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Considering the Crossroads of Distance Education: The Experiences of Instructors as They Transitioned to Online or Blended Courses

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CONSIDERING THE CROSSROADS OF DISTANCE EDUCATION: THE EXPERIENCES OF INSTRUCTORS AS THEY TRANSITIONED TO ONLINE OR BLENDED COURSES.

by

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in

English

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Abstract

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In the short history of online education research, researchers studying teacher experiences regularly relied on anecdotal examples or small samples. This research sought to support and enhance previous findings concerning the best practices in online education through a nationwide survey of online and blended course instructors. The survey inquired about demographics (such as age, race, and gender), professional position (i.e. tenured professor), institution, department, and their initial and current feelings about teaching online education. It questioned if the respondents studied online as students, what resources administrators provided, their audience, length of instructional experience, and personal behaviors such as blogging or using social media. It also asked what they would want administrators to know, all with the intent to verify current beliefs about the best practices, discover additional possibilities, and find practices, demographics, and behaviors that may be associated or correlated with positive or negative experiences in online education. The study did not acquire enough responses to

make generalizable statistical conclusions to the population of online instructors at the top higher educational institutions of the United States, yet the findings supported many of the established best practices in online education: establishing teacher presence, choosing the best content, establishing supportive class communities with interactive social activities, using variety, communicating expectations with students, beginning with clearly defined learning outcomes, making the course materials easily accessible and navigable for students, and emulating the best classroom pedagogies while acknowledging and adjusting for the differences. It also revealed six primary factors the participants felt impacted their positive or negative experiences in online learning: (a) the instructor's impressions that they/the course succeeded or failed; (b) the quality or lack thereof of student responses and learning; (c) the amount of interaction with students in the course; (d) the perceived availability or unavailability of effective, helpful, and timely support from the institution, colleagues, and IT/technical department; (e) the level of reliability, ease-of-use, and functionality of the LMS or software; and (f) the attitude of the instructor about the medium, including the freedom of design and creation; Additionally, it revealed some instructor concerns about fair compensation for time and effort, particularly when beginning online instruction.

(238 pages)

PUBLIC ABSTRACT

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CHAPTER 1

INTRODUCTION TO THE STUDY

To appreciate this research, the reader will benefit from a general understanding of technical and professional communication. Technical communication deals with the "research and creat[ion of] information about technical processes or products directed to a targeted audience through various forms of media" (Society for Technical Communication, 2015). This communication involves "the transactional, intersubjective exchange of information, thoughts, writing, or speech among participants" (Spinuzzi, Hart-Davidson, & Zachry, 2006). Professionals in this field also refine the mediation of communication, examining both theories and practices to improve the effectiveness, efficiency, and the clarity of dialogue or other exchanges of information. Unfortunately, many scholars noted that administrators who hired professional communicators often ignored the expertise cultivated within this discipline and only used them for editing and proofing documents (Faber, 2002; Giammona, 2004; Hayhoe, 2000; Johnson-Eilola, 1996; Pringle & Williams, 2005). Instead of approaching this topic from an educator's perspective as others have done (Abel, 2005; Anderson, 2008; Bernard & Rubalcava, 2000; Conole, Dyke, Oliver, & Seale, 2004; DiPietro, Ferdig, Black, & Preston, 2008; Gibbons & Wentworth, 2001; Keengwe, & Kidd, 2010; Miller & King, 2003; Mishra & Koehler, 2006; Wang, 2006) this research will explore the subject through a lens of professional communication. A fresh look at the subject from a technical communicator's standpoint could encompass a variety of disciplines used in online education such as education, pedagogy, instructional technology and learning science, instructional design,

computer programming, in addition to the particular research of each field taught through this medium.

The Need for the Study

Distance education draws heavily from a variety of classic pedagogical methodologies, yet it remains a distinct and separate practice; it cannot be explained by any single specialty, as Cargile-Cook (2005) recognized when she wrote about the various influences propelling online education:

> By all accounts, a variety of causes—economic, technological, education, and psychological—are driving administrative emphasis on the online education movement. Economically, administrators see the online movement as a way to increase enrollment (and enrollment dollars) while, at the same time, reducing the need for additional physical facilities. …The availability of technology to deliver courses online … [has] encouraged administrators to migrate university instruction to the Internet. Another compelling force behind this movement is the market for online education itself—a workforce whose educational needs continue to grow. Within this workforce are individuals who must update their skills and increase their knowledge to remain in their current jobs or to move on to new ones. (pp. 49-50)

The technological advancements Cargile-Cook alluded to have brought about a resurgence in the field of pedagogy, and moved it forward by questioning different approaches and methodologies (Epignosis, 2013). Online education generated urgency for additional research on a variety of philosophical applications, including adult-learning theory, game theory, constructivism, communities of inquiry, and communities of practice, while giving new life to rhetorical theory, critical theory, objectivist learning, and additional approaches to educational structure and pedagogy (DePew, Fishman, Romberger, & Ruetenik, 2006; de Winter, Griffin, McAllister, Moeller, & Ruggill, 2010; Salvo, 2002; Spinuzzi, Hart-Davidson, & Zachry, 2006; Yang, 2010).

Although improved by a variety of factors over the years, the consistent catalyst of online education has remained the technological advancements that enabled the field to exist, expand, and improve (Morgan & Bullen, 2011; Salvo, 2002). Berge and Collins (1995) noted how many of the significant milestones have followed technological advancements:

> Throughout the history of human communication, advances in technology have powered paradigmatic shifts in education. Technology changes both what we can do and what we decide is best to do; big shifts in culture cannot occur until the tools are available. (p. 6)

The authors went on to discuss how innovation and tool development sprouted new applications, techniques, means of communication, and opportunities for efficiency. Innovation led to research, which led to further innovation and refinements in the field.

Academics raced to test the efficacy of these advancements and developing online learning practices. They identified many strengths, weaknesses, and best practices for the use of technology in online learning; these emerging insights reseed the field for continual innovation. Seasons of innovation, testing, and application continued to yield new insights for the field in an unending cycle of improvement and progression, yet many research opportunities remain. While future research may find new online learning techniques and methodologies to be useful in a study, it remained unknown how valid and generalizable these findings are to online educators in different disciplines, institutions, and regions throughout the United States due to the following challenges.

The Problems

As scholars refined and advanced various aspects of digital learning and the creation of online educational content, they published their findings in dozens of

scholarly journals (see Distance Education Certificate Program, 2016, for a list of over fifty journals dedicated specifically to the subject of online education), academic and professional conferences, and thousands of books (as of July 2015, Amazon.com's "Digital and Online Learning" book category contained 2,744 available options). Initially, the field of online education faced the continual challenge of technological advancements outpacing the time and funding capacities of researchers. To compensate for these challenges, scholars often aimed to distill overarching principles—best practices, or principles to apply in various situations—from limited studies, to compensate for the inability to test every innovation.

The speed of advancing technology created challenges for online researchers. The extensive time, work, and resources required to perform larger population studies seemed infeasible for each innovation in this branch of learning. Amid the focus on these technological advancements, online education journals regularly accepted research that broadly speculated about the teacher's experience from anecdotal studies, localized shared experiences, and smaller, regional studies (Palloff & Pratt, 2011; Robinson, 2003). Additional publications cited those investigations so frequently that these initial findings partially guide current assumptions, practices, and beliefs. The limited sample size and geographical location of respondents (i.e., educators) in many studies called into question the applicability and universality of some of the field's generally accepted best practices (Bailey & Card, 2009; Boettcher & Conrad, 2010; Cargile-Cook, 2005; Dedhar, 2009; De Gagne & Walters, 2010; Fish, & Wickersham, 2009; Grant-Davie & Hailey, 2015; Maid & D'Angelo, 2013; Palloff & Pratt, 2011; Savery, 2005; Southern Oregon University, 2009; Swan, 2003). Though they may correctly steer modern practices, larger studies

from multiple institutions in various regions of the country could increase the credibility of previous findings, support the current research, or reveal missteps or conclusions not apparent in the current body of research. Without larger studies supporting the research in online education, scholastic questions may linger about the fundamental beliefs and practices in this medium.

Instructors played a pivotal role in administering online education; with current research, stressing that positive, consistent, interaction with students was a foundational practice among online educators (Bailey & Card, 2009; Boettcher & Conrad, 2010; Chickering & Gamson, 1987; National Education Association, n.d.; Palloff & Pratt, 2011; Southern Oregon University, 2009). Unfortunately, the teaching profession—including online educators—continually struggled from a high rate of professional mortality—departure from education to other fields (Farber, 2010; Karsenti & Collins, 2013; Stoel & Thant, 2002). Many scholars have shared their ideas for decreasing this migration. Farber's (2010) book, *Why great teachers quit: And how we might stop the exodus*, discussed various factors associated with teacher professional mortality, including the impact of standardized testing, frustrating working conditions, unrealistic expectations requiring extra time and effort, a lack of administrative support or micro-management, weak compensation, disrespect for the profession, painful interactions with parents, and the perceived or real abuses of power by politicians. Buchanan (2010) sought out former teachers and found that few regretted their decision to leave the profession; they echoed concerns of workload, compensation, support, salary, professional prestige, and working conditions. Looking at why educators left the profession, Cha and Cohen-Vogel (2011) narrowed these other categories to simply work conditions and salary. In a large, survey-

based investigation, Karsenti and Collins (2013) described how professional fulfilment atrophied through four categories: task-rated factors, emotional and psychological characteristics, environmental factors, and socioeconomic conditions within the profession. One reason why high teacher mortality is problematic is clearly apparent: when teachers quit, it forces administrators to carry on the tedious and expensive cycle of finding and preparing new staff instead of focusing on improving the quality of current teaching among their trained faculty.

Purpose of the Study

In order to respond to the problems of limited studies, lingering questions about the universality of best practices, and the high professional mortality rate, this study sought the opinions of instructors—throughout the United States with experience in online and blended course instruction—about the best practices in online education. Additionally, this study sought to fill the gap of information about the initial experiences of educators as they began teaching online (see Literature Review). Their opinions could add potential ideas to the list of best practices and discover other potential challenges online instructors face. Finally, the study asked about demographics, beliefs, and personal practices to analyze if they correlated with the instructor's positive or negative opinions about digital instruction.

In order to find potential methods or factors that would increase the positive experiences of instructors during the period when they began teaching online, the researcher determined to approach online education from the field of technical and professional communication. Using this discipline in research unwrapped additional

layers of the online educators' experience, such as the impact or nonimpact of practices like personal social media use, website creation/programming knowledge, digital literacy, and the texts used to create the course. Additionally, this research sought to confirm the continued relevance and validity of those ideas—such as best practices—previously published throughout various areas of the United States, comparing the experiences in various geographical regions with factors such as tenured versus nontenured instructors, former online students verses those new to digital education, and personal factors such as race, age, and gender.

Significance of the Study

By administering a survey to determine the opinions of many instructors from multiple institutions and areas of the United States, this study aimed to find updated, new information using statistical methods regarding factors associated with positive or negative teacher experiences in online education. This research sought to explore current beliefs about best practices while searching for additional related factors such as course creation texts and personal practices that might affect instructor opinions. It strove to provide administrators, researchers, and online educational practitioners with a foundation of information to build and improve upon. The study also sought to build on the foundation of previous studies in online education that began with the experiences, stories, anecdotes, and conclusions from those who pioneered work in this field. It sought to introduce statistical methods and technical communication practices in the analysis of this discipline.

Research Questions

To determine how to improve the experiences of North American educators at the time of transition to distance education, this study sought an answers to the questions, "What factors or attributes do teachers indicate contributed to their positive and/or negative experiences as they began online or blended course instruction?" and "What are the best practices in online education?"

Overview of Methodology

To answer those questions, this study used a nation-wide, mixed-method study employing qualitative-descriptive analysis and statistical calculations, administered through an Institutional Review Board (IRB) approved online survey. In order to increase the validity of the study, it sought responses from the entire population of online/blended course instructors and administrators at multiple higher education institutions throughout the United States. This survey inquired about what types of courses the respondents had taught, how they began to teach online, demographic information, career information, their experiences teaching online, what department employed them, their feelings about their experiences, past involvement in digital education as a student, their perspective of best practices, how they created their first course, to whom they taught their course, past teaching practice, personal experience with digital mediums, training received, and what resources were available as they began.

After collecting the information, I performed simple linear regression tests to study the relationship between the variables and the initial experiences or current feelings of the instructor about online education. The study compared the results and responses

within the instrument from different institutions to understand if the results of schools varied. The research employed qualitative-descriptive methods to analyze the open-ended responses from the survey where teachers revealed their beliefs about what practices or actions contributed to their positive or negative experiences in the field.

The results of the collected information in this research shared implications and statistical associations about the factors teachers indicated led to positive experiences in online education. These results provide administrators, academic researchers, online/blended instructors, and other interested parties, patterns for future hiring and training decisions. Administrators could use the implications of this research to assist individuals as they transition to online/blended teaching. Instructors may find answers about how to approach or refine teaching in digital environments. Researchers will have opportunities to recreate the research at additional institutions or flesh out various findings within the field. Each group could then use the ideas they glean from the study to improve the teachers' experiences, thereby increasing the likelihood of continued involvement or improvement in online instruction.

Terminology

This study used the definitions for distance education and online education derived from the work of Keegan (1980), who drew upon the work of Holmberg (1977), Loi (1971), Moore (1973), and Peters (1972), to create the following definitions of distance education and online education:

> *Distance education*: education, training, or learning where the learners are separated in space from the instructor (source of information), involving a formal methodology of training (such as course or module), within a subject of study. Additionally, it employs appropriate technology to mediate interaction.

> *Online education:* The current primary means of distance education, possessing four necessary characteristics: first, online education is reliant on the Internet for interaction; second, it cannot occur without identifiable technologies that permit communication and enable understanding; third, these technologies may vary from class to class, being as simple as a computer with a browser and an internet connection, to being as complex as requiring specifically-designed rooms for class involvement; and fourth, it involves the specific, conscientious, presentation of knowledge and understanding—a course of study—that separates it from independent online learning.

It employed the online, blended/hybrid, and traditional/face-to-face courses established by Boettcher and Conrad (2010), which they adopted from their previous work (2004) and the Allen and Seaman (2008) study.

> *Online course/class:* A series of lessons in a particular subject where eighty percent of the course occurred in digital space.

> *Blended course/class:* A series of lessons in a particular subject where thirty to seventy-nine percent of the course occurred in digital space.

> *Traditional* or *face-to face course/class:* A series of lessons in a particular subject where less than thirty percent of the course occurred in digital space.

In those definitions, this paper offers the following designation:

> *Digital space:* The intangible area created through programming—stored on hard drives or other media, wherein beings can interact with each other, texts, and created environments—accessed through an Internet, intranet, and/or other electronic medium.

Limitations of the Study

The study design limitations of this research center on the populations the survey analyzed. I confined this research to schools in the United States of America. Though it could indicate potential associations for other regions, such possibilities would require further studies. Additionally, the instructors surveyed came from top baccalaureate granting higher education institutions and researchers cannot apply the results to other

levels of education such as high school, certification-based institutions, trade schools, or lower-ranked institutions without further research.

Additionally, the nonresponse rate of both institutions and individuals to the survey opportunity and instrument limited the applicability of the findings to those involved in the survey. Chapters three and five discuss the extent of these limitations and the effect on the study.

Assumptions

This paper accepts three assumptions. First, the survey respondents answered the questions honestly. The survey employed multiple measures taken to ensure anonymity and protect information so instructors could respond honestly without fear of repercussions from their administrators. The procedures preserved confidentiality through biometric controlled computers and password encrypted files, which the Informed Consent document informed participants of prior to their participation. The email and introduction splash page of the survey reminded them of these procedures.

Second, the randomly selected sample is representative of the populations outlined above. The use of the random number chart prevented instructor bias in school selection and provided schools from various regions throughout the country.

Finally, the Qualtrics instrument correctly recorded and categorized the responses of the online instructors. If either the first or third of these assumptions proved invalid, the results of the study would be compromised. The second assumption, as discussed in later chapters, became insignificant due to the study's application, but not to the internal

conclusions of the study. It would have influenced the findings if they were large enough to describe the general population.

CHAPTER 2

LITERATURE REVIEW

"One would have to look back at the early open learning institutions as forerunners of the current [online education] … movement" (Willis, 1994, p. 7).

Literature reviews in papers or articles about online and distance education often included a short historical background of the field (Holmberg, 2005; Keegan, 1986; Kidd, 2010; Nasseh, 1997; Sumner, 2000; Watkins & Wright; 1991). Authors often focused primarily on the key events relevant to their argument or thesis in their accounts of the past. This chapter seeks to provide an encompassing history of many events and accounts. To accomplish this, I will start by looking back and defining the field. Then I will recount the advancements throughout the discipline's history to understand the current academic landscape that seeded this research. Finally, I will catalogue the academically established best practices and discuss the literature review that identified gaps in the current research.

Defining the Field

Before recounting the history of online education, one should identify what constituted the field and how the author reached the definitions contained in the Introduction to the Study. The *definition* question has been hotly debated since before distance education went digital, but did the arguments that separated distance education, eLearning, and online education help researchers in the field, or do they merely muddy academic waters? Some clarification helped define the field, but as sources of informal and formal education mingled in past years—such as learning through mediums such as

Lynda.com or on YouTube channels like Khan Academy—the ideas that once clearly defined lines between these terms have blended and faded.

Defining Distance Education

Online education is the current primary means of distance education (Allen & Seaman, 2013). In the inaugural issue of the journal, *Distance Education*, Keegan (1980) drew upon the work of other scholars to create the following multi-faceted definition of distance education:

> Distance education is characterized by [1] the quasi-permanent separation of teacher and learner throughout the length of the learning process; this distinguishes it from conventional face-to-face education; [2] the influence of an educational organization both in the planning and preparation of learning materials and in the provision of student support services; this distinguishes it from private study and teach-yourself programs; [3] the use of technical media … to unite teacher and learner and carry the content of the course; [4] the provision of two-way communication so that the student may benefit from or even initiate dialogue; this distinguishes it from other uses of technology in education; [5] the quasi-permanent absence of the learning group throughout the length of the learning process so that people are usually taught as individuals and not in groups, with the possibility of occasional meetings for both didactic and socialization purposes. (p. 18)

Seven years later, the introductory issue of *The American Journal of Distance Education* published an article by Garrison and Shale (1987) criticizing Keegan's definition for being too narrow and restrictive (p. 7). Their self-proclaimed "simplified" definition stated that:

> There are three criteria essential for characterizing the distance education process—two of which are really corollaries of the first. Although the second and third logically follow from the first, they are necessary to clarify the distance education process. 1. Distance education implies that the majority of educational communication between (among) teacher and students occurs noncontiguously [not touching or in contact with]. 2. Distance education must involve two-way communication between (among) teacher and student(s) for the purpose of facilitating and supporting the education process. 3. Distance education uses technology to mediate the necessary two-way communication. (p. 11)

Keegan (1988) countered their arguments in a following issue, charging that they failed to grasp his theory and its broad implications.

The following year Moore (1989) presented another definition, defining distance education through a theoretical lens of networks, focused on the interactions of those within a network. He identified *learner-content, learner-instructor,* and *learner–learner* interactions as the source of education. A few years later, Hillman, Willis, and Gunawardena (1994) insisted that Moore's discussions of interaction overlooked the importance and value of technology in these learning situations. For example, technologies such as satchels, mailbags, sorting machines, conveyor belts, or vehicles mediated distance education courses available through traditional post since their origination. This led Hillman and colleagues to add *learner-interface* interaction to Moore's definition. After observing courses that involved multiple students interacting in the same environments, such as in asynchronous discussion forums, Sutton (2001) added *vicarious interaction* to Moore and Hillman's list (Woo & Reeves, 2007, p. 16).

Muirhead and Juwah (2004) focused on those categorized interactions, defining them as "a dialogue or discourse or event between two or more participants and objects which occurs synchronously and/or asynchronously mediated by response or feedback and interfaced by technology" (p.13). The interactions promoted active learning, enabled effective communication, allowed learner input in the knowledge making process, facilitated the development of higher-order knowledge and abilities, and enhanced the quality and standards of the learning experiences.

These changes in definition came from the application of a theory that defined distance education through genres and relationships. In 1981, two scholars in the field of

science and technology, Callon and Latour, laid the foundation for what would become an impactful theory over the coming years in professional and technical communication. By examining the relationships within distance education, scholars could analyze the interactions and improve efficiency, pedagogy, and communication. The early scholars did not recognize the depth of the relationship between the user and the technology, but this understanding came as the theory evolved.

Sadly, the debate over the best definition for distance education (sometimes referred to as distance learning, dlearning, or d-learning) raged on because of varying levels of academic comfort with such theoretical perspectives and general ambiguity. Certain ideas proved unable to withstand the test of time, such as Keegan's perspective on the isolated nature of distance education, while others—like his perspective on technology—have remained. One could appreciate the theoretical progression achieved from these discussions and acknowledge nuances of these definitional debates, and then adopt a broader, simplified definition of distance learning in hopes of providing a larger, perhaps growing, resource for future studies:

> *Distance education*: education, training, or learning where the learners are separated in space from the instructor (source of information), involving a formal methodology of training (such as course or module), within a subject of study. Additionally, it employs appropriate technology to mediate interaction.

This definition does not account for how individuals conveyed the information, and therefore remains broad enough for past, current, and future development. By establishing such defined parameters, researchers could confine their studies to the field of distance education or clarify if their scholastic investigation encompassed other means of electronic learning. This further clarification became necessary following the advent of

the information age and the Internet provided significant opportunities for learning outside formal education.

Defining Online Education

With distance education defined, we could focus on online education. As stated earlier, online education is a means of distance education. Like distance education, multiple definitions exist for online education. Various journals have published papers analyzing the differences (or lack thereof) between e-learning, online learning, and distance learning (see Moore, Dickson-Deane, & Galyen, 2011 for analysis of the various perspectives). The majority of these differences are inconsequential *definitional* stasis arguments that allow clarification for various viewpoints or theories yet, outside of interchangeable terms, a significant characteristic difference exists: "Some definitions and evaluation instruments discuss and use 'courses' or 'programs,' while others are based on *'learning objects'"* (Moore, Dickson-Deane, & Galyen, 2011, p. 131). This clarification of the scope, environment, and instructional elements of online education separated it from other technologically mediated learning.

The additional attributes of online education that contextualize its philosophical realm within distance education are twofold: first, online education is reliant on the Internet for interaction; second, it cannot occur without specific technologies, but these technologies may vary from class to class, being as simple as a computer with a browser and an internet connection, or as complex as requiring specifically-designed rooms for class involvement.

Online education has spread throughout the globe and now covers almost every subject of formal study available, but some forms of online learning and e-learning do not

fit within the definition of distance education due to their informal nature. Many Internet learning opportunities occur without formal structure (and therefore, without set learning outcomes), without deliberate instruction or instructors, or without conscientious learning; it is helpful to recognize these as falling outside the field of online education in order to narrow down the best practices and research surrounding online education.

A presentation, text, or video may portray knowledge, skills, and understanding, yet if no established course or certification exists, professionals should consider it *learning*, not *education*, even if the text conveyed the same subject material as a formal course. For example, a YouTube video on HTML programming would qualify as eLearning, but it would need to be part of an established curriculum to be considered a part of the field of online education. Postmodern thought argued that all learning involves nondeliberate and nonconscientious learning, so postmodernists may see such specific clarification of online education as a mistake in years to come, yet these lines prevent blurring between the differences between independent *learning* and *education.* One example of this overlap occurred when an individual views a series of training videos on a subject from an eLearning source, like Lynda.com, for a formal accredited course as opposed to learning independently. Other aspects of modern learning further blur the lines. Massive Open Online Courses (MOOCs) could be taken for either formal or informal learning. Nonaccredited organizations, such as the Khan Academy, provide highly effective tutorials that could result in excellent learning, but do not result in credit. Unless academics find a new definition (or definitions) for online education (and its digital learning siblings)—along with theories that could clarify the fields—they may

have to choose between arcane definitions for education, or the difficulty of blurry parameters in rigorous research.

This research used a synchronized definition, combining these various ideas of online education as presented in the Introduction to the Study:

> *Online education:* The current primary means of distance education, possessing four necessary characteristics: first, online education is reliant on the Internet for interaction; second, it cannot occur without identifiable technologies that permit communication and enable understanding; third, these technologies may vary from class to class, being as simple as a computer with a browser and an internet connection, to being as complex as requiring specifically-designed rooms for class involvement; and fourth, it involves the specific, conscientious, presentation of knowledge and understanding—a course of study—that separates it from independent online learning.

This form of *distance* education could occur across time or space. For example, an instructor may leave digital videos in a lab for students to retrieve though they may not meet until later, if at all.

The History of Online Education

The history of online education is one of evolution not revolution. Unlike some fields where shocking discoveries changed everything—like the realization of earth's spherical nature—this field's progression stemmed primarily from thoughtful debate and insight. Mistakes and errors fell by the wayside as scholars debated how to analyze and implement the best practices. These arguments remained deeply entrenched in the technologies, events, and theories surrounding the history of distance education and provided necessary context for further insight.

Cargile-Cook (2005) recognized the various influences propelling online education when she wrote:

> By all accounts, a variety of causes—economic, technological, education, and psychological—are driving administrative emphasis on the online education movement. Economically, administrators see the online movement as a way to increase enrollment (and enrollment dollars) while, at the same time, reducing the need for additional physical facilities. …The availability of technology to deliver courses online … [has] encouraged administrators to migrate university instruction to the Internet. Another compelling force behind this movement is the market for online education itself—a workforce whose educational needs continue to grow. Within this workforce are individuals who must update their skills and increase their knowledge to remain in their current jobs or to move on to new ones. (pp. 49-50)

Throughout all of these different causes, one nurtured growth more than the rest. The catalyst of this movement remained the technological advancements that enabled the field to exist and improve. In examining the history of online education, many of the significant milestones of progress followed technological advancements. These tools sprouted new applications, techniques, means of communication, and (sometimes) efficiency. New ideas or previously unforeseen aspects lead to altered theories. These seasons of innovation, testing, results, and application continue to yield insights in the field. Therefore, the story of Online Education surrounds the medium of its delivery; many of the significant scholarly discussions followed technological advancements.

The technological advancements supporting online education ploughed up the stagnant academic field of pedagogy, and moved it forward from continual discussions about the value and means of testing to reexamine educational approaches and methodologies. This urgency sprouted a variety of philosophical applications, including adult-learning theory, game theory, constructivism, communities of inquiry, and communities of practice, while giving new life to rhetorical theory, critical theory, objectivist learning, and other varied approaches to educational structure and pedagogy.

Origins and Questions of Quality

The first record of formalized distance education occurred in 1728. Caleb Phillips offered a correspondence course for those who wished to learn shorthand. He sent lesson materials to students by post from Boston (Holmberg, 2005, p. 13; Straighterline, 2012). Some might argue that distance education began thousands of years before this event when individuals provided warfare, trade, or religious instruction and training through letters, epistles, and couriers (see examples in Josephus, 1836; Timothy, King James, 2015). These may or may not have been formal education courses, therefore these communiqués were distance learning, and only the forerunners of distance education (Sumner, 2000, p. 273).

One of the first challenges to distance education centered on questions about the quality of instruction. Since the ancient times of the Greek philosophers' dialogical method, to the wealthy hired tutors whose lives persisted if young masters learned the history and ideas of the day, up to modern debates about public versus private schools, parents and leaders raised concerns about the quality of education; such questions are almost as old as formal education itself.

Many examples of this concern about the value and worth exist in the history of distance and online learning. In the 1800s, Isaac Pitman of Great Britain established a shorthand course via correspondence similar to that of Phillips' earlier Boston-based course. However, Pitman's course differed significantly from that of Phillips'. In order to increase his credibility, decrease complaints about quality, and demonstrate the effectiveness of his course, he required students to complete and return the assignments of the course to him, constituting the first learner-instructor course material in distance

education (Epignosis, 2014; Straighterline, 2012). By the 1830s, the correspondence model of distance education became commonplace in Sweden, England, and Germany (Cargile-Cook, 2005).

The education movement of the late 1800s led many American, Canadian, and European universities to produce distance education correspondence for elementary, secondary, and postsecondary education. Other private organizations of varying reputations offered degrees and formal education in these countries and other British colonies (Sumner, 2000). Two specific courses surpassed the traditional boundaries of the time. The first happened in 1873 when Anna Eliot Ticknor established a correspondence school providing educational opportunities for women of varying races and social strata (Bruder, 2011, p. 588). Shortly thereafter, in 1882, the United States offered distance courses to immigrants outlining and inculcating them into the societal norms of the country (Sumner, 2000). This introduced government involvement in the field.

Early 1900s

In the early 1900s, "The Soviet Union used correspondence study to widen educational opportunities and combine study with productive work" (Sumner, 2000, p. 274). Other Eastern European countries would follow this prototype and adapt it for adult schooling and indoctrination over the coming war years.

In 1904, College professors began to take advantage of the growing number of train lines that connected them to outlying communities to provide blended distance courses. They would travel to the outlining towns and hold classes. They would leave materials for further study, and return occasionally to collect work and hold classes. Other correspondence studies became increasingly common in the early twentieth century

as trains (a technological advancement) increased the speed of communication in correspondence courses, though enrollment and production faded during World Wars I and II (Nasseh, 1997).

In 1922, Pennsylvania State commenced distance education course broadcasts employing the increasingly common media of radio (Straighterline, 2012). This technology introduced an era of broadcast courses and course offerings without certification or credit attached. This philosophically set the precedent for future audited courses and MOOCs. By 1925, the federal government had granted more than two-hundred radio broadcasting licenses to educational institutions for the purpose of increasing the population's education through a greater number of distance education broadcast courses (Straighterline, 2012).

The desire for credit from these and other classes created the need for a technological advancement: testing machines. Such tools created proctored exam opportunities at distance locations, to allow off-campus higher education students to receive recognition or degrees away from institutions and instructors. "The first testing machine was created [in 1924] that allowed students to test themselves" away from a campus (Epignosis, 2014).

Unfortunately, such quick educational growth technologies provided opportunities for some to seek profit over distance education products—a concern that persists in education discussions (Eom, Wen, & Ashill, 2006). In 1926, the U.S. Government created the National Home Study Council to "monitor and ensure quality control" (Casey, 2008, p. 49). Their mission was to remedy the poor education correspondence courses and schools had developed from dubious business practices. It is unclear if the

opponents founded the accusations that led to the bad reputation of distance education courses in valid research principles, yet these claims against distance education persisted in spite of later research indicating the validity of the method (Willis, 1994). The Federal Trade Commission also established regulations preventing false advertising in distance education courses around this time (Adams, 2006, p. 6).

Mid-1900s

In 1938, the first conference of the International Council for Open and Distance Education (ICDE) started in Victoria, British Columbia. Distance learning became an organized, recognized field. Since this time, twenty-five subsequent conferences have been held by the organization, whose goal is "enhancing the quality of open, distance, flexible and online education" (ICDE, 2015; see also Bunker, 2003).

Just as trains opened distance education opportunities and speed, in the middle of the twentieth century, automobiles enabled instructors to drive to even more rural areas to deliver lectures and enhance correspondence courses. The advent of commercial flight enabled schools with sufficient endowments to bring in guest lecturers for enhanced learning. Many of these lectures were broadcast as part of distance education opportunities provided by the institutions (Watkins & Wright, 1991).

If the technological means of post and transportation defined the first era of distance education, then the technological advancements of the 1950s and 1960s proved to be a major turning point in distance education ushering in the second era, one dominated by machines and connected networks.

In 1954, Harvard professor B. F. Skinner, invented the "teaching machine." This delivered programmed instruction to students without an instructor being present

(Epignosis, 2014). Shortly thereafter, scholars introduced the first Computer Based Training (CBT) program. Called PLATO (Programmed Logic for Automated Teaching Operations), they used the machine in schools throughout the area surrounding the University of Illinois in 1960 (Epignosis, 2014).

The 1960s

Willis (1994) aptly summarized how both telecommunication technologies moved distance learning forward accompanied with an increase of open learning opportunities over the next few decades when he wrote:

> "Review of the distance education literature from 1960 to 1980 reveals an impressive growth curve attesting to an increasing body of knowledge throughout the world. Literature during this period was primarily descriptive, providing a balanced world view of problems and solutions in correspondence programs and the emerging area of distance education. ... Since 1980 the literature on distance education, open learning, and interactive technological learning interventions has burgeoned and has shown a bias toward the new and emerging technologies of distance learning with heavy emphasis on telecommunications driven advances in delivery methods. (p. 6)

Early in the 1960s, Suppes predicted that future tutoring would occur by or through the medium of a computer, proposing the field of e-learning before it became called such. He then pursued this vision, creating proposals and working on possibilities for computer-assisted learning. (Kidd, 2010).

In 1961, Kleinrock, a professor at MIT, published his first paper on packet switching theory that theoretically replaced circuits for packets (Leiner, et al., 2012). This enabled the philosophical and physical innovations necessary for experiments that lead to the Internet. Following this, Blitzer—who created PLATO—proposed that a time-shared computer system could deliver stand-alone computer education. To achieve both of these means, an educational programming language (TUTOR) was created to interact with the

computer, use courseware, and share electronic notes. Among other advancements, this coding and software laid the foundation for modern conferencing systems (Kidd, 2010).

In 1962, Licklider of MIT sent the first social interactions through a network. His message discussed his "Galactic Network" concept of globally interconnected computers (Leiner, et al., 2012). Theoretically, the internet was born. The University of Wisconsin increased the use of networks in 1965 when they established the first telephone-based education program. This was the first recorded example of group conferencing through technology, simultaneously through multiple locations (Straighterline, 2012).

Using a low-speed dial-up telephone line, Kleinrock, Merrill, and Roberts connected the TX-2 computer in Massachusetts to the Q-32 computer in California in 1965 (Leiner, et al., 2012). In 1966, multiple individuals at multiple institutions independently developed ideas for sending usable packet information in secure voice networks (Leiner, et al., 2012). Recognizing the potential military implications for such abilities, the United States Department of Defense created and funded the Advanced Research Projects Agency Network (ARPANET) from 1966-1969. This was the first functional packet switching network, and the predecessor of the Internet (Leiner, et al., 2012).

While the foundational technologies emerged that would lead to online education, other advancements in distance education continued. In 1968, Stanford University founded the Stanford Instructional Television Network. The station provided instruction for part-time engineering students (Straighterline, 2012). Just like with radio about forty years earlier, other Universities adopted this means of education. Many institutions still own television stations and broadcast education courses through this means.

The 1970s

Beginning in 1969, Open University—the first learning and research university dedicated to distance learning in the United Kingdom—began to offer interactive educational experiences through telephone communication technologies, in addition to their correspondence courses available through post (Epignosis, 2014).

In 1971, Ivan Illich wrote *Deschooling Society*, which accused the current educational institutions at that time of being ineffective and inefficient. His book gathered international attention and presented his perspective that self-directed education would be the ideal means of learning. He proposed and described how computer-based education could revolutionize and solve the gaps in current education models (Straighterline, 2012). It is not surprising that his ideas about the ineffectiveness of organized education arose in the 1970s when a significant voice of popular opinion opposed government and institutions of any kind. Unfortunately, his theory only proved partially correct. Traditional education, in spite of its accused flaws, successfully passed on knowledge and continued to lead to technological, theoretical, and scientific advancements. Looking back, public education did not reach its pedagogical peak in the early 1970s or require the shift Illich proposed, yet his claim that computer-based education could revolutionize gaps in education models eventually proved correct for many individuals whose learning style and personal educational preferences could be enhanced by the online medium.

In 1973, IBM began work on the first "portable" Personal Computer (PC), the IBM SCAMP (Special Computer APL Machine Portable), with a CRT screen, keyboard, and magnetic cassette drive. The magnetic cassette drive made it a single-use device.

Other companies such as Xerox, Compaq, Osborne Computer Corporation, Apple, and Commodore started development of personal computing devices (Metz, 2007).

Technology continued to push distance education forward. In the late 1970s satellite and cable technology delivered formalized distance education lecture courses to campuses and homes throughout the nation and the world instead of just within the local airwave range of Universities (Watkins & Wright, 1991). The University of Phoenix was formed in 1976 to cater to adults needing flexible higher education options (Straighterline, 2012). Their blended learning model used both distance education, and local instructors in traditional classrooms to meet these needs. This pioneered the current adult-centered for-profit education movement that continues to increase in popularity each year (see Allen & Seaman, 2003; 2004; 2005; 2006; 2007; 2008; 2009; 2010; 2011; 2012; 2013).

Keegan's (1986) review of the history of distance education claimed five things significantly impacted and improved distance education during the 1970s: (1) the development of new communications technology; … (2) sophistication in the use of print materials; … (3) improved design of instructional materials; … (4) better support services for students; … [and] (5) the founding of the Open University... and similar structures in developed and developing countries (Willis, 1994, p. 8). Each of these would impact the future of online education. Technologies would be used, improved writing and curriculum would impact teaching, student support would become a primary best practice in the field, and the open universities would transition to online universities in the decades to come.

The 1980s

Walden University became the first university to cater solely to distance education students in 1982 (Nasseh, 1997). That year, the Computer-Assisted Learning Center (CALC), a computer-based learning center for adults, was established (Straighterline, 2012). Similar to previous centers that used machines or technology, this represented the first large-group courses mediated through computers with motherboards and processors.

In 1983, the Macintosh Corporation mass-produced the first consumer-directed computer, the Apple Lisa (Berger, 2011). Shortly thereafter, they released the Macintosh IIC, which used an external disk drive, enabling software to be purchased separate from hardware. This opened up computer-mediated distance-learning and distance-education opportunities in homes and businesses. Apple computers dominated the personal computer market for the next decade and a half.

In 1984, a forward-thinking Irish entrepreneur Bill McCabe convinced Lotus Notes to invest in his technological vision of customers paying for training online. Computer-Based Training (CBT), the first form of mass-product computer education began. Though initially rejected by every major hardware vendor, his company managed to take root, and eventually won over other businesses and created a highly competitive, booming market for this form of distance education (Cross, 2004). Other companies would copy his model and provide businesses and consumers with software courses.

The 1990s

Over time, computer speeds, operating systems, memory, and functionality improved. Personal computer prices dropped, and they became commonplace in homes.

At this time, businesses began to turn to the Internet for education. Web Based Training (WBT) became a hip alternative for CBT and the most cutting-edge means of education (Kidd, 2010). Initially, the simple text-on-screen training with the occasional picture maintained interest because of the novelty of the medium. It took time for quality instructional principles to catch up with the technology. Though cutting-edge, the primary means of CBT through the 1990s was CD-ROMs, which carried the best combination of storage capacity and speed at that time (Cross, 2004).

In 1992, online education experienced a significant boost in respectability, as The American Online Program became the first accredited online Doctorate of Philosophy; the major was Integral Studies (Straighterline, 2012). This contradicted the untested belief that online education was inferior to traditional, face-to-face education. Other fields joined the world of online education over the next six years, with the "first reports of courses taught from a distance" in the Technical Communication field arriving in 1994 published (Cargile-Cook & Grant-Davie, 2005, p. 1). The first school to offer a completely online curriculum was CALCampus—formally a distance education campus catering to those in need of high school make-up credit or early college credit—in 1994 (Straighterline, 2012).

The primary means of broadcast education in the 1990s came from satellite technology. Many schools installed satellite systems and began to broadcast courses via uplink to branch campuses or other sites (Nasseh, 1997). Some families were wealthy enough to have a private satellite dish could receive the broadcasts at home.

In theory and partial practice, education in the United States is a State responsibility. To address the growing field of distance education, nineteen state

governors pooled their distance education resources in 1995. They formed Western Governors University to address the increased educational needs, costs, and difficulties of population growth (Straighterline, 2012). Their efforts to incorporate CBT and WBT represent the first government involvement into online education. Other organizations would follow this example, and group together to lower costs and reach a greater audience. For example, in 1997, California Virtual University (CVU) went online, offering more than 1000 online courses through California colleges (Straighterline, 2012).

In 1996, various institutions of higher education—such as the Technical and Professional Communication program of Utah State University's English Department—developed online course tools to deliver course content and lessons through online means. These programs became the predecessors to third party Learning Management Systems (LMS) and Course Management Systems (CMS) such as Moodle, Blackboard, and Canvas (interview with Dr. Keith Grant-Davie, March 25, 2014).

The first of these course connection tools launched in 1999: Blackboard, eCollege, and Smarthinking (Straighterline, 2012). These technologies and standardized delivery formats for online courses and would significantly shape the format of the majority of online courses over the coming years. As research grew and the companies received feedback from instructors and studies, they evolved to meet the teachers' requests, whims, and sometimes the field's best practices. Over time, teachers gained more tools and control over the content of their courses, but less control over the delivery format as quizzes and other mediums became standardized through the respective institutions. This technology established online learning as the premiere means for

distance education, replacing CD-ROM technology as high-speed connections and Internet connectivity became standard at educational institutions and spread to homes (Cross, 2004).

In 1999, two significant concepts arose. First, speakers at the Computer Based Training (CBT) systems seminar coined the term e-learning (or eLearning) (Epignosis, 2014) and it became a recognized field in distance education. Second, developers announced the concept of Web 2.0. Though it did not change the Internet infrastructure, over the following five years, it went on to change web content creation and interaction opening doors for Facebook, Twitter, and other social media. Distance education organizations employed these various tools in communication and teaching functions (O'Reilly & Battelle, 2009). The concept of Web 2.0 began to change social, educational, and professional communication as well as course and content creation for distance learning.

At the end of the twentieth century, The National Center for Education Statistics "reported that 78 percent of public four-year colleges offered at least some distance education courses, which enrolled more than 1.6 million students (Estes, 2013, p. 96).

Early 2000s

With the foundational infrastructure established, scholastic research, administrative support, and a rapid rate of technological advancements propelled online education forward into the twenty-first century.

Just after the turn of the century, the Ericsson Mobile Communications company released the first phone to receive the title and classification of "smartphone," the R380 (Bowman, 2000). The ability to access email, messages, maps, and the Internet through a

small personal phone would mold worldwide connectivity and education until the present day.

In 2001, Apple began it assent towards becoming the worldwide leader in personal electronic devices with the release of the iPod. This device was the hardware ancestor of a host of future products individuals would employ in their online education and other distance-learning endeavors. When paired with iTunes software (released in 2003), these devices would soon feature mediums employed by eLearners and formal education institutions alike in the form of podcasts, course downloads from iTunes U, and other audio and video streaming/download opportunities. Apple would eventually release the iPhone in 2007, enabling mobile downloads of such course content (Berger, 2011).

In the early 2000s, companies began using eLearning for professional development within their organizations, not merely for initial training potential hires and customers. Some consider this movement the turning point for online education. Working professionals realized they could advance their degrees, value, and marketability through additional education while maintaining their current employment.

In 2002, prestigious, storied universities made some significant forays into online education. The Massachusetts Institute of Technology (MIT) released the OpenCourseWare project (Straighterline, 2012). The school eventually put their entire curriculum and courses online, available to the public, free of charge. It also led to collaboration with Harvard and other universities in the edX project, providing classes online between the universities.

With the increased collaboration movement, Dougiamas (Dougiamas & Taylor, 2002) developed the open-source Modular Object-Oriented Dynamic Learning Environment (Moodle) to increase interaction and collaborative content construction in online environments (Moodle). This LMS would push industry leaders to alter their approach and incorporate additional tools into their services. Additionally, Moodle's open source code enabled anyone with access to the Internet the ability to create online courses. Individual instructors, institutions, businesses, and other organizations could produce eLearning or online courses without LMT or CMT overhead costs.

Gaming became a hot topic in online education in 2003 when Linden Lab released Second Life, popularizing digital living space. Universities and educational institutions recreated themselves and some of their courses in digital space. Administrators used the software to create modern and historical environments for enjoyment and education, allowing students to take virtual tours of battles, museums, and locations (Second Life Wiki, 2015). Learning through games and play became a significant subject of research and a regular medium for course learning (McAllister, 2004). Games excelled at providing learners with situations to roll play and practice applying what they learned. Technology led to significant advancements in game-based situational learning. In 2008, a company in London produced the first virtual-environment-training program. This allowed paramedics to practice realistic situations without victims, giving them hands-on experiences before their internship in the field (Straighterline, 2012).

Increasingly helpful online resources and sites blurred the distinctive line between online education and online learning as instructors in formal courses began to send their

students to online learning websites to supplement course materials, tutor students, complete homework, and increase subject-matter expertise. With funding from the Bill and Linda Gates foundation, Salman Khan formed the Khan academy in 2008. Though this academy did not aim to become a credentialed school, it provided video tutorials by subject-matter experts. It quickly became one of the major resources for online instruction, tutoring, home school students, and even as a media supplement to traditional classrooms (Straighterline, 2012).

In 2009, United States President Barrack Obama set aside nine billion dollars in government funds to create grants to help higher education schools compete in a worldwide market. Politicians designed these funds for the creation and improvement of online programs and job training. Of this, they earmarked five hundred million dollars for open online education courses (Jaschik, 2009). This earmark separated funds specifically for online education use. Unfortunately, questionable ethics and corruption tainted the use of those funds, in addition to some questionable practices of for-profit institutions on acquiring government loans for students. This led the United States government to institute graduation rate, job placement, and fiscal regulations and restrictions on online institutions (Burnsed, 2010).

Apple introduced the iPad in 2010. This tablet computer would become one of the most popular classroom and institution learning tools. Education applications (apps) and games were among the most commonly downloaded. Entire companies sprang up to meet the demand for tools and resources (Berger, 2011). Additionally, the Internet connectivity, cellular/Wi-Fi access of later models allowed students to access coursework

from most common urban and many suburban or rural environments. Once again, technology drove the digital education and learning markets forward.

The line between online learning and education continued to blur in 2013. Harvard and MIT partnered with UC Berkley, The Texas University System, TUDelft, EPFL, Georgetown, McGill, Rice, Columbia, The University of Toronto, Wellesley, The Berkeley College of Music, Boston University, Cornell, Davidson, The University of Hong Kong, The Hong Kong University of Science and Technology, Karolinska, Kyoto, UCL, Peking, The Seoul National University, Tsinghua, Techinsche Universitat Munchen, The University of Queensland, The University of Washington, and Caltech to offer thousands of full online courses and Massive Open Online Courses (MOOCs) from the world's leading experts on each of the subjects through edX (edX, 2013).

The first Sloan Consortium report of online education in higher education institutions found that more than 1.6 million students (11 percent of postsecondary education) took at least one online course during 2002 (Allen & Seaman, 2003). This organization and others like it that tracked distance-learning statistics brought increased awareness and credibility to the field, increased opportunities for validating funding and programs, and showed the growth of online education across time. As more information about online education became available, educational organizations, businesses, public schools, private schools, colleges, universities, and other companies accepted distance learning. Over time, this movement would cause distance learning to become an integral part of education worldwide. Further reports of students enrolled in at least one higher education online course would come yearly from the Sloan Consortium: 1.98 million in 2004 (Allen & Seaman, 2004); 2.3 million in 2005 (Allen & Seaman, 2005); 3.2 million

in 2006 (Allen & Seaman, 2006); 3.5 million in 2007 (Allen & Seaman, 2007); one fifth of higher education students took an online class in 2008, 3.9 million (Allen & Seaman, 2008); 4.6 million, one fourth of the higher education population, were online in 2009 (Allen & Seaman, 2009); 5.6 million students in 2010 (Allen & Seaman, 2010); 6.7 million, one third of students, in 2011 (Estes, 2013); 2012 the number remained basically constant, but in 2013, the number increased to 7.1 million (Allen & Seaman, 2012; Allan & Seaman, 2013; (Estes, 2013). By the end of 2013, over ninety-six percent of traditional universities offered at least one formally designated online course (Straighterline, 2012).

Questions of Online Education Effectiveness

Throughout history, educators have had to balance maintaining effective educational practices and technologies while being open to new methods and mediums. Whenever new curricular methods or technology came about, arguments arose for or against their implementation. It is therefore no surprise that many individuals and organizations have been reticent or opposed to adopting the innovations and technology of distance learning and online education.

There have been many claims against the validity, efficiency, and effectiveness of online education in comparison to traditional education. Such claims have been continually rejected through hundreds of studies and a wealth of personal experiences by those who have taught both traditional face-to-face classes and online courses (for a sampling of these studies consider: Arbaugh, 2000; Blakeley and Curran-Smith, 1998; Cargile-Cook & Grant-Davie, 2005; Cargile-Cook & Grant-Davie, 2013; Fallah and Ubell, 2000; Hiltz, Zhang and Turoff, 2002; and Johnson, Aragon, Shaik and Palma-

Rivas, 2000). The claims that distance education "is not a pale, poor cousin" to traditional settings have been thoroughly established (Grant-Davie, personal communication, March 4, 2013). Indeed, some studies even found that—depending on the type of course, methodologies, and learning styles involved—distance education significantly increased student learning in some environments (Shea, Fredericksen, Pickett, Pelz, & Swan, 2001). Students regularly reported improved learning as their satisfaction increased (Swan, 2001).

Perhaps one of the main reasons online education worked, came from the responsibility it places on the students for their own learning. In an online course taught by an instructor familiar with the best practices in the field, students must engage with the class and with the course materials more often and at greater depth than many traditional classes require. For example, in an online class of twenty-four students who are required to write an asynchronous discussion forum entry and respond to at least three other posts, every student must engage at least four times. If the same class existed in a traditional setting and met twice a week for an hour, there would not be time for each student to make four significantly developed, thoughtful comments.

Furthermore, in a traditional class, students could feel their way through responses and rely on other students or instructors to clarify, help, or make sense of their words. They cannot hide ignorance behind jargon and charisma. This forces those in online education to clearly communicate what they intend to share. Additionally, writing down thoughts allows an individual to internalize and clarify concepts in their mind, improving retention and lasting learning.

In an online course, software records and saves the students' input. This allows instructors to observe and track student involvement at levels previously unprecedented. An actively engaged teacher who takes note of which students have not successfully engaged in course materials could reach out and contact students to encourage learning with evidence of participation, not just their personal opinion. Foucault (1977) described the impact of observation on power in his discussion of the Panopticon prison design. When prisoners understood that all of their behaviors could be observed, fewer rules were broken. The ability to observe "functions as a kind of laboratory of power" (p. 204), enabling instructors to encourage learners who might have lurked silently through traditional classes relatively unnoticed.

Other aspects of a traditional course are not currently recorded, because the technological advancements are not yet fully woven into the online experience. Students who love learning and engaged in both traditional and online group discussions readily noted the value in online courses of being able to clearly express their thoughts without interruption, along with the pleasantness of digesting ideas at one's own pace. Yet, they often agreed that such interactions lacked something—a kind of creative energy that came from interacting in shared time and physical space (Grant-Davie, class discussion, March 17, 2014). Emoji, emoticons, and asterisked emotions or expressions (i.e. *sarcasm*) do not convey the message with as much clarity as the human face.

Such concerns echoed those of the early Frankfurt school critical theorists such as Benjamin who felt that removing an item from its native sphere alters and changes its essence and the experience; for example, one who saw the Mona Lisa in the Louvre had an entirely different experience than another who saw the same art on a postcard.

Similarly, those in online classes might miss the experience of campus life, the aura of the buildings, the interactions that occur while walking to or from class. Innovators and inventors could decrease this gap to some extent as video conferencing software and connection speeds increase to high definition levels, but further research is necessary to determine a measurable difference in the experience of these two opportunities (Dayley & Hoffman, 2014).

Reid and MacLennan performed one of the larger of such studies incorporating 350 course and technology comparisons. “They found a trend of no significant difference in comparisons of mediated instruction vs. face-to-face, regardless of whether the instruction was live or videotaped" Willis, 1994, p. 43). These studies supported previous research aimed to validate other means of nontraditional education.

> In 1987, Whittington performed the most widely quoted review of research on instructional television. ... He reviewed studies done during the 1970s and 1980s and concluded the following: ‘Comparative studies indicate that students taking courses via television achieve, in most cases, as well as students taking courses via traditional methods. [Findings] of equivalent student achievement hold even when rigorous methodological standards are applied. Television is a technological device for transmitting communication and has no intrinsic effect, for good or ill, on student achievement. Effective instructional design and techniques are the crucial element in student achievement whether instruction is delivered by television or by traditional means. (Willis, 1994, p. 43)

His insight about effective instructional design and teaching techniques might be one of the best summaries of distance learning because it encapsulates so clearly the need for quality regardless of the medium.

Cargile-Cook’s (2005) review of early efforts in distance education in the technical communication field resulted in the following conclusion: “What is interesting about these earliest accounts of distance education courses in technical communication is each author’s attention to the reciprocal relationship of theory, pedagogy, and

technology" (p. 53). Gazing back at how the field grew demonstrates how well this insight could apply to later innovations. The theories gave root to the pedagogy and practice, limited by the technologies available in each time. The need to meet the goals of the theories and courses seeded ideas for technological advancements. Scholars studied the resulting products up in their academic research, providing the nutrients for further pedagogical insight, theoretical refinement, and continued technological progress.

Best Practices

With this history, rooted in technological advancements, scholars turned their attention to the best practices, methods, and applications of pedagogy and implementation of the technology. A significant portion of research in the field centers on the best practices in the organization, implementation, administration, and navigation of the course. I merged the wide variety of recommendations into five categories and nineteen general practices.

Instructor Choice and Development

Commitment to the online medium. Scholars indicate that the training of an online instructor is useless if the teacher is not interested in the medium. Therefore, "the excellent online instructor is committed to this form of teaching" (Palloff & Pratt, 2011, p. 13) and will dedicate the necessary time to ensure success (Boettcher & Conrad, 2010; Goldman, 2012; Hailey, Grant-Davie, & Hult, 2001; Palloff & Pratt, 2011; Sull, 2009). Such teachers, according to Seaton and Schwier (2014), must be willing to invest a significant amount of energy into the course, feel a sense of pride that the work is significant and successful, and become absorbed in student learning.

Continual professional development. Research shows that—prior to teaching online—instructors should be given training on the best practices in online teaching to ensure quality instruction and professional development should continue throughout their online teaching (De Gagne & Walters, 2010; Fish & Wickersham, 2009; Palloff & Pratt, 2011). Administrators who desire successful online programs "must share in this responsibility and put their weight behind supporting faculty and students" (Fish & Wickersham, 2009). Unfortunately, the "training of online instructors has not kept pace with the demand for excellence in the online environment, a demand voiced by students and administrators alike" (Palloff & Pratt, 2011, p. XIII). Studies often encourage the use of formal and informal faculty mentors, enabling new instructors to receive valuable assistance and guidance during the early stages of online instruction (Palloff & Pratt, 2011).

Course Creation and Development

Begin with clearly defined learning outcomes. The counsel to begin with clearly defined, learning outcomes was among the most common best practices throughout the literature (Bailey & Card, 2009; Boettcher & Conrad, 2010; Cargile-Cook, 2005; Dedhar, 2009; Grant-Davie & Hailey, 2015; Maid & D'Angelo, 2013; Savery, 2005; Southern Oregon University, 2009; Swan, 2003). Instructors who understood the subject matter and desired positive student learning outcomes, improved their chances of designing courses that facilitated learning. Without specific deliverables and defined objectives, classes talked about or around subjects, but never reached the conclusions that constructed student knowledge. Teachers who began with the end in mind focused their efforts and trimmed excessive and unnecessary activities or components.

Choose the best content. Scholars agreed that excellent, accessible content was vital (Bailey & Card, 2009; Dedhar, 2009; Swan, 2001; Swan, 2003). In an online environment, the instructor must rely on the course materials to produce learning, perhaps even more than in a traditional course where he or she could easily compensate with personal knowledge and expertise throughout a class meeting. Online instructors do not constantly interact with the discussions and posts, so the articles encouraged instructors to ensure that the readings, texts, and assignments were significant enough to meet students' learning needs. Research recommended that content should go beyond just the course materials; students with additional resources could further their understanding and bring additional learnings back, incorporating insights to the class discussions and deliverables (Bailey & Card, 2009; Dedhar, 2009).

Make materials and course navigation easy for the students. To maintain enrollment and create positive experiences for class members, researchers directed instructors to make it easy for the students (Dedhar, 2009; Fish & Wickersham, 2009; Savery, 2005; Southern Oregon University, 2009; Swan, 2003). Many of the other best practices could fit into this broad category, but the literature emphasized two specific practices to ease student learning before the course administration. First, instructors should provide a syllabus to ensure students understand the course purposes, expectations, and materials (Southern Oregon University, 2009, p. 3). Second, they should design a user-centric (Hailey, Grant-Davie, & Hult, 2001) interface within course management system to decrease learner frustrations, concerns, and difficulties in accessing or completing the course. Scholars recommended organizing the course

materials in an aesthetically appealing manner, with ample white space and simple, clear navigation (Bailey & Card, 2009; Southern Oregon University, 2009; Swan, 2003).

Instructor Actions and Course Management

Establish a supportive class community. Studies indicated that starting the course with social activities to help establish a supportive online community and incorporating requirements that engage students in interactive behaviors could build a sense of community (Bailey & Card, 2009; Boettcher & Conrad, 2010; Chickering & Gamson, 1987; Grant-Davie & Hailey, 2015; National Education Association, n.d.; Palloff & Pratt, 2011; Southern Oregon University, 2009). The findings suggested that during the first course period—whether it be a week, a module, or other time—instructors should invite students to provide some type of introduction. According to Woo and Reeves, (2007) students will learn more when they engage in learning materials, questions, discussions, and interactions with others. Southern Oregon University (2009) instructed teachers to create digital space for students to engage with one another, such as pages where they could discuss nonclass related subjects, or question and answer pages where they could obtain help from peers.

Communicate expectations to students. A wealth of research encouraged clearly communicating expectations to students (Bailey & Card, 2009; Boettcher & Conrad, 2010; Cargile-Cook & Grant-Davie, 2005; Carson & Jenkins, 2013; Carter & Rickly, 2005; Chickering & Gamson, 1987; Eastmond, 1995; Fish, & Wickersham, 2009; Grant-Davie & Hailey, 2015; Hailey, Grant-Davie, & Hult, 2001; Irani, 1998; Jones, 2013; National Education Association, n.d.; Rovai, 2007; Savery, 2005; Southern Oregon University, 2009; Sull, 2009). When students know what to expect in time commitment,

effort, deliverables, and grading, more reported positive emotions in course feedback. Ideally, they understand this before the beginning of class through the syllabus previously discussed. Additionally, some academics recommended that instructors use rubrics to help students know exactly what to expect, though others believed such specified details might inhibit student creativity (Jones, 2013, p. 401). Other effective methods for setting clear expectations in the research included modeling and exemplifying the practices or actions they desired from students, acknowledging and praising the best examples from students directly or through reposting, and utilizing public (if there is a widespread problem) and private channels of communication to achieve the desired behaviors (Savery, 2005).

Seek feedback. Another common suggestion in the publications counseled teachers to seek timely feedback and second opinions (Anderson, 2012; Bailey & Card, 2009; Boettcher & Conrad, 2010; Cargile-Cook, 2005; Cargile-Cook & Grant-Davie, 2005; Carter & Rickly, 2005; Chickering & Gamson, 1987; Dedhar, 2009; Fish & Wickersham, 2009; Southern Oregon University, 2009; Southern Regional Education Board, 2003; Sull, 2009; Swan, 2003). The thought behind this suggestion is that because objectivity is impossible, instructors should seek feedback from students, mentors, instructional designers, or subject-matter experts. Without clearly established, conscious efforts to obtain feedback, instructors might remain ignorant of their own weaknesses or course flaws. Scholars recommended a mentor-mentee relationship to provide expert feedback and second opinions for new digital instructors (Boettcher & Conrad, 2010; Jaramillo-Santoy & Cano-Monreal, 2013; Palloff & Pratt, 2011; Southern Oregon University, 2009). A commonly recommended method for obtaining second opinions and

improving course creation involved the use of Communities of Practice (Meloncon & Arduser, 2013): Collaborating with other faculty, other departments, and even other schools could decrease lesson creation time while providing quality lesson materials, components, and resources.

Teacher presence. Multiple sources discussed the benefits of being visible, present, and engaged (Bailey & Card, 2009; Boettcher & Conrad, 2010; Cargile-Cook & Grant-Davie, 2005; Chickering & Gamson, 1987; Dutkiewicz, Holder, & Sneath, 2013; Fish & Wickersham, 2009; Grant-Davie & Hailey, 2015; Hailey, Grant-Davie, & Hult, 2001; National Education Association, n.d.; Palloff & Pratt, 2011; Rovai, 2007; Savery, 2005; Southern Oregon University, 2009; Swan, 2003). Students who do not perceive instructor presence tend to lose interest and disappear from the course. This is especially true in regards to feedback on assignments, as Hathaway (2009) found, "When the learners received personalized feedback, as opposed to collective feedback, they indicated a higher level of personal satisfaction as well as an increased perception of enhanced learning" (Dutkiewicz, Holder, & Sneath, 2013, p. 75). Some administrators expected instructors to "Periodically communicate with students on an individual basis via email" (Southern Oregon University, 2009, p. 8).

Use variety. Numerous studies encouraged the use of a variety of methods to teach core concepts, such as asynchronous and synchronous activities that enable both customized and personalized learning opportunities (Boettcher & Conrad, 2010; Cargile-Cook & Grant-Davie, 2005; Carter & Rickly, 2005; Fish & Wickersham, 2009; Swan, 2003). Fish and Wickersham (2009) taught that effective digital courses do not transfer materials from a traditional course. They also felt that matching the best method of

delivery to each task, assignment, or module in a course led to greater student satisfaction and course endurance.

Pedagogical Counsel

Be understanding of student needs. Eaton, (2013) stressed the need for teachers to understand that many students choose online courses because they have significant professional and family commitments, health or travel limitations, and circumstances different than traditional on-site students. She encouraged instructors to make positive educational learning possible by recognizing legitimate individual circumstances and adjust course deadlines or components to accommodate individual needs. Other scholars agreed, indicating that educators in digital space must metaphorically step into the learners' shoes by paying attention to their time, culture, family, professions, fears, discomfort, anxieties, stress, and financial constraints (Cargile-Cook, 2005; Carter & Rickly, 2005; Chickering & Gamson, 1987; Dedhar, 2009; Gibson & Martinez, 2013; Grant-Davie & Hailey, 2015; Hailey, Grant-Davie, & Hult, 2001; Herrington & Tretyakov, 2005; National Education Association, n.d.; Palloff & Pratt, 2011; Rubens & Southard, 2005; Savery, 2005; Swan, 2003; Walker, 2005).

Emulate the best pedagogical practices. Scholars wrote about the value of emulating the best classroom training while acknowledging and adjusting for differences (Bailey & Card, 2009; Dedhar, 2009; National Education Association, n.d.; Palloff & Pratt, 2011). High-quality online instruction allowed students to take responsibility for their own learning, perhaps even more than in traditional classrooms (Southern Regional Education Board, 2003). Boettcher and Conrad (2010) concluded, "Teachers who are effective in the face-to-face environment will be effective as online teachers, but it is not

automatic and it will not happen overnight" (p. 4). If an individual does not understand the basic principles of good educational theory and practice, they cannot transfer such knowledge to an online environment.

Set testable learning outcomes. Swan, (2003) discussed the need to set testable learning outcomes, and others agreed (Andresen, 2009; Dedhar, 2009; National Education Association, n.d.; Southern Oregon University, 2009). If instructors could not define the course objectives in applicable, measurable terms, then teachers could not be able to determine if their courses succeeded. Teachers who succeeded in setting testable learning outcomes ensured that all aspects of the course directly relate to achieving the core desired deliverables or skills. "Successful questions or discussion topics must be related to the learning objectives with clarity in due dates, expectations, and the weighting of grades so that learning objectives may become learning outcomes" (Guldberg & Pilkington, 2007; Majeski & Stover, 2007; in Andresen, 2009, p. 251).

Provide opportunities for students to demonstrate understanding. Another finding from the literature urged online educators to include scenarios allowing the students to demonstrate relevance and/or provide opportunities to practice the principles or practices of the course (Boettcher & Conrad, 2010; Dedhar, 2009; Fish & Wickersham, 2009; Southern Oregon University, 2009). They suggested using a significant wrap-up activity at the end of the course to help students put the learnings of an entire semester into a practical activity (Boettcher & Conrad, 2010; Reeves, Herrington, and Oliver, 2002).

Wordsmith questions, comments, and other communication. Some researchers aimed to persuade online teachers to craft discussion posts carefully to invite

participation, including questions, discussion topics, personal reflections, and responses (Boettcher & Conrad, 2010; National Education Association, n.d.; Rovai, 2007). They felt that such care in creation could demonstrate competence and professionalism to students, improving interactions and trust. When teaching in a classroom, instructors clarified questions in a discussion to ensure that students' insights were on topic. In the online environment, vague questions resulted in sporadic answers, off-topic discussions, and often silence, as students waited for brave colleagues to post comments, in order to see if their ideas are on topic. Superior online instructors took the time to phrase their questions and posts with exactness (Boettcher & Conrad, 2010).

Technology Use

Use technology to enrich a course. Researchers found that a teacher should use technology to enhance their learning goals and/or enrich the course, not to define it (Cargile-Cook, 2005; Dedhar, 2009; Grady & Davis, 2005; Sull & Cavanaugh, 2014). They challenged instructors to determine *what* to present before deciding *how* to present it. A rare exception to this practice occurs when what the teacher wants to teach is also the how, such as presenting training on YouTube, using YouTube. They noted that technology should add value to the content. Do not use technology unless it improves the course, teacher efficiency, or student learning (Batt & Wilson, 2008; Martindale, 1993; Sull, 2011). Bailey and Card (2009). Scholars also suggested instructors use a variety of technological tools to maintain student interest and appeal to different learning styles/preferences, but they imply that teachers should not choose gimmicky or popular means of delivery if they do not enhance the information or give students easy access the knowledge.

Choose technologies and activities that lead to desired results. Closely related to this idea was the best practice presented by Montgomery and Fogler (1996), who challenged instructors to select the best tool for the job. Sometimes educators become enamored with the means, and leave the content behind. They suggested choosing technologies that support learning the desired outcomes and then they provided a heuristic for selecting instructional software. They recommended asking: "[1] what are the intended roles of the software? [2] What thinking skill is the software designed to challenge? [3] What student learning styles does the software accommodate?" (p. 53).

Maintain helpful technical support. Fish and Wickersham (2009) wrote, "The willingness of institutions to invest in technical support and equipment is necessary to implement successful online programs" (p. 280; see also National Education Association, n.d.). User-friendly, helpful technical support is necessary. Students might not engage in a digital class—regardless of the quality of instruction—if they cannot successfully engage or access the materials. Instructors must choose file formats and software mediums accessible by all class members. Academics desired technical support which was clear, personal, interactive, and that responded to student needs (Palloff & Pratt, 2011; Romiszowski & Chang, 1992). Therefore, administrators should choose course management software that has effective, efficient, and accessible means of resolving problems. Part of the overhead cost of online education should include ample budget for maintaining and ensuring the content is online and available at all hours.

Be professional, but not overly concerned. Lastly, Sull and Cavanaugh (2014) counseled, "do not be overly concerned about making a professional production." He felt instructors must recognize their own limitations when choosing technology and creating

courses. The use of technology could devour precious preparation time. He indicated that instructors must prioritize, recognizing their personal and professional constraints or they might become bitter at the online format because of poor time management. Wise teachers start with simple technological components, and add others as they have time and means.

The Literature Reviews

The Initial Literature Review

As mentioned in the Introduction to the Study, I identified many of those best practices—and recognized a potential gap with the absence of multi-institutional, multi-regional, quantitative research in online education—while looking for academic findings about the initial experiences of instructors as they begin teaching online. An exhaustive literature reviews was conducted in which I examined hundreds of articles, books, and conference proceedings in the field of online education. I found a dearth of publications adequately addressing the initial experiences of online instructors. The conclusions academics published accurately represented their experiences and the individuals they studied, but the sample populations in their analysis were limited to an individual, small group, institution, or region.

Addressing the gaps. This is not to say that researchers have completely ignored teacher experiences, yet there is much available to explore. In order to determine the extent of instructor-focused studies, I conducted a literature review between December 2014 and March 2015 to determine the primary research topics in online education during recent years. Since the vast amount of material would be too large to review within the

designated period, I decided to perform a complete review of all the articles from a top tier journal.

Without knowing the total population of articles related to online education, I set a minimum publication length of quarterly for eight years or sixteen years bi-annually, with an average of six or more articles per issue to ensure a large enough sample size for analysis. For obvious scholastic integrity, the journal needed an academically trained editor and a blind peer-review referee process. Additionally, to ensure the journal existed in the top-tier, I sought those commonly referenced and cited by other academic publications. As I began to collect a list of journals that met these criteria, I added a fourth requirement. The journal had to have a scope broad enough to cover the field. This eliminated journals such as *The Journal of Asynchronous Learning Networks* because such narrow focus would not provide the breadth needed in the initial literature review.

Six journals met the criteria: *The International Review of Research in Open and Distributed Learning (IRRODL), The Journal of Educators Online (JEO), The Journal of Interactive Online Learning (JIOL), The Journal of Online Learning and Teaching (JOLT), Journal of Technology Education (JTE),* and *Kairos*.

After assigning a number to each journal, I used a six-sided dice as it guaranteed an equal chance for each of the journals in the method of random selection, with another individual acting as castor. This resulted in the selection of the *Journal of Online Learning and Teaching*. The journal's objectives are to:

> Enable faculty to develop effective, evidence-based practices in online learning and teaching by learning from a community of researchers and scholars; enable academic programs to design and deploy academic technology to optimize online learning and teaching; [and] built a community around the research and scholarly use of web-based multimedia resources for learning and teaching in higher education. (JOLT, 2015)

The journal "welcomes papers on all aspects of online learning and teaching in higher education," (JOLT, 2015) making it an ideal source for the purpose of selecting an academic publication edited with the entire scope of the field.

I reviewed each article in the thirty-seven issues, then wrote down the subjects and topics the paper addressed. I created an Excel spreadsheet to tally and track the different subjects. Some articles only focused on one topic, others addressed many ideas. I tallied each subject, so not all of the articles weighed the same in the results. This did not negatively influence the results, as the literature review sought gaps in the research, not the most commonly used topics. The categories that emerged during the research were technology; student experiences/perceptions; student learning; enrollment and audience; evaluation; teacher experiences/perceptions; teacher training/faculty development; best practices (including proposed best practices and pedagogy); instructional design/visuals; resources/course components; classroom management/facilitating discussions; case studies; and a general topic of online learning to describe other topics that did not fall neatly into other categories.

Initial literature review results. The literature review provided possible insights on the subjects of focus and methods over the last ten years of research (see Figure 1). The *Journal of Online Learning and Teaching* published 216 scholarly articles between 2005 and 2014. Of those, thirty-six articles fell into a single category, 132 articles fit two categories, thirty-nine articles addressed three categories; I placed seven articles in four categories and two articles covered five categories.

The reading of manuscripts within this journal found a consistently small sample size in the articles. Of 137 case studies in the journal, less than ten surveyed audiences

greater than two hundred, only one sampled more than four hundred, over twenty-five percent of the studies had a sample size of less than twenty, and three case studies had a sample size of one, (often the author, in other cases, an observed subject).

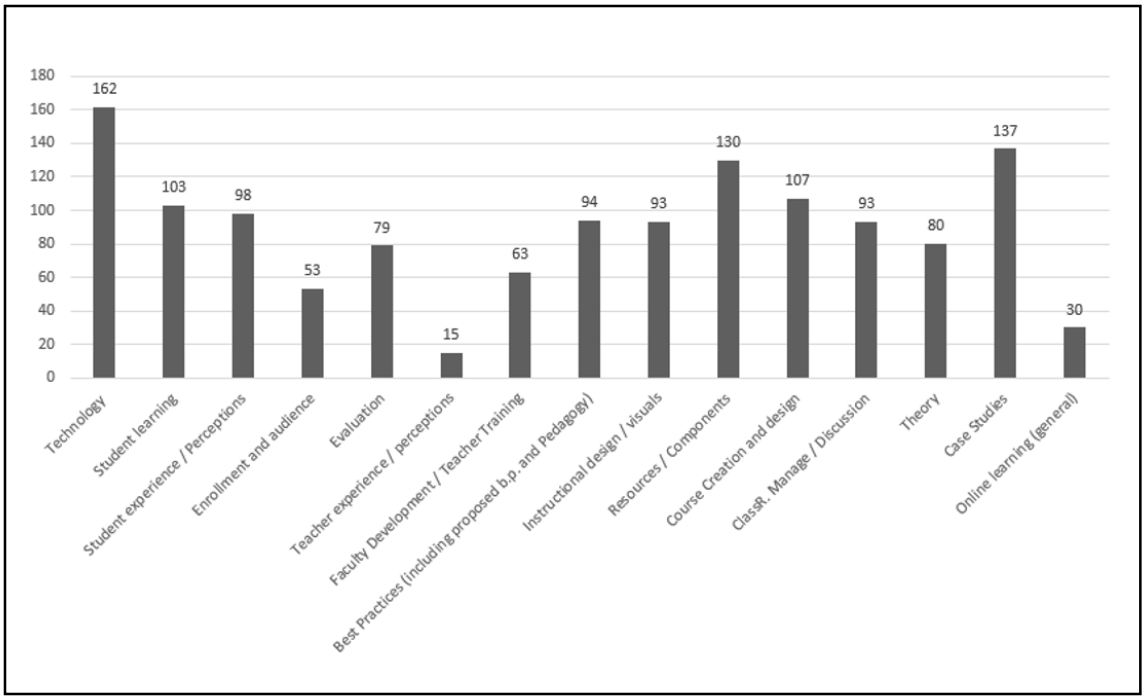

Figure 1. JOLT Article Topics 2005-2015.

The technology category received the most tallies with 162 articles, seventy-five percent, incorporating that subject into their research. Closely related, 130 articles discussed the category of resources (like learning management systems) and course components (such as asynchronous discussions, wikis, and video chat). Many of these articles introduced technologies, analyzed their use in the classroom, and reported student opinions or the impact on student learning.

Student experiences and student learning were also regular topics in the journal, with ninety-eight and 103 articles reporting on findings from these subjects respectively. Many other articles addressed the purpose of education and its methods. A total of

seventy-nine articles discussed online efficiency, course evaluation tools, and student evaluation methods. Eighty papers argued for the use of various theories. Ninety-three of those published shared ideas about classroom management and online discussions, and ninety-four discussed best practices in online education.

Two of the four least-discussed categories (ignoring the catch-all category of *online learning),* might help identify recognize gaps in the current body of research. A small number of articles, fifty-three, explored maintaining enrollment and defining the online audience, but did not specify how to reach out to specific groups or populations; these studies tended to be larger and broader than the average in the journal. Sixty-three articles discussed faculty development and teacher training, but most of them approached this subject from an administrator's perspective, not focusing on the teachers' concerns as much as the results.

Two categories revealed significant gaps of interest. First, only fifteen articles focused on teacher experiences and teacher perceptions. In a field with high professional mortality, exploring this gap could provide answers to questions about why instructors leave the field. A closer examination of those articles revealed that most discussed teacher perceptions about specific aspects of online education, not general feelings or broad, open responses. Welch, Napoleon, Hill, and Roumell (2014) measured faculty perceptions about online teaching to create a scale measuring the disposition to teach online. Ross, Sinclair, Knox, Bayne, and Macleod (2014) approached the subject of teacher experiences in MOOC classrooms, but spent most of their article focusing on the loneliness of teaching a lecture series without a known audience. Dayley and Hoffman (2014) provided questions for academics to research about teacher and student

perceptions, but did not conduct any external study beyond their own experiences. Hall (2013) inquired about faculty perceptions concerning the technologies used during a semester. Goldman's (2012) article studied teacher perceptions about the time online education courses require. Lloyd, Byrne, and McCoy (2012) explored faculty-perceived barriers of online education. St. Clair (2009) shared his experience as a first-time online teacher in his article, and came to many of the same conclusions of other studies about time requirements and other online education differences. Ray's (2009) study asked faculty if they felt training should be necessary for new online instructors. Hartman and De Matteis (2008) sought to learn the experiences of New Orleans faculty displaced to online education following Hurricane Katrina. Stanford-Bowers (2008) asked for teacher perceptions about the high attrition rate of online students. The last investigation in the journal that pursued open feedback from a significant number of instructors about their online experiences occurred in Vesely, Bloom, and Sherlock's (2007) study which found the importance of building community in both faculty and student perceptions.

The second observed gap in the research was the "Course creation and design" category. Though many articles fell into this category, none of the articles discussed the role of documents as a means of course creation or in the process of course creation. Nor did any of the papers explore where instructors procured their materials or how they selected content to implement into their courses beyond the simple recommendation to choose excellent content (Bailey & Card, 2009; Dedhar, 2009; Swan, 2001; Swan, 2003).

Additional Literature Reviews Confirmed Conclusions

There are a number of limitations to the approach used for this literature review. The findings described the *Journal of Online Learning and Teaching's* research gaps, not necessarily those of the entire discipline. However, I believe *JOLT* is a fair representation of the field of online education because of (a) the large number of contributors from different fields and schools; (b) the amount of articles referencing research from the magazine as evidenced on scholar.google.com; (c) the variety of topics and theories I observed in reviewing the articles in *JOLT*; and (d) the use of guest editors to provide different perspectives and variety to the journal. Evidences against this claim of validity include (a) the use of guest editors—which could disrupt the review process every six to eight issues—causing difficulties in the publication cycle; (b) the newness of the field—which could cause the surplus of journals to clamor for and accept mediocre research to meet publication needs and spread out the highest quality research until it is sparsely sporadically sprinkled among journals; (c) the statistical design flaw that results when attempting to apply information from one population to another possibly dissimilar population; and (d) the concern that the field of online education is so similar to face-to-face education that journals in the education field might already have addressed these gaps. I suggest that the aforementioned concerns about validity are minimally concerning. First, though guest editors might disrupt the publication cycle, I believe the variety of opinion and perspective they brought to their issues enhanced the value of *JOLT* as a source. Second, though there were many journals to choose from, narrowing down the field to the premier researched, peer-edited, and respected journals as discussed above eliminated many topically myopic publications. Third, the scope of *JOLT* aims to

incorporate research from all aspects of the field of online education, including technology, means, methods, pedagogy, along with the current trends. Finally, I drew upon my experience as a student, instructor, and curriculum writer in traditional and blended classrooms. I observed that the media and methods required by different classroom settings required different approaches. The preparation and presentation of a blended or online course contained variables widely different from those in traditional settings—such as the means of teaching, the documents used to create the course, the communication employed (lecture versus typed text and face-to-face discussion with nuanced expressed emotions versus reader-imbued emotions to written asynchronous discussions with emoticons, etc.), the delivery of such documents, and so on—and that claims about the similarities of the field are limited to discussions of great pedagogy and educational techniques. The teachers might have been dissatisfied by student effort, but the overall experience is inherently different, though some professors might show up in pajamas to both.

To mitigate the other weaknesses in the initial literature review, I conducted two follow-up literature reviews. With the generous assistance of the librarians at Utah State University's Merrill-Cazier Library, I conducted a specific search to find articles, books, and reports of conference proceedings that addressed these gaps. After carefully considering and reviewing another one hundred items, I found that both the gap of broad, statistically-significant studies about educators' experiences and the gap of course creation documents remained unanswered. Only two of the additional materials touched upon the issues of teacher experience and the use of texts. First, Boettcher & Conrad's (2010) *Online Teaching Survival Guide* suggested and shared specific ideas for

transferring lesson plans and texts from traditional to online courses. They employed sensible, sound advice about choosing the best materials and the best delivery method, yet they did not reference any large-scale studies to support their claims. The second book, David Hailey's (2014) *ReaderCentric Writing for Digital Media*, thoroughly explored text genres, including how an individual could produce content to match the purposes and needs of a communicative document, such as an online course. The book did not directly address online education documents, though the research directly applies to the field.

The further research proved very valuable; as the review of these additional materials significantly influenced the best practices list reviewed earlier, bringing to light or clarifying many of the topics heretofore discussed. It also increased his confidence in the legitimacy of the *JOLT* literature review and the need for this research.

After presenting these finding to academic professionals and practitioners, I received feedback that I should examine the literature reviews, state-of-the-field articles, and calls for research in a variety of journals and conference proceedings. These further explorations confirmed the gaps and called for research.

In a similar literature review of the research in online education, Hew and Brush (2007) wrote:

> The quality of past research… appeared to have one or more of the following four main limitations: (a) incomplete description of methodology, (b) reliance on self-reported data, (c) short term in duration, and (d) focus primarily on the teacher [actions] and what went on in the classroom. (p. 246)

Among their conclusions, two items relate to this study. They called for mixed-methods research employing statistical and qualitative research in the same experiment or survey, along with methods other than self-reported classroom experiences (p. 247).

Next, Guri-Rosenblit and Gros' (2011) review of the literature supported concerns about gaps in research sample size, noting that most "research is sporadic and scatted in nature, and [therefore] … yields contradictory findings" (n.p.). Many of the search results in the online education field called for greater collaboration and focused on improving, expanding, and implementing aspects of the Community of Practice theory (Schlager, Fusco, & Schank, 2002).

Before those publications, Wallace (2003) confirmed the second concern about the newness of the online education field and almost touched on the idea of the choice of texts when he called for a "richer and more nuanced understanding of what online environments offer…" (p. 275). His call for research fell short of recognizing the documents as a contributing source for this richness, focusing instead on the "time, … place… and … opportunities that online teaching and learning provide" (p. 275).

The second literature review supported the findings of the first, failing to reveal any significant focus on the teacher experiences in transition and the texts involved in on online education course creation. Zawacki-Richter and Anderson (2014) produced the most current comprehensive study about online research, publishing a book: *Online distance education: Towards a research agenda*. They divided research into three categories: "Macro-level: distance education systems and theories… meso-level: management, organization, and technology… micro-level: teaching and learning in distance education" (p. 2). They requested a systematic study of the following:

> (1) Access, equity, and ethics… (2) Globalization of education and cross-cultural [concerns]… (3) Distance teaching systems and institutions… (4) Theories and… frameworks for… distance education… (5) Research methods in distance education and knowledge transfer… (6) Management and organization: strategies, administration, and organizational infrastructures and frameworks for the development, implementation, and sustainable delivery of distance education… as

> well as legal issues [such as] copyright and intellectual property. (7) Costs and benefits… financial management… (8) Educational technology… (9) innovation and change… with new media and measures to support and facilitate change in institutions… (10) Professional development and faculty support… prerequisite[s], innovation and … competencies of online teachers, counselors, and support service staff… (11) Learner support services… (12) Quality assurance… standards in distance education… (13) Instructional or learning design: issues that refer to the stages of the instructional design process for curriculum and course development... (14) Interaction and communication in learning communities… [and] (15) Learner characteristics… (pp. 2-4)

This research agenda resulted from three previous studies, encompassing over 1,800 research publications since 2003 (p. 7). This massive study's call for research did not address the need for research on texts directly, though such a study would inevitably fall under either the discussions of faculty support, sustainable delivery, or the learning design categories. This book demonstrated a general ignorance of course creation texts' importance (and therefore the need for associated research) with two notable exceptions: (1) warnings against reliance "on a single medium (such as printed text)" (p. 31; see also p. 137; p. 181; & p. 207) and (2) a call for media to support various learning styles to supplement written course components (p. 97).

None of the articles or conference proceedings in this last follow-up to the initial literature review yielded evidence of previous research on the transition period for teachers and their documents, nor did they recognize this dire need for those beginning the transition to online education.

Research Conclusions

The findings from this literature review led to three conclusions. First, hundreds of articles addressing the subject of online education did not definitively answer questions about factors affecting teacher experiences, because they were largely

anecdotal, especially those describing the early experiences of instructors. The studies I found remained geographically centered and rarely employed statistical methods of analysis to reach conclusions about the population of online educators. Without evidence of sufficient data to extrapolate from or find measurable, statistically significant results, a larger study is necessary to support or debunk many of the theories about best practices in online education and factors that positively or negatively affect the instructors' online educational encounters. The ideas from regional, small, or anecdotal studies might prove correct, yet there remains a gap in the research for a large-population study in multiple locations and educational institutions to determine teacher experiences. Second, the studies I found concerning online education generally ignored the course creation texts and focused more on the process. Could these texts—such as digital and tangible documents, resources, media, lesson plans, syllabi, outlines, and other courses the instructor drew ideas from—affect the new online or blended instructors' experiences? If evidence arises indicating the documents affected their experiences, further research could address the extent to which the procurement, choice, and impact of those materials affected instructor experiences. Third, administrators should commission specific research to learn how to target their audience for enrollment in online education. A thorough exploration of these gaps will require multiple studies and research projects, beginning with this research.

Conclusion

As online education continues to advance in preeminence, administrators, teachers, and researchers will need to reach into unexplored aspects of the field.

Additionally, academics could vet and firmly establish the current best practices in the field through concurrent research ensuring these represent the ideals in digital classrooms.

Throughout the history of online education, scholars focused primarily on the method and means of this education. These subjects appropriately received the attention of the weightier studies in the field. Technology drove distance education forward, eventually centering on learning through digital means. With the continual innovation, improvement, and portability of electronic devices, coupled with the establishment of easy access to information, programs, and education through the internet, online education became the primary means of distance education throughout the world.

Scholars raced to provide administrators and instructors with accurate, helpful information about how to teach online, set up courses, meet student needs, and provide feedback to the field for improvement. This research arc included studying the best technologies and methods for delivering the information in the most efficient manner. Research about the instructors came secondary to these prime concerns. The ancillary publications—afterthoughts among researcher—that shared their experiences or those of small groups provided a base for future research to build upon. Having successfully met the basic student and practical needs within courses, the next step of research could now move the teacher's experience and needs into the academic limelight, improving the experience of those administering online learning and ministering to the students.

CHAPTER 3

RESEARCH DESIGN

The purpose of this study was to investigate the perceptions and experiences of online and blended course instructors in order to learn what factors correlated with positive or negative teaching experiences. More specifically, this research aimed to determine the needs, best practices, course creation methods, and experiences of higher-education teachers as they transitioned from traditional (face-to-face) classrooms to distance education/online instruction in order to improve the experiences of teachers and administrators.

The study sought to test the accuracy and generalizability of current beliefs about best practices in online education — as established in the theoretical constructs and previous localized or small population studies of the literature review— while looking for additional possibilities. The questions tested the statistical validity of those claims by looking for associations between positive or negative experiences in teaching. Other questions sought to discover factors associated with positive online teaching experiences, such as the impact of training, demographic information, professional experience, and personal habits. This section describes the methods of the study, including the selections of instruments, sample, population, participants, data collection, and data analysis.

Due to the desired national scale of this study and limited financial resources, the study did not use personal interviews and direct observations. Furthermore, they might not have provided the open, candid responses an anonymous survey could elicit. To avoid the Hawthorne Effect (De Veaux, Velleman, & Bock, 2004)—wherein the researcher's bias, worldview, and tone could alter the results—this study avoided focus groups.

Additionally, the majority of on best practices, as discussed in the Literature Review, came from focus groups. To learn more about this subject, I sought a less-common approach to research in the field of teacher experiences and best practices.

Instrumentation

Survey

This study employed traditional survey design and analysis. Multiple response options cultivated the collection of relevant types of data. The survey utilized Likert-scale responses, multiple-choice answers, and open-response dialogue boxes. It matched each of these varied responses to the type of answer best suited to prevent survey bias. For instance, five-point Likert scales were used with questions where respondents rated their experiences. Using an odd number of responses allowed participants to choose a central response (if they were completely neutral about their feelings), a positive/negative response, or an extremely biased positive/negative response to determine the extent of the individuals' perspective. This method decreases threats to reliability by providing clearly defined differences in a simple format (Creswell, 2009, pp. 162-168, 190-193). Furthermore, the survey employed multiple-choice responses for descriptor responses such as ethnographic or professional information. Lastly, it used dialogue boxes for open-ended questions about their training, experiences, and opinions to ensure that set answers did not limit the participants' responses.

Survey Creation

The survey creation process began by brainstorming topics that might relate to positive or negative experiences teaching online. This survey's exigency began with best

practices discovered in the literature review. It included ethnographic descriptors in order to look for potential bias within the field; these could manifest themselves in the format, style, or other inherent aspects of online education. It also sought to discover new attributes administrators could consider when choosing online instructors by inquiring about lifestyle behaviors that might increase a preference for online interaction, such as the personal use of social media.

The next step involved refining following the best practices outlined by the Pew Research Center's "Questionnaire Design" research (Pew Research, n.d.) and SurveyMonkey's *Surveys 101 course* (SurveyMonkey, 2016). This involved starting with traditional demographic and professional information such as race, age, professional title/job, department, and experience. Then asking the survey's primary questions of interest, which I discuss later in this chapter. Colleagues, committee members, and associates comprised the review focus groups that refined and improved the question's phrasing and word choice. They also helped with the next step of examining what each question sought to measure to determine if an open or closed question suited the entry best. After that I minimized and simplified the responses, improved simplicity (by wordsmithing and decreasing the word count), and placed the questions in an order that topically flowed for the survey participant. Another rewriting and rewording refinement process with the focus groups followed until the original questions could provide direct, measurable information about the teacher experiences.

Survey Instrument

This research used the Qualtrics online survey software suite. This program allowed me to create an online survey, test it, refine it, distribute it through email or a

hyperlink, and finally collect the survey data. The program also allowed significant research control. The program could create copies of the research instrument for additional or further studies among different participants. It also allowed me to maintain rights to the research and study. The Qualtrics programming also contained some basic statistical software and enabled the exportation of the data to spreadsheets for further study, streamlining the analysis process. The software allowed me to accomplish my objectives and accurately track ordinal and nominal data.

Within the program settings, this study employed control over each aspect of the survey, from creation to distribution. I customized the design to match the sponsoring school's traditional survey appearance. I left the options on the default academic settings, except for customizing the completion requirements to allow respondents to leave the survey and come back later. This change also aimed to enable an increased number of survey responses by accommodating the participants' schedules. Additionally, the instrument contained procedures for the participants to contact the principal and student investigators to ask questions about the survey at any time.

Pilot survey. In order to refine the survey, ensure the questions could provide useful data, and avoid confusion stemming from wording, grammar, or syntax, I enlisted the assistance of the aforementioned focus groups along with other associates to proofread and test the survey before implementation. Their feedback helped improve, clarify, simplify, split, and combine questions. Only three of the final thirty-one questions remained unchanged following the initial pilot survey. Just fewer than two-thirds of the changes helped clarify and simplify the questions. Four required grammatical

adjustments, and six questions were refined to better align with the study's purposes and hypotheses.

Finalizing the survey instrument. The pilot survey testers recommended greater focus on the question order; prioritizing the information based on its importance within the study. First, they suggested putting the majority of the shorter questions at the beginning and middle, and reserving most of the open-ended response questions for the last third of the study. They believed this would increase the survey response rate, helping respondents complete the majority of the questions earlier. Second, they suggested the study make some exceptions to the first suggestion with questions that gathered the most pertinent information to the study. Finally, they provided practical design advice about splitting pages of the survey more often to avoid forcing the participants to scroll down to move from page to page.

After renovating the instrument, the research proposal was submitted to the IRB and the study obtained the associated paperwork, signatures, and permissions to proceed with some minor additional revisions to meet their requirements. The full survey is contained in Appendix A.

Survey landing page. The first page of the survey addressed the IRB requirements for informed consent by the participants. It let the participants know that all of their responses in the survey would remain anonymous. The informed consent document reviewed the purpose of the study, its funding, the process they would go through to take part in the research, and the risk of possible emotional or mental discomforts possible in all surveys. The document reiterated the confidentiality of the survey, the voluntary nature of participating, and how to withdraw from the research. Dr.

David Hailey and I provided our contact information in order to give participants the chance to ask questions or inquire about any aspect of the survey.

The landing page also informed participants about the drawings for twenty dollar gift cards available for completing the survey. It reminded them that this study would randomly select one winner from each participating school; it ensured that their entry in the drawing would not be associated with their responses. The first question required participants to type in their initials and the date in a box to consent to and begin the survey.

Survey questions. The survey began by ensuring that the participants had the necessary experience to participate in this research. It established definitions discussed earlier of online, blended, and traditional education, and then asked if the instructors had experience in each of the course types or a combination of course types, to which they responded by clicking the choice that best described them. If they had only taught traditional courses, their participation ended, which allowed me to eliminate those outside our target population at the beginning of the survey. It also contained combinations of teaching experience traditional, blended, and online courses for the later analysis to determine if those who taught either type course —or a combination of course types— responded in a significantly different manner from their peers.

The next page prioritized which course the instructors taught first in order to determine if it influenced their positive or negative feelings about online education. They could select one of four responses (traditional; blended; online; or began simultaneously). It also inquired how they began teaching online, another potential factor—previously void within the materials of the literature review—in the teacher's experience teaching in

this format. Again, they could choose from one of four responses (I volunteer/desired to do so; it was part of my initial contract/position/assignment; I was asked to do so after being hired; or I was assigned to do so).

The fourth and fifth pages of the survey asked traditional demographic and professional information necessary to describe the population. Participants could describe their race by clicking one of seven choices (African-American or Black; American Indian or Alaska Native; Asian; Caucasian or White; Hispanic, Central, or South American; Native Hawaiian or other Pacific Islander; or Two or more races) unless they chose to select that they preferred not to answer. This study sought simplicity and inclusion in the choice of race options. I recognized significant differences between some sets individuals grouped together while selecting the regionally based categories, yet for a survey of those working in the US, these designators allowed for sufficient differentiation to preserve simplicity.

The page included the question of gender with the three basic options: male, female, and the choice to prefer not to answer. This simple approach allowed individuals uncomfortable with the question to choose not to respond. Those who defined themselves in a different manner than male or female could select the third option.

To determine if age influenced the study, I split the age ranges evenly into four groups after creating an unlikely but possible, group of those younger than eighteen and then dividing the remaining expected age range (eighteen to sixty-seven) by four. The survey assumed that most instructors would retire by age sixty-seven. To include those over sixty-seven, the final option included all those over age fifty-six.

Professional experience and circumstance came from questions about the individuals' position (administrative; tenured professor; tenured associate professor; tenure-track assistant professor; nontenure track instructor (i.e. adjunct or lecturer, not a graduate student); or graduate student. Individuals could click all that applied (such as administrator and tenured professor) and department with a text box and an option to not answer. These categories enabled the study to look for distinct differences between an individual's position and their online experience.

Page six contained the primary questions of the survey which the study would compare to others in order to find positive or negative association in online and blended course instruction. I coupled the questions "How would you describe your **initial** experience teaching online or blended courses?" and "How would you describe your **current** feeling about teaching online or blended courses?" with the Likert scale discussed earlier (Very positive; Positive; Neither positive nor negative; Negative; or Very negative). Comment boxes inquired about what factors contributed to the participants' responses to obtain both statistically comparable data and specific reasons or feedback in the study. The survey used bold font for the words "initial" and "current" to emphasize the difference in the questions and decrease respondent confusion.

The seventh page of the survey contained two additional questions depending on the participant's response to the first question: "Did you ever take an online or blended course as a student prior to teaching an online or blended course?" (No; or Yes).
If the individual marked "Yes," they were asked, "How would you rate your overall experience in online/blended courses **as a student**?" with the Likert scale used throughout the survey. I also asked how many courses they took as an online or blended

student (one; two; three; four or more). The study used these questions to look for association between positive and negative experiences as a student and those as an instructor in order to see if familiarity with the genre bred certain feelings.

The remainder of the questions assessed associations among positive and negative experiences in online education, determined what instructors believed fell within best practice, and identified associations between those actions and the instructors' experience. The survey asked instructors how they created their courses, what resources were helpful, what age groups they taught, how many semesters they taught online or blended courses and how many semesters they had educated in a traditional setting. Additional questions addressed how much time they spend in social media, coding or writing online, reading or watching digital media, and their academic position (i.e. tenured teacher, graduate student instructor, administrator).

Two of the open ended questions examined the general understanding of best practices in online teaching and its relationship with the teachers' experiences, first asking, "Before you taught online, what did you believe were the best practices (ways to succeed teaching online or blended courses)?" Then asking, "After teaching online/blended courses, what have you come to believe are the best practices?" These questions did not employ multiple-choice responses, but rather used paragraph-style text boxes for these and all other inquiries about their original beliefs about best practices, their current beliefs about the best practices, what they felt unprepared for as they began teaching online, what resources were available to them, what resources did they take advantage of, and which were helpful. This attempted to ensure that the survey did not implant any ideas I gathered from the literature review about the best practices in

the respondents' minds. The instrument gathered these responses and categorized them in the same manner as pointed out by the best practices learned in the literature review, organizing them by topic and calculating how often different best practices showed up in the replies.

The survey concluded by asking if the teachers had anything else they would like administrators and online education researchers to know. This paragraph-style text box response gave the instructors an opportunity to share any ideas they believed might be pertinent to the survey or their administrators. This question allowed us to provide any anonymous feedback the instructors would like to share with the participating institutions for the general improvement of digital education.

Survey completion. With the exception of two questions, failure to answer a question led to a pop-up window that read: "Response Requested. There is [number] unanswered question[s] on this page. Would you like to continue?" with two boxes available for selection: "Continue Without Answering," or "Answer the Question." The first exception was the informed consent box on the landing page—required by the IRB—and the second being the question about which institution employed the participant. My commitment to provide results to the participating universities required that I know from whence the responses came. When participants left these questions unanswered, the cursor would move to the unanswered text box and the phrase "Please answer this question" appeared in red text above the query before allowing them to continue.

Sample Selection

Population

The planned population of the study included all online and blended course instructors from the top two-hundred accredited baccalaureate-granting higher education institutions in the United States as determined by *U.S. News and World Report's* "Best Online Programs Rankings" (2015). I included both current and past online and blended course instructors to procure the largest variety of opinions and limit bias. The survey participants had to have taught at least one semester of online education. I expected the participants to generally fall between the ages of twenty-two and sixty-seven because of the nature of the profession's life cycle—beginning after (at least) a baccalaureate degree and continuing until retirement.

The only known potential vulnerable population surveyed might have been pregnant women, but the survey instrument did not account for such individuals as the state of pregnancy was not considered relevant to this study. It is possible that pregnancy could contribute to the online education teacher experience, yet the number of respondents required to produce statistically significant information on that portion of the population would require knowledge of the pregnant populations during their teaching experience.

Participant Selection

In order to obtain participants for the study, I used a random number chart to select a sample of twenty-nine universities from the U.S. News and World Report (2015) list of "Best Online Program Rankings." If half the institutions participated in the study

and the survey completion rate was twenty-five percent, this would have produced well over 375 responses. I then researched each of the schools and contacted the institution's director of online education, be it a director, dean, vice-president, or vice-provost, via an introductory email. This email is contained in Appendix B. Following the initial email, I contacted the individuals directly, via phone, to discuss the opportunity, provide details about the survey, answer any questions, and formally invite the school to participate. During these conversations, I explained to the directors that the results of the survey would be made available to them, but it would be separated from identifiable information about the respondents. I also informed them that I would not identify their school within the research in order to prevent any school specific publicity—either positive or negative—that could potentially tempt respondents to be less than completely truthful in an attempt either to enhance or hurt their institution's reputation.

As the sponsoring institution, Utah State University also participated in the research as a control group for comparison. The University placed in the top twenty-five in the U.S. News and World Report (2015) rankings. This brought the total number of potential institutions to thirty. I calculated the total number of instructors in all schools listed in the U.S. News and World Report's (2015) top online education institutions; the total population of online or blended course instructors in these two hundred institutions as a minimum of 44,005. This number reflects the fact that three schools did not report their number of instructors, and the total number of instructors at the other schools was 44,002.

The twenty-nine schools had a total population of at least 4,132 instructors with one school not reporting the total number of individuals surveyed, and another institution

not responding to any queries nor reporting their information to *U.S. News and World Report.* The survey also went out to an additional 201 instructors at Utah State. In order to claim the results of this study as statistically significant and applicable for the population at the desired academic standard confidence level (how often the results represent the actual population) of ninety-five percent with the confidence interval (the margin of error) of five, the survey would require 381 total responses from the noncontrol group. I received sixty-six total complete responses. This low response prevented applying the findings as proof of association within the field of online education. Fortunately, I could still analyze the findings within the study as representative of those surveyed. Therefore, I added the additional sixty-one responses provided by Utah State instructors into the study directly instead of using them as a control group.

To complete the study, I took extensive measures to contact administrators through additional phone calls, messages, emails, and through their staff. Nine of the thirty schools declined participation before reviewing the survey instrument or research. Two cited school policy preventing the distribution of research surveys, two expressed unspecific concerns about the research but did not explain their decision, one initially claimed they did not want to burden their instructors, and four simply responded that they would not contribute at this time. Seven schools expressed interest and excitement at the opportunity to contribute to this research. Fourteen schools remained uncommitted or opposed to the research at this stage of the process.

The study requested that those schools that participated enable distribution to all online and blended course instructors, so that the entire digital instructor population of each institution had the opportunity to participate in the study. The study requested that

the directors review the survey themselves. One of the administrators that initially refused participation, stating that they did not want to add additional work to their busy instructors or go through the process of getting the necessary approvals of their internal review board, recanted after reviewing the survey stating, "I just reviewed your survey and it is, in my opinion, quite good. I am passing this on through the protocols to distribute it to our online instructors" (Personal communication, 7 Jan 2016).

The only group of potential participants specifically excluded through the survey was those who had not taught online or blended courses. The first question addressed this concern in case administrators distributed the survey to their entire instructor population.

Data Collection

The Qualtrics software collected the data from the survey using password-protected secure storage of data. All downloaded data was stored on a biometrically secured drive and kept in a locked room. Only the principal investigator and graduate research assistant could access the responses.

To maintain confidentiality, I assigned each individual an alphanumeric code that replaced his or her identifying information. These we keep on a coded list. I grouped the results in a manner to prevent administrative identification through demographic or other personal characteristics. In situations where a specific demographic would identify an individual, I omitted that information in the individual results of the school. I also informed the participating institutions that I would randomly assign an institutional pseudonym in order to decrease the temptation for them to instruct participants to positively respond and therefore potentially alter the result to reflect positively on their

school. I randomly assigned each school a letter designated with its radio call sign (A: Alpha, B:Beta)—for simplicity.

To ensure that participants were able to omit information they were uncomfortable sharing or that might compromise their job security, each question allowed the participant to "prefer not to answer" or leave blank, with the exception of two questions: informed consent signature and institution listed. This ensured that the privacy interests of the respondents, and the extent to which they shared themselves, remained in their control. To add to their comfort, I administered the survey via email, enabling participants to participate in the study in a location and time of their preference and convenience. The ability to return to the study also allowed them to complete it in their own preferred time. To protect employees, institution administrators did not receive access to the original data, nor did I give them access outside of the statistical presentation of the data.

Data Analysis

The mixed method approach required multiple types of data analysis. First, I analyzed the population within the survey to determine who participated along with the overall results for each question charting and graphing the spread of information. Second, I analyzed the change in responses from the teacher's initial experience to their current experience to look at this group's general feeling about online education.

Next, I compared the responses of individuals between questions, looking for what patterns, practices, or attributes correlated to positive or negative experiences within online education. I used the statistical software R to perform the necessary calculations. The multiple-choice and Likert-style responses allowed for the application simple linear

regression tests. This test calculates the probability of the data's predictability and fit to a linear model. If the data's p-value (the calculation) is less than five percent ($p > .05$), then the data indicates there is a statistically significant association between the two variables being examined. At this point, a researcher would reject the null (or standard) hypothesis that there is no connection a between the two variables (De Veaux, Velleman, & Bock, 2004, pp. 137-141). I did not design this study to prove causality, instead it sought for association and correlation within the study in order to find influential factors for the teacher's experiences, to support the established beliefs in the field, and provide additional potential best practices for further research.

After that, I examined the open-ended questions about best practices. I used the same categorization process for the open-ended survey responses as in the literature review, placing each response in one of the established best practices categories. Responses outside the expected groupings were identified, then later categorized into additional categories. I also sorted the responses of what the instructors felt unprepared for into the best practices categories to determine if teachers could have avoided those initial concerns through training on the best practices. The remaining unsorted responses—along with the comments from the current beliefs about best practices section—provided additional considerations for potential best practices in future research.

Then, I looked at each individual's response of what help they knew was available when they began, what help they used, and their experience online. This information could inform administrators what resources instructors wanted, used, and found helpful. I categorized them according to type from their responses. This data informed the study on what practices the schools were already participating. I then compared these responses to

the students' initial experience and current feelings about teaching online or blended courses.

Finally, I collected the advice the instructors wished their administrators understood about the experience of online educators, categorized it, and analyzed it by comparing it to the other findings within the study. All of these findings are reported in the Survey Data section and explored in the Discussion and Conclusion section.

Validity

In the creation of the survey, the use of the Qualtrics instrument, and the sample selection, I sought to meet Creswell's (2009) three established validity standards: content validity, predictive (or concurrent) validity, and construct validity (p.149). Content validity occurs when "one can draw meaningful and useful inference from the scores on the instruments" (Creswell, 2009, p. 149). The confidential nature of the results and the online distribution of the survey each supported content validity by striving to eliminate respondent concerns about replying in a truthful manner. The simple phrasing of the questions aimed to eliminate confusion in the responses. None of the replies provided responses that did not match the question, and the research appears consistent with what we intended to measure.

The results of the open-ended questions revealed teacher perceptions of the hypothetical concepts of the best practices in online education and factors that contributed to their initial or current, positive or negative feelings about teaching online or blended courses. The survey clearly recorded responses directly based on the collected responses and therefore met the construct validity requirement.

Threats to Validity

Unfortunately, the study faced a significant threat to validity due to nonresponse bias. As mentioned earlier, I initially contacted twenty-nine (plus Utah State) of the two hundred best online baccalaureate offering programs in the United States following a simple random sample. Twelve institutions offered their generous support, one after initially declining as described heretofore. Two of the schools stated that internal policy about survey distribution prevented them from participating in the research. Three schools declined participation without explanation, and two schools claimed unspecified concerns about the study. Ten of the schools failed to respond. Those institutions that did not respond received a minimum of five follow-up emails implementing various approaches, three voice messages, and verbal contact with support staff requesting an audience with the administrative individual.

To garner trust and confidence in our survey, I provided the contact at each institution access the IRB approval documentation, copies of the survey, the opportunity to test the survey in its native online environment, and answered questions about the process in order to encourage participation.

Within those schools that chose to participate in the research, an additional nonresponse bias from the instructors raised further questions about the generalizability of the data.

Of those potential 4,333 responses, 127 responded, a response rate of 2.9 percent. The invitation process sent two emails to the potential participants. The first inviting them to participate (see Appendix A), and the second, a reminder request to participate sent out two weeks after the initial survey to all but one of the schools (who declined an

additional email). Twenty-one individuals responded within forty-eight hours of the second email.

Questions remain unanswered about those who chose not to participate. The survey remained available for forty-five days, ending in the middle of most semesters on February 18, 2016; finding a convenient time for an individual to participate should not have been a significant deterrent to participation. I offered a twenty-dollar gift card to a respondent from each of the participating schools through a random drawing. The survey did not have the means of determining if potential participants considered themselves too busy to take the time for the survey, or if they forgot, or any other reason for their nonresponse. Those individuals obviously represent a portion of the population to whom I cannot apply the survey results without further research. Little could be done to counteract this problem except recognize the limitations of the study.

Though unlikely due to the disguised nature of the results, an administrator could choose not to send the survey to certain persons in their population. There is no evidence to indicate this occurred in this survey's research.

Reliability

In order to increase the reliability in the findings that used paragraph-style text boxes, I employed Creswell's (2009) method of inter-coder agreement (p. 191). I employed two colleagues with educational and editorial experience to categorize the best practices and other open-ended response categories to determine what patterns and results they found in the data. Their data was then crosschecked with my own categorization. The results of the inter-rater reliability test (the measurement of the percent of agreement between individuals reviewing the information) was high—ninety-three percent—

indicating significant homogeny among marked responses. We then examined the differences and found that the variation was due to missed categories and the misinterpretation of the category “seek timely feedback.” One of the reviewers thought that included feedback to the students. After adjusting for any discrepancies, the reviewers and I agreed on the final categorization.

Conclusion

I administered the survey according to industry standard practices following a full academic internal review board approval. The questions and instrument performed correctly and recorded the information as needed. I took security measures to protect privacy of institutions and individuals, and preserved the data with no known breaches.

The study faced a significant threat to validity due to the lack of participation by some of the schools and a lack of response by many of those invited to complete the survey. I mitigated this threat by applying the results to those within the study.

CHAPTER 4

SURVEY DATA

The survey opened on January 5, 2016. I chose this date because it followed the winter semester break with its accompanying rush of end-of-term grading and year-end reporting. It also fell after the major religious holidays in December and January to not interfere with traditional vacation plans. This date fell just before the beginning of a new semester at most of the schools. The survey remained open until February 18, 2016—a total of forty-five days—to accommodate the schedules of the participants. A reminder email followed in the first week of February to encourage participation.

A total of 135 individuals clicked the emailed link to open the survey. Four participants who indicated that had never taught a blended or online course were disqualified from the survey leaving 127 acceptable respondents. Another four individuals did not complete the survey. One closed the browser on page five after reporting the institution and personal demographics, but before providing any online education feedback and experiences. Two closed the survey on page twelve of fifteen, where the majority of the text box questions began. One closed the browser on the last page of the survey after completing all of the responses, but before hitting the final button to register participation.

The 127 survey respondents left 219 questions unanswered of their total 3,556 possible responses. The thirty-five individuals who responded that they had experience as an online or blended course student all responded to both follow-up questions, rating their experiences and revealing how many courses they took. This brought the total questions answered to 3,337 of 3,626, or ninety-two percent of the survey. Text box (typed)

responses comprised all nine questions in which less than ninety percent of the instructors responded (see Table 1); this is not surprising due to the extra time these questions required, the greater depth of thought or memory required, or the optional nature (such as the last question asked them to write down anything they would like administrators or future instructors to know about the training).

Table 1

Questions with Less Than 90 Percent Participant Response

Questions	Nonresponses
What factors contributed to your feelings about that experience?	18
What factors contributed to your feelings about your current experience?	22
Before you taught online, what did you believe were the best practices (ways to succeed in teaching online or blended courses)?	18
After teaching online or blended courses, what have you come to believe are the best practices?	15
What did you feel unprepared for, or surprised by, as you began teaching online or blended courses?	14
As you began teaching online or blended courses, what resources and help were available to you?	15
Which of those resources did you take advantage of?	22
Which of those resources were helpful or unhelpful?	25
Is there anything you would like administrators or future instructors to know about transitioning to teaching online or blended courses?	29

Participants spent an average of fifteen minutes on the survey, partially due to a few outliers whose browsers were open for over an hour. The right-skewed histogram of

the data (see Figure 2) shows how over one hundred of the participants spent less than twenty minutes completing their responses.

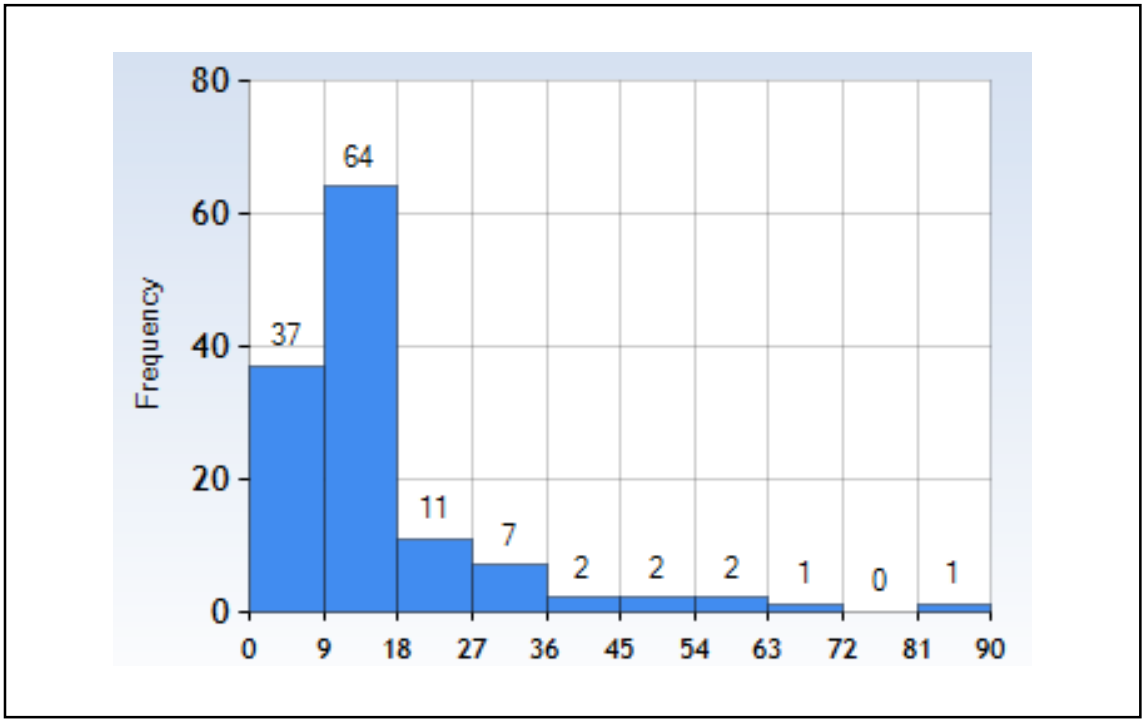

Figure 2. Time Spent with The Survey Browser Window Open.

Participants' Characteristics

Demographics

Gender. The gender majority in the study was composed of sixty-eight females, with fifty-six individuals describing themselves as male. Three individuals selected the "prefer not to answer" response (see Figure 3).

Race. The survey results revealed significant homogeny among the participants' selection of their race. 115 individuals identified as Caucasian or white, one as African-American or black, one as Asian, one as Hispanic, central, or South American, one as native Hawaiian or pacific islander, and two responded that they were of two or more races. One

individual left the category blank. Five participants selected the "prefer not to answer" category (see Figure 4).

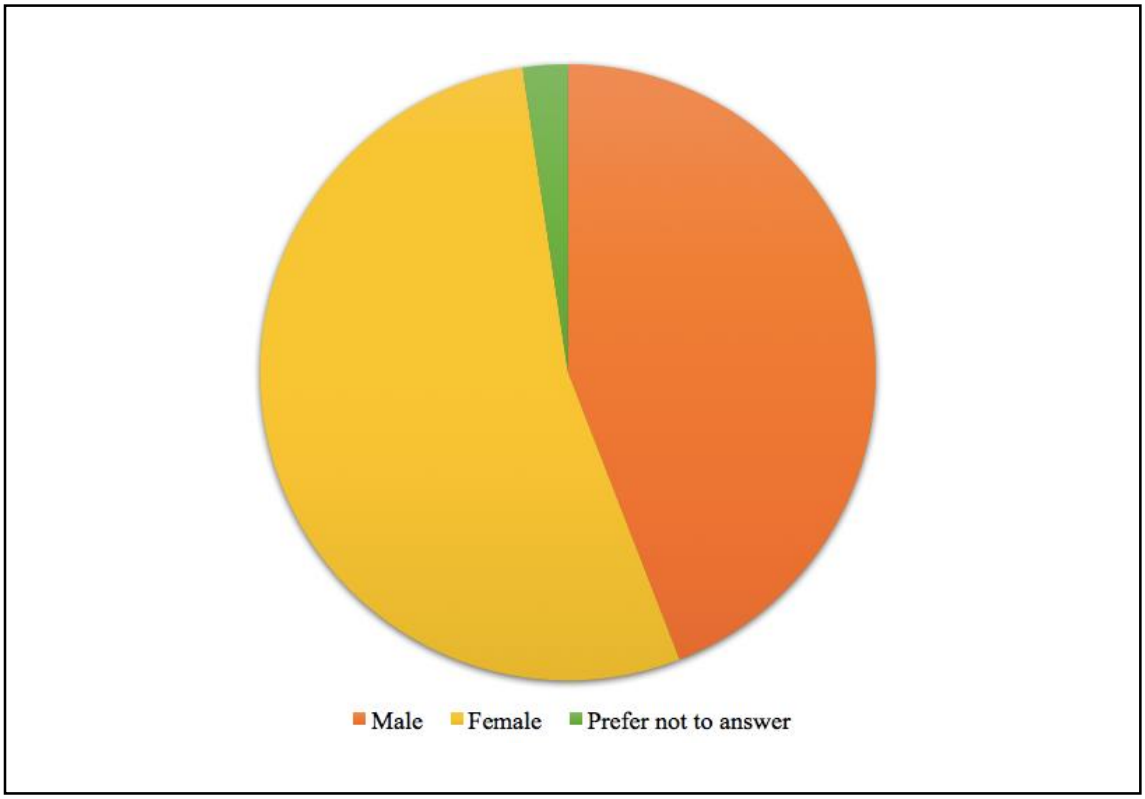

Figure 3. Participants' Gender.

Age. The survey revealed a fairly even range of participants over the age of thirty. Forty-one individuals revealed their age as over fifty-six, thirty-nine fell in the range of forty-four to fifty-five, thirty-eight within the ages of thirty-one to forty-three, two in the category of eighteen to thirty, six preferred not to answer, and one individual left the category blank (see Figure 5).

Professional Attributes and Practices

School. Individuals from twelve schools participated in the survey: sixty-one from Kilo, twelve from Juliett, eleven from Golf, ten each from Charlie, Beta, and

Foxtrot, five from India, four from Alpha, and one each from Delta, Echo, Hotel, and Lima (see Figure 6).

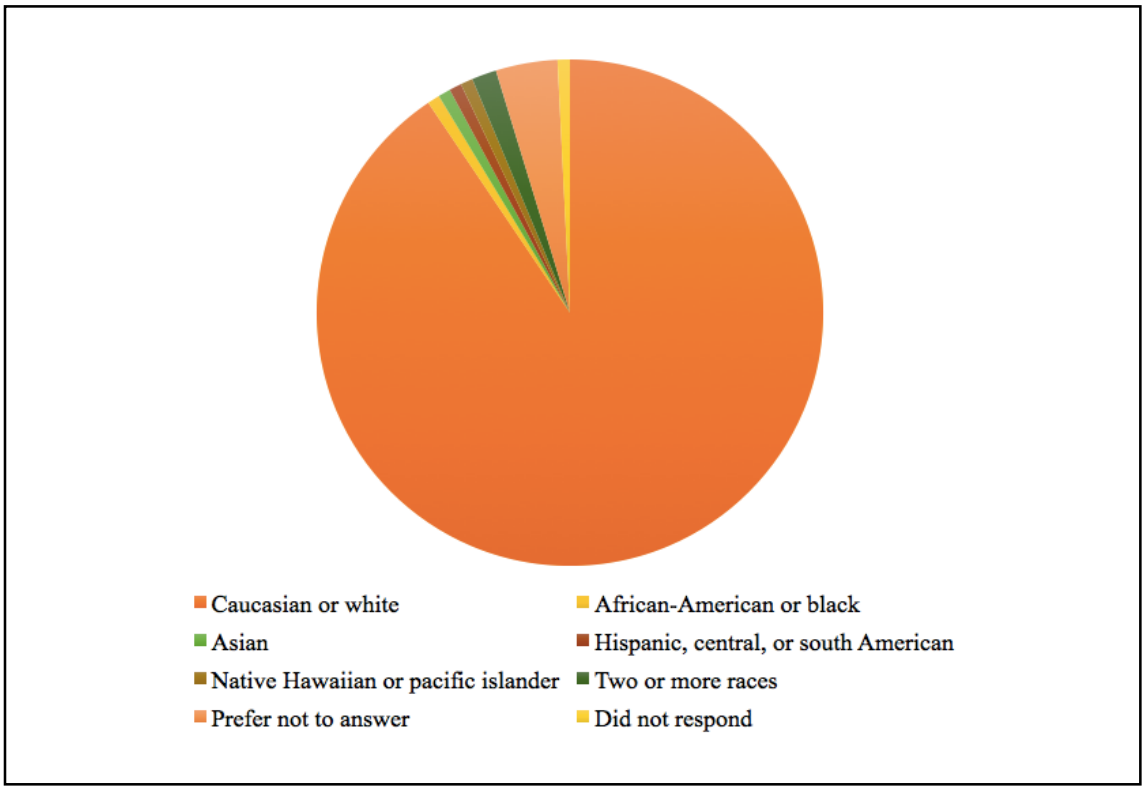

Figure 4. Participants' Race.

Department. The test box response to the question "For what department(s) do you teach online or blended courses?" generated very few duplicate responses. For simplicity and practicality of interpretation, I grouped responses according to the general subject taught; for example, chemistry and biology fell in the science category and business included categories such as finance, management, and economics. Participants' responses are outlined below (see Table 2). One individual taught in multiple disciplines, so I counted him/her in the Anthropology, English, and History categories.

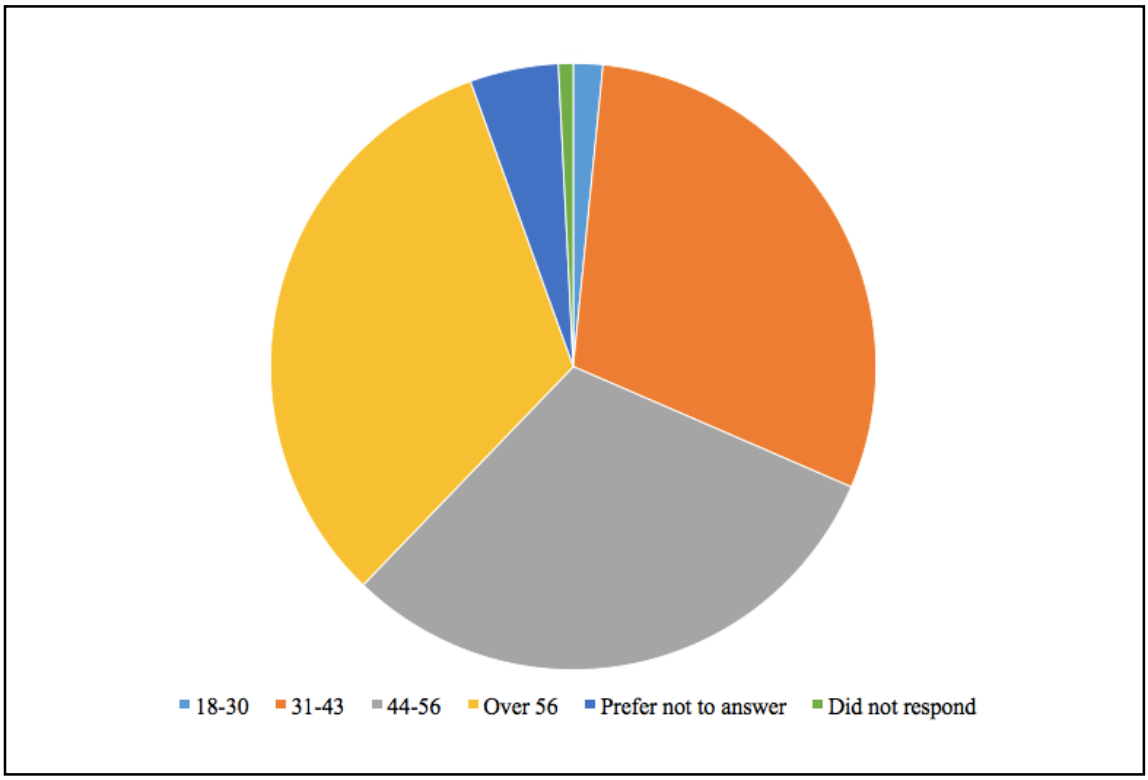

Figure 5. Participants' Age.

Professional position. Seven individuals served their institution in multiple positions: four defined their position as administrative and not tenure-track instructors, two as both tenured professors and not tenure-track instructors, and one as a tenure-track assistant professor and not tenure-track instructor. In addition to these individuals, this survey collected responses from 11 administrators, 29 tenured professors, 16 tenured associate professors, 12 tenure- track assistant professors, 60 not tenure-track instructors, and five graduate students. One individual opted not to reply. The totals for each category are listed in Table 3.

Experience

Experience by position. The majority of this study's participants have taught traditional and online courses. Of respondents, 113 individuals have taught

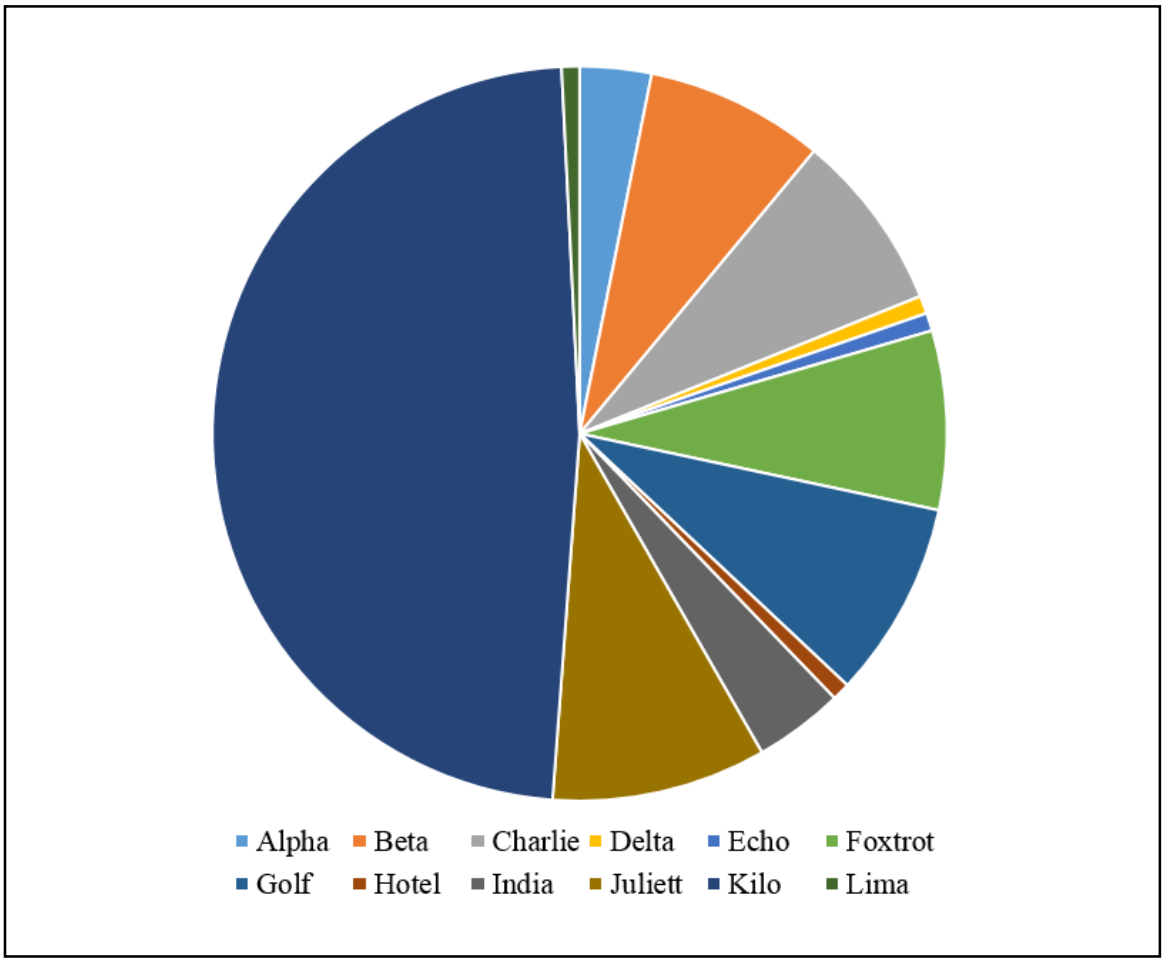

Figure 6. Participants' School.

traditional (face-to-face) classes, 122 have experienced teaching online, and sixty-two instructed blended courses. No one responded that they taught only blended courses, yet eleven individuals in the survey taught only online. Those who had only taught online included one tenured professor, two graduate students, and nine not tenure-track instructors (adjunct faculty of lecturers). Three individuals marked that they had only taught online and blended courses: one administrator, and two not tenure-track instructors. The group of fifty-four individuals with experience teaching online and traditional courses included three administrators, thirteen tenured professors, eight

Table 2

Subjects Taught by Participants in Online or Blended Courses

Subject	Responses
Anthropology	3
Arts	5
Business	14
Communication	7
Computer science	1
Criminology	2
Education	10
Engineering	3
English	5
Health/nursing	11
History	2
Linguistics	3
Mathematics	2
General education/continuing studies	5
Philosophy	1
Political Science	6
Psychology/therapy	23
Science	12
Sociology	5
No response given	8

tenured associate professors, four tenure-track assistant professors, twenty-one not tenure-track instructors, two graduate students, and three individuals that marked multiple categories: two administrator/not tenure-track instructors, and one individual that

Table 3

Participants' Professional Positions

Position	Responses
Administrative	11
Tenured professor	29
Tenured associate professors	16
Tenure-track assistant professors	12
Not tenure-track instructors	60
Graduate students	5

identified as being both a tenure-track and a not tenure-track instructor (perhaps working at two schools). Five participants taught traditional and blended courses, but none completely online; they included an administrator, two tenured professors, one tenured associate professor, and one tenure-track assistant professor. Of the fifty-four individuals who have taught traditional, blended, and online courses, two defined their position as administrator, ten as tenured professors, seven as tenured associate professors, six as tenure-track assistant professors, twenty-two as not tenure-track instructors, one graduate student, two administrator/instructor combinations, and two tenured professor/not tenure-track instructors (perhaps they considered tenure a not tenure-track) (see Figure 7).

Origin of the digital instructional experience. The survey participants largely began teaching traditional classes, with 104 beginning in a traditional classroom, five beginning in blended classrooms, thirteen in online courses, and five in multiple media simultaneously (see Figure 8).

How instructors began teaching online. Of the individuals surveyed, sixty-nine of 127 moved into the online or blended teaching medium by volunteering or expressing

Figure 7. Educational Experience by Position.

a desire to teach online. Of the remaining fifty-eight, twenty-four defined their start as part of their initial contract/position/assignment, twenty-five were asked to teach online after being hired, and nine were assigned to do so (see Figure 9).

Prior experience as a student. Of participants surveyed, thirty-five of the 127 indicated they were online or blended course students before teaching in either of those

mediums. Of those, six took one course, eight took two courses, four took three courses, and seventeen took four or more (see Figure 10).

Course creation. When asked how they created their first online or blended course, eleven responded that they taught a course created by others (such as a department or school), four used a course created by another individual (such as a colleague or mentor), eight modified a course created by others (such as a department or school), nineteen modified a course created by an individual, six created a course from a template, thirty-eight created their courses from a traditional course outline or syllabus, and thirty-eight created the course from scratch. Two individuals left the answer blank (see Figure 11).

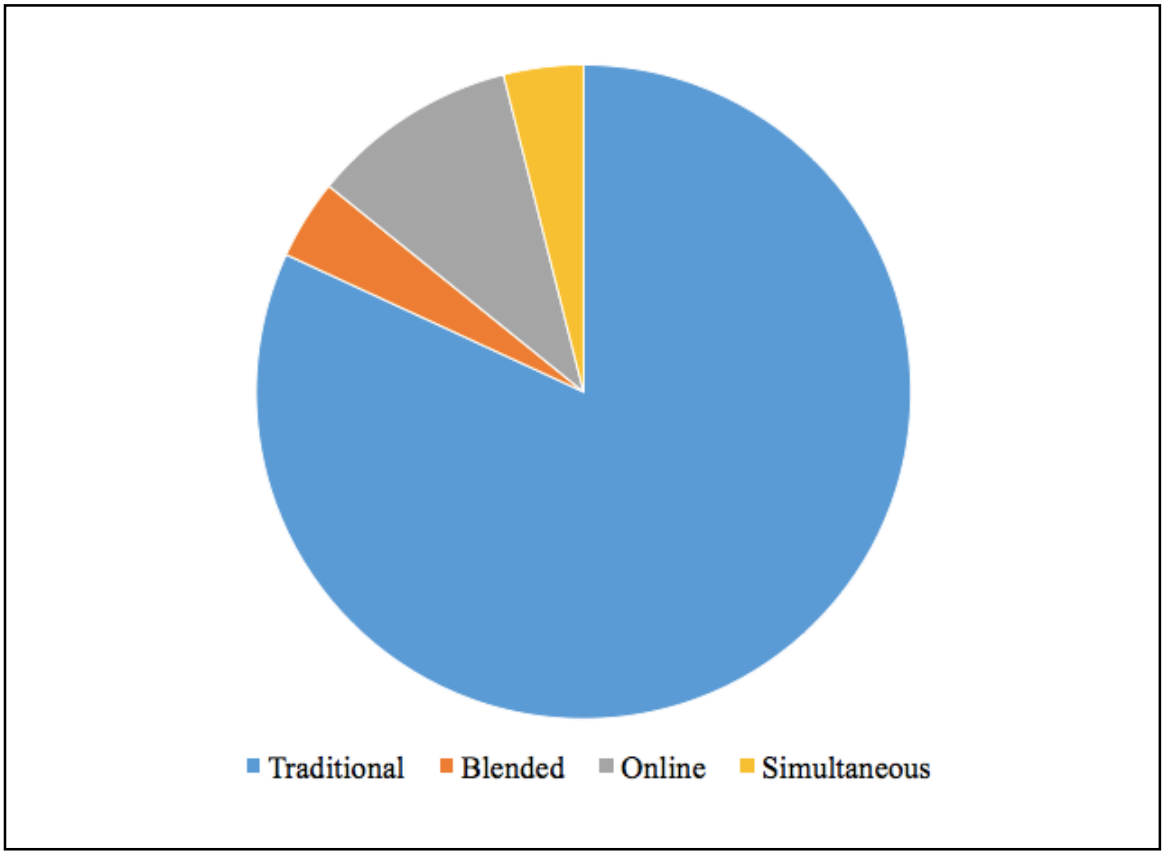

Figure 8. Type of Course First Taught by Participants.

When asked, "Which resources were most helpful during online/blended course creation?" the survey participants who created their own courses described three contributing factors: individuals (such as mentors or a trainer), the materials provided by publishing companies (in textbooks, question banks, and online), and the training about the LMS (such as tutorials, videos, or sandboxes to create courses in). Of these, individuals (such as mentors or trainers) played the largest roll assisting the teacher (see Table 4).

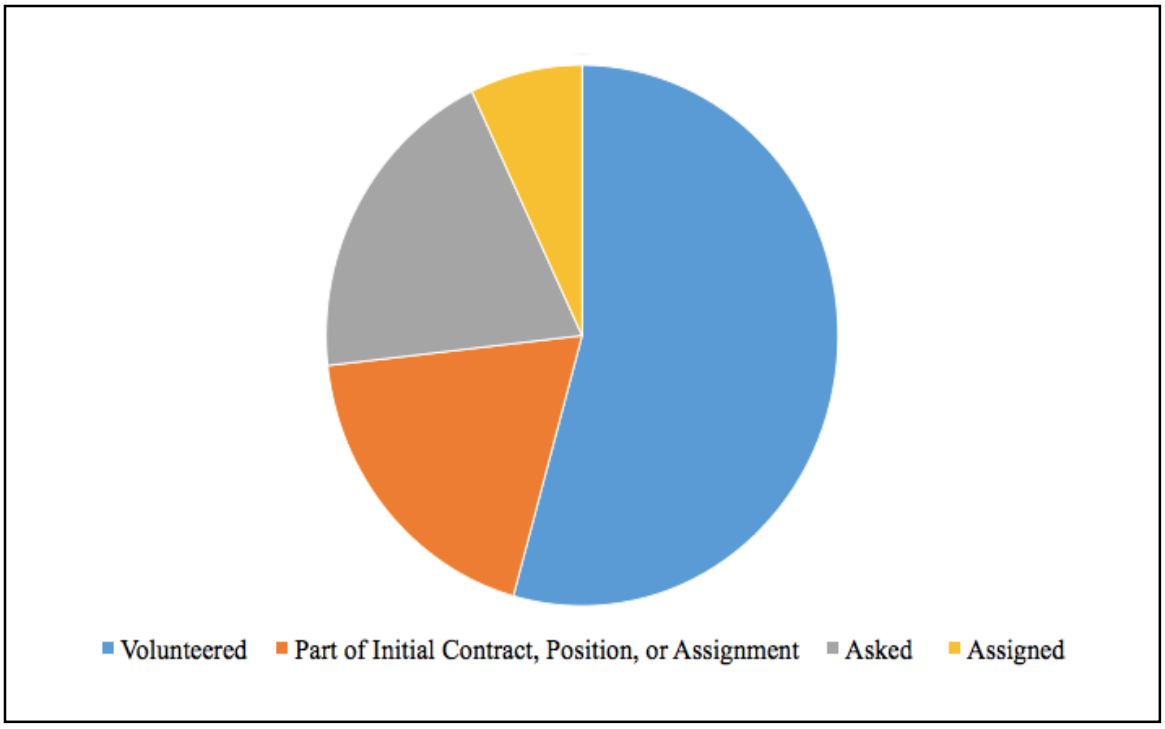

Figure 9. How Instructors Began Teaching Online or Blended Courses.

Length of teaching experience. The instrument measured two types of teaching experience among the participants: first, how many semesters individuals taught traditional courses, and second, how many semesters individuals taught online or blended courses. Nine stated they have not taught a traditional course and three did not respond, which contradicts the response where three participants responded that they had taught online and blended courses and eleven replied that they had only taught online. The other

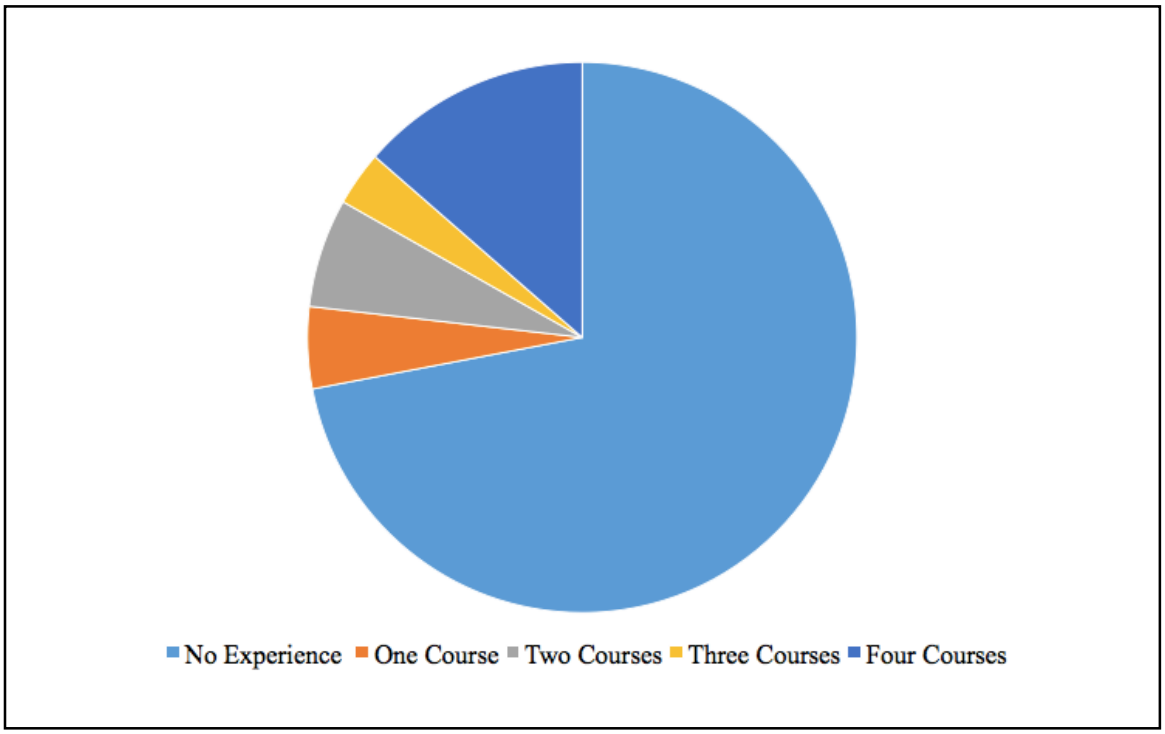

Figure 10. Instructors' Experiences as Online or Blended Course Students.

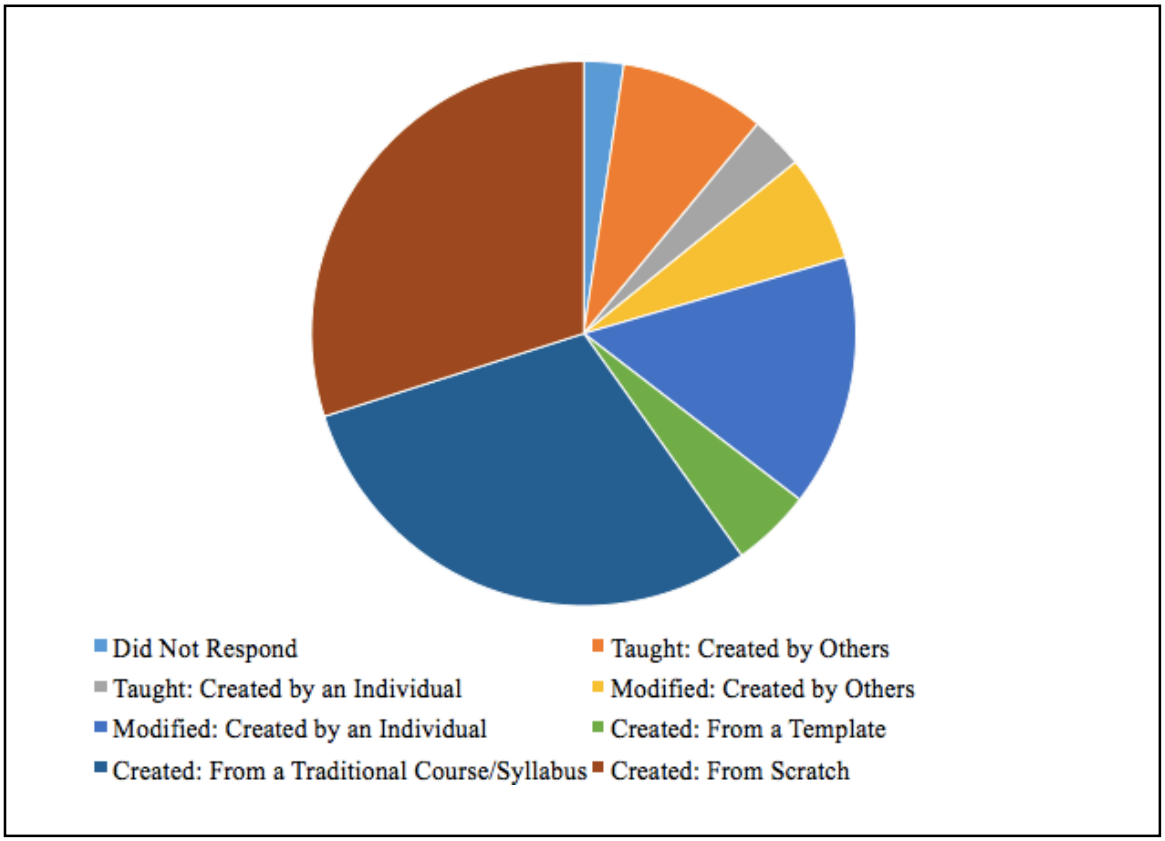

Figure 11. How Instructors Created Their First Online or Blended Course.

Table 4

Factors Helping Instructors During the Course Creation Process

Factor	Responses
Individuals (mentors/trainers)	52
Publisher or Online Resources	35
LMS Training, Tutorials, Software	25

responses comprised eight individuals who taught one or two semesters, six individuals who taught three or four semesters, six individuals who taught five or six semesters, and ninety-five individuals who have taught seven or more semesters in face-to-face courses.

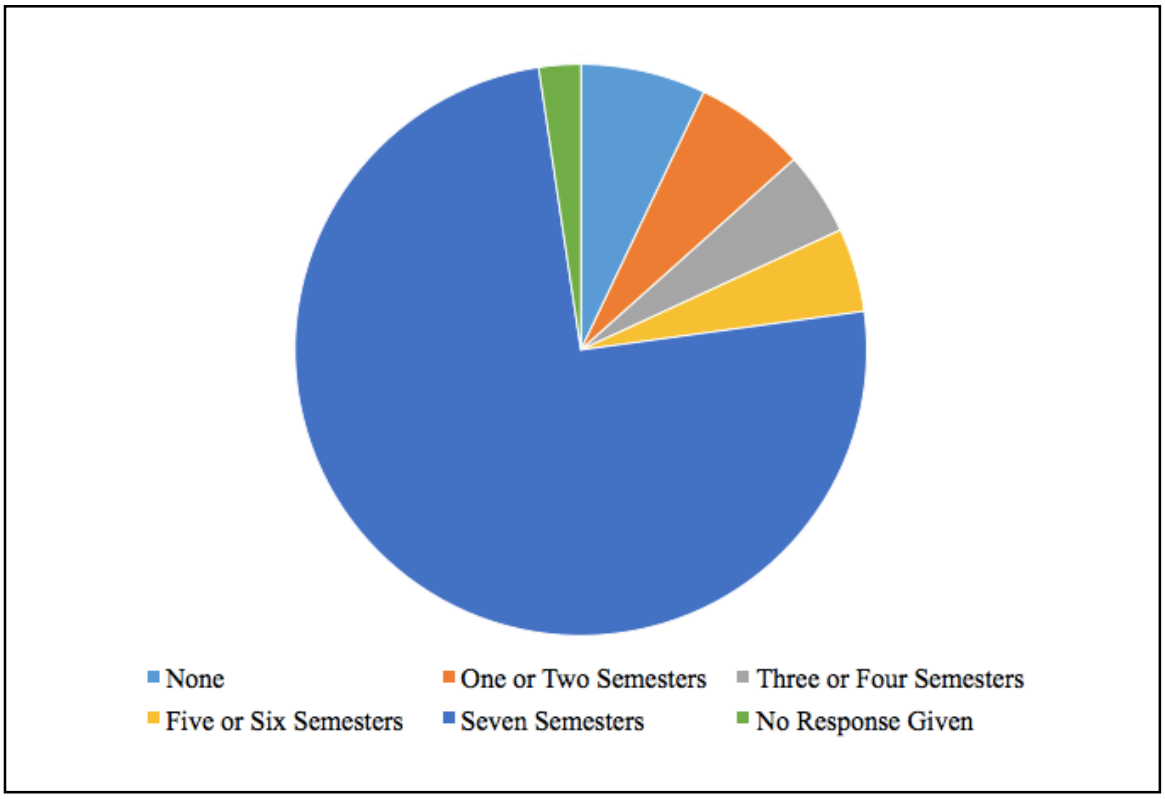

Figure 12. Traditional Teaching Experience.

Their online course experience included thirteen who taught one or two semesters, twelve who taught three or four semesters, fourteen who taught five or six semesters, and eighty-five who taught online more than seven semesters. Three individuals chose not to respond. The participation of each of these groups are shown on the charts (see Figures 12 and 13).

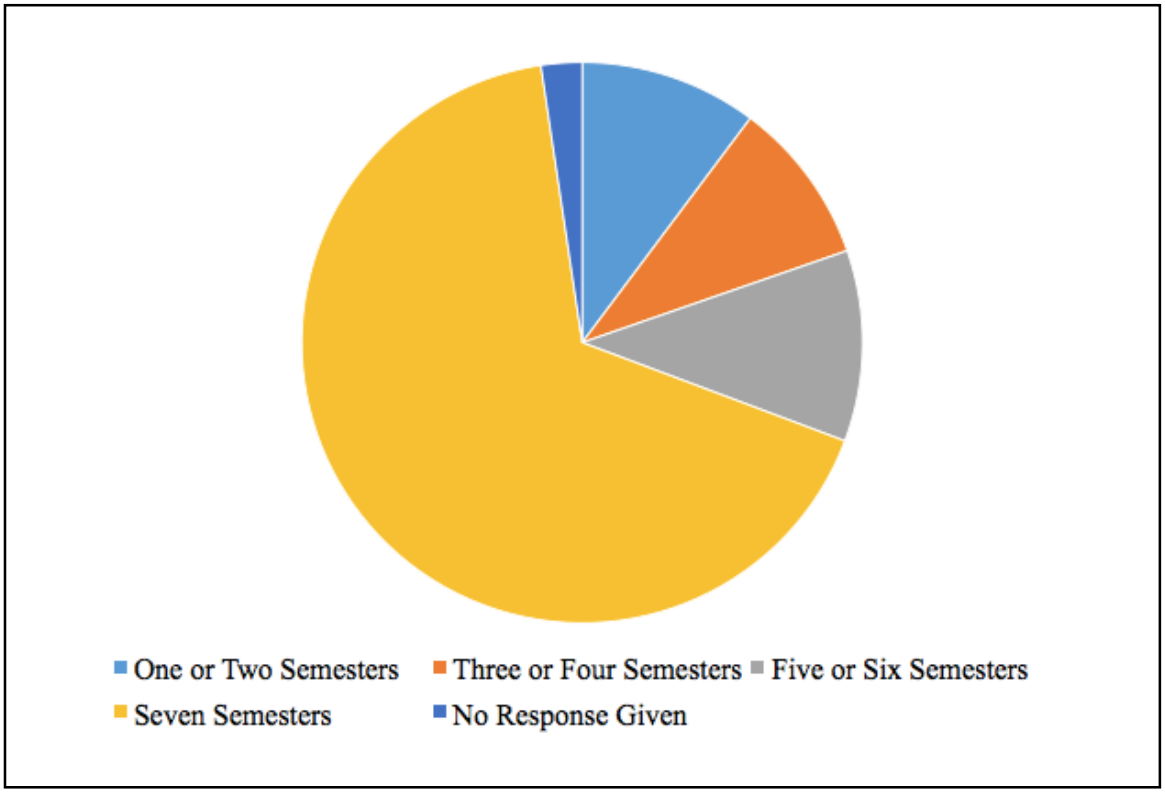

Figure 13. Online and Blended Teaching Experience.

Experience with different audiences. To whom had the participants taught online or blended courses? The majority of participants, a total of 112, had taught undergraduates. Forty-one taught graduates. Eight taught professional educators. Eight taught business professionals, and five taught secondary students such as high school. Three did not respond. Twenty-one individuals had taught both undergraduate and graduate students, with six of those individuals also teaching another group. Three

respondents taught graduate students and professors, and one taught graduate students and business professionals (see Figure 14).

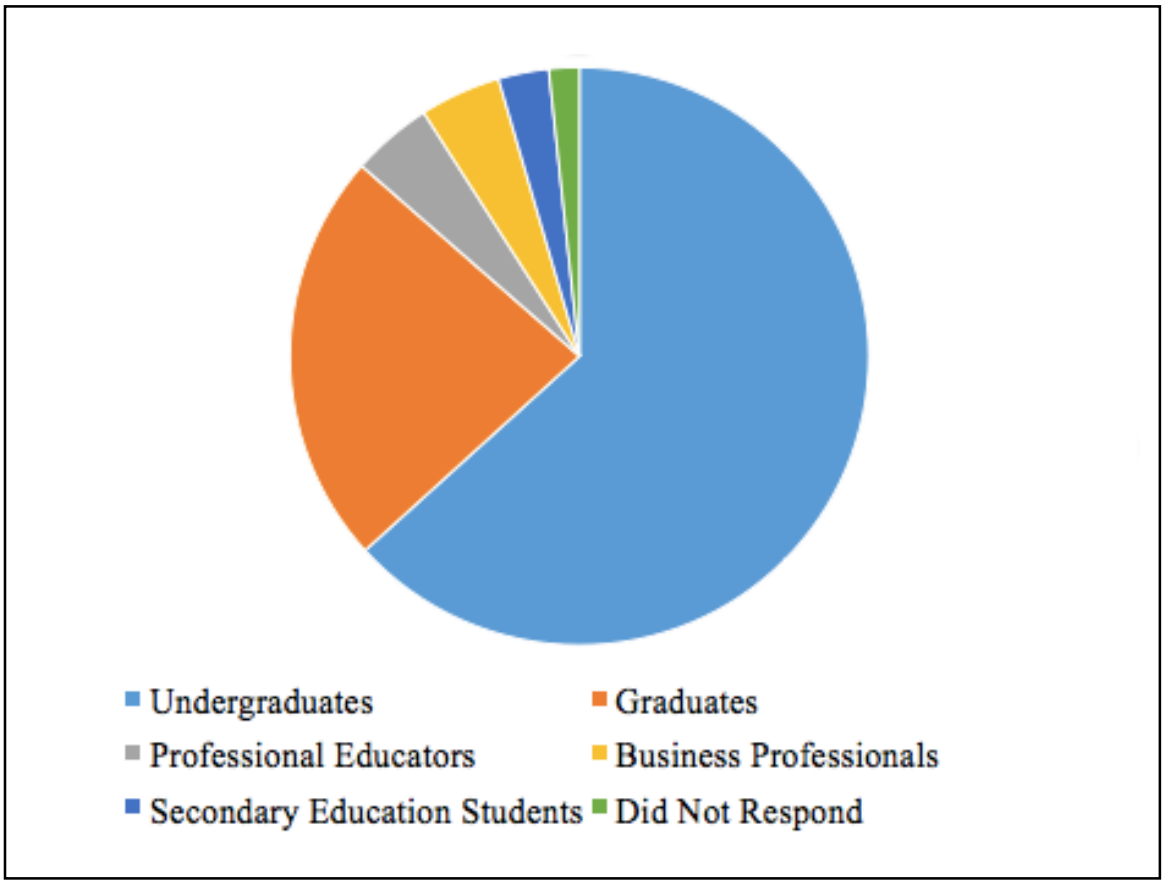

Figure 14. Survey Respondents with Experience Teaching Different Audiences.

Personal Practices or Behaviors

Social Media

A large majority of online and blended course instructors in this survey spent time weekly on social media. Outside of the three individuals that did not respond and the three that indicated they preferred not to answer, only fourteen participants reported not spending personal time on social media. Among the rest who engaged in this medium, twenty spent an average of less than an hour a week, thirty-six spent one to three hours,

twenty-five spent four to six hours, fourteen spent seven to nine hours, four spent ten to twelve hours, and eight spent thirteen or more hours on social media a week (see Figure 15).

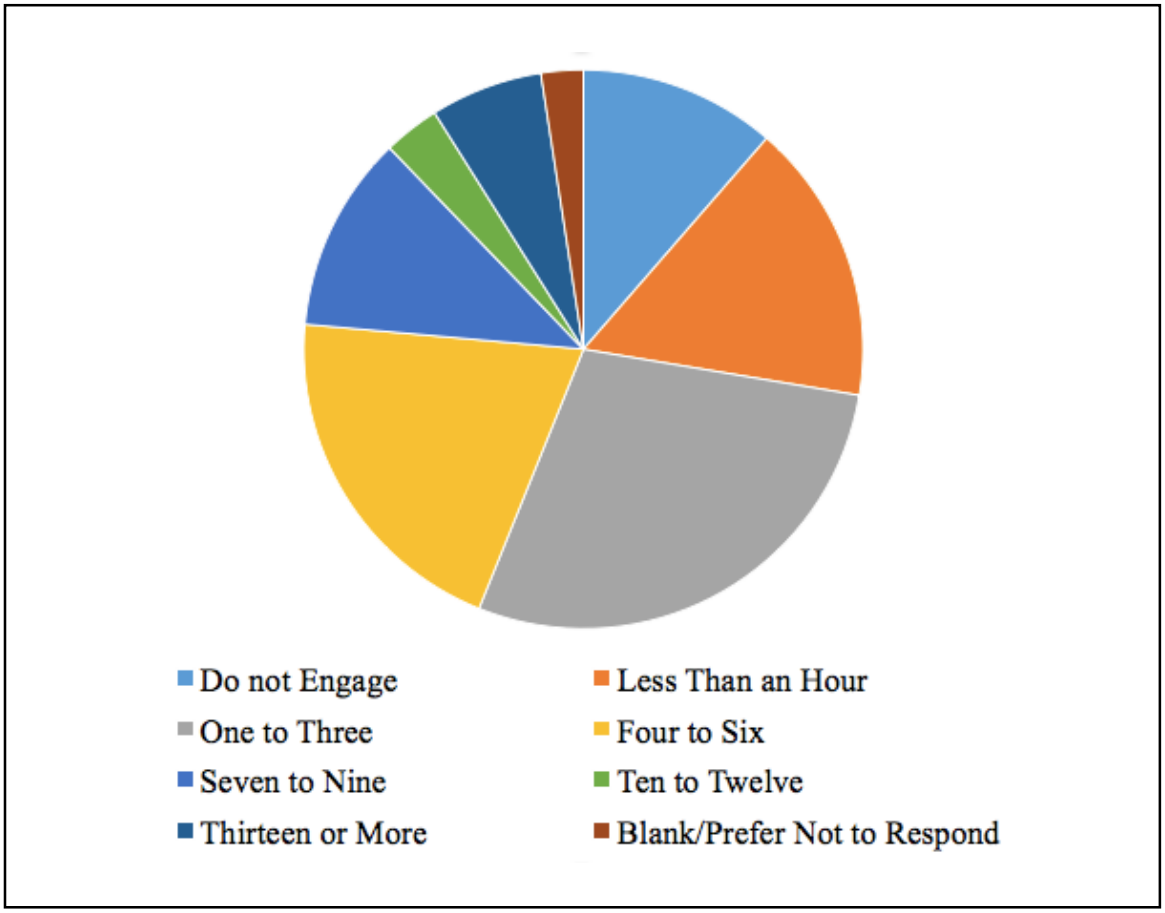

Figure 15. Participants' Personal Time Spent Weekly Engaged in Social Media.

Digital Content Creation

Another personal practice the survey collected responses about was the amount of personal time the participants spent each week blogging, creating/maintaining websites, programming, or creating digital media. Fewer individuals engaged in these activities, and the group spent less time overall in digital content creation. Of respondents, sixty-two individuals did not create any digital content, twenty-five spent less than an hour,

twenty-four spent one to three hours, eleven spent four to six hours, one individual spent seven to nine hours, and no one spent ten or more hours. One person marked that they preferred not to answer and three left the category blank (see Figure 16).

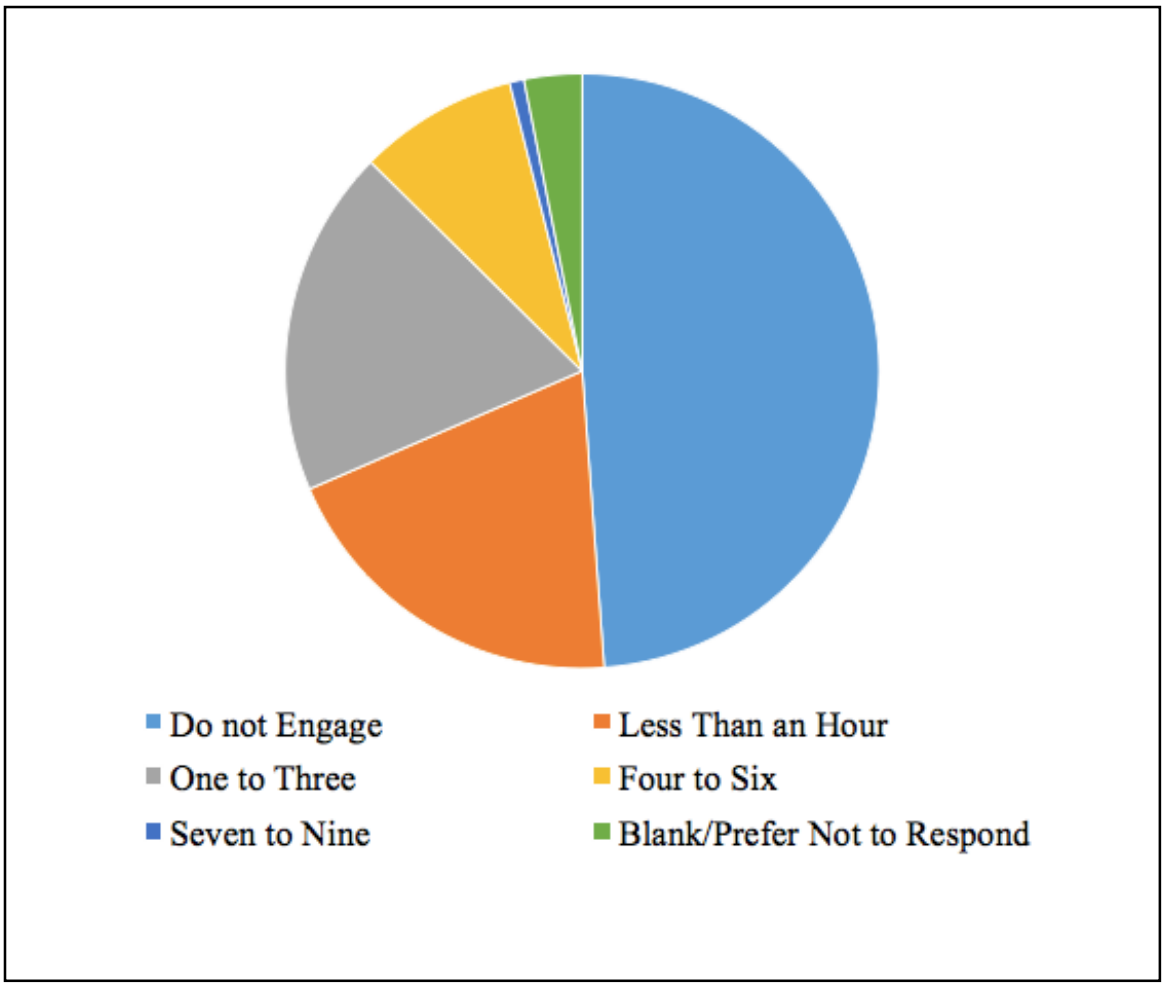

Figure 16. Participants' Personal Time Spent Weekly Engaged in Digital Content Creation.

Reading Digital Materials

With the exception of three individuals who left the category blank, and two that preferred not to answer, every participant spent time reading digital material such as books, articles, informational websites, and wikis. According to their responses, eleven

reported that they spent less than an hour, forty spent one to three hours, thirty-five spent four to six hours, twenty-one spent seven to nine hours, ten spent ten to twelve hours, and five reported spending thirteen or more hours (see Figure 17).

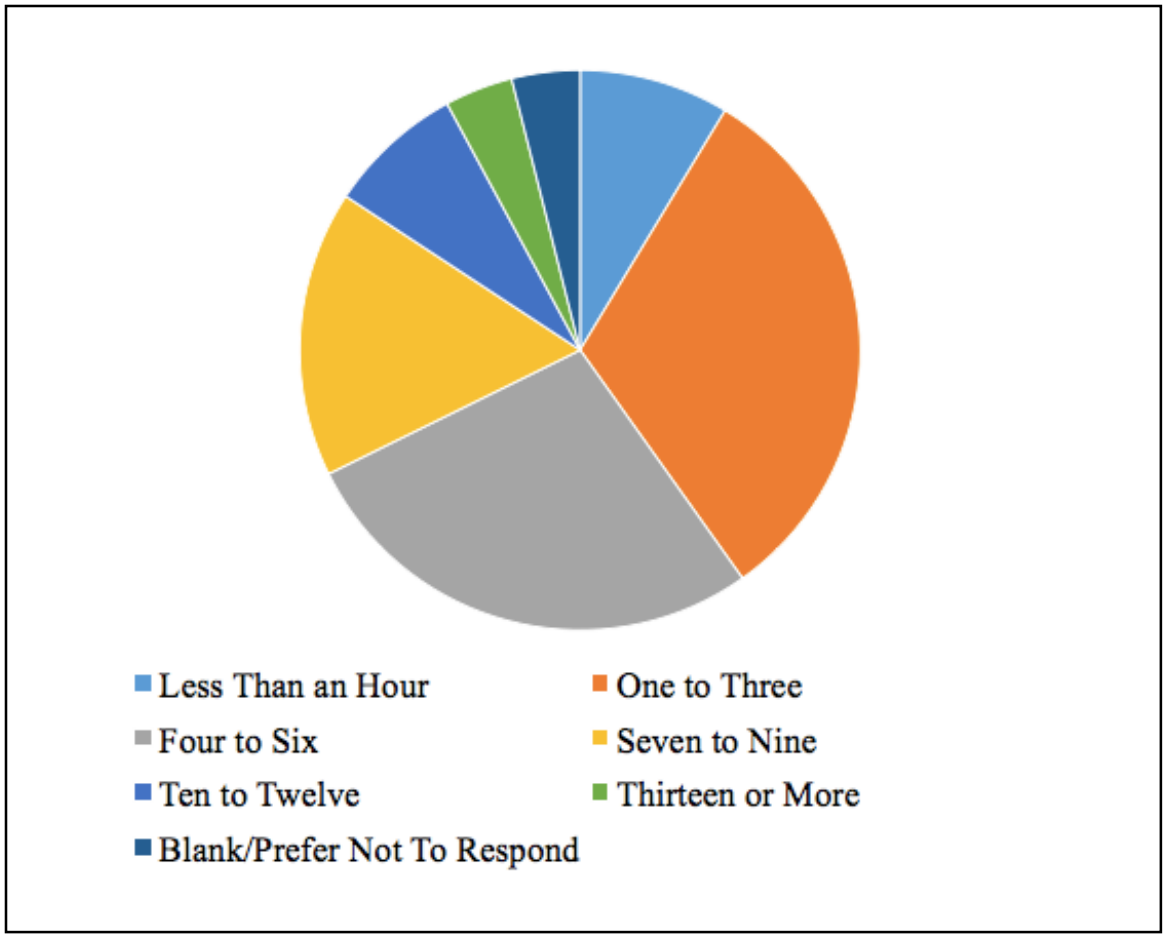

Figure 17. Participants' Personal Time Spent Weekly Reading Digital Materials.

Online Viewing

The survey responses revealed a normal distribution of participants' time spent viewing online media, including video media clips, television shows, and movies. Five individuals did not share their use. Five more indicated they do not view any online media in their personal time. Twenty-four spent less than an hour, thirty-eight watched between one and three hours, twenty-five watched four to six hours, fifteen viewed seven

to nine hours, eight watched ten to twelve hours, and seven watched thirteen or more hours (see Figure 18).

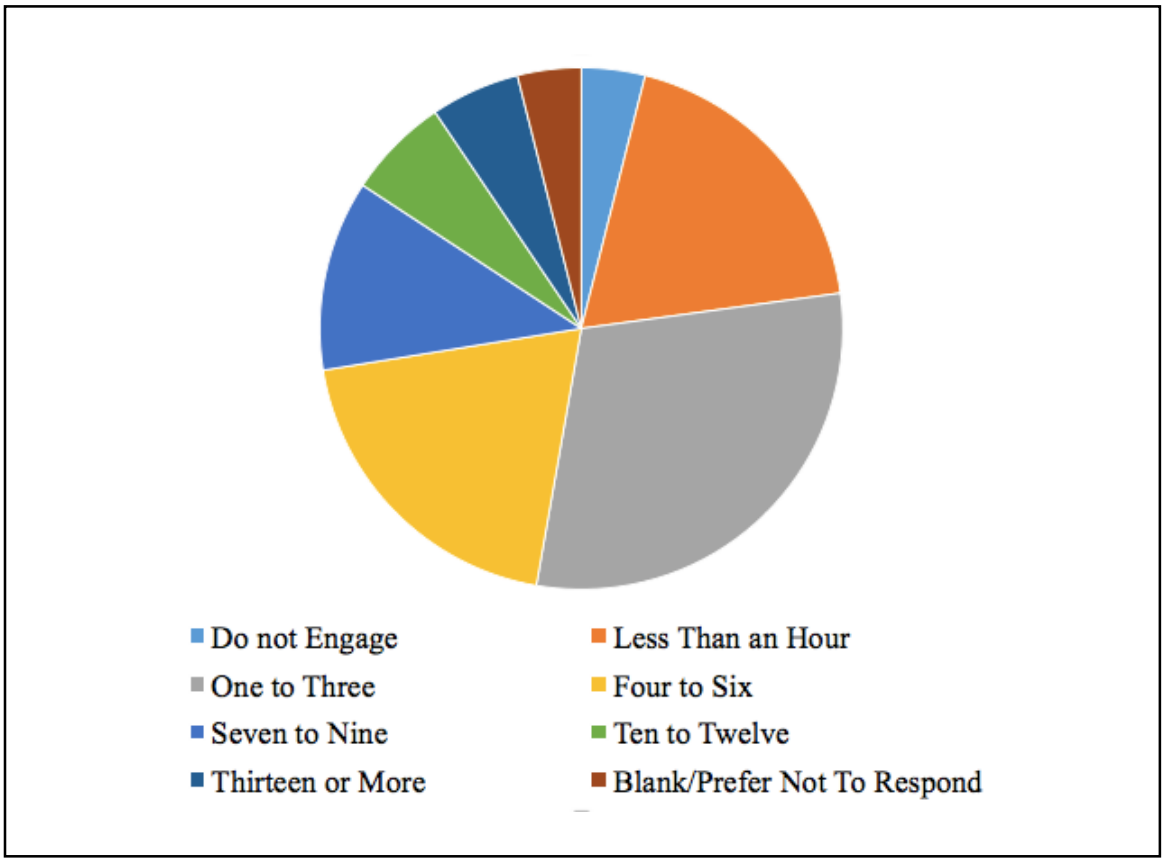

Figure 18. Participants' Personal Time Spent Weekly Viewing Online Video.

Experience Online

Teacher Satisfaction and Dissatisfaction

Initial. The study collected these various points of data to examine the experiences of instructors; all of the comparisons in this study hinged on the results of initial online teacher satisfaction and the responses about their current feeling about working as an online instructor. When asked, "How would you describe your initial experience teaching online or blended courses?" twenty-eight reported that experience as

very positive, fifty-nine as positive, twenty as neither positive nor negative, seventeen as negative, and one as very negative (see Figure 19). Two did not respond to the questions about their initial or current feelings.

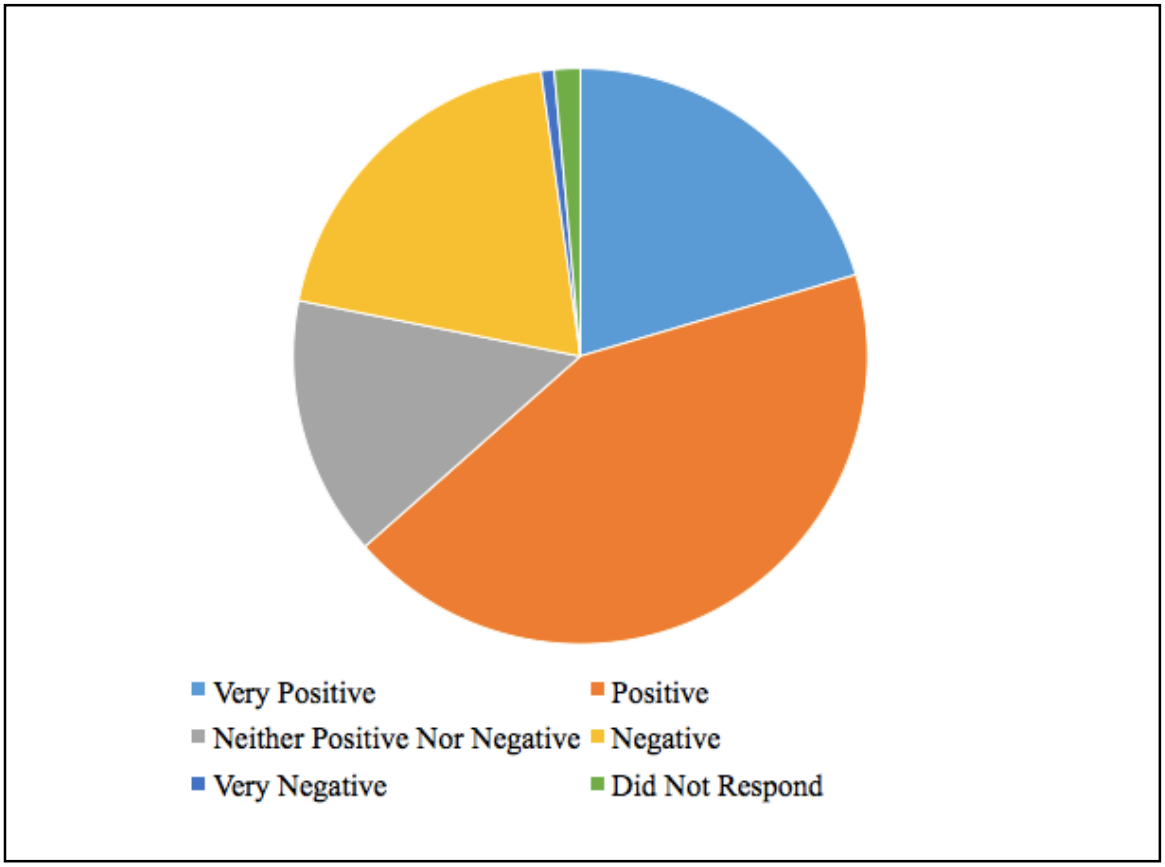

Figure 19. Participants' Initial Experience Teaching Online or Blended Courses.

Nearly seventy percent of the respondents experienced a positive or very positive initial course teaching online or blended education. Just over fourteen percent defined their first time teaching digitally in the negative categories, leaving sixteen percent with neither a positive nor a negative experience. Over half of the respondents—sixty-four—changed their reply from their initial to their current experience.

Instructors also shared factors that influenced their rating of the initial experience and current feelings about online education. I categorized these responses and found they

fit into eight basic categories (see Table 5). I will discuss these in detail in the next chapter.

Table 5

Factors Influencing Teacher Experiences in Online Education

Factor	Initial Responses	Current Responses
1) The instructor's impressions that they/the course succeeded or failed.	11	21
2) The quality or lack thereof of student responses and learning.	16	19
3) The amount of interaction with students in the course.	14	18
4) The perceived availability or unavailability of effective, helpful, and timely support from the institution, colleagues, and IT/technical department.	11	13
5) The level of reliability, ease-of-use, and functionality of the LMS or software.	11	12
6) The attitude of the instructor about the medium, including the freedom of design and creation.	14	12
7) The difficulty of the learning curve and amount of work required to become proficient in the medium; and	1	3
8) The level of control administrators exercised in the instructor's classroom and teaching experience.	2	1

Current. After teaching, forty-nine instructors felt very positive about online education, fifty-six felt positive, fourteen did not have positive nor negative feelings on

the subject, leaving only six instructors with a negative (four) or very negative (two) experience.

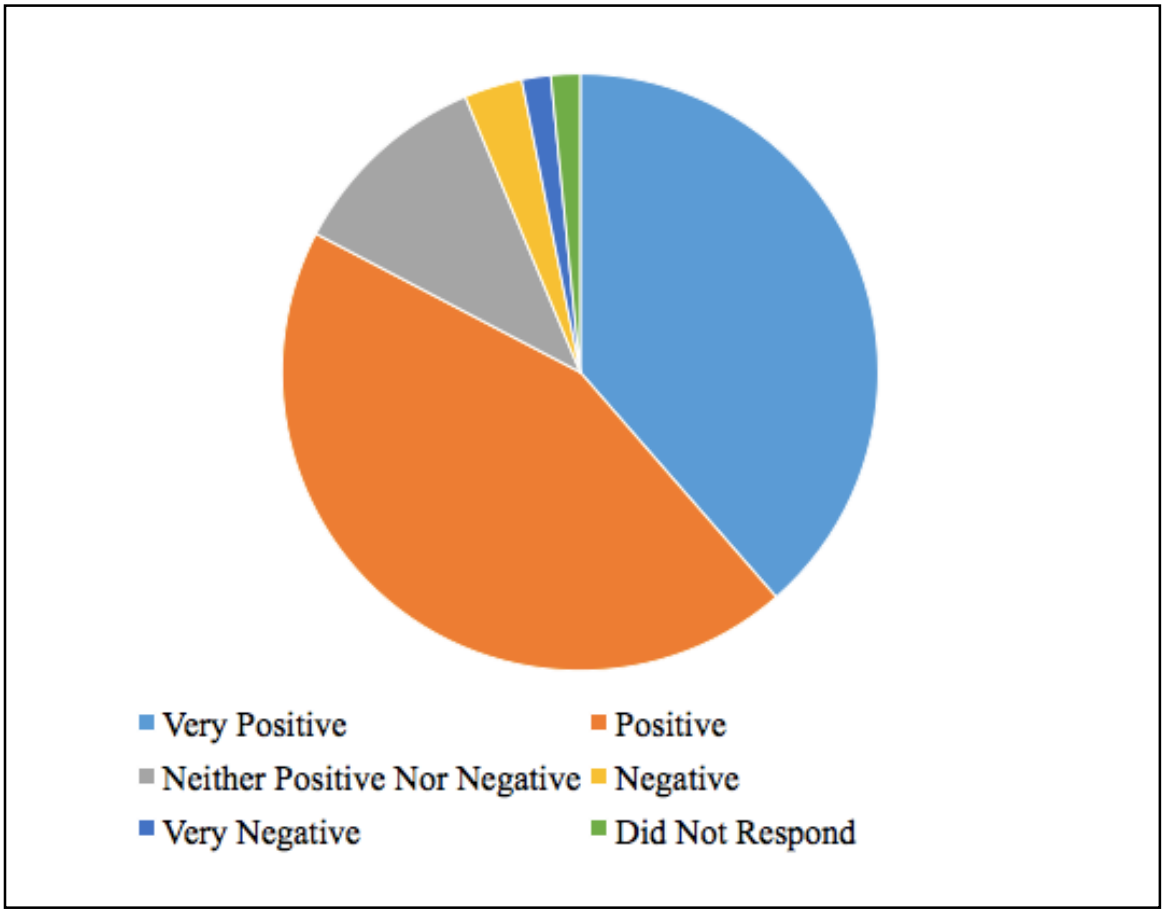

Figure 20. Participants' Current Experience Teaching Online or Blended Courses.

After teaching online, eighty-four percent of the participants maintained a positive outlook on teaching online. Slightly over eleven percent did not classify the opportunity to instruct online positively nor negatively, and less than five percent held a negative view (see Figure 20).

Change. The majority of our respondents indicated either their initial positive experiences in online instruction remained the same or improved; only 16 responses moved towards the negative side of the spectrum, and six of those remained on the

positive side—shifting from very positive to positive. Only one participant began positive, and moved to very negative. Two shifted from positive to negative. One from very positive and five from positive changed to neither positive nor negative, and one moved from the ambivalent category to negative.

No participants remained very negative from their initial response to their current feelings, and only one of eighteen remained negative. Twenty-two remained very positive, thirty-three continued to feel positive, and five persisted in their lack of positive nor negative feelings. A total of sixty-one opinions remained the same.

The positive shift of feelings about online education included forty-eight individuals, just under forty percent of the study participants. Twenty-seven became very positive about online instruction; eighteen went from positive to very positive, four moved from neither positive or negative to very positive, and five switched from negative to very positive.

Seventeen other individuals moved up to the positive response, nine from neutral, and eight from negative. Three participants from the negative category and one from the very negative category moved to the neither positive nor negative reply. Of the forty-eight opinions that improved over time, five individuals shifted their response three points on the Likert scale, thirteen jumped two spots, and the remaining thirty shifted up one spot.

Online Instructor Experiences as Students

Of the survey respondents, thirty-five experienced online education as a student first. Seven described their experience as a student as very positive, nineteen as positive, four as neither positive or negative, and five as negative. None of the participants

recorded their time as a student as very negative, which might reflect well on their instructors and the state of online teaching in general.

Available Resources at the Crossroads

Resources

The staff who took the survey shared what resources the institutions made available to them as they transitioned to online and blended courses. In the beginning, fifteen individuals did not know of any available assistance during the shift; three of those instructors indicated this occurred because they pioneered the online program in their department or school. The largest known assistance came from each institution's online education infrastructure, including the online learning division, instructional technology or design departments, the IT department, and formal technical support individuals or units. Sixty individuals referenced these groups. Twenty-seven relied on a mentor(s) or colleague(s). Eighteen turned to online tutorials, workshops, and Google to learn how to teach online or blended courses. Eleven cited the LMS itself as guiding them through the process. Seven discussed traditional textbooks or how-to books as a resource, and two cited their previous formal education as preparing them to teach digitally (see Table 6).

Resources used by instructors. The instructors used every resource available to them. The participants all answered in the same manner. Every respondent tried every option they knew of from the "As you began teaching online or blended courses, what resources and help were available to you?" In over thirty of the responses, they praised specific competent individuals, either by name or title, from their school; many of these

individuals served at the respective university's online learning departments or instructional technology support staff.

Table 6

Online Instructor Resources by Category

Sources	Responses
1) Formal institution online support	60
2) Mentors or colleagues	27
3) Online resources	18
4) Learning Management Software	11
5) Textbooks or books	7
6) Formal education	2
7) Did not know of available help	15

Helpfulness of resources. The surveys also reported substantial agreement in this category. Only eight of the 117 responses in this category indicated concerns with the help provided. Of these, one individual felt overwhelmed:

> Sometimes there's a bit too much advice. I believe in keeping an online classroom simple and streamlined, and often there's a push to use ALL the tools available, many of which I don't think contribute to learning, at least for the classes I teach. For the sake of other instructors, especially those for whom online interaction isn't familiar and comfortable, I'd like to see workshops that support a cultural understanding of online spaces, as much as the ones that support a technological understanding.

The remaining responses that indicated the offered assistance fell into two categories. First, those who were offered help but the help was not given, as expressed by these participant:

> Unfortunately, the understaffed and overworked office either didn't respond or gave me incomplete information when I ran into problems. I had to solve most problems myself.

Second, participants expressed frustration with incompetent individuals or ineffective support: "If you don't know what you need to do, then the tutorials are useless. I feel like I'm wasting time. I think it would be helpful to have them identified e.g. watch this _____ when you are having trouble with _____."

And,

> The students who answered the phone and didnt [*sic*] know what to do. or [*sic*] the answer after trying to figure out why the learning management system wont [*sic*] respond—oh it doesnt [*sic*] work on a MAC.

Surprises

When asked, "What did you feel unprepared for, or surprised by, as you began teaching online or blended courses?" the participants shared their shock about the online education students, the time requirements of online or blended courses, the technical problems, their frustration in communicating through digital mediums, and grading challenges. The most overwhelming and bitter shock came in response to the students' behaviors. Thirty-six instructors expressed responses ranging from exasperation to profanity-laced aggravation about students who were lazy, arrogant, rude, awkward, shallow, immature, computer incompetent, expected easy courses without work, cheated, knowingly plagiarized, lacked netiquette (online etiquette), gave weak responses, lacked educational inexperience, constantly complained, had low expectations for the course, and/or were unwilling to do basic tasks like read, respond, and make time for the course. Not all the participants' responses about students were negative. Four expressed feelings

of compassion or admiration for the students, recognizing the difficulties many online students faced such as disabilities or time constraints. Two expressed gratitude and amazement at how well students responded to interaction and the depth of many student responses to discussion threads.

Nine others expressed surprise at struggling with discussion, stating that they were unprepared for the amount or lack of content in asynchronous discussions. The management of these boards surprised and confused instructors at the beginning. This took more time than they expected, and twenty-six instructors expressed astonishment about the amount of time it took to create and manage courses in the medium. Twelve others noted technical problems as their primary concern. Three struggled with the grading or administrative challenges. Fifteen individuals remained unflappable in the face of online and blended courses, stating simply "nothing" surprised them (see Table 7).

Analysis

Initial Experience and Current Feelings About Online Instruction

With all of the responses collected, I input the data into the statistical analysis program R and performed a series of multiple linear regression tests using single or grouped variables. Multiple linear regressions determine if any group within the independent variable *x* could predict or explain the dependent (or response, or outcome) variable *y*. In these tests, the *y* variables were the teacher's initial experience in online education, and their current feelings about online education.

These tests calculate the y-intercept (for a two-dimensional graph) for the reference group (such as teachers in the age category of eighteen to thirty), and then the

comparative y-intercept for the other variables (such as teachers in the age category of thirty-one to forty-three) along with the standard margin of error for each of the variables. The software reports if any of the p-values allows a rejection of the null hypothesis as association or correlation of the data is statistically significant.

Table 7

Unexpected Surprises for New Online or Blended Course Instructors

Source	Responses
1) Student behaviors	40
2) Time requirements	26
3) No concerns	15
4) Technical difficulties	12
5) Communication/interaction distress	9
6) Grading or administration requirements	3

The p-value is the test of the null hypothesis: the numerical representation of the likelihood that there is no measureable impact of the explanatory variable upon the response variable. A p-value of $p<0.05$ is traditionally considered statistically significant in multiple linear regression tests of this types. Additionally, the software calculated the measurement R^2, which measures the variance of the dependent variable, or in other words, what percentage of the dependent variable was explained by the independent variable (.03 indicates three percent of the data explained).

I examined if the explanatory variables were related to the dependent variables of initial experience or current experience by creating dummy codes for the categorical

values. This enable me to test each specific group (such as the age thirty-one to forty-three) against the other groups within the category (such as age eighteen to thirty) to find any statistical differences. The results of these tests provided both p-values to determine significance, and R^2, a measurement of how much (percent) of the dependent variable the independent variable data explained. Results of correlation do not represent causation, meaning that this independent variable does not predict the dependent variable, only that the data indicated some type of relationship existed.

Though the formal null hypothesis requires a researcher to expect that no connection exists between the variables, I believed that more results would reveal some predictor of either the teacher's initial experience, or their current feelings about online education. To my surprise, the data from this survey failed to reveal any other explanatory variables among the patterns, behaviors, and experiences of the instructors. I ran and examined multiple tests with the instructors' initial experience as the dependent variable against a variety of independent variables including: (a) which types of courses the instructor had taught (traditional, blended, online, or any combination of those mediums); (b) which course type (traditional, blended, or online) they taught first; (c) how they began teaching online—if they volunteered to teach online, if it was part of their contact, if they were asked if they would, or if they were assigned to do so; (d) gender; (e) age; (f) their institution of employment; (g) if they previously took online or blended courses; and (f) how they created their first online course.

I also tested and examined the same independent variables against the dependent variable of the instructors' current feelings about online or blended education, and then conducted tests using each of the additional independent variables: (a) The instructor's

professional position (administrative, tenured professor, tenured associate professor, tenure-track assistant professor, not tenure-track instructor or lecturer, and graduate student); (b) What audience (graduate students, undergraduates, secondary student, academic professionals, and/or business professionals) the instructor taught; (c) How many years the teacher had taught traditional courses; (d) How many years the instructor had taught online courses; and how much time the individual spent each week (e) On social media; (f) Creating digital content; (g) Reading digital materials; and (h) Viewing digital media.

Of all those tests (see results in Appendix D), only one provided statistically significant results. None of the variables correlated with the instructors' initial experience at the crossroads. The single variable positively associated with current feelings about blended or online course instruction was those who reported spending less than an hour blogging each week (see Table 8). I addressed these results and their implications in the Discussion and Conclusion section.

Teacher Beliefs About Best Practices

Before teaching online. Having found no statistical connection between the collected data, I turned to the qualitative responses, starting with the teacher's beliefs about best practices. Of the 127 respondents, seventeen left the question, "Before you taught online, what did you believe were the best practices (ways to succeed in teaching online or blended courses)?" blank. Two individuals indicated that they did not remember, stating things like, "It has been too many years. I started in 2001."

Table 8

Multiple Regression Results: Personal time spent blogging, creating/maintaining websites, programming, or creating digital content

Multiple Regression Statistics	Dependent variable: Time Spent	
	Initial	Current
Y-Intercept[a]	3.75(0.20)	3.88(0.17)
4-6 hours	0.16 (0.35)	0.22 (0.30)
7-9 hours	1.25 (0.99)	1.13 (0.85)
Did not create	−0.04 (0.23)	0.33 (0.20)
Less than an hour	0.17 (0.28)	0.61[b](0.24)
Prefer not to answer	−0.75 (0.99)	−0.88 (0.85)
Observations	124	124
R2	0.03	0.08
Adjusted R^2	−0.01	0.04
Residual Std. Error (df = 118)	0.97	0.83
F Statistic (df = 5; 118)	0.65	1.92

Note: Teachers that reported spending 1-3 of personal time were used as a reference group.
[a] p<0.001 for both intercept initial and current dependent variables. [b] p<0.05

Of the remaining 108, eighteen replied that when they started they had no idea what they were doing or knew nothing about how to teach online. “Before teaching online I hadn’t really thought about best practices” wrote one participant.

They described the process of beginning with statements simultaneously expressing ignorance and courage such as: “I didn’t really have any idea. I just dove in and built something…” and “I didn’t really think about it much,” and “I was very ignorant about best practices prior to making my first course, it was only after I started

making it and reading [materials about] the field that I began to learn the best practices and adopt them."

Another described the lack of knowledge on the medium of their department when the institutional administrators "basically cornered [us] and told us that our jobs would not exist if we did not create the classes. I was not a media person. I did not even used [*sic*] PPTs [PowerPoint Presentations] to lecture in class very often. I had to create the entire class from scratch." Almost a fifth of the online instructors in this survey expressed a complete lack of understanding about the best practices in the medium and how to proceed as they began teaching online.

The remaining ninety participants provided insight into their initial beliefs. Their comments provided 239 tallies in the nineteen categories of best practices discussed in the Literature Review section. Additionally, I categorized twenty-one additional ideas outside of those best practices. Excepting the groups without knowledge about teaching online, and those with misperceptions, a majority of the participants demonstrated knowledge about at least two best practices of this study's best practices list.

After teaching online. Only fourteen participants left the question, "After teaching online or blended courses, what have you come to believe are the best practices?" blank. After categorizing the responses of the 113 respondents, there were a total of 319 categorical tallies, and thirty-nine statements that did not fall into the categories defined by the literature review (see Table 9). The responses after teaching online represent what the instructors currently believe are the best practices. Some of the instructors clarified their responses in relation to their initial responses by saying things like, "same as before and…" or "in addition to above, …" but most did not; this created a

problem comparing the before and after responses because the survey instrument did not measure if participants believed they were adding to the previous list or replacing it.

The categories that experienced the greatest increase in instructor responses might indicate those ideas and practices the instructors picked up through their experiences. Nine more teachers commented about the need for clearly defined learning outcomes. Five more discussed choosing the best content. Five more mentioned making the materials and course navigation easy for the students. Another significant increase included the ten additional instructors who saw the importance of communicating expectations to students. The greatest increase occurred in the category of establishing teacher presence and interacting with the students. Eleven more instructors added use variety to their responses. Seven wrote of a greater need for understanding of the student needs and adult learner circumstances. Six more discussed the value of setting

Responses by category.

Commitment to the online medium. Prior to teaching, nine instructors discussed the need to commit to the online medium, spending the necessary time and putting in the testable learning outcomes. Eight more teachers reported a need to provide students the opportunity to demonstrate understanding of the course material. effort to create a class that adds value to an educational experience. One participant wrote, “I didn’t want my online classroom to be just another textbook for students to read, I wanted it to be a place where real people communicated with each other about the things they were reading.”

Another maintained the focus on the students by pointing out the need to “be always available to help students… stay active in the course on a daily basis.” These, and

Table 9

Respondent Beliefs About the Best Practices in Online and Blended Learning

Best Practice	Belief Before Teaching Online	Belief After Teaching Online	Increase in Category From Before to After
Commitment to the online medium	9	10	1
Continual professional development	2	1	-1
Begin with clearly defined learning Outcomes	16	25	9
Choose the best content	19	24	5
Make materials and course navigation easy for the students	18	23	5
Establish a supportive class community	19	21	2
Communicate expectations to students	24	34	10
Seek feedback	4	5	1
Establish teacher presence	35	53	18
Use variety	11	22	11
Be understanding of student needs	12	19	7
Emulate the best pedagogical practices	16	10	-6
Set testable learning outcomes	5	11	6
Provide opportunities for students to demonstrate understanding	12	20	8
Wordsmith questions, comments, and other communication	1	4	3
Use technology to enrich a course	22	19	-3
Choose technologies and activities that lead to desired results.	13	16	3
Maintain helpful technical support	0	1	1
Be professional, but not overly concerned	1	1	0

similar responses focused on the time commitment of online education, came from 10 percent of the respondents to this question.

After teaching online, ten instructors included the category of instructor commitment to the only medium. A common discussion point among the responses was to be "Readily available to answer student questions," "Logging in frequently," maintaining "Regular availability," "By email… [and] participating regularly in forums." One teacher emphasized:

> Interaction is a must, email, discussions and keeping up to date with each students [*sic*] progress. I was overwhelmed by the shear [*sic*]numbers of emails and messages that I was receiving from students, who often had lots of questions. I spend [*sic*] most of my time answer [*sic*] those questions, and encouraging the students to complete the class.

Another felt it took even more than commitment to the medium, writing that it takes "Supportive teachers who CARE about their students [and maintain] predictable availability. … Quick response time and turn around," to succeed in the online classroom.

Continual professional development. Only two participants initially touched upon this idea, the first suggesting that to succeed instructors must be willing to learn new tools or become obsolete. The second instructor described the process of professional development:

> I had great mentors and online instructors at [name withheld] College for my [degree withheld] and than my [next degree withheld] had some good but most[ly] bad online instructor so I learned the difference [*sic*]. Then I went to [another]… degree at [name withheld] college, so between the 3 I learned to teach critical thinking accountability, teach them to fish and do not fish for them, learn the basics of using currently scholarly sources to support critical thinking arguments and take specific practice examples and connect them to theory and learn through feedback and reflection.

Neither directly mentioned professional development, yet both discussed it in principle indicating the need for improvement.

After teaching online, only one instructor discussed the need for continual professional development, analysis, or feedback after a course is created stating:

> The Quality Matters Rubric provides an excellent approach to guide the development of an online course. … Our Teaching and Learning Center provides training and technology support for all faculty developing and teaching online courses.

Begin with clearly defined learning outcomes. The survey respondents discussed the category of beginning with clearly defined learning outcomes a total of 16 times among their beliefs about best practices prior to instructing online. Comments such as "Making sure there were clear learning outcomes and how the student would accomplish them," demonstrated understanding of this topic. This best practice might be commonly understood because it applies just a well to traditional education as online or blended learning.

The number of survey participants in this category increased to twenty-five after the instructors spent time in the online classroom. They reported observing the need for "clear expectations for students," "on the first day," and "having clear learning outcomes and how the students accomplish [as being] very important."

Choose the best content. Nineteen participants wrote of their belief that the choice of content would make a difference in online education. Among the types of content recommended, instructors listed "a good textbook," "current scholarly sources," "videos," "engaging…information," "a mix of the best content available on the web," "a wide range of media," and "a great deal of digital content." Two instructors expressed their initial concerns that online courses lacked depth making the teacher's choice of

materials a paramount responsibility, because, “online classes I felt were too basic for my students.”

The comments about content in the current best practices used phrases like “avoid busy work,” “engaging,” “organized” “short,” “concise,” “rich,” “available,” and “digital” in their discussions of choosing the best content. The most repeated idea discussed the length of the content; experienced instructors felt students would not engage in any one media or text for more than between ten and twenty minutes.

Make materials and course navigation easy for the students. Almost a sixth of the survey participants believed that ease of access for the students ranked as one of the best practices. They felt students needed “availability and accessibility to course content, well-organized to … progress through the course content.” One individual put it simply, “Organization is key.”

After teaching, the individual clarified their response stating, “Organization and clarity are key.” Other individuals came to feel strongly about a “well-organized online class format.” They counseled instructors to explain “Exactly how the LMS performs.” One suggested the best practice that teachers should make the materials available off-line: “Available through the delivery platform as well as outside it.” Three specifically suggested that teachers set up their class with modules (organized lesson packages) students could move through to demonstrate mastery.

Establish a supportive class community. Before beginning, instructors remembered believing students needed “On line [*sic*] communication between students,” with the ability “To network with other students and create an environment where they are able to ask questions and discuss issues,” enabling “as much interaction as possible.”

They referred to "Discussion groups," "Discussions," "Interactivity," and "Interaction;" the strong focus on the student needs indicated an awareness of roughly a sixth of the teachers about the online community.

After teaching, instructors became increasingly specific about their methods for creating supportive class communities. Having individuals in the class create "selfie videos … a fun way to engage students in the day-to-day life of a class. Having students post videos and pictures makes the sense of community greater in the class," wrote one. Another instructor learned from her/his experience about this necessity:

> This semester, I'm learning to create an environment of engagement. Last semester, I felt the students dropping in a few hours before an assignment was do [*sic*] completed it, and moved on. For the sake of retention, I'm trying to be more creative in ways to attract them to interact during the week, [yet, still] allow the online class room to be asynchronous.

Some noted this similarity between online and traditional classrooms, requesting "High engagement by both faculty and student; building community… working as much as possible to create active, engaged learning just as you would in a classroom."

Communicate expectations to students. The second most popular category garnered simple responses such as "Clear, concise, written instructions," "Clear expectations," and a "Clear pathway through the course;" similar responses all reflect the need to communicate expectations to students. The teachers maintained those responses, but added details of their current beliefs about best practices, such as: "Giving them credit and deadline on when they must post," "Be very organized, establish clear expectations, have everything ready on the first day," "Assignments and deadlines must be laid out clearly," "Use rubrics for evaluation," and "Leaving no ambiguity in what is expected." One instructor offered the following warning, "Structure the class… there's

too much room for drift and confusion in the online setting already, and I don't need to add more."

Seek feedback. This category's responses often left room for ambiguous interpretations because the respondents did not clarify if their advice "feedback," or "prompt feedback" was directed at the instructors to the students or vice versa. Only one clarified their belief after teaching online when they wrote, "Constantly improving the course based on student feedback."

Teacher presence. Almost a third of the participants wrote about establishing teacher presence and teacher-student communication before entering an online classroom. Some unique suggestions beforehand included one instructor's view on their relationship with students:

> Remember that you're teaching students not subjects. Whether I am teaching face-to-face or online I think it is hugely important to remember that the people I am working with are people. …They have a reason for learning and wanting/needing to know the information in my courses.

Many commented about a felt need to find ways to connect with students, "Working to create a personal relationship," through ideas such as, "Being responsive and enthusiastic, having engaging discussions."

The largest increase between the before and after teaching online responses came in this category, teacher-student interaction was the only category with over half of the participants mentioning it as a best practice. Their current recommendations included many comments about being responsive and available. Over ten instructors took their advice a step further recommending that instructors go outside the learning management system (LMS) and establish contact via text, email, phone calls, or video chat to increase completion rates. Said one instructor,

> In additional to the factors previously mentioned, individually meetings [*sic*] with students 2 or 3 times a semester via phone or Skype helps me get to know my students, maintain a personal/professional connection with them, helps them learn the material and perform better on assignments, and lets them know that I care about their progress in the course and have a vested interest in their success.

Six instructors specifically recommended video chatting with each student in the course. This approach could be considered a different best practice, splitting the category up into interacting with students within the course environment (on discussion boards, answering questions, and asking about their work/responses) and engaging with them personally outside of the LMS. Another instructor made personal contact "1-2 times a week" with "all students" in his/her class. Either method is time consuming, as one teacher noted it "Takes a long time and lots of work."

Use variety. Before teaching, when instructors spoke of variety, their comments centered around "Multimedia components," in addition to using "Quiz[zes], PowerPoint, video lectures, written papers," and "assignments." After teaching online, their responses moved away from "video lectures" and "recorded" teacher-provided content to "Lots of videos and creative use of media, technology, etc.," "textbooks," "blogging," "varied assignments … multiple formats to engage the material," "Multiple methods of providing information," in addition to "Links and other online sources."

Be understanding of student needs. The content in the responses about student needs did not change from before to after teaching online, but more respondents noted that in their surveys. Those who mentioned this category seemed aware of student disabilities, schedules, and challenges writing things such as, "[Use] multiple approach[es] to meet the diversity of students," "Allow flexibility," "[Use] multiple formats to engage material if possible (such as videos with subtitles & transcripts),"

"More flexibility for students on deadlines," and "Redesign… courses [to make them] ESL friendly promoting much more success with ESL students."

Emulate the best pedagogical practices while adjusting for differences. Aside from one individual who felt beforehand that teaching online should involve "Harnessing the things that… face-to-face courses cannot," instructors whose comments fell into this category commented about how they, "Tried to carry the same knowledge I had about teaching in a traditional setting to online." Another noted, "I don't think online and FTF [face-to-face] instruction are really all that different. The only hurdle with online, is making sure the students do not procrastinate." Though more common, this perspective was not universal among the responses prior to teaching online, as one participant stated that they believed, "Teaching face-to-face was the most effective way to teach and teaching online wa[s] a way to organize, archive, and assi[s]t students in getting and paying attention to information."

After teaching online, comments about online instruction centered more on universal pedagogical practices, saying things like, "This mode of teaching can fit with the student center teaching," "Best practices for effective teaching were very similar between an online and on campus course [*sic*]." Though the literature review addressed the need to acknowledge and adjust for the differences in online education, the instructors did not discuss this aspect of the category in their responses.

Set testable learning outcomes. Instructors demonstrated their expectation that testable learning outcomes would be a best practice in online education through discussing the need for "Quizzes," "Rubrics," and "Assignments," to measure learning. The majority of responses placed in this category centered on the testing, more than the

outcomes. After teaching online, some of the comments mirrored the literature review's findings:

> Make sure that the students master the learning outcomes and use the appropriate assessment methods to determine how much the student learned. It is essential that the assessment method of each learning outcome is aligned with the type of learning outcome. This can be time consuming since multiple choice and auto-graded assessment rarely do justice to higher level learning outcomes such as critical thinking.

Another discussed the alignment of meaningful testing and learning. "[Use] meaningful test banks and online activities with flexible time frames (within a week) for student completion." Though it received five and eleven tallies as a category, only two individuals focused on this category according to its original definition.

Provide opportunities for students to demonstrate understanding. More commonly, the responses about assessment that were not about quizzes or tests talked about the quality of the assignments, avoiding "busy work" and respecting the more "mature" audience: "Try to make all assignments meaningful for the students," "[Use] regular assessments … that validate learning," and "Engaging students with hands-on experiences." One instructor wrote,

> Teach them to fish and not to fish for them, learn the basics of using current scholarly sources to support critical thinking arguments and take specific practice examples and connect them to theory and learn through feedback and reflection.

Eight more individuals discussed this category in their current responses. Unique insights in this category included, "Build in significant interactive activities," "[Create modern online courses, not just old-style correspondences courses put onlne [*sic*] (meaning having videos, interactive quizzes, gaming components, innovative technologies, etc.)," and "Seek ways to connect online course work with student's real life experiences."

Wordsmith questions, comments, and other communication. I categorized a total of five comments into the category of wordsmithing communication; most of them addressed the clarity of the written communication: "[Use] clear, concise, written instructions," wrote one. Another encouraged instructors to create "Effective, to-the-point" communique.

Use technology to enrich a course. This category held two types of responses. First, it became a catch-all for discussions of technology use with comments like, "[Use] innovative technologies," and "[Produce] lots of visuals and creative use of media, technology, etc.; working as much as possible to create active, engaged learning." Second, it contained those who focused on course enhancement through technology. "Understand how to use technology relevant to the course," wrote one. Another participant typed, "Rich multimedia content can enhance most courses," "I believe that materials in courses should be very practical."

One instructor begrudgingly admitted,

> Students like … video lectures. I hate doing the voiceovers for PowerPoints, and I hate even more doing talking head videos, but I have come to realize that students want/need that. … I still believe … [in the] use of thread discussions to keep students engaged and accountable. / Use of preexisting video and readings as part of course content.

Catering to the students' needs was also a part of the next category.

Choose technologies and activities that lead to desired results. The category that I felt elicited the strongest emotions and scathing insults in the survey centered on the choice of technology. Opinions varied, yet many remained strong defenders of this principle after teaching online:

> I worry that too many online courses tend to get exotic and goofy, end up with 15 weeks of 'chatrooms & videos,' and moving [*sic*] away from drilling the students

> on the basics (learning basic concepts, vocabulary used in the field, practice with the subject's basic tools, formulas and graphs, etc.)

Another wrote:

> We need to avoid all the 'bells-and-whistles,' 'whiz-bang' features to entertain more than educate. My observation is that most programs, most online courses, are hardly more educationally effective than the old BASIC programs from decades ago, they just 'flashier.' … [We need to avoid] entertainment, 'busy work,' fun-and-games have eclipsed truly acquiring and retaining skills, broadening horizons, gaining deeper understanding, learning to think.

And the comments did not end there:

> Just because you can, doesn't mean you should. What I mean by that is that just because there is a cool tool to use with online education doesn't mean you should use it. … You need to teach and digital technologies are simply tools. They cannot make up for poor content or preparation.

Maintain helpful technical support. Though I expect that few instructors would feel comfortable without technical support, only one individual mentioned a comment related to this category: "Designing the course to avoid tech pitfalls (especially the tech that is supported by the university)." This category might have been taken for granted as LMS improved over the years and online education courses passed on to new teachers came largely problem-free.

Be professional but not overly concerned. The comments in this category also all fell into the category about using the technologies that lead to the desired results, with no direct comments about professionalism as much as on not using amateur or immature attention gimmicks.

Additional ideas. Multiple instructors provided additional ideas on what they thought were the best practices when they began. Some felt that anything they could do to eliminate or mitigate the online aspect of the class would benefit the students. For example, one person listed their belief that one of the best practices was to "Have

students in the face-to-face environment!" Six others stated that they should just post recorded lectures so the students could watch the class and experience it like a traditional course. No one stated similar beliefs about this idea after instructing online, though some encouraged adjusting for some of the benefits of traditional courses in the online medium.

Two instructors suggested holding synchronous classes to compensate for the lack of the face-to-face interaction. "Requiring some synchronous sessions can also enhance some courses, especially those that depend heavily on class participation in activities such as projects and business cases," wrote one instructor in the best practices section. Another wrote that teachers succeeded by "Including some synchronous interaction." Others mentioned the personal contact by video chat, text, or phone calls as discussed above.

Other instructors emphasized their belief in a need for consistency and simplicity: "Keep it simple and straightforward and give it hell." Some seemed to emphasize this in a different way, focusing on the choice and functionality of the learning management system, "Have an organized LMS." To organize discussions, three instructors recommended "Use threaded discussions," in their list of best practices. They believed this practice necessary to understand the flow of online discussion and respond properly, avoiding confusion.

Related to the simplicity ideas were suggestions about organizing the class according to a calendar with a weekly arch where students got into a routine and benefitted from predictability, wrote one survey participant, "I still think having a course map or calendar that prompts students on what to do and when to do course items is really important and a best practice." Another provided specific advice, "Time-

management was a major factor, and that it was good to incorporate this (time markers) in the course." A third explained his/her method:

> [An online instructor] must have set days/times that you grade and you must also check daily to respond to student inquiries. Excellent organizational Skills-Must set up course in a manner that students can easily follow. Make sure students are clear on weekly tasks.

Boettcher & Conrad (2010) introduced the idea of a course arch in their "Online Teaching Survival Guide," but the literature review did not reveal indications others accepted this as a best practice, therefore it did not make the initial consensus-based list.

Others rejected the idea of simplicity. One instructor felt that "Lots of readings" would compel the students to learn by mastering the material through content inundation. Another "Wanted students to fax or email all papers for printing out, so that [the teacher] could have a paper copy of everything [and grade everything] by hand." Clearly, going paperless was not on this instructor's plan.

One could categorize the second most common response outside of the best practice categories into the "Establish teacher presence" category, yet it seemed to go further. After teaching online, seven instructors included the idea of "Give timely feedback," "Give students feedback," "[Provide] lots of professor feedback," and "Speedy feedback," in their comments. They felt students needed to understand what behaviors and responses progressed the class understanding on discussion boards and established a baseline of acceptable content for the students.

Two instructors stated that online education should require proctored exams for accreditation, and at a minimum, as a best practice. "Integrity is a real issue," wrote one. Another encouraged the use of professional companies:

> Get ProctorU, or other well respected proctoring service, to verify the work is being in fact done by the enrolled student!! Increasingly, many 4-year institutions will NOT ACCEPT online course credit for transfer, and for good reason—the concern is that 'someone else' did the work for the student (such as a friend, parent, or older sibling) or was outright hired to do it—such as a poorly paid Grad student looking to make $50 [*sic*].

Perhaps this idea would have garnered more attention if instructors recognized it as a problem.

Advice for Administrators and Future Instructors

The survey concluded with a section for respondents to add their opinions and advice. In response to the question, "Is there anything you would like administrators or future instructors to know about transitioning to teaching online or blended courses?" the survey participants provided a variety of advice (Appendix C contains their comments). The advice fell into two groups, advice for instructors and advice for administrators. Respondents touched on three specific categories of advice for instructors (see Table 10). The participants also consistently discussed four categories of advice for the administrators (see Table 11).

Advice for instructors.

Time requirements. The instructors who discussed the time requirements for

Table 10

Categorical Advice of Information for Instructors

Advice Category	Initial Responses
1) The time requirements of online education.	16
2) The nature of online/blended students.	8
3) Differences between online and blended education.	7

online education focused on how much more time teaching online education requires, writing things like, “You need to take a lot of time to translate materials just to build the course and to add new material and keep class up to date. Way more work than in a traditional class.” Another described it saying, “The time that is required to prepare for and teach an online class is significant. One needs to start the processing far in advance (ideally two semesters or more) of when the class will be offered.”

Others put an optimistic spin on the time requirements, “It is very time consuming to set up, but a well-organized platform will be beneficial and save time in the long run.” The reality that it gets easier with time repeated through others’ comments, “It is not easy to do the first time, but once you have a template set up it gets much easier.” Another response read, “It takes way more time than you think it will. … Plan for it to take just as much or more time than teaching a traditional course, especially at first.”

The online or blended student. The instructors did not agree in their strong opinions about students. Some viewed the students positively as one wrote, “Keep an open mind and remember the students work harder in an online or blended course.” Another believed, “We actually can have lots of interaction with students.” Others did not exhibit the same generosity in their writings. “Students will not read your syllabus … Many students think online classes are supposed to be easy and will give you scathing evaluations if they’re not.” Another expressed frustration, “Due to the world of texting, students are now expecting immediate feedback. If assigned a large load of students, that can be a difficult task.”

One teacher provided perspective on the students’ circumstances for instructors:

> It is a way to reach another demographic. group. It increases diversity—and not just the standard definition of diversity—the home-bound chronically ill students, caregivers for the elderly, working professionals taking classes to move up in their career, parents of small children.

Another respondent agreed, "Always treat students with respect and be willing to accommodate students of all kinds and needs. Be available to assist students on a daily basis." The responses might reveal the varied positive or negative experiences of these individuals.

The differences between online and traditional education. A participant gave an example of advice that both disclosed the experience and revealed differences between online and traditional education:

> Faculty: you will likely have to do much more tech support for students than you think you will. You will likely not have as much tech support for yourself as you will be promised. No one will consult with you about when your course management system will be taken offline for maintenance. Maintenance will nearly always be schedule for a time when you've scheduled a quiz or an assignment deadline and you will have to retool your entire syllabus. When you ask for more warning about this sort of thing, tech support staff will blow you off.

Though not universal, examples like this uncover some of the unique difficulties online instructors face. Other statements reflecting the differences mentioned by instructors included: "It is a totally different style. Students rely on you for all information regarding technology." "Don't try and mimic the traditional classroom – it is not what online learners want or need." "It takes a different set of skills to do on-line lecture classes." And "Online course delivery is a lot different than in person courses. You have to amke [*sic*] sure that your modules are set up to clearly explain the material since students aren't face to face [*sic*] to ask questions."

Table 11

Categorical Advice or Information for Administrators

Advice Category	Initial Responses
1) Establish a student-first policy.	4
2) Instructors require training and mentoring.	20
3) Pay and workload considerations.	14
4) Know your instructors.	5

Advice for administrators.

Establish a student-first policy. Some straightforward advice for administrators included recommendations to establish a student-first policy (see Table 12). Comments in this category included: "Required [*sic*] online learning experience as a student as a precursor." "I really think all online instructors should have to take an online class to really understand!" "Maybe… an instructor can best learn how to teach an online student course by taking one themselves." and "In my [time removed] years on … campus in a position of faculty support, I have seen very few instructors without any online experience be successful."

Instructors require training and mentoring. The popular category of respondents' comments to administrators contained advice on training and mentoring. Much of it was straightforward, yet some added specific details to help administrators understand the range of topics instructors needed training in; these included teaching instructors to: answer emails effectively, grade assignments quickly, respond rapidly to concerns or questions, manage discussion boards, engage students, use software/LMS,

use variety, apply sound course design principles, and create multimedia course materials such as mini-lectures.

Often in the same breath, the participants discussed how necessary a mentoring program is for success. “Provide mentoring,” “It would help to be mentored through your first time,” and “I think a peer-to-peer mentoring program would be useful. I would love to be able to help other faculty that might be teaching these types of courses for the first time,” represent many of the comments by instructors.

Pay and workload considerations. Though suggestions for instructors varied, instructors who discussed pay and workload considerations held significant consensus in their advice for administrators. First, administrators should compensate instructors for the initial workload, paying them for preparation time or lightening their workload in order to produce an online course. They wrote to this effect:

> The initial workload that goes into teaching online is pretty heavy … it took me a solid year, to really get used to Moodle. … I suggest they give ‘release time’ to faculty who are new to teaching online. This will allow them time to begin building up the ‘virtual infrastructure’ they need to run a decent course. Once all this is done, and it can take a few years to REALLY have a nice OL [online?] course set up, faculty can actually ENJOY teaching and interacting with students, and it is not such an exhausting experience.

Another stated:

> It takes way more time than you think it will. Give a course release for at least a semester to prepare a new course. Plan for it to take just as much or more time [to prepare] than teaching a traditional course, especially at first.

Others agreed, recommending different periods—from six months to two years—of paid time to prepare online courses. The comments continued:

> The time that is required to prepare for and teach an online course is significant. One needs to start the processing far in advance (ideally 2 semesters or more) of when the class will be offered. … It’s not simple to just teach something that someone else built. The underlying rationale for the decisions that led to the

> design of the course must be intuited, and if you don't understand why it was built the way it was built, it's easy to do it wrong.

Another specified what he or she considered as fair compensation:

> Pay faculty a stipend or double the units they are getting paid for a class when they are assigned to build one online. If they are building a new 3 unit course assign them 3 units. Pay people to learn and tehy [*sic*] will like it a lot more and probably engage more creatively. Atleast [*sic*] pay a stipend.

Second, they recommended administrators regulate the teacher-to-student ratio. Recommendations ranged from capping classes at fifteen to as high as forty. Others pointed out this required hiring and training a large number of instructors.

Know your instructors. Lastly, some respondents encouraged the administrators to understand more about the instructors. "It takes a different set of skills to do on-line and lecture classes." Another seconded this idea, "Don't expect everyone to be able to do it. Make sure the instructor is comfortable and confident in the use of social media, and online formats." One respondent shared a different concern instructors face:

> One reason many faculty do NOT want to teach online is that everything they do and present is VISIBLE—to everyone; evaluators, dept. chairs, administration. This is not the case for traditional FTF classes, where a quick 20-minute visit to your classroom is made by your evaluation committee members every few years. I think OL faculty are brave for that reason. Administrators should be kind to these people, and offer constructive advice and encouragement. We all have lectures which are 'our best' and can save them for that 20-minute visitation, hiding the topics or lessons that we have less enthusiasm for… but for the OL instructor, every lecture, exercise and quiz is visible, documented, and 'date stamped.' The pressure is pretty high to perform well on everything.

An instructor pointed out the lack of understanding of some administrators concerning the emotions and experience of the instructor:

> Administrators need to recognize that online courses are an increasingly-important component of education. As educators, we exist to help the students, and taking the education to their electronic devices and doing so in ways designed to help them learn the way they learn, rather than the way we learned, is one of the best ways to do that. When online courses are seen as less-than-optimal or

> somehow 'beneath' traditional courses, it causes a bit of stigma. Formal acknowledgments by administrators that online courses have an important role to play and can be as effective for some students as traditional classes are for other would a long ways [*sic*].

One final response showed the exasperation of the instructor who dedicated him or herself to the online medium, only to see it cheapened, in their mind, through the bureaucratic process:

> Sigh… yes [they would like administrators to know]… we need to reinstate that we are here to educate, not just entertain or coddle the students. For example, we currently have so-called 'teaching evaluations' that are much more cumbersome and less informative than ever before. Even worse, they are actually little more than 'customer satisfaction surveys.' In my opinion, the only real measure of effective teaching is effective learning. I therefore make a concerted effort to have students take a preliminary quiz on the subject matter at the beginning of my courses. At the end, I can then compare those results with their scores on the final exam. On both tests, the questions are randomly generated from the same test bank. To date, the average scores are 25% at the beginning of the course, and eighty-six percent at the end. This tells me that my teaching has, indeed, been effective—whether or not the students have felt 'entertained,' 'cared for,' or given me high marks on [institutional] evaluations.

These quotations wrap up the results section of the study. In the next section I present conclusions on what the data from this survey's participants could do to help instructors at the crossroads of online education and share the implications about the lack of statistical association in addition to addressing what this study could address about the best practices in online and blended education.

CHAPTER 5

DISCUSSION AND CONCLUSIONS

The Research Questions in Context

As discussed in the first two chapters, researchers have conducted online education studies since the medium's creation. In order to advance the research in this field, this study sought to support the current established research concerning the best practices of online and blended courses and find new insights on the topic through a mixed-methods approach. First, it attempted to establish association through quantitative research, and second, it sought to answer the research questions using qualitative categorical analysis. Another rare, if not unique, aspect of this research was the projects' attempted population. The grandiose attempt to gather results from thirty of the top two-hundred online educational institutions in the United States decreased the questions of bias from localized studies which have comprised the core research in this field to this point.

This study also worked to fill the gap in research about the instructor experiences at the crossroads—when they began teaching online—to improve administrative training, find attributes correlated with successful online instructors, and then use these implications to make recommendations about the selection of online instructors. Over the years of attending conferences about online education, I noticed the propensity for scholars to share their personal perspectives and experiences with what category of individuals were best suited for online education in their conversations around hors d'oeuvres. I wondered if these different opinions held up to a large study of what factors

or attributes teachers indicated contributed to their positive and/or negative experiences as they began online or blended course instruction.

After collecting the responses to the survey, performing the statistical analysis, and categorizing the results, the study provided information leading to implications in three categories: (a) the attributes of online instructors who feel positively or negatively about online education; (b) factors contributing to teachers' experiences in online education; and (c) the best practices in online education.

Primary Conclusion: No Specific, Generalizable Attributes, Behaviors, or Measured Actions Correlated with the Positive Experiences of Online Instructors

What attributes do online instructors with positive feelings about online education share? The respondents of this study revealed one. With one exception, in every statistical calculation of correlation through linear regression and statistical analysis, the null hypothesis—that there is no connection between the tested attribute and the experience—was not rejected. Yet, even the category that rejected the null hypothesis does not contain a sufficient number of responses to consider the findings generalizable. The responses gave no indication that the age, gender, institution, department, professional position such as tenure, how a teacher first became an online instructor, how long they taught, what courses they taught, what medium they taught first, if they took online courses prior to teaching, whom they taught, time spent using social media, time spent reading digital materials, time spent watching or streaming digital media, or expected best practices, impacted either blended or online teacher experiences. The study did not test for race preferences due to the lack of diversity among the participants in this demographic.

One singular result indicated a relationship between spending less than an hour each week blogging, creating/maintaining websites, programming, or creating digital media and the instructor's current positive feeling about online instruction. The strength of the relationship, R, explained eight percent of the results with thirteen individuals in this category describing their current feelings as "very positive," eleven as "positive," and one as "neither positive nor negative." None of those in this category listed their feelings as "negative" or "very negative." It logically follows that those who have created content on their own would be more comfortable creating content professionally in a digital realm, and that having a small amount of content one desired to create outside of work would not create stress or burnout with course creation. Yet, none of the other time periods indicated any significant results, so the data does not indicate a relationship for the other explanatory categories for the current instructor rating.

Further study, such as experiment with a control group, could provide further information on this population. It could help determine if those results represented a false positive, or if the familiarity with digital content creation, combined with an underwhelming personal workload or amount of creation actually helped improve the teacher's experience. Without further data, I cannot conclude that the twenty-four of twenty-five individuals who indicated they spent more than none, but less than an hour of time blogging, creating/maintaining websites, programming, or creating digital media and expressed positive current feelings about online or blended course instruction, represent a generalizable finding.

What are the implications of a majority of nonsignificant findings? The lack of significance might actually be as important to this study as if the findings revealed

patterns. Without generalizable defining attributes, demographics, or behaviors associated with positive experiences in online or blended instruction, this study revealed that happy, successful instructors came from a diverse set of backgrounds, did not share common circumstances outside their profession as instructors, and the majority now maintain positive feelings about online education.

Perhaps the implications of these results are best understood when compared to the conclusions of the initial antagonist and food critic Anton Ego in the Pixar movie Ratatouille (2007):

> In the past, I have made no secret of my disdain for Chef Gusteau's famous motto, 'Anyone can cook.' But I realize, only now do I truly understand what he meant. Not everyone can become a great artist; but a great artist *can* come from *anywhere*.

Not everyone was cut out for online education. Some did not enjoy it, others' attempts failed to meet the standards of the medium or the students' needs, others felt disdain for the medium, and others struggled with the workload, but great online instructors came from anywhere. Responses to open-ended questions revealed a wide variety of experiences and preferences for or against the medium. Demographics and personal habits might vary between individuals, but with the right start, effort, and continued training or support, happy and effective online instructors could come from any background, as long as they are willing to work in the online instructor capacity.

Additional Conclusions Drawn from Instructor Statements about Their Online Experience

In spite of not finding any statistically significant variables among the best practices categories, personal demographics, professional descriptors, and personal

behaviors, the respondents of this study provided noteworthy insight through their responses describing the reasons for the ratings they gave to their initial and current feelings about online education. The two follow-up questions to the ratings revealed significant homogeny and consistency among the participants' experiences.

Once categorized, all of their statements about their responses—whether positive or negative—fell into eight categories. Six of these enjoyed significant consistency among the results; two factors did not permeate the general responses. Each of these categories contained both positive and negative responses, depending on the teachers' experiences and perspectives. Administrators and instructors cannot control all of these influential factors, yet they could influence many to sway the results toward positive teacher experiences. The great eight variables described by the instructors in the survey were as follows: (a) the perceived availability or unavailability of effective, helpful, and timely support from the institution, colleagues, and IT/technical department; (b) the instructors' impressions that they/the course succeeded or failed; (c) the quality or lack thereof of student responses and learning; (d) the amount of interaction with students in the course; (e) the level of reliability, ease-of-use, and functionality of the LMS or software; (f) the attitude of the instructor about the medium, including the freedom of design and creation; (g) the difficulty of the learning curve and amount of work required to become proficient in the medium; and (h) the level of control administrators exercised in the instructors' classroom and teaching experiences. The instructors' reasons for their ratings were at the center of the crosshairs in the scope of this study and revealed more about the transition to online and blended instruction than any other part of this research.

Second Conclusion: Instructors Want Effective, Helpful, and Timely Assistance and Training

The study revealed a common desire among every online instructor: they want help. Every participant in this research tried out every known, available resource presented to them during the transition to online education. The effectiveness, availability, and responsiveness of those resources influenced their opinions about the entire medium for good or ill. Instructors used the institutional infrastructure, such as the online learning school or department with the established support structures most commonly, yet their discussions of the helpfulness centered on people. They would name individuals or the position of an individual who provided them the greatest assistance as they began. Therefore, many of the positive responses about the organization support actually promote the second most common resource mentioned, a mentor or colleague. No other subject came up as consistently throughout the different open-ended questions with as much positive feedback.

Online instructors want supportive mentors. Administrators and other instructors do not need to walk up behind them and whisper ideas of training in their ears hoping to convince them of its importance or helpfulness. Teachers want it straight and undiluted; if fed useable information and provided quality feedback, they will absorb as much as they could, as quickly as possible, and use it to improve their classes, the students' experiences, and measurable results, such as learning outcomes.

Instructors regularly commented on the amount of support they received from their school as a factor of their online experiences. Every teacher that mentioned quality or helpful support from the institution marked his or her current feelings about online

education as positive or very positive. This might have associated directly were it not that those who stated poor support also sometimes maintained positive impressions about the medium. Those who mentioned lack of support shared disquiet about the understanding of administrators, usually within their department, not the online learning support of the university; one remarked on the ignorance of their department, "Some are outright hostile to[ward] … online instruction, think it's a fad."

Eleven of the fifteen individuals who stated their institution supported their instructors marked their current feelings about online education higher than their initial experience. Additionally, the other four maintained the same positive rating about the genre. This might imply that a key factor to positive feelings about online education, and the accompanying longevity in the profession could relate to the quality of the support staff; additional surveys could hone in on these attributes and determine correlation. Administrators maintain direct control of this factor and could impact teacher opinions about online instruction very easily through careful attention to this topic.

This emphasis on individualized, personalized help from a competent individual implied that this study's test group believed that a successful online education program required a quality mentor. They issued warnings through their comments about the mentors, such as, "The least… help was the assigned mentor. I had several 'unofficial' mentors … [whom] assist[ed] with way-finding… the commendatory and advice from the other professors was, by far, the most helpful." This response does not indicate that assigned mentors are the problem, as other participants wrote things like, "The person assigned to our department helped me in every way. He actually taught me a lot by

helping me fix my errors." Instructors need committed, knowledgeable mentors, with the time and resources to aid the instructor at the crossroads.

This conclusion became particularly apparent from the comments and descriptions about course creation. The instructors described how they obtained their first online or blended course within three categories with two variables: they created it, a department/school/team created it, or a colleague/peer created it, and they either taught it as created or modified it. When asked the follow-up question, "What resources were most helpful during online/blended course creation (i.e. texts, materials, tools, or individuals)?" twelve participants expressed disappointment similar to one response, that they "didn't feel like I had any good resources." Fortunately, this response came from less than a fourth of those who praised the help provided by colleagues, mentors, and peers—again supporting the importance and impact of a quality mentor. Additionally, almost three times as many instructors relied on textbooks and online resources in their course creation than those who felt alone. Just over twice as many individuals felt support from the LMS training they received compared to the unfortunate few without assistance. This continued to emphasize the qualitative evidence that mentors, resources, and training play a vital role in online education.

Third conclusion: The Instructors' Perception of Success or Failure in Online Instruction Dramatically Influenced Their Feelings About the Medium

Instructors expressed both hope and reservations about online instruction. They stated numerous reasons for their enjoyment of online teaching. Those whose students engaged with them, demonstrated competency or material mastery, and gave positive course reviews/feedback, discussed those factors as the source of feeling successful at

teaching online. Others found satisfaction in the creation process and visible results—having a semester worth of meaningful discussions, insights, and ideas—as positive influencers in their experiences. Technologically savvy instructors enjoyed passing on their knowledge and skills to students in ways that showcased their abilities more than they could in a traditional class. Some instructors appreciated the organization and clear structure of the medium once they taught.

Questions of integrity plagued the negative responses, "There is a real problem with integrity of the material [students submit. Instructors] need to constantly change assignments [and] tests due to [the] ease of sharing among students." Expressed one experienced instructor,

> "I worry about the level of cheating … I have tried to get my Administration [*sic*] to approve [a proctoring service] for the final exams to control this issue. … But administrators at our campus are not very interested in improving the online programs and ensuring the integrity of the results (outcomes).

Who is doing the work is not the only reservation these instructors experienced. One felt that in her online classes, "Students don't learn as well. And grades tend to be much lower. Students earned more C, D, and F [grades] in my online courses that EVER in my face to face [*sic*] classes." Teachers also mentioned their own evaluations dropped in online instruction, leading them to question both their abilities and the evaluation instruments.

What conclusions could researchers draw from this factor? This category's responses indicate that while many teachers find great fulfillment online, administrators might mitigate the negative opinions of some instructors through establishing productive feedback channels to resolve their concerns, whether it be about academic honesty, evaluations, or instruction to improve teaching in the medium.

Fourth Conclusion: Perceived Student Learning Impacted Feelings of Online and Blended Course Instructors

After instructing online, a third of the individuals who discussed student responses and learning gave negative comments about the students, in spite of varied responses about their experiences. Two-thirds of this category's respondents enthusiastically disagreed with that perspective. They observed that online education "Is a good learning format for my students." They stated also, "The students learn the material and get extra help [in this medium]."

Unfortunately, the nature of this challenge prevents administrators from directly resolving the issue, as students control their own behaviors, and their level of sincere effort to learn comes as varied as their personalities. As in all educational mediums, administrators could provide teachers pedagogical advice about methods or practices that increase the likelihood of student engagement.

Fifth Conclusion: The Amount of Student Interaction Influenced Instructors' Experiences in Digital Instruction

Like the previous category, opinions varied about student inaction. Some instructors noticed that they "Seem[ed] to develop closer relationships with my online students as they can really set aside time for class material…" but, for some, this came with a significant investment of time by the instructor, as this teacher continued, "…It would be very positive if they didn't expect to have responses within 5 min[utes] of posting or email, as I … cannot be in front of the computer 24/7 hours a day. [*sic*]" Others found the opposite true, as one instructor described his initial experience, writing that there was a "Lack of interaction with students [and a] sense that students are not

learning." The responses in this category differed significantly with comments flying to the extremes; instructors rarely described the students as normal, but focused on either their unwillingness to learn or their amazing responses.

One instructor described a successful class as containing, "A relatively homogenous group of students," expressing his feeling that "the diversity of students and their professional experience are as important as the quality of the course materials and instruction." Perhaps the course itself attracted certain students and elicited certain responses.

In order to determine if the subject matter, school, or department an instructor taught was associated with student effort, I would need to conduct a further study, focusing on addressing student effort in online education.

Sixth Conclusion: The Learning Management System Could Make or Break the Experience of Online Instructors

Two things instructors mentioned about their negative responses to the online education medium included changing the Learning Management System (LMS) or not providing the necessary support for the LMS. One of the two instructors who rated their current experience as very negative seethed,

> The school is changing the LMS and requiring retraining in how to teach an online class. I have been teaching online for 7 years and know what works for me. New rules on how to teach online courses have caused me to decide to no longer teach online. I feel these rules violate my academic freedom.

Another complained, "The platform we are currently using is not dependable."

Yet the majority of those commenting on the software and technology provided shared nothing but praise; the ease of using the program, improvements in LMSs over the years,

the simplicity of instructor control, the ability to import or use various types of media, and a user-friendly interface were among the stated reasons for positive reviews. Even critics softened, writing: "We have a much better LMS now that allows for lots of creative use. … I still prefer on-campus, but I don't mind online."

The positive or negative sway hinged on the LMS according to ten percent of the survey participants. Participants heaped praise on Moodle, Blackboard, and Canvas in the comments multiple times, and none of the complaints mentioned a specific LMS. Teachers did raise concerns that institutions cared more about the bottom line than the quality of the instrument. Perhaps these comments imply that schools might be best served by choosing the best LMS for the instructors, saving money on the continual hiring process instead of the foundational software for distance education. Institutions have significant control over this category's impact.

Seventh Conclusion: The Amount of Desire an Instructor Possessed for Instructing in the Online Medium Impacted Their Experience

The majority of online instructors who discussed their attitude about online education described the medium as flexible, providing instructors with the freedom to create exciting new environments with captivating new technologies. "I love the freedom it enables for both me and my students." They talked about the ability to reach nearly every different learning style, and every audience—including the aged, disabled, advanced, remedial, and ill students—in a meaningful way. Another described a sense of accomplishment, "I enjoyed the challenge of creating an online course and I like the demographic." This perspective led to positive reviews about the medium.

Sadly, others did not see or realize the potential of the online medium. “I didn’t really want to teach online. … I miss the ‘face to face’[*sic*] experience,” wrote one negative reviewer in the study. Perhaps administrators could affect these feelings through different approaches to the training. An idea attributed to multiple individuals might be of value: if you wish to build a ship, do not divide the people into teams and send them to the forest to cut wood. Instead teach them to long for the vast and endless sea. What would change if our meetings included success stories of the positive impact instructors had with individuals, communities, and the academic world through online education? Perhaps this implies our meetings or communications need a spark of motivation instead of merely covering training and bureaucratic needs.

Some of the instructor attitudes reflected exasperation at the amount of work required in online education. In response to the question allowing participants to share feedback with administrators, thirteen percent discussed concerns about time and financial or professional rewards. They suggested administrators give instructors a semester or more of a class’s worth of time off to prepare an online course, given modified assignments, or significantly compensated in order to alleviate the overwhelming amount of work and time one must dedicate to understanding and preparing to teach in this medium before it becomes enjoyable.

Other Considerations from the Instructor Statements About Their Online Experience

Instructors mentioned two other ideas in their responses concerning their feelings about online education. First, four instructors complained that there was a steep, even monstrous, learning curve in online education. One even felt overwhelmed after years of

teaching in the medium. Second, three instructors complained of micromanagement and panoptical scrutiny teachers face when administrators could record and examine every contact, comment, and idea in a course. Quality mentoring and relationships might resolve such concerns among faculty.

Other instructors requested that the school compensate them for the time spent in training, course creation, and according to class size. They requested that the institution provide teaching assistants to handle many of the grading and administrative tasks for large classes. They felt that the administration did not understand or care about the increased time commitment required in online instruction. Some felt that leadership behaved as if online courses required less time to perform administrative tasks such as grading, which could explain why some class sizes were capped significantly higher in online courses when compared to their face-to-face counterpart.

Change in the instructor experience. For the group of instructors and administrators who completed this survey, the positive feelings about online and blended course instruction improved fifty steps on the Likert-style scale (very negative, negative, neutral, positive, very positive). Only four individuals described their current feelings about online education as negative, and two as very negative. Less than five percent of the total responses—a drop of ten percent from the initial response—felt averse to online instruction. One might hope that this implies that instructor opinions about online education improve over time—the study showed that for some, it did—yet the results were likely skewed by the fact that those who left the field of online education were no longer on the institutions' lists of online or blended instructors to whom I sent the survey.

Further research, spread out over time, could enlighten understanding on those individuals in the population that this survey could not address.

Conclusion Eight: The Best Practices in Digital Education According to Survey Respondents

Though the data gathered in this research did not statistically prove correlation between positive attitudes or experiences in online instruction, it still provided ample support for many of the best practices established in the field. According to the instructor responses about what they believe are the best practices in online education, the realizations set by the body of largely localized or anecdotal research appears to have collectively correctly discovered and promoted the best practices in the field. At the outset of this project, I wondered if the research and papers of a handful of individuals represented the body of online educators. I questioned the results from tiny regional studies or one writer's experience. I now see value in these studies. When examined as a group, they provided direction to the workers within this rapidly-growing field. Though I still believe additional discoveries in the field will arise with longer studies of numerous subjects, I am less critical of the researcher sharing her or his personal experiences in online research and therefore see value in including my observations about the responses in this study.

At least one survey participant mentioned each of the categorical best practices discovered from the body of research examined in the literature review, yet one stood out above all the other categories. Over forty percent of the responses discussed the importance of teacher presence in the online classroom. Without intelligent, compassionate, speedy replies to questions or concerns, inquiring follow-up questions to

asynchronous discussions, personal contact to inactive students, and regular posts or announcements, students' interactions faded. The online teachers set the pace for interaction.

In my ten semesters as an online or blended student, I observed two instructors post, reply, and interact daily during the academic week; their responses generated academic conversations and synergistic, collective learning. They drew out experiences and wisdom from professionals in the field, and gratefully expressed what they learned from students. These classes felt alive, though they only existed in digital space. Another instructor in a different class appeared to check into the online environment weekly. He used few, if any, follow-up questions to the students' responses, so each post felt more like a submitted assignment than a conversation. The number of replies in that class directly correlated to the number of assigned posts.

The participants' next most common best practice category related to the first: twenty-seven percent marked the idea to communicate class expectations to students. Responses discussed both the importance of this practice and suggestions about how to promote proper behaviors. They wrote about clear instructions at the beginning of the course or assignment and early feedback to the class or students individually about the quality, appropriateness, and value of responses, that influenced student behavior. In my experience, I noticed that public praise and remarks such as "that type of remark receives full points," for quality posts, improved class discussion as other students sought the instructor's praise. Many respondents in the survey added a caveat to this category: the need to provide abundant timely, speedy, specific, feedback to students. They felt this

copious contact established standards and resolved problems before they spread throughout the course.

According to outcomes from twenty percent of the participants, in order to succeed, the instructor must begin with clearly defined learning outcomes. They suggested using the syllabus, landing page, or class introduction to create a shared vision and purpose for the class, yet some accomplished this in a different manner. They approached the class in an organic format, allowing the discussions to lead to assignments and additional questions, secretly maintaining the learning outcomes and steering the conversations towards principles. These differences show how—like a traditional classroom—instructors could accomplish the same practice through entirely different means.

In this study, nineteen percent of the participants mentioned choosing the best content as a best practice. Opinions differed on what materials should be included or avoided in this practice. Ideas and suggestions included: (a) using relevant examples, current issues, news/social media trends/current events, and the most recent academic research; (b) quality textbooks, books, and journal articles; (c) customizing the content for each student in small classes, or allowing them to pursue content according to their interests or field such as self-selected reading material; (d) keep video clips, presentations, and lectures short or broken up into easily-digestible segments for a generation accustomed to 140 words or less in their communication; and (e) keeping videos and lectures short and content-laden, and ensuring access for disabled or special needs students.

It seemed self-evident that if the students could not find assignments, readings, discussion boards, expectations, rubrics, syllabi, or other course materials they would fail. Eighteen percent of the respondents agreed in this research, encouraging online and blended course teachers to make the material and course navigation easy for the students. They wrote how this resolved many problems and decreased their workload responding to questions. Some suggested using modules—compartmentalized, organized lessons with specific learning outcomes in a progressive order—while others emphasized including a training video or initial lesson about how to navigate the course, find course components, and resolve their own questions. Some instructors even mentioned establishing online space for students to respond to others' concerns, relieving the instructors' workload.

As in a traditional course, monotony decreases learner engagement and interest; seventeen percent of the responses included comments about using variety. This, participants attested, met the diverse needs of students, catering to different learning styles while engaging assorted intellects. Some alternative approaches to the traditional asynchronous discussion board included: creating collaborative wikis, student-created multimedia content, linking external content, holding synchronous sessions, projects, solving practical problems, and assigning students to lead discussions or teach a portion of the course.

This practice related to many others mentioned by the participants. Sixteen percent discussed the need to provide activities that established a supportive class community such as personal introduction, synchronous discussion in small groups, and personal examples from professional experience. Sixteen percent also challenged

instructors to provide opportunities for students to demonstrate understanding of the material or topic that could be presented to the class or completed as group projects. Fifteen percent advocated using technology to enrich a course, and almost thirteen percent urged the careful selection of technology mediums that would lead to the desired results. I noticed that instructors who created supportive communities germinated a level of comfort where students would add to the content of the class naturally, bringing in different technologies they used, and teaching classmates how to use those tools.

Less than ten percent of the participants mentioned the best practice categories of: set testable learning outcomes, emulate the best pedagogical practices of traditional courses, commit time and effort to the online medium, seek feedback from students early and often, wordsmith communication and discussion posts, engage in continual professional development, maintain helpful technical support, and be professional but not overly concerned with a professional production. In short, all those discovered through other studies in the literature review were mentioned. Moreover, just because a best practice did not appear substantiated in this survey's responses, does not indicate it is ineffective or not of use; this indicated that the respondents in this research discovered, or others taught them, the best practices they wrote in their responses. This study did not disprove the effectiveness of the online education best practices not mentioned, though it increased support for adding some additional items to the best practices list.

Multiple participants mentioned specific advice outside or peripheral to the categorized best practices. One such suggestion encouraged instructors to personally contact students a couple of times during the semester and when the student appeared

inactive to support and encourage their work. They suggested this occur through text messages, phone calls or a video chat service like Skype.

In the best practices responses and other areas of the survey, a few instructors expressed concern with the lack of integrity of some courses or institutions that did not use a proctoring service to test students at points during the semester to ensure the student learned the content and compared their responses to those in the course, checking for academic honesty. They discussed the need to search for plagiarism regularly among the student papers and responses. Sadly, it seems this concern needs to be addressed.

A few participants strongly encouraged the use of a course cycle or arch. Some described this as a weekly schedule or routine the students could follow, such as readings on Monday and Tuesday, initial posts on Wednesday, and responses Thursday and Friday. They felt this consistency helped students succeed and regularly remember to complete assignments.

Recommendations for the Field of Online and Blended Education from These Conclusions

Based on the conclusions discussed above and after examining the responses of a nationwide survey of 127 online instructors, I recommend the current application of—or further testing through application of—the following, in order to meet the needs of instructors in this survey of online educators:

1. Administrators should not choose individuals to teach online based on their stereotypes or personal opinions of what attributes, behaviors, or characteristics

will lead to success in the medium. This study did not find evidence of measurable attributes that would lead to success in the online classroom.

2. Provide online instructors experienced, knowledgeable, dedicated mentors, with the time and resources to assist instructors as they transition to online education. This might also include mentoring groups, such as supportive training departments to oversee the training of the instructors, or maintaining a technical support group/individual dedicated to the maintenance of the software and hardware to ensure smooth course creation and delivery.
3. Administrators and mentors should find means to help online instructors recognize success in the digital education medium.
4. Administrators and instructors should recognize that the amount of student effort might impact an instructor's experience for good or ill in the online medium. This should impact the approach to feedback and administrative reviews for online instructors.
5. Greater student interaction might influence positive instructor experiences when teaching online. Instructors should be taught means and methods of enhancing interaction such as well-phrased questions, direct contact, and small group work.
6. Choose a well-built LMS and provide the necessary support.
7. An educator's opinion about the medium might dictate their perceived positive or negative experience, irrespective of the experience itself. Administrations should therefore consider the willingness and interest of the instructor to move to the format before making assignments.

8. Ensure instructors are introduced to and trained on the best practices of online education and the principles behind them, including those supported by the participants in this survey:
    a. Establish teacher presence through regular communication, posts, and interaction, including personal interaction.
    b. Communicate expectations to students.
    c. Begin with clearly defined learning outcomes.
    d. Choose the best content.
    e. Use a variety of methods, approaches, and content.
    f. Make materials and course navigation easy for the students to locate and use.
    g. Use technology to enrich the course.
    h. Choose technologies and activities that lead to and match the desired results.
    i. Set testable learning outcomes.
    j. Emulate the best pedagogical practices of other educational formats.
    k. Commit the necessary time and effort to each online course.
    l. Seek feedback from the students and instructors early and often.
    m. Wordsmith questions, comments, discussion posts, and other communication.
    n. Seek or provide continual professional development.
    o. Maintain helpful technical support.
    p. Be professional, but not overly concerned about a professional production.

q. Take measures to prevent plagiarism.

Recommendations for Further Research

The large number of questions on the survey provided a great amount of information about our participants' experiences in their online and blended courses, yet it raised far more questions than it answered.

I recommend that online education researchers seek to enlarge the scope of their studies. From my experience in working to procure responses in a nationwide survey, I believe that three things will need to shift in order to improve the quantity and quality of the research responses. First, I believe the field of online education would benefit from greater collaboration in research among the varied and unique online education institutions, administrators, instructors, and academics. Though I do not presume to know the reasons why many of the schools and individuals declined participation in this study, some comments and policies reveal an opposition to collaborative research. One individual responded, "Our university does not participate in external research, but you are welcome to review our extensive research about online education." Another said, "Our school policies do not allow us to participate in external research." These closed-group attitudes could prevent significant insights available from large population studies, benefitting all parties.

Not all of the schools resisted the research. One administrator, upon hearing about the survey replied, "That sounds great! I can get permission for our instructors to participate within the next week." After thanking her, she replied, "Well, the results could benefit us, and it is great to help each other with our research, that's how we'll improve."

I could not have put it better myself. I recommend schools and individuals adopt an open approach to academic research.

My second recommendation relates to the first. Currently, each school manages its own Internal Review Board process. I would appreciate if the academia standardized IRB expectations applied to all research institutions in a manner that enabled institutions to universally accept IRB approval from other institutions without requiring additional, lengthy, secondary approvals from another institution's IRB. This could encourage increased collaborative research in multiple fields. Unfortunately, this fanciful wish would require sweeping changes, not only to procedures and policies, but also some legislative change to prevent lawsuits and questions of accountability.

Third, to increase the amount of participation in the research, I believe future studies would benefit from procuring grants or corporate funding. Towards the end of the study, one individual informed me that companies—Apple for one—often will support research about online education. I believe that if I had procured a five-dollar Apple iTunes gift card for each participant instead of a lotto for a twenty-dollar gift card from each school, participation would have increase dramatically. I recommend and intend to secure funding and compensation for each participant in future studies.

Perhaps with a larger pool and questions drawn from the results of this survey, set to a Likert-styled response, statistically significant results could be obtained causing a rejection of the null-hypothesis that online instructors cannot be categorized.

Recommendations for Research About the Online Instructors' Experience

Further studies could help determine the extent of the positive and negative feelings about online education with longevity, and include many of the factors this study

sought to correlate such as the impact of quality mentors, competent online learning departments, and helpful (knowledgeable and available) technical support. If these additional tests supported the findings in this research—namely that current positive feelings about online education correlate with spending less than an hour (but more than no time) blogging, creating/maintaining websites, programming, or creating digital media—then additional experiments could be performed to determine causation using control groups and assigned behaviors. The cost for such an experiment would probably far exceed its worth or value to the online education academic community, so it is unlikely to occur. This would leave administrators and instructors with a simple guideline: choose instructors (or train instructors) who could craft digital content, but are not overwhelmed with that creative process in their personal lives.

The factors instructors used to explain their positive, neutral, or negative feelings about online education could be the most crucial information within this study of the crossroads of distance education. These require further exploration through surveys and interviews. Schools might even consider using those criteria as points of analysis for their own feedback. Perhaps, after the first semester or yearly, they could ask if the instructor felt they accomplished their own desired results in their courses? How they felt about the effort and learning of the students? How much interaction they felt they received from the students? How well the support individuals, teams, and departments met their needs? How well did the LMS perform? If they wanted more freedom in their course creation or if they desired more direction? And how proficient they felt in the medium? If these questions comprised the exit interviews for a course, instructors might feel more supported instead of scrutinized in a completely transparent medium.

Another possible way to improve the online instructor's experience with students, could come from an additional study exploring the effort of online students. I recommend performing a study of students that examines their self-described academic behaviors, demographics, instructor-given grade, and an additional unknown-to-the-student rating of the student's effort in the class to determine if the effort of an online student is statistically universal among institutions with student effort ranging from low to high, or if certain courses, departments, and institutions are better suited for online education.

A study over time could address another hypothesis, "Do instructor experiences about online education improve over time?" This survey indicated that they do, but only for those who remain in the field. This research design did not extend questions to those who left online education, leaving a significant bias in the results of opinions over time. If an experiment tracked a specific group of instructors' experiences over time a better idea of the change in opinion might arise.

Recommendations for Research About the Best Practices in Online Education

I believe the next step in large-scale best practices research should involve a survey that—instead of asking what the instructors felt were the best practices in online education—listed the best practices in the field (and those additional best practices mentioned in singular studies that have not yet gained prominence), and asked instructors to rank their perceived importance on a six point Likert-style scale. I recommend the points of: "harmful," "unhelpful," "neither unhelpful or helpful," "helpful," "necessary," and "unknown/have not observed or tried." The additional response would enable researchers to recognize which categories instructors were ignorant of, while determining how important instructors felt each practice was to their online or blended course

instruction. This could help prioritize the order of training and emphasis directed by administrators, mentors, departments, and programs for their new online or blended course instructors.

Another subject worthy of exploration, which this study discussed, that instructors brought up during the best practices discussion, was plagiarism and academic honesty. Further anonymous surveys could inquire about the pervasiveness of the problem among students, or researchers could conduct experiments in departments and classes testing for the amount of plagiarism submitted using software that searches student responses and compares them to large databanks.

Personal Conclusion

After spending months putting together the research, contacting schools, collecting surveys, and pouring through the findings without accomplishing my initial goal of procuring enough responses to quantifiably define the ideal online instructor and best practices, a friend asked me, "So what did this study do for you? How are you different because of this research?" As I reflected on this question I concluded that the study changed me more than it will likely change online education.

My professional employment gave me the opportunity to be part of a team that created, wrote, and programmed the courses for a religious degree of one of the world's largest Christian organizations. Throughout the creation and distribution of the course in many languages and countries, our primary focus centered on the students' experiences and interaction with the modules. We worked to ensure the best pedagogical practices were implemented. We wordsmithed questions. We brought in the best resources and

materials we could procure. We used current and exciting new technologies. The results brought a significant feeling of accomplishment, accompanied by significant praise.

Since that time, the program has been administered by regional instructors with little, if any, professional training. The team has scrambled to support and assist new educators in the online medium. This study helped me understand more about what individuals at those crossroads want and need to succeed. My interactions with the instructors now focus on their needs instead of getting the desired results. I aim to assist the individual in personal development as an online instructor instead of working to help orient his or her focus to measurable, bottom-line results. Administratively, I am now teacher and student-oriented, recognizing that when instructors feel supported and successful, they will work to ensure the courses flourish.

Reading hundreds of instructor comments caused me to recognize that a process-oriented approach will not likely bring the thriving results a focus on meeting the instructor's wants and needs could. In online administration, I will spend my time seeking feedback and questions from the instructors, responding to their questions, helping them improve interaction with/among the students, ensure that the technical support is useful, choose software and learning management systems based on instructor wants and needs, help teachers recognize successful moments in online instruction, and compensate the teachers fairly for their time and effort.

I believe that if administrators, departments, programs, and institutions will attend to the needs of the instructors, it logically follows that the instructors will be enabled to provide the best learning opportunities to students, and the educational experience in

online education will improve for all invested parties. Further research will reveal the extent of these implications and their impact on the medium.

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APPENDICES

Appendix A

SURVEY

Email Invitation

Your online or blended teaching experience is needed to help improve teacher experiences in online education.

You have been identified as one with the necessary expertise to contribute through a **brief, anonymous, online survey.**

By completing the survey, you will be eligible for a **$20 iTunes or Amazon gift card**. (One will be awarded to a participant from each school).

Your educational institution has partnered with Dr. David Hailey and David Hoffman of Utah State University. They are conducting an IRB approved nationwide study in order to obtain feedback from online and blended course instructors. This study will focus on the aspects contributing to the teachers' early experiences in online education or blended course instruction. We expect the results of this study will provide information that will help online education institutions improve the transition process for new online instructors and therefore improve teacher professional longevity and quality of life.

Please share your valuable experience through this anonymous survey:

[*SURVEY LINK*]

Thank you for your gracious assistance.

If you would like to read the informed consent documents related to this survey, please click here.

If you have any questions or concerns, please contact us directly through the email below.

Sincerely,

David Hailey, PhD
David Hoffman, M.Ed. PhD Candidate
Utah State University
David.Hoffman@aggiemail.usu.edu

Page 1

All of your responses in this survey will remain anonymous.

Potentially identifying information or responses will not be released as part of the study.

By completing this survey, you may choose to enter for **a chance to win a $20 iTunes gift card or Amazon Gift Certificate**. One winner will be selected from each school. Your entry will not be associated with your responses.

[*The informed consent document*]

By continuing, you consent to participate in this survey.

What educational institution do you work for?
[*Drop down menu of institutions]*

Page 2

Definitions:
Traditional course: less than 30% online.
Blended course: 30-79% online.
Online course: 80-100% online.

Please check which of the following best describes you:
__ I have taught traditional, blended, and online courses.
__ I have taught traditional and blended courses.
__ I have taught traditional and online courses.
__ I have taught online and blended courses.
__ I have taught online courses.
__ I have taught blended courses.
__ I have only taught traditional, face-to-face courses. [*If submitted, redirect: End of survey.]*

Page 3

Which course type did you teach first?
__ Traditional.
__ Blended.
__ Online.
__ Began simultaneously.

How did you begin teaching online?

__ I volunteered/desired to do so.
__ It was part of my initial contract/position/assignment.
__ I was asked to do so after being hired.
__ I was assigned to do so.

Page 4

How do you describe your race?

__ African-American or Black.
__ American Indian or Alaska Native.
__ Asian.
__ Caucasian or white.
__ Hispanic, Central, or South American.
__ Native Hawaiian or other Pacific Islander.
__ Two or more races.
__ Prefer not to answer.

What is your gender?

__ Male.
__ Female.
__ Prefer not to answer.

Page 5

What is your age?

__ 0-17.
__ 18-30.
__ 31-43.
__ 44-56.
__ Over 56.
__ Prefer not to answer.

Which best describes your position? (Click all that apply.)

__ Administrative.
__ Tenured professor.
__ Tenured associate professor.
__ Tenure-track assistant professor.
__ Not tenure track instructor (i.e. adjunct or lecturer, not a graduate student).
__ Graduate student.

What Institution (University, College, or School) are you employed by?

For which department(s) do you teach?

__ *Box for answer.*
__ Prefer not to answer.

Page 6

How would you describe your **initial** experience teaching online or blended courses?

__ Very positive.
__ Positive.
__ Neither positive nor negative.
__ Negative.
__ Very negative.

What factors contributed to that response?

Comment box.

How would you describe your **current** feeling about teaching online or blended courses?

__ Very positive.
__ Positive.
__ Neither positive nor negative.
__ Negative.
__ Very negative.

What factors contributed to that response?

Comment box.

Page 7

Did you ever take an online or blended course as a student prior to teaching an online or blended course?

__ No.
__ Yes [*pop up next two questions*]

How would you rate your overall experience in online/blended courses **as a student**?

__ 5 Very positive.
__ 4 Positive.
__ 3 Neither positive nor negative.
__ 2 Negative.
__ 1 Very negative.
__ I had both positive and negative experiences as an online/blended course student.

How many courses did you take as an online/blended student?

__ 1.
__ 2.
__ 3.
__ 4 or more.

Page 8

How did you create your **first** online/blended course? *(Choose all that apply.)*

__ I taught a course created by others (such as a department or school).
__ I modified (changed at least 25%) a course created by a department, school, or college.
__ I taught a course created by another individual (like a colleague).
__ I modified (changed at least 25%) a course created by another individual (like a colleague).
__ I created the course myself from a template.
__ I created the course from a traditional (face-to-face) course outline, lesson plan, or template.
__ I created an original course without a template.
__ Other (Please specify). _____

Which resources were most helpful **during online/blended course creation** (i.e. texts, materials, tools, or individuals)?

_____ *Comment box*.

Page 9

To whom have you taught online/blended courses? *Mark as many as apply.*

__ Secondary students (i.e. high school).
__ Undergraduates.
__ Graduate students.
__ Academic professionals (i.e. courses for professional educators).
__ Business professionals or employees (i.e. courses for career advancement or training).

How many semesters have you taught in a traditional classroom?

__ 0.
__ 1-2.
__ 3-4.
__ 5-6.
__ 7 or more.

How many semesters have you taught online or blended courses?

__ 1-2.
__ 3-4.
__ 5-6.
__ 7 or more.

Page 10

Outside your professional work, how much time do you spend each week using social media (such as Facebook, Twitter, Instagram, etc.)?

__ None.
__ Less than an hour.
__ 1-3 hours.
__ 4-6 hours.
__ 7-9 hours.
__ 10 or more hours.
__ Prefer not to answer.

Outside your professional work, how much time do you spend each week blogging, creating/maintaining websites, programming, or creating digital media?

__ None.
__ Less than an hour.
__ 1-3 hours.
__ 4-6 hours.
__ 7-9 hours.
__ 10 or more hours.
__ Prefer not to answer.

Page 11

Outside your professional work, how much time do you spend each week reading digital materials (such as books, articles, informational websites, and wikis)?

__ None.
__ Less than an hour.
__ 1-3 hours.
__ 4-6 hours.
__ 7-9 hours.
__ 10 or more hours.
__ Prefer not to answer.

Outside your professional work, how much time do you spend each week watching videos, television shows, or movies online?

__ None.
__ Less than an hour.
__ 1-3 hours.
__ 4-6 hours.
__ 7-9 hours.
__ 10 or more hours.
__ Prefer not to answer.

Page 12

Before you taught online, what did you believe were the best practices (ways to succeed teaching online or blended courses)?

Comment box.

After teaching online/blended courses, what have you come to believe are the best practices?

Comment box.

Page 13

What did you feel unprepared for or surprised you as you began teaching online/blended courses?

Comment box.

Page 14

As you began teaching online/blended courses, what resources and help were offered to you?

Comment box.

Which of those resources did you take advantage of?

Comment box.

Which of those resources were helpful?

Comment box.

Which of those resources were unhelpful?

Comment box.

Page 15

Is there anything you would like administrators or future online/blended courses instructors to about the transition to teaching online/blended courses?

Comment box.

End of Survey Page

Thank you for your generous support of this research. To enter your email into one of the drawings for a $20 gift card, please click the following link:

[*Link – Not associated with survey*]

Appendix B

INTRODUCTORY EMAIL

Dear Dr. _____,

Hello! I am David Hoffman, a researcher at Utah State University. Dr. David Hailey and I are conducting a nationwide study about the experiences of online/blended course faculty.

We would like to administer a brief, anonymous, IRB-approved survey to your online instructors and administrators.

We expect that the results we collect from multiple top-tier online institutions will provide you—along with other administrators, educators, and researchers—statically-significant, usable results about the training, course creation texts, best practices, and challenges instructors face as they begin teaching online. We hope the findings will validate the current anecdotal or regionally-based studies in the field, and show gaps in the research about online education.

There is no cost to your institution, and we will provide you with the study's quantitative analysis and results free of charge in gratitude for your participation. We will also offer a drawing for an Amazon or iTunes gift card to those who complete the survey.

I intend to contact you shortly to discuss this exciting opportunity. I look forward to discussing our research and answering any of your questions. If I have been given the wrong contact information, or should be discussing this opportunity with someone else at your institution, will you please send me a brief response so I may contact the right person? Thank you for your time!

Sincerely,

David Hailey, PhD
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Appendix C

INSTRUCTOR COMMENTS: WHAT THEY WOULD LIKE ADMINISTRATORS OR FUTURE INSTRUCTORS TO KNOW ABOUT TRANSITIONING TO ONLINE EDUCATION

Always treat students with respect and be willing to accommodate students of all kinds and needs. Be available to assist students on a daily basis. Be active in the course by constantly posting the forums.

Avoid Political Science courses the content changes too much and causes constant updating. The resources need to be easy to edit and upload to assist in mitigating the constant changes in the field of Political Science.

Be patient. Don't create it once and leave it the same for future classes. Experiment, learn, improve.

Be prepared to work harder!

Better complete orrientation/training with Canvas and Camtasia

Come to training sessions with content ready to go. It is a waste of time to mess around with format when you are working with neutral content. I came to the session with files ready to be uploaded so when the session was over, I had accomplished something. Keep

the departmental IT people. We need to develop a relationship of trust. Pay instructors to upgrade their classes. It is hard and time-consuming to make big content or format changes. This is an overload to an already assigned job of teaching. I love the recording studio that we have on campus and the people who help you when you haven't been in the studio for awhile.

Communication, clarity, and mire communication.

Connecting teachers teaching the same course to offer support to one another

Do not hope that the traditional classroom can be made available online without a lot of different preparation to teach it. Online teaching is a paradigm shift and without making that leap into a totally different scenario will not benefit the learners.

Don't be afraid of it! I know a number of instructors who hesitate or do not want to do it because it is not what they are used to. Also, don't set up your course to be "read a book, then take the test" in format. Remember there are multiple learning styles and each and every one of those learning styles can be addressed online!

Don't expect everyone to be able to do it. Make sure the instructor is comfortable and confident in the use of social media, and online formats.

Don't try and mimic the traditional classroom - it is not what online learners want or need. And take a course in developing online instruction yourself, so you don't have to learn by mistakes...

Don't. Unless there is a specific business plan (profit) associated with it, don't try it. It can also badly help your core face to face product. The offerings will be diluted, and eventually companies will learn NOT to hire those graduates with online degrees/classes.

Face-to-face (traditional) classes don't automatically transfer online. Instructors need to identify their audience (generally different that traditional classrooms) and design courses for their needs. Be flexible.

Faculty: You will likely have to do much more tech support for students than you think you will. You will likely not have as much tech support for yourself as you will be promised. No one will consult with you about when your course management system will be taken offline for maintenance. Maintenance will nearly always be scheduled for a time when you've scheduled a quiz or an assignment deadline and you will have to retool your entire syllabus. When you ask for more warning about this sort of thing, tech support staff will blow you off. Students will not read your syllabus. Many students think online classes are supposed to be easy and will give you scathing evaluations if they're not.

Administration: Online courses must not be used for: Budgetary savings (see below - support costs money) Plugging marginal students in to help them boost their GPAs Replacing traditional instruction Online courses require: Robust support for professors Robust tech support for students

Finding ways to get students interacting with the instructor are very important. It is difficult to do well, but definitely worth the effort.

First of all, the incentives for making the transition were minimal. On a few occasions I was offered a modest pay incentive for developing new online courses, but I really did it because I wanted to teach hybrid and online. However I am new faculty, whereas for most seasoned faculty who are used to teaching their courses in a certain way, there is naturally reluctance due to the time and effort involved. And it does take a huge amount of time and effort--this is somewhat recognized by administrators, but I don't think it is really appreciated. I had to sacrifice much of my research agenda in order to accommodate the transition to hybrid and online teaching, and now as I prepare for tenure review I fear that the research and publishing part of my record will be viewed as inadequate. This would be shame, since I have been part of the vanguard of USU's transition to hybrid and online teaching, which again has seen burgeoning student interest and enrollment and has a solid future in education. If those who have worked to bring USU into the 21st century were disadvantaged because of a myopic focus on research, the school will lose some of its potential to become a leader in higher education. In short, if the school values avant-garde teaching tools and methods, work in that area should be recognized, incentivized and rewarded.

For optimal learning online, please restrict enrollments to less than 40 students. Otherwise, it's impossible to keep up with grading and attending to each student.

Give faculty lots of time to make the transition. Also, it is really important to stress that online courses are not just recorded versions of traditional classes. It is a completely different mode of instructional delivery and material engagement and so the faculty member must rethink the whole course.

Having some training and a peer review process is very helpful.

Hm. What I said in the previous question, I guess. To summarize (in case you can't correlate my answers with each other): I believe in keeping an online classroom simple and streamlined. The bells and whistles are great if they help serve that purpose, but more important is making sure that students are constantly reminded that there is a living, breathing instructor (and other living, breathing students) in their online class with them, and that the technology is intended to ENHANCE their interaction with those people, rather than SUBSTITUTE for it.

I believe the demand for online courses will continue to grow. When students have the opportunity to take a required class online, an increasingly high percentage will do so.

I desperately need funding for an assistant to assist me with low level menial tasks in regards to updating and maintaining my courses.

I really think all online instructors should have to take an online class to really understand!

I recommend taking everything you can from your face-to-face course and employing it in an online environment. Streamline what you present and don't overwhelm students with things to see. You don't need a ton of bells and whistles.

I think a peer-to-peer mentoring program would be useful. I would love to be able to help other faculty that may be teaching these types of courses for the first time.

I think that the best way to learn about teaching online is to actually set up and teach a course. Trial by fire, so to speak. On the other hand, it can be a steep learning curve and takes a LOT of time. Instructors need to understand that and also be allowed to spend the time developing their courses. Being able to check in with an instructional designer on a VERY regular basis is also absolutely necessary.

I think what is most important for instructors is to start from scratch. Don't try to put a traditional course online. Make an online course. The tools at your disposal for online courses are astounding, and trying to fit the square peg of a traditional course into the amorphous, dynamic circle of online courses just doesn't work. Your course will never be particularly effective or helpful for students that way. It would be like running a traditional course like an old-school correspondence course. It just would fall far short of its potential. Administrators need to recognize that online courses are an increasingly-important component of education. As educators, we exist to help the students, and taking the education to their electronic devices and doing so in ways designed to help them learn the way they learn, rather than the way we learned, is one of the best ways to do that. When online courses are seen as less-than-optimal or somehow "beneath" traditional

courses, it causes a bit of stigma. Formal acknowledgements by administrators that online courses have an important role to play and can be as effective for some students as traditional classes are for others would go a long ways.

I urge trying new techniques, once the comfort level with standard methods have been reached. Keep the students interest, which can mean keeping up with technology. Due to the world of texting, students are now expecting immediate feedback. If assigned a large load of students, that can be a difficult task. New teachers should be started on a modified assignment, and ramp up slowly. I was not and it would have made a positive difference, if that practice was in place at this University.

In my 15 years on this campus in a position of faculty support, I have seen very few instructors without any online experience be successful. Quality standards are essential, courses must be fully developed and reviewed before the beginning of the semester, faculty or staff mentors assigned to new instructors to monitor their participation and communication with the students. The worst thing an online instructor can do is not communicate with students. Ignore emails, don't grade assignments, have unclear or no instructions - that is a recipe for complete failure of a course, and rightfully for student complaints, to the level of students demanding refunds and removal of the course from their transcripts. It is justified in some cases.

Instructors need to be monitored and coached.

It is a totally different style. Students rely on you for all information regarding technology as well as concepts related to the material.

It is a way to reach another demographic. group. It increases diversity--and not just the standard definition of diversity--the home-bound chronically ill students, caregivers for elderly, working professionals taking classes to move up in their career, parents of small children. It is also is environmentally friendly--no need to build more classrooms, heat or maintain the classrooms, students/.teachers don't drive to school. (In California, where schools are thinking about these things, online students are flushing their own toilets and not the college's toilets!)

It is good to have the entire class prepared and ready to go before the class starts. Academic freedom is vital. Creating new courses with original material is also vital to the success of an online class.

It is important to provide lots of training and support in order to have a really good program. If you leave instructors on their own some will so very well, but some won't. It is not a time-saving plan, but helps with student access.

It is not easy to do the first time, but once you have a template set up it gets much easier. It is time consuming, especially on the first couple of goes, and it can be overwhelming if you have regular assignments that need timely response (but these are necessary). And not all courses migrate well to this platform.

It is very time consuming to set up, but a well-organized platform will be beneficial and save time in the long run

It is vital to provide full-time staff assistance experienced with teaching online.

It takes a different set of skills to do on-line and lecture classes.

It takes a great deal of time to develop an online class. It takes effort to make it a high quality experience for the students.

It takes more time and you need to be dedicated and organized to do it.

It takes way more time than you think it will. Give a course release for at least a semester to prepare a new course. Plan for it to take just as much or more time than teaching a traditional course, especially at first.

It would help to be mentored through your first time

It's a lot of work to get a course up and going but maintenance isn't too bad and teaching becomes easier the longer you do it.

It's not a magic pill. There are the same challenges as in other forms of education.

Keep a level of personal contact through Skype, chat

Keep an open mind and remember the students work harder in an online or blended course.

Keep the standards as high as you do in a face to face class, but there are differences that have to be accommodated.

Make certain students feel comfortable interacting with you. Students will frequently asked the same questions that are answered in the syllabus, don't make a fuss about it, just answer - again.They will also ask frustrating question because they can't face you directly and thus think they are speaking behind a curtain of anonymity.

Make good use of those with technical skills in course design. An example would be using CIDI at Utah State U.

Make sure you and students have appropriate computers and programs to handle Blackboard constant changes and updates. Both online and on campus courses improved with the addition of related links and web pages availability improved.

Make sure you have enough faculty - teaching online can be more time-consuming than traditional; and requires availability 24/7. This can be frustrating.

Maybe that an instructor can best learn how to teach an online course by taking one themselves.

More faculty development workshops are needed for adopting new and undated technology and trend in online teaching..

Much more training is necessary for new instructors, especially in regards to how to manage discussion boards, student engagement, etc in addition to tech support, blackboard training and time management.

My own opinion is that online classes should have the same expectations as face-to-face courses, even if that puts more of a workload on the instructors. I believe that students come to expect online courses to be easy because that is their past experience, and that it decreases the value of university training and degrees, as well as creates a disincentive to challenge students to learn and to work hard.

New instructors should be highly encouraged to create multimedia course materials, including recorded mini-lectures, as well as focus on hands-on assignments wherever appropriate.

Now that we have a sufficient cadre of students who have been taking online courses only, what do they think about their online experiences? What are their best experiences and what are their worse? That would be nice to know. Are there any similarities across classes that we could standardize? CANVAS really works great!

Offer time for a teacher or professor to develop an online or blended course before the start of the semester, at least six months to have it ready. Unlike a traditional class, it is difficult to develop it during the semester, and keep up with the student interactions. Online classes take a lot of time, both in development and in the interaction of students. Online classes are difficult to scale up without additional teachers or instructors, and still provide the level of personal interaction with students. A class of 300, would mean getting about 600 to 800 email/message interactions a week from students, and you would be overwhelmed if you were working alone. Most of the student evaluations of the course are based on these interactions, so it is important to answer and address all student questions and comments as quickly as possible.

Online course delivery is a lot different than in person courses. You have to make sure that your modules are set up to clearly explain the material since students aren't face to face to ask questions.

Online learning should not be independent study. If you expect engagement from them, engage with them.

only the helpful items mentioned in previous responses

Pay can be less but flexibility of work is nice. Work load can be more depending on the amount of students you have in course, should be capped at 15

Pay faculty a stipend or double the untis they are getting paid for a class when they are assigned to build one online. If they are building a new 3 unit course assign them 3 units. Pay people to learn and tehy will like it a lot more and probably engage more creatively. Atleast pay a stipend. [*sic*]

Plan, plan, plan.

Prepare clear and concise templates.

Provide in-depth training on course software so that we know all the options that can be used and implemented to teach.

Provide the instructor with more hands on/personalized training or have someone available that can answer questions/provide assistance in a more timely manner.

Providing more mentoring of individuals transitioning into these formats and well as training on different technological aspects of these types of courses.

Record record record. I use FastStone Capture. Love it.

Required online learning experience as a student as a precursor

Requires extra effort in preparation

Scheduling courses in advance for adjunct since many of us have to work multiple schools to sustain an income. Talk to us and make us a part of the department or school. Support us during appeals. Set a high standard of rigor and expectations by all faculty. Provide us with CME or other professional education.

Sigh... yes. Somehow we need to reinstate that we are here to educate, not just entertain or coddle the students. For example, we currently have so-called "teaching evaluations" that are much more cumbersome and less informative than ever before. Even worse, they are actually little more than "customer satisfaction surveys." In my opinion, the only real measure of effective teaching is effective learning. I therefore make a concerted effort to have students take a preliminary quiz on the subject matter at the beginning of my courses. At the end, I can then compare those results with their scores on the final exam. On both tests, the questions are randomly generated from the same testbank. To date, the average scores are 25% at the beginning of a course, and 86% at the end. This tells me that my teaching has, indeed, been effective --whether or not the students have felt "entertained," "cared for," or given me high marks on USU's evaluations.

Teachers need to be educated about online learners: demographics, learning styles, technology skills...

Teaching on-line takes a substantial time commitment, which can be even greater than for traditional courses.

Teaching online takes commitment, courage and compassion for your students. Once your course is digitized, it is forever available!

The experience of both teaching and taking on-campus and online courses are very, very different. Online is not a "digitization" of the on-campus experience; it has its own limitations, freedoms, frustrations, and forms of success.

The first 1 - 2 years are very time and labor-intensive. I believe that many administrators believe that online classes are easier, required less instructor time, and fewer resources. That is not always the case.

The initial workload that goes into teaching online is pretty heavy. You have to spend many hours typing out all your lectures in a readable, presentable format -- if your existing classroom notes are on old pieces of paper, or simply "notes" memorized in your mind. The other big hurdle is learning the template's tabs and features -- it took me a solid year, to really get used to Moodle. I suggest they give "release time" to faculty who are new to teaching online. This will allow them time to begin building up the "virtual infrastructure" they need to run a decent course. Once all this is done, and it can take a few years to REALLY have a nice OL course set up, faculty can actually ENJOY teaching and interacting with students, and it is not such an exhausting experience. One reason many faculty do NOT want to teach online is that everything they do and present is VISIBLE -- to everyone: evaluators, dept. chairs, administration. This is not the case for traditional FTF classes, where a quick 20-minute visit to your classroom is made by your evaluation committee members every few years. I think OL faculty are brave for

that reason. Administrators should be kind to these people, and offer constructive advice and encouragement. We all know which lectures are "our best" and can save them for that 20-minute visitation, hiding the topics or lessons that we have less enthusiasm for... but for the OL instructor, every lecture, exercise and quiz is visible, documented, and "date stamped." The pressure is pretty high to perform well on everything.....

The platforms I have used, D2L and Moodle are not capable of hosting highly interactive tools such as simulation. These activities need to be deployed elsewhere - creating an additional learning curve for all involved.

The time that is required to prepare for and teach an online class is significant. One needs to start the processing far in advance (ideally 2 semesters or more) of when the class will be offered. Also, it's not simple to just teach something that someone else built. The underlying rationale for the decisions that led to the design of the course must be intuited, and if you don't understand why it was built the way it was built, it's easy to do it wrong. I say this as someone who has borrowed from blended courses taught by other people, copied over into my Canvas course with their permission.

There is a learning curve, that can be overcome with continuously improving your course.

There is a lot of information and assistance pout there that is very user friendly and helpful. I feel very confident now about setting up and conducting an online class through canvas.

Try to embrace it. Work to be as organized as possible. Consider the time it will take for your students to complete each item and estimate it for them (this helps you organize the amount of content each week)

Utilize the help offered by the university. Talk with others that work online and use their experiences to your advantage.

We actually can have lots of interaction with students.
you need a lot of time to translate materials just to build the course and to add new material and keep class up to date. Way more work than in a traditional class.

You need to actually work at developing your online course. Don't just wing it and don't just create a course with no contend and sort of have a discussion board seminar. Also, don't just develop a course then never participate in it.

Appendix D

NONSIGNIFICANT STATISTICAL RESULTS

Table 12

Multiple Regression Results: Age

Multiple Regression Statistics	Dependent variable:	
	Initial	Current
Y-Intercept[a]	4.50***(0.69)	4.50***(0.62)
31-43	−0.66 (0.71)	−0.29 (0.64)
44-56	−0.71 (0.71)	−0.47 (0.63)
Over 56	−0.77 (0.71)	−0.28 (0.63)
Prefer not to answer	−1.50 (0.82)	−0.10 (0.73)
Observations	125	125
R2	0.04	0.02
Adjusted R^2	0.0004	-0.02
Residual Std. Error (df = 118)	0.97	0.88
F Statistic (df = 4; 120)	1.14	0.48

Note: *$p<0.05$; **$p<0.01$; ***$p<0.001$

Reference group: Teachers in the age category of 18-30.

Table 13

Multiple Regression Results: Time Spent Using Social Media

Multiple Regression Statistics	Dependent variable:	
	Initial	Current
Y-Intercept	3.81*** (0.16)	4.11*** (0.14)
10-12 hours	−0.56 (0.52)	−0.11 (0.45)
13 or more	0.07 (0.38)	0.39 (0.34)
4-6 hours	−0.21 (0.26)	−0.03 (0.22)
7-9 hours	0.05 (0.31)	0.25 (0.27)
Less than an hour	−0.06 (0.27)	0.24 (0.24)
None	0.27 (0.31)	−0.11 (0.27)
Prefer not to answer	0.19 (0.59)	0.22 (0.52)
Observations	124	124
R2	0.03	0.03
Adjusted R^2	−0.03	−0.03
Residual Std. Error (df = 116)	0.98	0.86
F Statistic (df = 7; 116)	0.51	0.56

*Note: *p<0.05; **p<0.01; ***p<0.001*
Reference group: Teachers that spend 1-3 hours.

Table 14

Multiple Regression Results: Time Reading Digital Materials

Multiple Regression Statistics	Dependent variable:	
	Initial	Current
Y-Intercept	3.83*** (0.16)	4.28*** (0.14)
10-12 hours	−0.13 (0.35)	0.02 (0.30)
13 or more	−0.22 (0.47)	−0.08 (0.41)
4-6 hours	−0.02 (0.23)	−0.25 (0.20)
7-9	−0.16 (0.27)	−0.18 (0.23)
Less than an hour	0.08 (0.34)	0.18 (0.29)
Prefer not to answer	0.17 (0.72)	−0.28 (0.62)
Observations	124	124
R2	0.01	0.03
Adjusted R^2	−0.04	−0.02
Residual Std. Error (df = 117)	0.99	0.86
F Statistic (df = 6; 117)	0.15	0.53

*Note: *p<0.05; **p<0.01; ***p<0.001*
Reference group: Teachers that spend 1-3 hours.

Table 15

Multiple Regression Results: Time Spent Watching Media Clips

Multiple Regression Statistics	Dependent variable:	
	Initial	Current
Y-Intercept	3.83*** (0.16)	4.28*** (0.14)
10-12 hours	−0.13 (0.35)	0.02 (0.30)
13 or more	−0.22 (0.47)	−0.08 (0.41)
4-6 hours	−0.02 (0.23)	−0.25 (0.20)
7-9	−0.16 (0.27)	−0.18 (0.23)
Less than an hour	0.08 (0.34)	0.18 (0.29)
None	0.17 (0.72)	−0.28 (0.62)
Observations	124	124
R2	0.01	0.03
Adjusted R^2	−0.04	−0.02
Residual Std. Error (df = 117)	0.99	0.86
F Statistic (df = 6; 117)	0.15	0.53

*Note: *p<0.05; **p<0.01; ***p<0.001*
Reference group: Teachers that spend 1-3 hours.

Table 16

Multiple Regression Results: Courses Taught

Multiple Regression Statistics	Dependent variable:	
	Initial	Current
Y-Intercept	4.67*** (0.57)	4.67*** (0.50)
Taught online	−0.67 (0.64)	−0.37 (0.57)
Taught trad. and blended	−0.92 (0.75)	−0.92 (0.66)
Taught trad. and online	−0.98 (0.58)	−0.61 (0.52)
Taught trad., blended, online	−0.91 (0.58)	−0.41 (0.52)
Observations	125	125
R2	0.03	0.03
Adjusted R^2	−0.004	−0.003
Residual Std. Error (df = 120)	0.98	0.87
F Statistic (df = 4; 120)	0.87	0.91

*Note: *p<0.05; **p<0.01; ***p<0.001*
Reference group: Teachers that taught blended and online courses.

Table 17

Multiple Regression Results: Courses Type Taught First

Multiple Regression Statistics	Dependent variable:	
	Initial	Current
Y-Intercept	3.60*** (0.44)	4.40*** (0.39)
Blended	0.40 (0.62)	0.00 (0.55)
Online	0.48 (0.52)	−0.15 (0.47)
Traditional	0.13 (0.45)	−0.26 (0.40)
Observations	125	125
R2	0.01	0.01
Adjusted R^2	−0.01	−0.02
Residual Std. Error (df = 121)	0.98	0.88
F Statistic (df = 3; 121)	0.61	0.32

Note: *$p<0.05$; **$p<0.01$; ***$p<0.001$
Reference group: Teachers that began simultaneously.

Table 18

Multiple Regression Results: How Teachers Began Teaching Online

Multiple Regression Statistics	Dependent variable:	
	Initial	Current
Y-Intercept	3.77*** (0.12)	4.25*** (0.10)
Asked after being hired	−0.17 (0.23)	−0.05 (0.20)
I was assigned	−0.10 (0.35)	−0.47 (0.31)
Part of initial contract	0.23 (0.24)	−0.20 (0.21)
Observations	125	125
R2	0.02	0.02
Adjusted R^2	−0.01	−0.001
Residual Std. Error (df = 121)	0.98	0.87
F Statistic (df = 3; 121)	0.69	0.95

*Note: *p<0.05; **p<0.01; ***p<0.001*
Reference group: Teachers that volunteered to teach online.

Table 19

Multiple Regression Results: Gender

Multiple Regression Statistics	Dependent variable:	
	Initial	Current
Y-Intercept	3.73*** (0.12)	4.18*** (0.11)
Male	0.09 (0.18)	−0.04 (0.16)
Prefer not to answer	−0.23 (0.71)	0.32 (0.63)
Observations	125	125
R2	0.003	0.003
Adjusted R^2	−0.01	−0.01
Residual Std. Error (df = 122)	0.98	0.87
F Statistic (df = 2; 122)	0.20	0.17

*Note: *p<0.05; **p<0.01; ***p<0.001*
Reference group: Teachers that are female.

Table 20

Multiple Regression Results: Academic Position

Multiple Regression Statistics	Dependent variable:	
	Initial	Current
Intercept	4.33*** (0.55)	3.67*** (0.49)
Adjunct	−0.33 (0.56)	0.78 (0.50)
Administrative	−0.50 (0.67)	0.33 (0.60)
Graduate	−0.13 (0.70)	0.13 (0.62)
Tenured Assoc.	−0.71 (0.60)	0.02 (0.53)
Tenured Prof.	−0.82 (0.58)	0.44 (0.51)
Tenured track Assist.	−1.17 (0.61)	0.42 (0.54)
Observations	125	125
R2	0.10	0.10
Adjusted R^2	0.05	0.06
Residual Std. Error (df = 118)	0.95	0.84
F Statistic (df = 6; 118)	2.08	2.26*

*Note: *p<0.05; **p<0.01; ***p<0.001*
Reference group: Adjunct and Admin.

Table 21

Multiple Regression Results: Prior Experience as a Student

Multiple Regression Statistics	Dependent variable:	
	Initial	Current
Intercept	3.69*** (0.10)	4.16*** (0.09)
Prior experience as a student	0.28 (0.19)	0.04 (0.17)
Observations	125	125
R2	0.02	0.001
Adjusted R^2	0.01	−0.01
Residual Std. Error (df = 123)	0.97	0.87
F Statistic (df = 1; 123)	2.13	0.07

*Note: *p<0.05; **p<0.01; ***p<0.001*
Reference group: No prior experience as a student.

Table 22

Multiple Regression Results: Creation of Online Course

Multiple Regression Statistics	Dependent variable:	
	Initial	Current
Intercept	3.68*** (0.15)	4.03*** (0.14)
Created from trad. course outline	0.00 (0.22)	0.21 (0.20)
Created the course myself	−0.18 (0.42)	−0.03 (0.37)
Changed course created by individual	0.47 (0.27)	0.39 (0.24)
Changed course created by others	0.82* (0.37)	0.47 (0.33)
Course created by individual	−0.18 (0.50)	−0.28 (0.45)
Course created by others	−0.14 (0.33)	0.16 (0.29)
Observations	124	124
R2	0.08	0.04
Adjusted R^2	0.03	−0.01
Residual Std. Error (df = 117)	0.95	0.85
F Statistic (df = 6; 117)	1.64	0.89

*Note: *p<0.05; **p<0.01; ***p<0.001*
Reference group: Created original course without a template.

Table 23

Multiple Regression Results: Semesters Taught in a Traditional Class

Multiple Regression Statistics	Dependent variable:	
	Initial	Current
Intercept	4.33*** (0.32)	4.56*** (0.28)
1-2 Semesters	−0.21 (0.47)	−0.06 (0.41)
3-4 Semesters	−1.00 (0.51)	−0.56 (0.45)
5-6 Semesters	−0.67 (0.51)	−0.22 (0.45)
7 or more	−0.60 (0.34)	−0.43 (0.30)
Observations	124	124
R2	0.04	0.03
Adjusted R^2	0.01	−0.002
Residual Std. Error (df = 119)	0.96	0.85
F Statistic (df = 4; 119)	1.40	0.93

*Note: *p<0.05; **p<0.01; ***p<0.001*
Reference group: Teachers who taught zero semesters.

Table 24

Multiple Regression Results: Semesters Taught in Online or Blended Courses

Multiple Regression Statistics	Dependent variable:	
	Initial	Current
Y-Intercept	3.77*** (0.26)	4.00*** (0.24)
3-4 Semesters	0.65 (0.38)	0.17 (0.34)
5-6 Semesters	0.23 (0.37)	0.07 (0.33)
7 or more	−0.11 (0.28)	0.24 (0.25)
Observations	124	124
R2	0.06	0.01
Adjusted R^2	0.04	−0.02
Residual Std. Error (df = 120)	0.95	0.86
F Statistic (df = 3; 120)	2.51	0.38

*Note: *p<0.05; **p<0.01; ***p<0.001*
Reference group: Teachers who have taught 1-2 semesters.

CURRICULUM VITAE

David Hoffman
(May 2016)

PROFESSIONAL BIOGRAPHY AND INTERESTS:

David D. Hoffman is a professional communication and rhetoric scholar, curriculum writer, author, and educator in both traditional and online mediums. His research interests focus on the experiences, communiqués, and texts of instructors in online education. He examines ideas, technology, methods, and opportunities to improve course creation, enhance teaching capabilities, support instructors, and create positive learning experiences for administrators, teachers, and students. His current research foci include: online education, teacher satisfaction, educational καιρός, symbolic-analytic work, group collaboration, strategic contribution, and social dynamics. He practices professional communication as a religious educator, administrator, and curriculum writer for *The Church of Jesus Christ of Latter-day Saints*. His professional responsibilities include the creation, publication, administration, and support of a worldwide online seminary program.

EDUCATION:

Ph.D.: Theory and Practice of Professional Communication/Professional Communication & Rhetoric; Utah State University.
2012-2016
Dissertation: *Considering the Crossroads of Distance Education: The Experiences of Instructors as They Transition to Online or Blended Courses.*
Chair: David Hailey
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M.Ed. Educational Leadership and Foundations; Brigham Young University.
2005-2008.
Thesis : *Karl G. Maeser's Monitorial System: Philosophical*

Separation from the Bell and Lancaster Models.
Chair: A. LeGrand Richards
Emphasis: Curriculum Development

BA, History; Minor, Business Management; Brigham Young University. 1997-1998, 2000-2003.
Phi Alpha Theta (Graduated with Historical Honors)
Emphasis: Religion and Warfare

PROFESSIONAL EMPLOYMENT:

Religious Educator; *The Church of Jesus Christ of Latter-day Saints Seminaries and Institutes of Religion*. 2002-present.

In this position, David mentored new instructors, created religious education courses, provided training sessions and conference presentations on a variety of subjects including scriptures, doctrine, and the use of technology in education.

Institute courses:

Teaching the Gospel; Missionary Preparation; Doctrines of the Gospel; Book of Mormon.

Seminary courses:

Old Testament; New Testament; Book of Mormon; Doctrine and Covenants.

Online Curriculum Field Writer; *The Church of Jesus Christ of Latter-day Saints Seminaries and Institutes of Religion.* 2010-present.

David contributed to the research, writing, editing, programming, and formatting of online education courses during creation, beta, approval, and implementation stages.

Online Seminary courses:

Old Testament; New Testament; Doctrine and Covenants; Book of Mormon

College Curriculum Field Writer; *The Church of Jesus Christ of Latter-day Saints Seminaries and Institutes of Religion.* 2008-2009.

David assisted in the doctrinal analysis, research, writing, and editing of the Book of Mormon Institute of Religion Student Manual.

Research Assistant; *Brigham Young University Harold B. Lee Library: Special Collections*. 2001-2002.

David read the entire known communications of Brigham Young to assist Dr. David Whittaker research education and the treatment of women, education, and feminism in Utah during the 19th century.

Teaching Assistant; *Brigham Young University History Department.* 2000-2002.
Taught review sessions, administered tests, tutored students, taught writing seminars, prepared lesson materials and graded papers for the History Department faculty.

Courses:

World History: Central and South American emphasis 1500-present; World History: European emphasis: 1500-present; Mormon History.

PUBLICATIONS AND PRESENTATIONS:

Hoffman, D.D. "Considering the Experiences of Online Educators." Rocky Mountain Modern Language Association Conference, Salt Lake City, UT, October 8-10, 2016. (Accepted.)

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"A Perspective On Curriculum." Utah Valley Religious Educators Symposium, Orem, UT, August 5, 2013.

"Student-Centric Doctrine and Covenants Lesson Preparation." Utah Valley North Summer Symposium, Orem, UT, June 17, 2009.

"Adopting PowerPoint Techniques and Technology for Classroom Use." Utah Valley North In-service Training, American Fork, UT, June 21, 2006.

"Technology Training." Utah Valley North Summer Symposium, American Fork, UT, June 15, 2005.

"Stratagem: Modern Applications of Ancient Tactics." 31st Sidney B. Sperry Symposium, Provo, UT, August 24, 2002.

PROFESSIONAL SERVICE:

Session Chair: Online Education. 2014 *Rocky Mountain Modern Language Association* Annual Conference in Boise, ID.

Conference Submission Peer Review Document Preparation. The *Association of Teachers of Technical Writing*, 2013 Annual Conference in Las Vegas, NV.

PROFESSIONAL ORGANIZATIONS:

Golden Key National Honour Society 2014-present
Phi Kappa Phi 2014-present
Rocky Mountain Modern Language Association 2013-present
Association of Teachers of Technical Writing 2012-present
Phi Alpha Theta 2002-present