal communication, February 3, 2017)

Discussion postings. Discussion postings are seen by many as a staple in online learning environments, but were mentioned with the least frequency by the respondents. This may imply that discussion postings are so intrinsic to online classes that the respondents focused on other types of assignments, or perhaps these are seen as less important to authentic learning or simply overused. One respondent, however, stated, "I know faculty have used threaded discussions very effectively because you sometimes get people to contribute and engage that wouldn't otherwise engage like in a classroom setting" (personal communication, February 12, 2017).

Interview Question 6. How do you evaluate learning in an online learning environment? This question sought to determine ways in which student learning outcomes were evaluated by faculty. The respondents identified five common themes: student engagement, writing and discussion posts, tests, presentations and data analytics (See Figure 10).

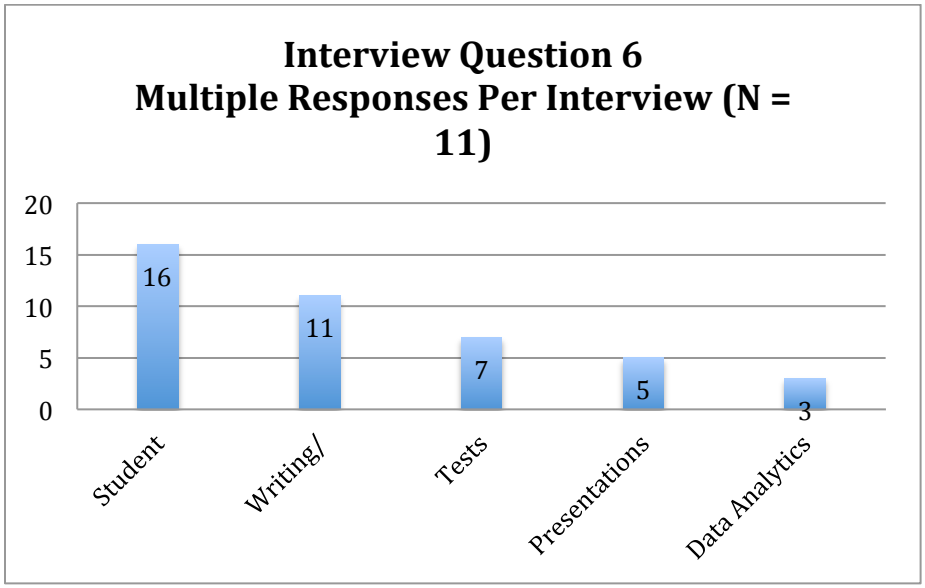

Figure 10. IQ 6: Learning evaluation.

Student engagement. Most respondents spoke to the importance of student engagement in evaluating learning. Respondent 8 incorporates "…reaction, behavior, learning and results" of students as baselines for learning evaluation. The use of students' qualifying comments was also seen as valuable, with the respondent asking, "How did the learners like the learning experience…was it a valuable assignment. Did they learn? Did any performance change? Did they start doing anything different in their day to day life?" (personal communication February 4, 2017).

Writing and discussion posts. The second highest frequency term in evaluating learning in an online environment was examining writing and discussion posts. Respondents noted that these were valuable assignments in determining the type and quality of learning. The quality and relevance of written work and the frequency and depth of discussion posts were seen as important in evaluating learning. Participant 1 stated:

> I think that discussion questions are always challenging. If you can really get them engaged, and this is where the instructor has to be a facilitator and be present because otherwise they will just post, and if you are not following or making sure there are constructive responses, then you might just get I agree with you' and no real value. I do love discussion postings, but only when I know that I can engage and be really there to respond and lead them all. (personal communication, February 13, 2017)

Tests. Tests and exams are seen as useful in evaluating student learning in an online environment. Types of tests and quizzes included weekly quizzes, true/false quizzes, concept quizzes, midterms and finals. One respondent stated that the learning evaluation includes "Traditional weekly quizzes…a midterm and a final exam" (personal communication, February 13, 2017). Respondent 9 spoke of tests as being helpful not only is assessing learning for

grading purposes, but also to inform the instructor on class progression on an ongoing basis. This respondent stated:

> I also think that you can use quizzes….where you can test the learning of students along the way pretty quickly and get feedback on whether they're capturing the material or not. I think that can actually be quite effective as well. (personal communication, February 12, 2017)

Presentations. Again making a case for the importance of real world activities, 5 of the terms refer to presentations as relevant ways to assess learning. Respondent 1 incorporates interviews, videos and reading in student presentations, stating "(the students) take (the learning) offline, go interview someone, and bring back what they have learned to the class" (personal communication, February 13, 2017).

Data analytics. 2 respondents mentioned data analytics as a valuable tool in evaluating student learning. Other respondents mentioned that they would like to or should use data analytics, but due to time or lack of training, do not. This area of evaluation should be studied further. One respondent who uses data analytics states, "I use a lot of data to get overall perspective and you can see when (the students) last signed in…there's a wealth of qualitative data when they're responding. The total number of posts, average length, the substance and content…looking at student to teacher and student to student engagement" (personal communication, February 13, 2017).

Interview question 6 summary. This interview question sought to determine best practices for evaluating learning in an online environment. Student engagement received the most mentions (16) and writing/discussion posts followed (11). More traditional methods of learning evaluation such as tests and presentations were ranked a distant third and fourth. This

seems to suggest that instructors in an online environment value the information that comes from student engagement, measured in such terms as participation, attendance, check ins and length of time interacting with the material to be of primarily importance. Writing, including the often-used discussion board postings seen as the second most valuable in determining learning. It was interesting to note that while only two respondents mentioned using data analytics, many referred to its potential. The use of data analytics may play a more significant role in evaluating learning in the future.

Research question 3. Research question 3 asked, what challenges are faced by faculty in creating and implementing these strategies and outcomes? This question was answered using the following four interview questions:

IQ 7: What technological challenges do you face in developing a successful online learning experience?

IQ 8. What resource challenges do you face in developing a successful online learning experience?

IQ 9. What challenges do you face in training of faculty in developing successful online learning experience?

IQ 10: Are there other challenges you'd like to share?

Interview Question 7. What technological challenges do you face in developing a successful online learning experience? Online learning relies a great deal on technology functioning. When technology fails, the quality of teaching and learning is impacted. The five themes that emerged were instructor lack of understanding, student technology issues, system failure, audio/visual and uploading (See Figure 11).

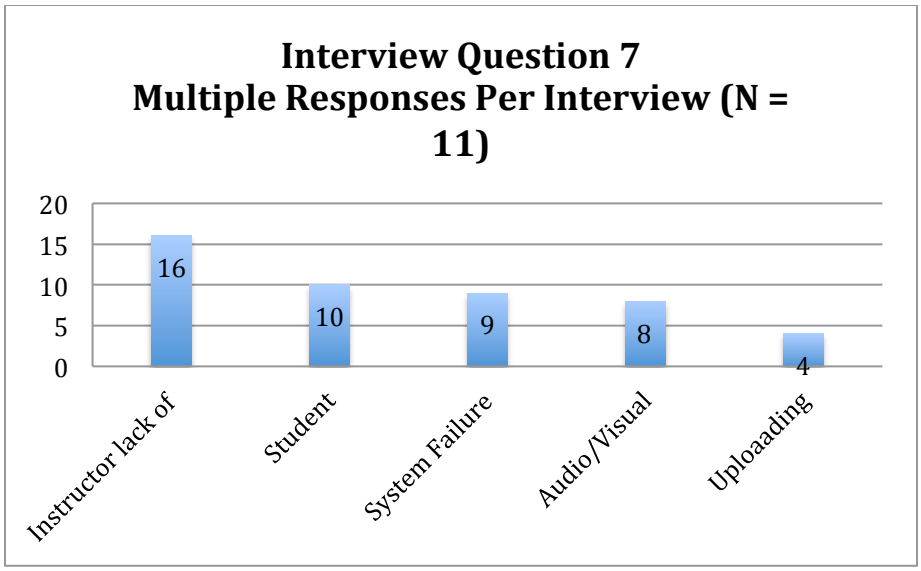

Figure 11. IQ 7: Learning evaluation.

Instructor lack of understanding. Instructors' lack of understanding of technology was seen as the most common technological challenge in creating a successful online experience. Most respondents cited a lack of sufficient faculty training as the most problematic while others mentioned issues of resistance to training. Respondent 1 stated:

> We don't get the training…I think that's something really important to train the teacher on them first…not just train them in a one-way workshop…but really give them a class on it where they have to learn fully how to utilize it…that's why I feel like online learning is sometimes so ineffective…not necessarily because the tools are not good or not vibrant or dynamic enough, but oftentimes we don't know how to use them to their full capacity (personal communication, February 3, 2017). Respondent 4 spoke to this issue as well, stating, "…a lot of the faculty are not technologically savvy…I don't think they know how to use all the different tools…they are limited in their knowledge of what a learning management system can do. (personal communication, February 13, 2017)

Student technology issues. Technology issues faced by students was also identified as a significant issue in creating a successful online experience, Some respondents cited students' lack of familiarity with the learning tools as well as an unfamiliarity with technology in general. Respondent 8 spoke of the disparity of technical knowledge among students:

> Getting people to at least a minimal level of technological expertise is (challenging)…the class starts at five, they want to jump in at five… and they realize they have to download…and 'oh my audio is not working' and you have those glitches. (personal communication, February 4, 2017)

System failure. Almost all respondents spoke of issues with the technology system simply not functioning. Some mentioned issues with bandwidth, the server going out, or the system crashing or malfunctioning. As online learning relies on seamless internet and learning management system connectivity, this is a significant problem. Respondent 3 shared the problems of system failure, stating, "Your server (goes) out completely, nobody is able to access anything…the students are waiting and it's loading. ..if their Internet is slow, they're annoyed" (personal communication, February 3, 2017).

Audio/visual. Respondent 12 spoke of the frustration of audiovisual difficulties, stating, *"*...in a normal face-to-face discussion with different people in the room, you can hear somebody interrupt, kind of point to them and say, "Hold that thought," and somebody else finishes. That's tough" That same respondent spoke if the visual challenges inherent in online environments:

> We're not doing like a webinar view but we're having everybody visible (for) much of the class… it's a limitation, so even though I work hard to teach students at the top of the class, how I want them to look, you know, no backlighting, sort of into the screen as they can be. There are all sorts of things like that. It's still a thumb-size, you know, thumbnail

view at the end of the day. It's hard to monitor that. (personal communication, February 21, 2017)

Uploading. The slow speed of uploading of files by both students and instructors was also seen as a technological challenge in creating a successful online experience. Respondents spoke of slow uploading time hindering class learning by creating confusion and frustration as class time is being used on obtaining needed materials via uploading, which may be of poor quality or resolution. Respondent 3 said, "If you're uploading content, the quality of it especially if it's visual content, video, images, the quality is not there" (personal communication, February 3, 2017).

Interview question 7 summary. This interview question examined the types of technological challenges faced by faculty creating an online learning environment. The most commonly reported issue was that of instructor lack of understanding. Instructors commented that the learning management system was not necessarily the problem in designing an engaging course online but it was rather that the instructors did not receive sufficient training. The next most commonly reported issue was that of student lack of understanding. It was suggested that students as well as instructors be given much more time to familiarize themselves with the technology available. The following three issues pertained to system failure and difficulty with audio/visual or uploading. This indicates that technology experts are still vital in supporting even the most sophisticated learning management system.

Interview Question 8. What resource challenges do you face in developing a successful online learning experience? This question sought to determine what resources respondents felt would enhance the quality of their teaching in an online environment. The themes that emerged

were lack of training, lack of time, lack of financial support and two fortunate respondents indicated no resource issues four times (See Figure 12).

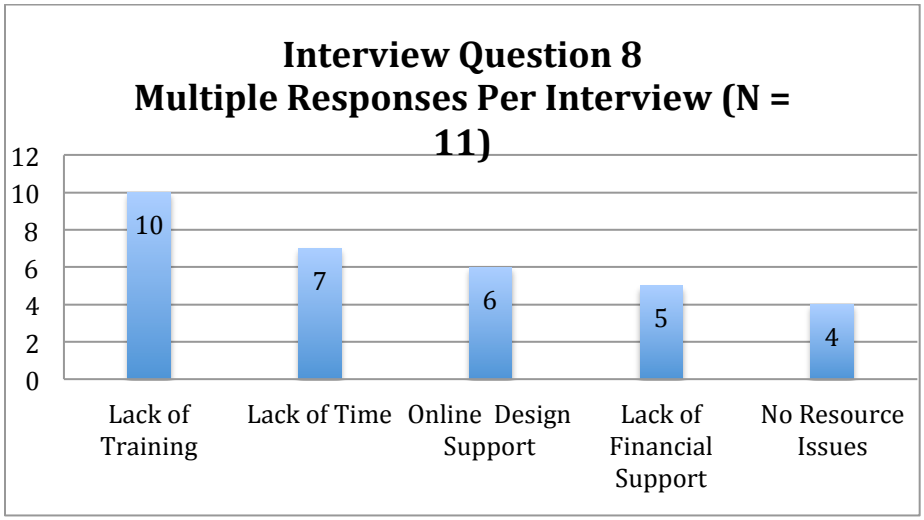

Figure 12. IQ 8: Learning evaluation.

Lack of training. 5 respondents cited a lack of faculty training as the number one resource challenge when developing a successful online learning experience. Many respondents felt that it was difficult for faculty to be successful teaching online when they received little or no training in using the learning management system. Respondent 4 stated, "I think a lot of faculty are not technologically savvy…I don't think they know what all the tools are in an online environment…They're limited in their knowledge of what a learning management system can do" (personal communication February 13, 2017). Many cited a concern that adjunct faculty were not getting sufficient training even at institutions which do a good job training full time faculty. Respondent 1 stated, "…I started as an adjunct and I think I should have got some more formal training or sought out some more formal training...I wish there was more training other than I was just thrown in there" (personal communication, February 13, 2017).

Lack of time. For those respondents who did indicate that their institution did offer training in the use of their learning management system, there was still a concern about the time given for training and designing a class. Respondent 3 stated:

> I think that's something really important to train the teacher…not just train them in a one-day workshop or two day training…but really give them almost like a class on it where they have to learn fully how to utilize it. (personal communication, February 3, 2017)

Lack of financial support. Lack of financial support was also cited as a resource challenge as well. The cost of purchasing new learning management systems or putting funding in place to modify or enhance existing ones was an issue. Respondent 2 stated, "Funding is always an issue, being able to keep up with what's available out there and take advantage of what can improve the educational environment for our students" (personal communication, February 12, 2017).

No resource issues. One respondent cited no resource issues whatsoever: "(My institution) has a lot of resources. They've got tons of resources. I think that's a plus. I don't see that as an issue…they have their online library…you can use EBSCO host info…all kinds of online resources to add additional content to the class" (personal communication, February 15). Another respondent felt that there were no pressing resource issues but that there were things he would put together if resources were unlimited such as creating labs and hiring more staff dedicated to supporting online programs.

Interview question 8 summary. This question invited responses pertaining to general resource challenges. Respondents noted the lack of training and time as the primary resource issues. These are directly related to resources. Instructors described the lack of time allotted to create online courses, and expressed a desire to have release time/units to create them. Greater

online design support was also mentioned as being a resource issue, as the ability to hire a full time in house instructional designer is tied to salary.

Interview Question 9. What challenges do you face in training of faculty in developing successful online learning experience? This question sought to determine specific challenges faced by the respondents when they are training faculty to teach in an online environment. The four themes that emerged from this question were: general dislike, time, technological unfamiliarity and generational issues (See Figure 13).

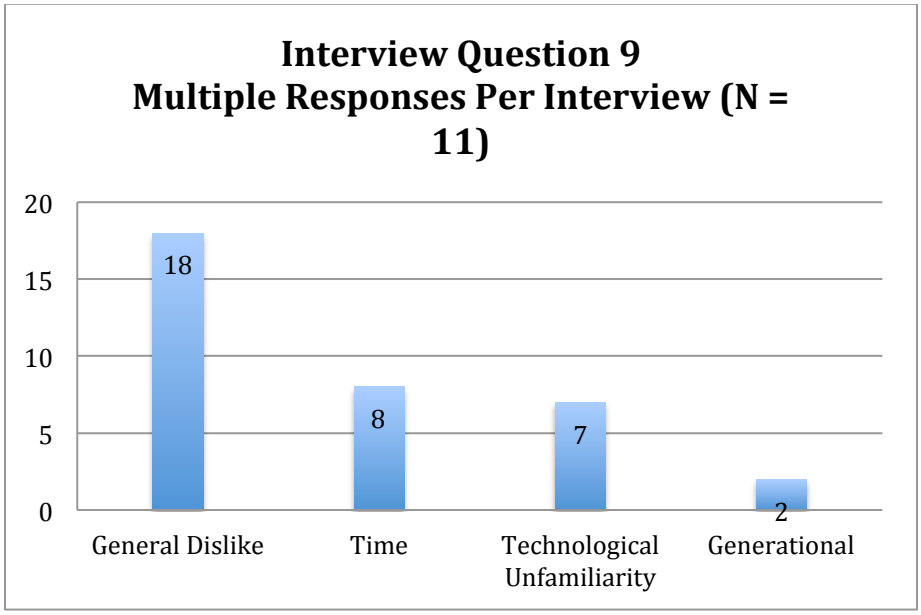

Figure 13. IQ 9: Learning evaluation.

General dislike. When respondents were asked about the issues faced in training other faculty on teaching in an online environment, the most frequently mentioned theme was that of general dislike. There was a sense among respondents that many faculty members get into teaching because they enjoy the interaction with students. When they are asked to teach online, many feel that this type of teaching is not what they wanted to do. Respondent 6 posited, "The reason they go into teaching is because they want to teach students. (When teaching online) I

think they feel disengaged and they're kind of told that they have to do it…very few of them jump for it" (personal communication, February 3, 2017).

Time. Respondents also spoke about the additional amount of time needed to prepare and teach in an online environment. Faculty reported feeling rushed to prepare for an online class as well as feeling overwhelmed when they are teaching by the amount of time and energy it takes to sustain an online class. The noted that students in online environments expected frequent communication from faculty, more than they would expect in a face-to-face environment. Respondent 4 explained:

> I would love for someone to do videos for me. I can make videos but it is so time consuming I just don't do it. Our faculty and I'm sure faculty everywhere are saying, 'How am I going to take the time to creatively create an online course? I'm a subject matter expert but I've never taught online.' That's an issue." (personal communication, February 13, 2017)

Technological unfamiliarity. Faculty members are typically subject matter experts, but that does not always translate into teaching in general, and even less so into teaching in an online environment. Speaking of learning management system changes, Respondent 10 revealed:

> I was very up-front with the students. I said, 'Look, I'm having a hard time with (name of learning management system), just bear with me.' And I couldn't even tell them where the drop box was for their assignment, so I asked them to just email me. (personal communication, February 15, 2017)

Generational. Some respondents spoke about issues of age as having to do with comfort level or enjoyment of teaching in an online environment. Respondent 1 noted, "I think it's harder for those that may not be of a younger generation and have had maybe the experience or the

background or even growing up using technology" (personal communication, February 13, 2017). Respondent 2 concurred with this assessment:

> For certain parts of our faculty, they're fine with technology, have no problem with it. It's an integrated part of their lives, but for another portion of our faculty, they don't like using a whole lot of technology and couldn't even conceive of what it would be like to offer a class online. There is still particularly among, I hate to paint with broad strokes here, but it tends to be older tenured faculty who don't want to do it, don't want to change. (personal communication February 12, 2017)

Interview question 9 summary. Question 9 asked about specific challenges faced by faculty in training other faculty to teach online. By far the greatest number of responses pertained to a general dislike of teaching online. Many faculty are subject matter experts who enjoy engaging with students. When asked to teach online, many faculty feel unsupported and report a lack of training which leads to an less then enjoyable teaching experience in which they feel unprepared to teach effectively. Faculty also reported that the amount of time needed to prepare for and teach an online class greatly exceeded the time needed to teach in a traditional face-to-face environment.

Interview Question 10. Are there other challenges you'd like to share? Respondents were given the opportunity to share any other challenges, which were not included in the pre-written interview questions. The themes that emerged were: lack of student engagement, lack of resources, classroom management, lack of personal connection and online learning stigma (See Figure 14).

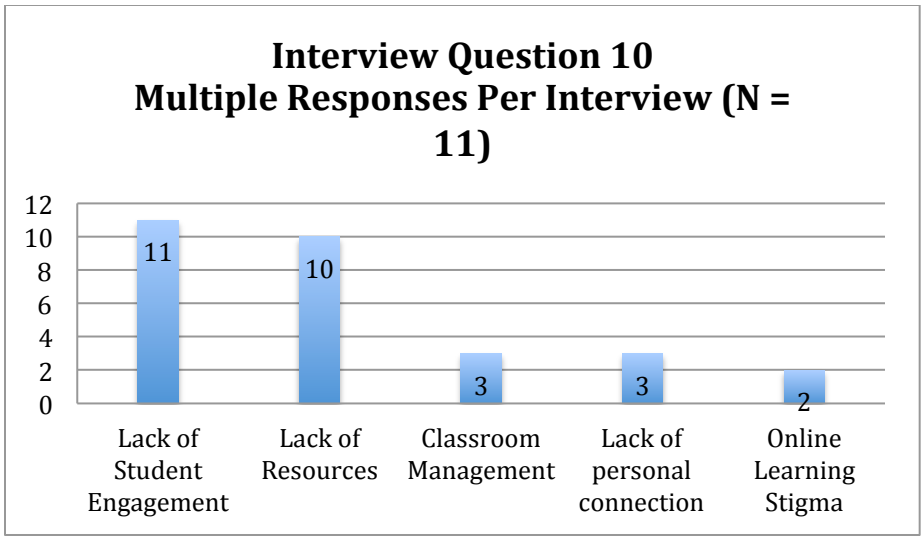

Figure 14. IQ 9: Learning evaluation.

Lack of student engagement. When asked about other challenges in general, respondents overwhelmingly chose lack of student engagement (11) and lack of resources (10) as recurring challenges. The other three categories of classroom management, lack of personal connection and online learning stigma received 3,3 and 2 mentions respectively. Respondent 3, when reflecting back to early days of teaching online remembers students losing engagement due to teaching style, "The students lost engagement because I did a lecture lesson, and I think it was just a little bit too long, but then I also didn't present the content in hitting all the modalities, so the content was just me lecturing with lots and lots of notes" (personal communication, February 3, 2017). Respondent 1 spoke of this lack of engagement in an online environment as well, stating, "When there's an online live class, (the students) aren't speaking. Even to ask them a question, they're like 'Yes', but it's like pulling teeth sometimes" (personal communication February 13, 2017).

Lack of resources. The next most commonly shared challenge was lack of resources. Respondents spoke of what they would like to do in their online classes such as producing video,

lack of time for online classroom preparation, difficulty in designing the online class, desire for more instructional design support and not enough staff to manage the needs of an online program. Respondent 3 stated, "It's time. That's a huge challenge. (The faculty) are human, and we expect them to prep for their in-person classes, to do grading…yet we're saying, 'Oh, come learn this system and then upload all your content here now' They don't have the time…Either we have to understand that for them to learn it we have to lessen their course load for one semester so they can actually spend that time that they'd be teaching a course actually learning the system" (personal communication, February 3, 2017).

Lack of personal connection. The lack of personal connection was also seen as a challenge in teaching in an online environment. Several respondents spoke of the difficulty of connecting with students as the natural verbal conversation and facial expressions so important in communication are not simple to replicate online. One respondent explained:

> I see it in their eyes if they understand me. Are they getting the concept or are they zoning out, and if they're not getting it, then I'll re-explain it from a different direction…you can sense it, you can see it in (the students') body language, they get it and you're ready to move on…you can't get that with the online (environment) because you can't change the pace, you can't change how you're approaching it. (personal communication, February 3, 2017)

Classroom management. In both face-to-face and online environments, classroom management presents its own unique challenges. Respondents spoke of issues, which could occur in both environments such as the same students speaking up in class all the time while others remain silent as well as late assignment submission. One respondent mentioned an issue of incorrect or forgotten information as hindering the normal flow of class participation, a

phenomena unique to online learning. Respondent 11 spoke of the particular challenges of classroom management in an online environment:

> One of the misnomers is that, well teaching in that kind of environment is just like teaching face to face on the ground, because we kind of go through the same motions. That doesn't work because that just will fall flat, but that said, I would say there are some ways in which you approach it the same way, in which I do, and that's I think about the big arc of motions, right, preparing for the class, welcoming my students, and then going through the class procedure and all that. The big difference though is just how much more preparation is requested and how much more complex each of those moves is, because whereas teaching on campus I've just got my stack of materials. I come in, I throw them on the table, and we start. (personal communication, February 21, 2017)

Online learning stigma. Several respondents spoke about a perceived or inherent stigma regarding online learning in general. Some expressed concern that the level of education possible in an entirely online environment will never achieve what is possible in a traditional, face-to-face environment. Respondent 3 disclosed:

> What we're trying to do issue the same model that we've been using for hundreds of years in classroom education, and think we can replicate it online…The same rules don't apply…Trying to do the same things but in a slightly different way, using a different medium, doesn't work. (personal communication, February 1, 2017)

Interview question 10 summary. Interview question 10 simply asked what other challenges instructors faced teaching online. Lack of engagement was widely reported by instructors who felt that their students were not as engaged as those in a traditional environment as well as their own challenges in connecting with students on a personal level. The lack of

resources, which allow faculty to spend time in developing a rich online learning experience using multiple modalities such as video, polls or other tools, was also seen as challenging.

Research question 4. Research question 4 asked, what recommendations do you have for the future development of successful online learning environments? This deliberately open-ended question allowed for respondents to think generally about what they see as important for the future of online learning, and elicited anecdotal responses of great value to online educators. This question was answered using the following two interview questions:

> IQ 11. Knowing what you know now, what would you have done differently when you started teaching online?
>
> IQ 12. What other recommendations (do's and don'ts) would you share on creating a successful online learning environment?

Interview Question 11. Knowing what you know now, what would you have done differently when you started teaching online? This question allowed respondents to reflect back on their early experiences teaching online and imagine how they would do this differently, if given the opportunity. The themes that emerged were: support/training, personal connections, classroom management, work/life balance and different modalities (See Figure 15).

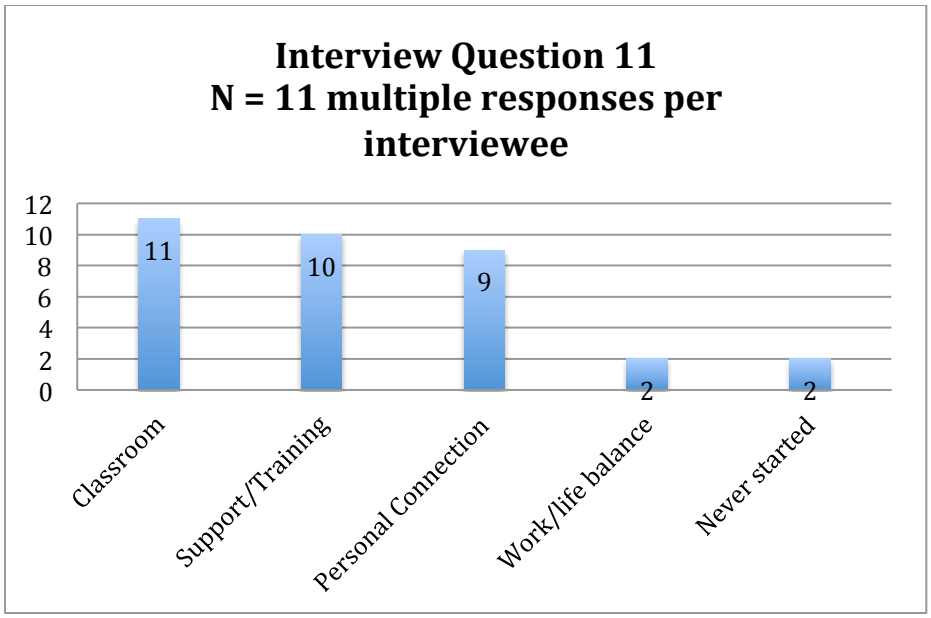

Figure 15. IQ 11: What would you do differently?

Support/training. Many respondents spoke to the importance of training faculty in a more meaningful way in order to be more effective in their online teaching. Many spoke to the lack of training time as being a factor in disliking online learning and something they would have insisted upon if given another opportunity. When faculty are given training which allows them to understand the bare minimum needed to run an online class, it is often seen as insufficient. Additionally, using an in house instructional designer to help with course design was mentioned as something that would have been helpful. Respondent 9 stated, "We have in house course designers ourselves. That has been a bit of a challenge to figure out what right model is and the right resources" (personal communication, February 15, 2017). Some respondents wished that they would have simply understood that online teaching was not the same as teaching face-to-face. Respondent 11 stated:

> I've shifted, and I think we've all shifted in our view toward kind of more of a mastery continuum like, "Yeah, we can get you in the door and learn enough to teach your first

> class, but then it's going to be a long, month, years'-long process to, and you have to be willing and want to really shift your whole perspective on what learning is, and what that looks like in the online space. I would say there are maybe a few faculty that want to go that route, and then a lot of faculty that just get by with the bare minimum, which is understandable. (personal communication, February 12, 2017)

Personal connections. Respondents spoke about the difficulty of making personal connections in an online environment. When students and instructors never actually meet face-to-face, the relationships are not established in the traditional manner. Respondents spoke of the importance of making deliberate efforts to establish community. Respondent 10 shared:

> I think a quality is high-level discourse…trying to move away from just the transactional, formulaic where we just meet and kind of go through the motions, and I say my part, you say your part, but trying to, I guess the quality then would be really trying to move past that where the online venue and the space doesn't really matter anymore and we're having a real, in-depth, high-level discussion. I can see that people are engaged because of what they're chatting about, and how they look in the camera, and what they're saying. (personal communication, February 21, 2017)

Classroom management. Respondents communicated of their wish that they had began teaching online with more of an idea of how to create a sense of order and accountability in their classes. They spoke of ways to connect with students, which would lead to more meaningful interactions and greater participation by students. Training in online classroom management was such as assessing students frequently, the use of different modalities, and having one meeting occur in a face-to-face environment were all seen as worthy methods of online classroom management techniques. Respondent 5 expressed:

> I think a better sense of organization…really a more disciplined approach to more frequent, brief interactions. The best online teachers that I know have really committed to it, which means they're online either synchronously or, most commonly, asynchronously, two to three times a day…It's really a more focused hit on spending time with the students…online learning is more quick hits. (personal communication, February 1, 2017).

Work/life balance. Maintaining a balance between work and home life is an issue for many working people. Instructors who teach online can have additional challenges due to the nature of some students' expectations of daily or hourly responses. Respondent 4 spoke about the difficulty of balancing work as an online instructor with other responsibilities:

> I was talking to another colleague…about work/life balance. It just seems especially when you teach online it's like you're always on. You don't have any set work hours and you're working at home and it's hard to differentiate home and work. They all just start to blend…I think you just need to learn to just disconnect" (personal communication, February 13, 2017).

Respondent 8 proactively sets boundaries with online students, telling them at the outset of the course, "…here's some things that are important to me…I have dinner with my family from seven to eight every night" (personal communication, February 4, 2017).

Never started teaching online. While most respondents spoke about what they would do differently with the understanding that online teaching was not optional, one respondent had an entirely different response. One respondent stated that. Respondent 5 admitted that what they would do differently was to never start teaching in an online environment:

> It just feels burdensome…it becomes a chore. I have been teaching live classes for 20 years. It never feels like a chore to go teach. I always look forward to it. (But) by the end of a long online course, I am dreading, 'Oh, I've got to go online, I've got to do this again.' It's an every day thing. (personal communication, February 1, 2017)

Interview question 11 summary. When asked what they would do differently when they began teaching online, faculty responded that they would have been more intentional about classroom management techniques and understood that what works in a traditional environment does not necessarily translate in an online environment. Faculty would have involved more engaging teaching techniques using a wider variety of modalities and creating more engaging learning activities. Many also stated that they would have insisted on greater training and support from their administration.

Interview question 12. What other recommendations (do's and don'ts) would you share on creating a successful online learning environment? This was an open-ended question intended to give respondents the opportunity to share any suggestion or ideas that had not yet been mentioned in the interview. The themes that emerged were: university support, culture of respect/cordiality, student support, variety of modalities, curriculum/content, flexibility, schedule and technology support (See Figure 16).

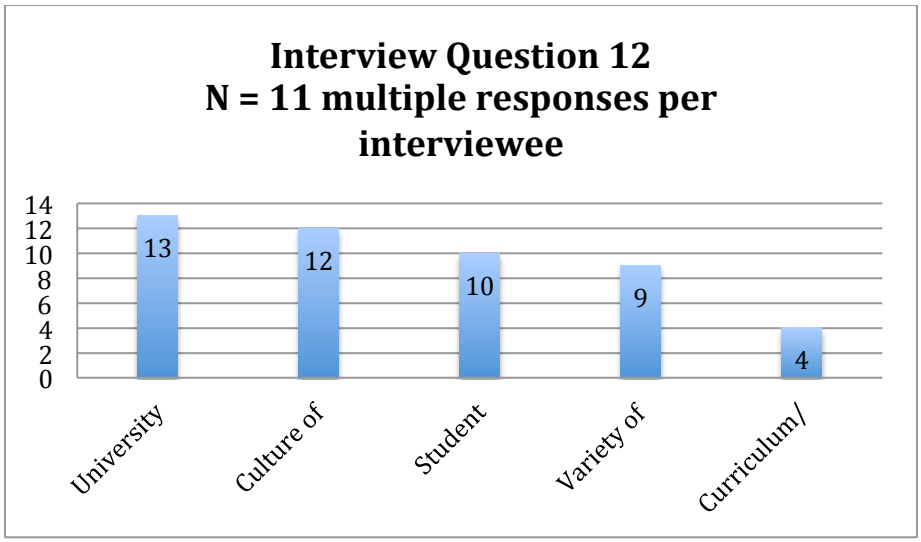

Figure 16. IQ 12: Other recommendations?

University support. The support of the University both in time and resources was seen as very important in creating a successful online learning environment. Respondents spoke about the importance of outsourcing 24x7 technology support, having an in house instructional designer, and purchasing the best learning management system for the particular needs of the school.

Culture of respect/cordiality. Respondent 8 spoke to the idea of creating an online classroom environment that is welcoming to all students. The classes taught often start with the respondent letting students know that things are flexible, stating, "Somebody might be new to this. Some of you might be veterans. Some of you might even be better than me and can teach this stuff…I want you to know I'm goanna make some mistakes" (personal communication, February 4, 2017). The importance of teachers connecting personally with their students in an online environment is also seen as important. Respondent 10 stated, "I mean, at the end of the day, yes, you need to have the technology, but the people I think that are great online teachers just love students. Same as face to face, you've got to have that. That's, in my opinion, you can

have all the bells, and whistles, and tools, and analytics, but you still have to love your students and care for them, and that's something that shines through" (personal communication, February 21, 2017).

Student support. Many respondents mentioned increased student support as a best practice. When teaching adults in an online environment, this is exceedingly important. One respondent created 'emergency kits' for online students, which included information helpful in navigating the learning management system as well as creating cheat sheets for the various software employed in the course. Another respondent spoke about sharing the contact information of student support staff with students. Respondent 3 stated, "Really know your audience When it's adult learners, there are different types of adult learners…we are independent, we can make our own decisions, but in the context of a classroom there's still got to be some systems in place" (personal communication, February 3, 2017).

Variety of modalities. The importance of using a variety of modalities to engage the online learner was also seen as creating an environment appealing to a wide variety of learners. The ability to use video in an online environment was seen positively as leading to greater student engagement. Respondents spoke of using video, creating variety in the content, and thinking outside of the box. Respondent 5 stated:

> What we are trying to do is use the same model that we've been using for hundreds of years in classroom education, and think that we can replicate in online…the same rules don't apply…online education is a very different medium than in a (face-to-face) classroom. (February 1, 2017)

Curriculum/content. Respondents spoke about ways they would recommend enhancing the curriculum by creating engaging content, analyzing learning patterns, creating new

paradigms and understanding that the ways curriculum is presented in an online environment differs from how it is presented face-to-face. Some benefits of an online environment were noted such as the ability to track student participation and the ability for all students to participate. Respondent 3 conveyed this optimistic thought:

> In some ways, I think online learning can be better even than face to face…one of the things (pertaining to) gender or culture (is) some students are less likely to raise there hand or speak out in class, and in an online environment they will. There's less of a fear factor. That could be a real plus…(additionally) when you're in action, teaching face to face, I can't imagine you'd remember really clearly who spoke and how many times, but in an online environment you can track it" (personal communication, February 3, 2017).

Interview question 12 summary. When asked about other recommendations for successful online learning, support was seen as crucial. The support of the university in obtaining a robust and understandable learning management system, giving faculty ample time to create courses and having an on-site instructional designer were all mentioned. Student support was also valued in creating a learning environment, which encouraged participation and retention.

Summary

The purpose of this phenomenological study was to gain an understanding of the best practices in graduate level online education. Chapter Four provides a description and analysis of the research questions and the data provided by participants answering these questions. The data items were coded by element and then organized into themes based on similarity of responses. The following 12 different topics pertaining to best practices in adult online learning environments were used to present the data: Elements, Qualities, Classroom Management Principles, Learning Activities and Experiences, Assignments, Learning Evaluation,

Technological Challenges, Resource Challenges, Faculty Training, Other Challenges, Different Choices, and Other Recommendations.

Chapter 5. Conclusions and Recommendations

As online learning is growing at an exponential rate, the research surrounding best practices in adult online learning is important. The purpose of education is to enlighten, inform and create opportunities for learners. It is a disservice to students and instructors alike to participate in this relatively new manner without understanding how to maximize its effectiveness. There has been a great deal of research into adult learning theory, which was called upon to inform the research, but less data exists on how to educate adults in an online environment. Current research into this topic will assist instructors in creating online classroom environments, which lead to greater student engagement, retention and learning.

The purpose of this study was to identify the elements and qualities employed by faculty members in designing successful online learning experiences for adults pursuing their bachelor's, masters or doctoral degrees as well as the challenges they face in implementing these best practices. Additionally, the study sought to determine what assignments, classroom management techniques, evaluation methods and technological support led to excellence in online learning for adults in institutions of higher education. Faculty were given the opportunity to share what they believe contributes to an effective online learning environment in higher education, considering factors, which have led to success as well as challenges particular to teaching adult learners virtually. The intent in Chapter Five was to summarize the data gathered through the research and interview questions and draw conclusions from the collected data, which may be helpful to those in the field of adult online education. The final section of the chapter will include recommendations and suggestions for further research.

Summary of the Study

The researcher undertook this study with the goal of understanding the best practices in adult online education. The participants in the study were asked to help identify both the challenges and successes experienced in their online learning environments. While success in both teaching and learning is subjective, the data revealed a number of common themes, which indicated similar elements that lead to success in an online environment in areas of curriculum design, classroom management, and use of technology. While the study identified a variety of interpretations of the research and interview questions, there were commonalities in the information shared by participants, which could lead to a greater understanding of how to most effectively educate adults in an online environment.

The researcher endeavored to obtain a greater understanding of the best practices in graduate level online learning. The participants were asked questions to determine what practices lead to successful experiences in an online learning community as well as what unique challenges exist. The respondents had all taught at the graduate level in colleges or universities both online and face-to-face. Some respondents felt favorably about the progress and possibilities of online learning while others believed that online learning will never be able to achieve the level of both instruction and community afforded in traditional learning environments. Nonetheless, this study found a number of common themes, which will be helpful in gaining a holistic view of this phenomenon.

The researcher attempted to describe the factors, which both enabled and inhibited successful online learning environment experiences for adults. The goal of this study was to identify best practices in graduate level online education and was comprised of two distinct phases; Chapter 2 contained a review of the literature surrounding the phenomenon of both adult

learning and online learning in order to determine the existing information, and Chapters 3-4 described the data collection and framework for this phenomenological and qualitative study. In Chapter 2, several themes were identified which had been studied by other researchers and authors focusing on adult learning theory, online learning environments and the importance of higher education in earning potential and job satisfaction. The existing literature was used to examine the history of adult learning going back over 2,000 years, and then looking at the past 100 years of research into the unique ways that adults learn. Since adult learners are often juggling multiple roles other than student such as employee, spouse, parent, or caregiver, making obtaining a college degree extremely challenging (M. Knowles, 1984). In order to create access to college degrees for adult learning, the understanding of how online course material is delivered was a key component of the research. The history and perception of online learning was also examined, including the changing opinions of college students, faculty and administrators. The overarching theme was that of the importance of education, both in income earning potential as well as general well being. This was an important theme to examine as it gave the context for why it is important to research how to bridge the gap between adults juggling many responsibilities and their college degrees.

Carl Rogers, one of the leaders/founders of modern psychology, developed a theory of human learning, which examined student motivation and acknowledged the learner as a whole person (Rogers, 1969). Rogers stated that human beings have both a potential and affinity for learning as well as a natural curiosity that remains a key factor in intellectual growth. Rogers felt that the most significant learning was achieved by doing, stating, “Placing the student in direct experiential confrontation with practical problems, social problems, ethical and philosophical problems, personal issues, and research problems, is one of the most effective modes of

promoting learning" (Rogers, 1969, p. 159). Adult learners in particular experience the most significant and meaningful learning when their curriculum relates directly to their professional and personal lives (M. Knowles et al., 2005).

Online learning in higher education - in which students are obtaining bachelor's, master's, or doctoral degrees - takes place either partially or fully in a virtual environment accessible by using computers, tablets and phones. Online education is particularly convenient for adults juggling multiple roles due to the ability for learners to access coursework at any time using e-learning devices such as laptops, tablets, or smartphones (Akaneghu, 2012).

This qualitative study using phenomenological research was designed to obtain information from primary sources on the best practices of adult online education. The following research questions were designed in order to gather information from those working in the field and able to share firsthand information. Each research question had corresponding interview questions, which were detailed in Chapter 4:

***RQ1*:** How do faculty define a successful online learning experience?

***RQ2**:* What strategies and practices are used by faculty to create successful online learning in institutions of higher educations?

***RQ3*:** What challenges are faced by faculty in creating and implementing these strategies and outcomes?

RQ4: What recommendations do you have for the future development of successful online learning environments?

Summary of Findings

The 11 study participants were faculty members in institutions of higher education who had taught in both a traditional face-to-face environment and online in the past five years. The participants taught in both public and private institutions and ranged in teaching experience from five years teaching to over thirty. There were six women and five men represented. Six participants were Caucasian, three were African American, one Hispanic and one was Indian.

The data was collected through semi-structured interviews between the researcher and participant. Inter-rater reliability and validity was established using three steps. First, the researcher coded the data by creating an Excel spreadsheet consisting of one worksheet per question. Each worksheet had columns for each participant, 1-13. The data from participant 7 and 13 was excluded, so data was extracted from the transcripts of the recorded interviews with eleven participants and placed in cels beneath each participants' numeric identifier. In order to ensure inter-rater reliability and support the external validity of the research findings, the coding process results were examined by two external evaluators. Additionally, the themes that emerged from these recorded elements were shared with the external evaluators for verification. External evaluators made suggestions, which improved the creation of themes through elements to which the researcher agreed. Both the external evaluators and the researcher agreed on the validity of the coding.

The responses of the faculty revealed several general themes, indicating the following beliefs shared by most respondents:

1. Teaching online does not mean using what has worked in face-to-face curriculum and classroom management.

2. Assignments and expectations need to be even more clear in an online environment.
3. Instructors in an online environment need to make even more of an effort to engage students on multiple levels
4. Instructors need to be better supported with technological training.
5. Having an in house instructional designer to assist faculty with the design of their course is greatly preferred than outsourcing this role.

When looking at what goes into a successful online learning experience, the data suggests the importance of both pedagogy and academic rigor. Respondents acknowledged the pedagogical differences in teaching online compared to face-to-face and saw key elements that needed to be factored in to an online class including clear expectations and highly structured curriculum and lesson plans. The data supports the concept of using an inquiry-based curriculum to encourage students to take ownership of their learning by allowing them to make connections between what they are learning in class and their prior knowledge and experiences (Center for Inspired Teaching, 2008). This process is particularly beneficial for adult learners, who come into academic settings with a wide variety of proficiencies. Correlating new information taught in instructional settings with what the adult learner can contribute authentically and experientially not only is respectful of the learner but also allows for greater knowledge retention (M. Knowles, 1984; Lindeman, 1926).

Academic rigor was also seen as a crucial component of online learning, perhaps is response to what some see as an innate inferiority of online education Acceptance into online programs are often less competitive than at traditional face-to-face institutions (Friedman, 2016) and have very high admit rates, which may contribute to a perception of lower quality of

education (Lapovsky, 2015). Respondents emphasized that the rigor and expectations for online students must mirror those of face-to-face students, though delivered differently.

Qualities important in online learning were for the most part centered on engagement and connectivity among students and their instructors. Since relationships occur less organically in an online asynchronous environment, there must be an emphasis on practices, which foster meaningful engagement. Some research suggests that students who are in online courses are at a higher risk of dropping out because they are not physically present with students, faculty, and administrators, nor are they participating in on-campus experiences. These studies suggest that the nature of traditional learning environments support which leads to greater student retention and matriculation (Bejerano, 2008). Respondents spoke of the importance of using a variety of modalities for instructors to connect with students including phone calls, texts, voice threads, voice memos and emails. They also spoke of fostering relationship amongst students in creating safe spaces, meaningful discussion posts and group work. Respondents believe that it is crucial for students to feel that their online professors truly want to be teaching in that environment and that they are deeply committed to their online students.

Key Findings

The findings of this research address the shared experiences of faculty who teach in adults in an online environment of higher education. These findings include the strategies they have used in creating curriculum, classroom management and use of technology, the challenges they have faced in these areas and recommendations they have for the future of online learning based upon their experiences. The purpose of this paper is to provide a roadmap for future online instructors so that they may best educate and retain students while creating an environment which is engaging and satisfying for both students and teachers.

The shared experiences of these faculty members provided opinions and insights, which supported the overall research findings. The candor of participants' responses indicated a willingness to acknowledge areas in which they had not achieved success in teaching as well as the frustrations they felt in terms of administrative support. Initial questions such as "How long have you been involved with online education" and "What elements and qualities do you believe are present in a successful online learning environment" were non-threatening and set the tone for they study, which was fact finding and not finger pointing in nature.

Strategies and Practices to Develop a Successful Online Learning Environment

Respondents offered practical suggestions on which strategies and practices have been most effective in creating a successful online environment. The research questions sought to determine best practices, which have been shown by experience and/or research to lead to a desired result. Best practices typically gather information from a variety of sources to determine what factors lead to success (Rouse, 2016). The development of a curriculum delivery method that allows learning to take place remotely and without schedule constraints addresses the needs of adult learners who have a multitude of other responsibilities that preclude them from participating in traditional learning environments (Ross-Gordon, 2011).

Classroom management. When thinking about classroom management, one can envision the instructor as a type of classroom conductor. The instructor has the entire musical piece in mind but must break it into sections, calling upon different members of the orchestra to master their parts while ensuring participation, attendance and courtesy is observed while achieving the goal of subject mastery. In an ideal online higher education learning environment, regular and meaningful interactions between instructor and student as well as students and students occur regularly (Akaneghu, 2012).

Instructor accountability in an online environment was overwhelmingly seen by respondents as the most important factor in classroom management. Instructor accountability was thought by respondents as crucial in contributing to successful classroom management with 26 elements of instructor accountability mentioned, 14 more than the second most frequently mentioned element. The onus is on the instructor to set the tone and expectations for the class.

Preparation for an online class calls for different preparation on the part of the instructor. Several respondents spoke to the idea of a flipped classroom, in which lectures and reading occurred on an individual basis prior to class, allowing the instructor to spend time on high value activities in the online classroom environment. Many respondents spoke to the additional preparation that goes into teaching online, sometimes in ways that are quite different than face-to-face classes.

Related somewhat to instructor accountability was the importance of community expectations and student accountability, which creates a set of, shared values for both students and instructors. Respondents believed that this was especially relevant in an online environment in which students can feel less of a sense of accountability to each other. Several respondents did state that they felt the best way to build community and accountability in an online environment was to have a mandatory face-to-face meeting at the beginning of the term. Respondent 4 stated, "For me, for (the online learning environment) to be successful, I always feel that it's really important to build community. Give students a sense of belonging. Make them feel like their contributions are important. I think that it is very difficult to get students to build relationships so…even though it's an online class I have a mandatory first day fact to face…(they) come in, play games...have competitions and have fun".

Clarity also factored in to the respondents suggestions for best practices in classroom management. This included clarity in the learning objectives along with the use of analytics. Several respondents spoke about the use of data analytics as a classroom management tool. The analytics can demonstrate who is participating in what for how long at what time, which is important information for an instructor in an online environment to track students' progress and be alerted to any potential problems. Most learning management systems have methods to track the ways in which the student interacts with the material, though not all instructors report using them (Bowen et al., 2013).

Learning activities, experiences and assignments. In addition to examining ways that instructors can successfully manage their classrooms, the research sought to understand the types of activities, experiences and assignments that lead to success in an online environment teaching adult learners. In areas of both learning activities/experiences as well as assignments, respondents spoke to the importance of real world assignments. Adult learners are often juggling multiple roles other than student, such as employee, spouse, parent, or caregiver (M. Knowles, 1984). Although these roles can often preclude traditional college attendance, as well as the allocation of time spent on both academic study and on-campus organizations, they can add to the diversity of the experiences the student can bring to his or her learning environment. These life experiences can add to the richness of classroom discussions by making connections to theoretical constructs that often remain abstract to younger students (Jenkins, 1981; M. Knowles et al., 2005).

The use of assignments that reflect issues adults may be facing at work or in their personal lives reflects adult learning theories. Adult education in an online environment must be

impactful for learners who are also having major life experiences outside of the classroom, typically at work or with their own families (M. Knowles, 1984; Lee & Choi 2014). Most respondents spoke of using case studies in their curriculum, stating that adult learners were interested in real cases, which they may have been following in the news. Examining these situations with the support of their instructors and students was seen to be interesting and relevant by adult learners.

Group projects were also seen by most respondents as leading to effective learning outcomes in an online environment. Real world professional experiences often involve working as a team, so this type of project is helpful for adult learners in the workforce. Group work also builds relationships amongst students, seen as an important factor in student satisfaction and retention. A quality of a successful online learning environments is one which seeks to construct meaningful virtual learning communities using collaborative strategies that place greater ownership and responsibility on the student, rather than uniquely with the teacher, which in common in children's learning environments (Allen & Seaman, 2013).

Learning evaluation. Respondents spoke of ways in which they evaluated learning among their adult students in an online environment. The primary method they used was checking the level of student engagement. This is accomplished through the quality of assignments submitted, monitoring attendance, class participation, the substance of comments shared, and viewing analytics available through learning management systems. Many respondents took the opportunity to more personally coach students when evaluating their work by recording voice or videos of their comments. Some believed that the tone or context of written or emailed types of evaluation messages can be misinterpreted when those social cues aren't there in an online environment.

Instructors in an online environment need to acknowledge the inherent self-motivation of adult learners, as final grades are less important to most adults than the learning process. Learning for adults is more self-directed than for younger students, who rely more on teachers for direction on lessons and subject matter mastery (Ross-Gordon, 2011). Adult learners require less oversight and structure and prefer to work independently while checking in with both teacher and fellow students for guidance and direction (TEAL Center, 2011; Withnall, 2005).

Challenges in an Online Learning Environment

Technological challenges remain a significant issue in online education. The challenges were in the area of insufficient instructor and student training in the learning management systems, failure of certain components of these systems particularly in the area of audio visual and uploading content and general system failure. Some students cite issues such as poor bandwidth and insufficient infrastructure as preventing a seamless learning experience (Akaneghu, 2012).

The lack of understanding of how to use technology by both instructors and students was mentioned more than all other challenges, indicating that respondents agree that the major challenge faced in online learning technology rests in users ability to navigate through the systems. Respondents spoke of instructors and students not being sufficiently trained to utilize the learning technology well. The general belief was not that the technology was insufficient or lacking, but the training in using the technology was. Several respondents spoke of their frustration at not understanding how to navigate through the learning management system, which made them appear to be sub-par teachers, when they were actually subject matter experts, just not online teaching experts. There was a theme of faculty piecing together their own training informally by speaking to other teachers or staff members and getting piecemeal information.

Another technological issue faced was that of occasional complete system failure. This possibility is almost foreign in a face-to-face environment with the exception of a campus wide power outage; face-to-face classes are far less dependent on technology. In an online environment, it is imperative that the technology is functioning or the delivery of education is limited. “Online learning require(s) that both teacher and student are committed to using technology to utilize learning module in instructing and completing assignments (Means et al., 2010; Tu & McIsaac, 2002). Half of the respondents reported some sort of system failure, which disrupted their classes citing issues in bandwidth, server malfunction or the server going down.

Respondents also spoke about a lack of engagement and connection as being a challenge in online learning environments. Because instructors and students in an online environment can spend a semester or longer together in a classroom environment without necessarily meeting face-to-face, a lack of engagement is seen as a true challenge. Respondents spoke of frequent communication with students as being important in students’ satisfaction levels. Most felt that when students ask a question of their professors, that they would like to hear back from immediately, or at the most within 24 hours, and if they don’t, they become distant and they feel unheard. Ideally, in an online course, meaningful interactions occur regularly between students and teachers (Akaneghu, 2012). A typical complaint of those participating in online learning is that the lack of personal connection with the instructor depersonalizes the education process (Aoun, 2012; Jacobs & Hyman, 2013)

When asked about what respondents would have done differently when they began teaching online, knowing what they know now, the dominant themes were that of student and instructor support. Respondents spoke of wishing they had treated students with more care and greater flexibility. The importance of the human connection was cited frequently. Humanizing

the instructor by he or she sharing about their personal lives, having an actual photo as their avatar and being sure to know their students names and interests were all seen as important in creating an environment that felt more connected.

Having greater instructor support at the beginning of their online teaching career was also seen as having value. This included allowing more time for training and practicing in an online environment prior to teaching, obtaining better IT support and having an in house instructional designer. This support was seen by respondents as something that would have made teaching online more enjoyable and/or effective from the outset. In addition to a lack of human connection inherent in the virtual classroom, there may also be barriers to using online learning technology in colleges and universities. Many faculty do not feel that they have time or support to create online courses while teaching their regular required classes (Dignan, 2015). The perceived or actual lack of institutional support and preparation time and technological support, can contribute to faculty's reluctance to implement fully online or hybrid learning (Dignan, 2015; Mumtaz, 2000).

Implications for Faculty in an Online Environment

The findings from this study may also be helpful for faculty who teach adults online. Respondents shared the importance of online classes maintaining high academic standards in order to engage and prepare students for jobs as well as maintaining the integrity of the school's degree. Issues of engagement were mentioned frequently, both on the part of faculty and students. Faculty shared methods of engaging students with the content and fellow students through classroom management practices and assignments, which encourage group participation. Case studies and assignments pertaining to work and personal situations were thought to be particularly engaging to adult learners who resonate with curriculum that can have immediate

impact on their lives. The importance of clear expectations and easy to navigate learning management systems were seen by respondents as particularly important in an online environment in which students work independently with fewer opportunities to check in with their teachers.

Faculty who teach adults need to be cognizant that adult education in an online environment needs to be impactful in order to meaningfully impact learners who are also having major life experiences outside of the classroom, typically at work or with their own families (M. Knowles, 1984; Lee & Choi 2014). A significant characteristic of adult learners is the participation in life roles other than full time student. It is likely that adult learners are either working full time, married, parents, supporting extended family members, active in their communities, or a combination of some or all of these roles (M.S. Knowles, 1980, Lindeman, 1926). While these roles may be helpful in the amount and depth of social support received, these relationships and experiences may also be helpful in the ability of adult learners to make sense of theoretical concepts that may be inaccessible to younger learners without as many life experiences. Conversely, the number and variety of these roles in the lives of most adult learners can present significant challenges to the allocation of time for study and academic or social participation in the life of the learning institution (Lewis-Fitzgerald, 2005; Ross-Gordon, 2011).

Keeping the integrity of the school's 'brand' was also seen by faculty members as crucial. Although online learning and advances in technology can greatly improve access to education by providing pathways to many subjects in diverse settings, there remains concern among some university faculty and students that online education may be of a lower quality than face-to-face learning (Bejerano, 2008). As many well known online degree-granting schools are for-profit institutions, there is a perception that online degrees are provided by numbers-driven

schools that have an incentive to admit as many students as possible. Traditionally selective schools can have acceptance rates as low as 5% at Stanford, 6% at Harvard, or 7% at Columbia University (Education Corner, 2016). In contrast, some of the better-known fully online universities have very high rates of admission, such as 97% at both Kaplan University and Westwood College and 96% at Liberty University (College Atlas, 2016). The high admit rates of online institutions can contribute to a perception of lower quality of education, which can deter some students from pursuing an online degree (Lapovsky, 2015). In order to maintain the value of the online degrees, faculty need to ensure that the quality of instruction remains high in an online environment and that the student expectations are similar.

Implications for Adult Online Learners.

This study of best practices in adult online learning is important to adult online learners for several reasons. First, this study contributes to a body of knowledge that at this time is not large. There have been many studies on adult learning but a relatively small amount of research has been done into the ways adults learn best in an online environment. The importance of a college degree to American's financial well-being cannot be overstated. Possessing a high school diploma leads to a median income of $35,400 and a bachelor's degree increases this earning potential to $56,500. This increases with the attainment of a masters or doctoral degree as well (Baum et al., 2013). Adults without a college degree often find it difficult to return to a traditional institution of higher education due to work, family and other responsibilities. Online learning, with the ability to study anytime anywhere, is often the only viable solution for adults wishing to obtain their college degrees.

Determining best practices in adult online learning, therefore, has significant implications for our national economy as well as individuals and their families who benefit from the ability to

earn more income and have more flexibility in choosing a career. The unemployment rate for college graduates is 7% lower than for those with just a high school diploma.. In 2011, the median salary of an employee with a bachelor's degree was $56,500, whereas the median salary of a high school graduate with no college degree was $35,400. As workers age, the gap between those with and without college degrees widens even more. For 25-29 year olds, there is a $15,200 difference and $32,000 for 45-49 year olds between individuals with and without a bachelor's degree (Baum et al., 2013). It is vital, therefore, to create opportunities for non-traditional and adult learners to obtain a college degree and remove unnecessary barriers to education.

Implications for Higher Education Administrators

The findings of this study may also be relevant for administrators of colleges and universities who manage online learning programs. In the United States, online classes are now offered by over 75% of colleges and universities, and 23% of college graduates have taken an online course (Parker et al., 2011). As college and university administrators look for ways to increase revenue, many are considering adding online education to their course offerings. In 2002, less than 50% of college and university administrators believed that the implementation of online education was important to their long-term business plan compared to almost 70% in 2013 (Allen & Seaman, 2013). Opportunities for adult online learning are growing exponentially in popularity due in part to technology, portability of computers, new information, and also the growing number of adult learners who prefer to learn digitally (e-learning) due to constraints on time, family obligations, and the flexibility to attend institutions outside of their state of residence (U.S. Department of Education, National Center for Education Statistics, 2016). As administrators implement online programs, there is often a lack of understanding of what faculty

need in order to be successful teaching in an online environment. It is important that administrators fully comprehend the additional needs faced by faculty teaching online.

Respondents spoke about the issues around a lack of training in the learning management systems for both instructors and students. Administrators may choose to incorporate training into new faculty onboarding or offer stipends for existing faculty to spend time getting prepared to teach in an online environment. Administrators may also choose to have mandatory learning management system training for all online students so that they can more successfully participate in an online environment. Having a dedicated in-house instructional designer was also seen as crucial for many faculty members who feel that being asked to create curriculum and teach in an online environment is appropriate but designing an online class, which includes polls, videos, multimedia and other engaging elements for online classes, is not reasonable.

Suggestions for Future Research

- This underlying assumption in this study was that online learning in higher education is a valuable option for adults who may not be able to attend a traditional bricks and mortar institution. However, this factor was not principal to the study. It is therefore recommended that the study be expanded to examine the success rates and earning power of adults who obtain degrees from similar schools in both face-to-face or online environments.
- The types of learning management systems used by colleges and universities are vast and vary in both price and functionality. The study of instructor and student satisfaction based on learning management systems would also be of interest to determine if instructor and student satisfaction is higher or lower depending on the type of learning management system used. There are a wide variety of options

provided by learning management systems which can be beneficial, detrimental or somewhere in between in their usability by both faculty and students. Determining those elements, which lead to greater success, can assist administrators in the selection of learning management systems.

- The current study examined best practices in adult online education in institutions of higher education. Further research into online learning in the K-12 environment would also be useful, but would not incorporate the study of andragogy in designing the research. A greater emphasis on the ways in which children interact with learning technology would be helpful to support their academic success.
- Lastly, as this study interviewed faculty who have taught in both face-to-face and online environments, a recommendation for future research would be to interview faculty who have only taught online which would eliminate any comparisons with traditional teaching and perhaps take a deeper look at factors affecting online teaching and learning specifically. This type of study might be helpful for institutions of higher education, which are fully online.

Final Summary

In order to complete their college degrees successfully, adult learners must be given the opportunity to find a way to combine work and school responsibilities. Many adult learners must prioritize work and other obligations prior to furthering their own education. Online learning in institutions of higher education gives adults a way to obtain a degree in a manner, which provides flexibility of time and space. Online learning is beneficial in terms of equalizing access to education, allowing a far greater number of students to receive a college degree, which is proven to result in significantly greater earning potential than workers without a college degree.

Additionally, students' ability to self-pace and retake short quizzes more frequently and receive feedback instantaneously is easier in an online format. Being able to view lectures and then return to concepts that are unclear and either listen again or pause the lecture to acquire further explanation from other sources are pedagogical innovations that are not feasible for traditional face-to-face learning, but are indeed possible in an online environment (Pritchard, 2013).

Although online learning and advances in technology can greatly improve access to education, there are concerns that online education is not at the same level of quality than that delivered in a face-to-face environment (Bejerano, 2008). Instructors also report feelings of disengagement to their students due to the lack of face-to-face contact. Faculty members also feel that they have time or support to create online courses while teaching their regular required classes (Dignan, 2015). Additional technological support as well as training was also reported as being needed for instructors to more effectively engage their students and deliver curriculum effectively.

Further work can be done to support faculty in creating online learning environments, which enable connectivity and engagement with students by using techniques that establish a sense of true community in a virtual space. More holistic and effective technological training and support will also enable faculty to focus more on their subject matter and less on the technology that is needed to design and support an online learning environment. This dissertation provided insights on the best practices in adult online education in order to positively affect faculty and students who teach and learn in an online environment.

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APPENDIX A

Research Questions and Corresponding Interview Questions

Research Questions	Corresponding Interview Questions
RQ1: How do faculty define a successful online learning experience?	IQ 1: What are the elements of a successful online learning experience? IQ 2: What qualities have been present in some of your more successful online learning experiences?
RQ 2: What strategies and practices are used by faculty to create successful online learning in institutions of higher educations?	IQ 3: What pedagogical principles to you use in designing a successful online learning experience? IQ 4: What learning activities and experiences do you use in designing a successful online learning experience? IQ 5: What types of assignments do you use in designing a successful online learning experience? IQ 6: How do you evaluate learning in an online learning environment?
RQ 3: What challenges are faced by faculty in creating and implementing	IQ 7: What technological challenges do you face in developing a successful

these strategies and outcomes?	online learning experience? IQ 8: What resource challenges do you face in developing a successful online learning experience? IQ 9: What challenges do you face in training of faculty in developing successful online learning experience? IQ 10: Are there other challenges you'd like to share?
RQ 4: What recommendations do you have for the future development of successful online learning environments?	IQ 11: Knowing what you know now, what would you have done differently when you started teaching online? IQ 12: What other recommendations (do's and don'ts) would you share on creating a successful online learning environment?

APPENDIX B

Pepperdine University IRB Approval Notice

Pepperdine University
24255 Pacific Coast Highway
Malibu, CA 90263
TEL: 310-506-4000

NOTICE OF APPROVAL FOR HUMAN RESEARCH

Date: January 18, 2017

Protocol Investigator Name: Autumn Luscinski

Protocol #: 16-09-392

Project Title: Best Practices in Adult Online Learning

School: Graduate School of Education and Psychology

Dear Autumn Luscinski:

Thank you for submitting your application for exempt review to Pepperdine University's Institutional Review Board (IRB). We appreciate the work you have done on your proposal. The IRB has reviewed your submitted IRB application and all ancillary materials. Upon review, the IRB has determined that the above entitled project meets the requirements for exemption under the federal regulations 45 CFR 46.101 that govern the protections of human subjects.

Your research must be conducted according to the proposal that was submitted to the IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit an amendment to the IRB. Since your study falls under exemption, there is no requirement for continuing IRB review of your project. Please be aware that changes to your protocol may prevent the research from qualifying for exemption from 45 CFR 46.101 and require submission of a new IRB application or other materials to the IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite the best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the IRB as soon as possible. We will ask for a complete written explanation of the event and your written response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the IRB and documenting the adverse event can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* at community.pepperdine.edu/irb.

Please refer to the protocol number denoted above in all communication or correspondence related to your application and this approval. Should you have additional questions or require clarification of the contents of this letter, please contact the IRB Office. On behalf of the IRB, I wish you success in this scholarly pursuit.

Sincerely,

Judy Ho, Ph.D., IRB Chair

APPENDIX C

Recruitment Script

Best Practices in Adult Online Learning Research

Dear **Study**

My name is Autumn Luscinski and I am a doctoral student and staff member in the Graduate School of Education of Psychology at Pepperdine University. I am conducting a research study examining best practices in adult online education and you are invited to participate in the study. If you agree, you are invited to participate in an interview in which I will ask a series of s regarding your experiences in online teaching. These questions will be emailed to you at least two weeks prior to the interview, which will take place at a time and location of your choosing.

The interview is anticipated to take no more than one hour and the interview is anticipated to take one hour and will be audio recorded. Participation in this study is voluntary. Your identity as a participant will remain anonymous during and after the study. You will be assigned a numeric code for identification purposes and your name and place of employment will remain anonymous.

If you have questions or would like to participate, please contact me at [redacted] or [redacted]

Thank you for your participation,

Autumn Luscinski

APPENDIX D
Certificate of Completion: Protecting Human Research Participants

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Autumn Luscinski** successfully completed the NIH Web-based training course “Protecting Human Research Participants”.
Date of completion: 02/22/2015
Certification Number: 1704530

APPENDIX E

Informed Consent for Participation in Research Activities

PEPPERDINE UNIVERSITY

Graduate School of Education and Psychology

INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES

BEST PRACTICES IN GRADUATE LEVEL ONLINE LEARNING

You are invited to participate in a research study conducted by Autumn Luscinski, MS and Farzin Madjidi, EdD at Pepperdine University, because you have taught at least one class online in the past three years in an institution for higher education with a class size of ten students or more. Your participation is voluntary. You should read the information below, and ask questions about anything that you do not understand, before deciding whether to participate. Please take as much time as you need to read the consent form. You may also decide to discuss participation with your family or friends. If you decide to participate, you will be asked to sign this form. You will also be given a copy of this form for your records.

PURPOSE OF THE STUDY

The purpose of this study is to determine best practices used among faculty in creating effective online learning experiences in higher education at the graduate level in the United States. The study will determine the various strategies utilized by faculty in creating and delivering curriculum that has proven to be most effective and which have proven to be less effective. The unique challenges of teaching adult learners in a fully online environment will be examined and recommendations will be suggested for future development of effective online learning in the higher education environment. The research will examine what makes online learning more effective and meaningful at universities. The stories and lived experiences of faculty members who teach one or more online classes at colleges or universities in the United States will guide the research methodology. The data collection will focus on strategies used by faculty/instructors to create successful online learning environments that engage students and lead to both intellectual and emotional growth.

STUDY PROCEDURES

If you volunteer to participate in this study, you will be given twelve open-ended interview questions, which correspond to four research questions via email. You will be

asked for a convenient time for the researcher to meet you at the location of your choosing for one hour. You may choose to opt out of the study at any time with no consequences. The researcher will record your verbal answers to the interview questions. Your name and place of employment will not be known to anyone but the researcher and you will be identified using an automatically generated numeric code. The responses gathered during this interview will assist in identifying best practices in the design, implementation, technology and teaching involved in masters or doctoral level classes in an online environment. The interview instrument was generated by the researcher and refined by feedback and suggestions from both a review panel of doctoral students as well as the dissertation committee.

POTENTIAL RISKS AND DISCOMFORTS

There are no anticipated psychological, social, legal or financial risks to the participants.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

While there are no direct benefits to the study participants, there are several anticipated benefits to society which include a greater body of literature regarding best practices in adult online education

PAYMENT/COMPENSATION FOR PARTICIPATION

You will receive $20 Amazon gift card for your time. You do not have to answer all of the questions in order to receive the card. The card will be given to you when you return the questionnaire.

CONFIDENTIALITY

The records collected for this study will be confidential as far as permitted by law. However, if required to do so by law, it may be necessary to disclose information collected about you. Examples of the types of issues that would require me to break confidentiality are if disclosed any instances of child abuse and elder abuse. Pepperdine's University's Human Subjects Protection Program (HSPP) may also access the data collected. The HSPP occasionally reviews and monitors research studies to protect the rights and welfare of research subjects.

The data will be stored on a password-protected computer in the principal investigator's place of business on an encrypted and password protected computer. The data will be stored for a minimum of three years. The data collected will be coded and de-identified.

SUSPECTED NEGLECT OR ABUSE OF CHILDREN

Under California law, the researcher(s) who may also be a mandated reporter will not maintain
as confidential, information about known or reasonably suspected incidents of abuse or neglect of a child, dependent adult or elder, including, but not limited to, physical, sexual, emotional, and financial abuse or neglect. If any researcher has or is given such information, he or she is required to report this abuse to the proper authorities.

APPENDIX F

Interview Questions Process

Participant Pseudonym: _____

Age: _____

Gender: M / F

Length of tenure in current role: _____

Years teaching in higher education in a face-to-face format: _____

Years teaching in higher education in an online format: _____

Highest level of education: _____

Currently employed at which type of educational institution (public, private, non-profit, for-profit)_____

_

Interview Question One: What are the elements of a successful online learning experience?

Notes:

Follow up question(s):

Interview Question Two: What qualities have been present in some of your more successful online learning experiences?

Notes:

Follow up question(s):

Interview Question Three: What pedagogical principles to you use in designing a successful online learning experience?

Notes:

Follow up question(s):

Interview Question Four: What learning activities and experiences do you use in designing a successful online learning experience?

Notes:

Follow up question(s):

Interview Question Five: What types of assignments do you use in designing a successful online learning experience?

Notes:

Follow up question(s):

Interview Question Six: How do you evaluate learning in an online learning environment?

Notes:

Follow up question(s):

Interview Question Seven: What technological challenges do you face in developing a successful online learning experience?

Notes:

Follow up question(s):

Interview Question Eight: What resource challenges do you face in developing a successful online learning experience?

Notes:

Follow up question(s):

Interview Question Nine: What challenges do you face in training of faculty in developing successful online learning experience?

Notes:

Follow up question(s):

Interview Question Ten: Are there other challenges you'd like to share?

Notes:

Follow up question(s):

Interview Question Eleven: Knowing what you know now, what would you have done differently when you started teaching online?

Notes:

Follow up question(s):

Interview Question Twelve: What other recommendations (do's and don'ts) would you share on creating a successful online learning environment?

Notes:

Follow up question(s):