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Traditional Liberal Arts Colleges' Consideration and Adoption of Online Education: A Presidential Perspective

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TRADITIONAL LIBERAL ARTS COLLEGES' CONSIDERATION AND ADOPTION
OF ONLINE EDUCATION: A PRESIDENTIAL PERSPECTIVE

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DISSERTATION

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A dissertation submitted in partial fulfillment of the requirements for the degree of
Doctor of Philosophy in the College of Education at the University of Kentucky

By
Ericka T. Hollis

Lexington, Kentucky

Director: Dr. Wayne Lewis, Jr., Associate Professor of Educational Leadership Studies

Lexington, Kentucky

2016

ABSTRACT OF DISSERTATION

TRADITIONAL LIBERAL ARTS COLLEGES' CONSIDERATION AND ADOPTION
OF ONLINE EDUCATION: A PRESIDENTIAL PERSPECTIVE

National research studies have indicated that students are enrolling in more online courses annually (Allen & Seaman, 2010, 2014, 2015); yet, not all higher education institutions are adopting online education. In order to understand more about adoption of online education in higher education and presidents' perceptions of online education, this study investigated the adoption of online education by traditional liberal arts colleges (TLACs). These institutions and their presidents currently face numerous challenges and threats as TLACs try to remain relevant in the 21st century while maintaining their liberal arts mission. The importance of this study lies in the realization that many higher education institutions and leaders are making decisions about the adoption of online education while also examining if and how online education aligns with their existing environment, mission, culture, and curricula.

Drawing upon the diffusion of innovations theory as the framework for informing data collection, this study employed a two-phase, sequential mixed method design. Two research questions guided this study: 1) To what extent has online education been adopted at TLACs?; and 2) How do presidents at TLACs think about the adoption of online higher education in general, within traditional liberal arts institutions, and within their institutions specifically? In order to determine the level of online instructional education activity at each TLAC, the first phase was exploratory. The research sample for phase one of the study consisted of 55 TLACs that solely provided undergraduate curriculum in the arts and sciences. Major findings from phase one of the study indicated that more than half of TLACs (61.82%) did not have online education and did not offer any online courses. The remaining TLACs adopted online education either as fully online (16.36%) or hybrid (21.82%) courses. In the second phase, qualitative interviews with 11 TLAC presidents out of a population of 55 potential participants (20%) were conducted to understand how these administrators feel and think about the adoption of online education. Analyses of the TLAC presidential interviews resulted in three emergent themes: *Apprehensions Regarding Online Education, Perceived Inferiority of Online Education*, and *Potential Opportunities From Online Education*.

KEYWORDS: college presidency, online education, leadership, liberal arts colleges, diffusion of innovations

Ericka T. Hollis_____
Student's Signature

12/09/2016_____
Date

TRADITIONAL LIBERAL ARTS COLLEGES' CONSIDERATION AND ADOPTION
OF ONLINE EDUCATION: A PRESIDENTIAL PERSPECTIVE

By

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12/09/2016
 Date

DEDICATION

To Byron K. Hollis, my life partner who consistently demonstrates steadfast support in all

aspects of my life.

#TeamHollis

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This dissertation is the manifestation of a dream of an eighteen-year undergraduate student. I truly thank God for placing this dream in my spirit and allowing it to come to past. Mere words cannot express my gratitude. I trust and believe wholeheartedly in Jeremiah 29:11*"For I know the plans I have for you," declares the Lord, "plans to prosper you and not to harm you, plans to give you hope and a future*, which has been the scripture to sustain me during this journey.

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CHAPTER 1: INTRODUCTION TO RESEARCH STUDY

As American higher education continues to evolve and compete globally, institutions and their presidents face unparalleled challenges in achieving their goals and missions. Growth in online education is becoming one of the most pressing and rapidly changing issues faced by faculty members and leaders in higher education (Allen & Seaman, 2010). American present-day trends indicate a surge in the demand of fully online and hybrid courses from higher education students with over 28% of enrolled students in 2014 taking at least one online course (Allen & Seaman, 2016). Since 2003, annual reports by the Online Learning Consortium (formerly known as the Sloan Consortium) revealed increasing rates of online education enrollment in the United States (Allen & Seaman, 2013, 2014, 2015, 2016). The 2015 *Grade Level: Tracking Online Education in the United States* report noted both private and public universities had growth in the number of students taking an online course (Allen & Seaman, 2015).

Further, out of a survey of 25,000 colleges and universities, public institutions had a 4.6% increase in the number of students taking an online course while private-not-for-profit institutions had a 12.6% increase since 2012 (Allen & Seaman, 2015). Additionally, Parker, Lenhart, and Moore (2011) reported that among college graduates who have taken a class online, 15% have earned a degree entirely online. With the increase in the number of online courses (Allen & Seaman, 2016; Radford, 2011), online degree offerings (Parker, Lenhart, & Moore, 2011), and number of online students (Allen & Seaman, 2013, 2014, 2015, 2016), online education has transitioned from a niche to a significant force driving innovation for many higher education institutions both nationally and internationally (Mariasingam & Hanna, 2006; Sener, 2010).

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As a result, many institutional administrators are capitalizing on the popularity of online learning or plan to do so in the near future. Dealing with these unprecedented demands has added additional layers of complexity in leading American higher education institutions in the 21st century. Due to popularity and demand of online education, 63.3% of chief academic officers are integrating online learning into their long-term strategic planning (Allen & Seaman, 2016; Chen, Lambert, & Guidry, 2010). The current demand for online education is being met by more than a thousand degree-granting institutions including public, private, and for-profit institutions; thus, creating intense competition in a limited marketplace.

Online education has become more widely accepted as a legitimate and effective means of facilitating learning for various types of institutions including doctoral universities, master's colleges and universities, baccalaureate colleges, and associate colleges both in the public and private sector (Allen & Seaman, 2010; Bell & Federman, 2013). Parker et al. (2011) noted that among four-year colleges and universities, 80% of mid-tier institutions and 86% of institutions with low levels of selectivity offer online courses in comparison with nearly half of the highly selective institutions (51%). Yet, Bacow, Bowen, Guthrie, Lack, and Long (2012) proclaimed that some form of online learning takes place at just about every college and university in the nation. Within higher education, extensive variance exists for what constitutes as online learning/education. For the purpose of this study, online learning/education is defined as education or learning that uses the Internet as the primary technology to deliver instruction to students who are physically separated from the instructor. Thus, this definition includes but is not limited to hybrid/blended courses, online courses, and online programs/degrees.

Currently, even traditionally taught courses are routinely utilizing online technologies for learning. Bacow et al. (2012) indicated institutions are capturing lectures through video, archiving them on the web, and making them available to students, and in some cases the public, in an asynchronous format. Additionally, students and faculty have embraced learning management systems to distribute digital content, access multimedia, facilitate student-to-student and teacher-to-student interaction, as well as for the submission and evaluation of homework, quizzes, and exams. Further, Brandon Busteed, executive director of Gallup Education, suggested online degrees are on the verge of a "tipping point where people just start to accept online degrees as quality degrees...that's going to grow enrollments dramatically" (as cited in Bidwell, 2014, para. 3).

Beginning in 2012, the National Center for Education Statistics' (NCES) Integrated Postsecondary Education Data System (IPEDS) added 'distance' education to the wealth of other data they collect and report on U.S. higher education institutions (Allen & Seaman, 2015; U.S. Department of Education, 2015). IPEDS has operationalized the term distance education as:

> Education that uses one or more technologies to deliver instruction to students who are separated from the instructor and to support regular and substantive interaction between the students and the instructor synchronously or asynchronously. Technologies used for instruction may include the following: Internet; one-way and two-way transmissions through open broadcasts, closed circuit, cable, microwave, broadband lines, fiber optics, satellite or wireless communication devices; audio conferencing; and video cassette, DVDs, and CD-ROMs, if the cassette, DVDs, and

CD-ROMs are used in a course in conjunction with the technologies listed above.

(U.S. Department of Education, National Center for Education Statistics, 2016, p. 10)

Accounting for technologies other than the Internet, the IPEDS distance education definition is more expansive than how online education is defined in the current study. However, the defining element of both definitions is the central role of online technology, in its various forms, in delivering instruction to students who are physically removed from instructors and/or the college campus. Online education is rooted within the broader category of distance education (rooted in correspondence courses), which has been in existence for more than 100 years (Braude & Merrill, 2013; Means, Toyama, Murphy, Bakia, & Jones, 2009).

The 2014 IPEDS data reported that 70.7% of all currently active, degree-granting institutions that are open to the public have some distance offerings (Allen & Seaman, 2015; U.S. Department of Education, 2015). According to IPEDS, a strong relationship existed between the size of the institution as measured by the total number of students enrolled and the proportion with distance offerings as defined by IPEDS. For example, over 95% of institutions with 5,000 or more total students reported distance offerings. This number declined to 83.6% for institutions with between 1,000 and 4,999 students and down to 47.5% of those with less than 1,000 total students (Allen & Seaman, 2015). The diversity of online courses offered for credit by various institutions reflects the diversity of higher education more broadly (Bacow et al., 2012).

Parker et al. (2011) of the Pew Research Center reported findings from two different surveys. The first was a telephone survey taken among a nationally representative sample of 2,142 adults ages 18 and older (Parker et al., 2011). The second was an online survey in association with *The Chronicle of Higher Education*, presidents of 1,055 colleges and

universities nationwide were surveyed about digital technologies in higher education (Parker et al., 2011). Online education is more prominent in some sectors than others. Findings indicate that 61% of liberal arts colleges, 79% of research universities, and 82% of community college offer some online options (Parker et al., 2011). Typically, public four-year institutions have more online course offerings than private institutions. Among the presidents of four-year public colleges and universities, 89% report that their institution offers classes online while 6 in 10 presidents of private four-year colleges report the same (Parker et al., 2011). Private college presidents are among the most skeptical about the value of online learning. Only 36% believe a course taken online provides the same value as a class taken in person in comparison with 50% of four-year public university presidents (Parker et al., 2011).

Problem Statement

National research studies indicate that students are enrolling in more online courses annually (Allen & Seaman, 2010, 2014, 2015); yet, not all higher education institutions are adopting online education. Institutions have different rationale for adopting online education, and leaders of each institution must determine whether or not online education is appropriate for their institutions. Some colleges and universities are investing time, energy, and resources in providing online courses and online program offerings, while others are not. The question is, why? Is online education relevant and necessary for each higher education institutional type, such as community colleges, liberal arts colleges, master's colleges and universities, or doctoral universities?

Traditional liberal arts colleges (TLACs) are one segment of the higher education landscape that may be grappling with this question. TLACs are defined as four-year

institutions that exclusively focus institutional goals and curricular structures on undergraduate studies in the fields of arts and sciences, such as philosophy, languages, social sciences, and physical sciences. These colleges confer bachelor's degrees, such as Bachelor of Arts or Bachelor of Science, and do not offer professional or graduate degrees. At its core, the traditional liberal arts colleges' emphasis is undergraduate study in the liberal arts and sciences. The appeal of traditional liberal arts colleges lies in the promised tradition of small classes and frequent face time with professors whose primary objective is teaching. Some may argue that online education does not align with the original mission of traditional liberal arts colleges, yet others may view online education as a mechanism to enhance the existing campus-based offerings.

Ultimately, these institutions are trying to remain current in a changing world. In order to do so, TLACs have to manage the increased cost of providing an education that meets the current expectations of students and employers. Thus, TLACs are attempting to balance rising tuition costs, increasing tuition discounting, maintaining appropriate enrollments, decreasing federal and state appropriations, and ongoing competition while maintaining their missions, cultures, and identities. Furthermore, these institutions must be cognizant of the escalating student loan debt that may cause some students who were planning to attend a traditional liberal arts college to consider a less expensive higher education option.

Unlike research or doctoral and comprehensive universities or community colleges, online education has had a difficult time gaining traction in liberal arts colleges (Kolowich, 2012). However, as online education continues to become more prevalent in higher education, liberal arts colleges may begin to shift more towards online education. Kolowich

(2012) shared that several top-rated liberal arts colleges have begun experimenting with online course modules and massively open online courses (MOOCs). Parker et al. (2011) implied that the presidents of liberal arts colleges and highly selective institutions are less likely than other college presidents to report that their schools offer online classes; however, 61% of presidents of four-year liberal arts colleges reported that their institution offers classes that are taught exclusively online. Based on the limited amount of literature available, online education seems to be gaining presence in liberal arts colleges within the last few years, but online education may not be gaining traction in traditional liberal arts colleges to the same degree.

In order to understand more about adoption of online education in higher education and presidential perception of online education, this study investigates the adoption of online education by TLACs. These institutions and their presidential leaders currently face numerous challenges and threats as TLACs evolve to remain relevant in the 21st century while maintaining their liberal arts mission.

Purpose and Significance of the Problem

This study sought to determine the extent to which online education has been adopted at TLACs and explore how TLAC presidents think about the adoption of online education in general, within traditional liberal arts institutions, and within their institutions specifically. The importance of this study lies in the realization that many higher education institutions and leaders are making decisions about the adoption of online education while also examining if and how online education aligns with their existing environment, mission, culture, and curricula. TLACs have distinct missions, cultures, and traditions that impact their adoption of innovations like online education. Many of TLACs remain committed to

their central educational missions and have refused to shift curricula toward more immediately marketable technological or vocational areas (Breneman, 1994). Additionally, the technological component and distance aspect of online education may cause some higher education leaders and faculty to view online education as subpar in comparison to conventional education. Exemplifying this position, Jeffrey Docking, president of Adrian College a small liberal arts college in Michigan and co-author Carman Curton, a faculty member of Adrian College stated:

> Online education is disengaged education that places students in front of a computer screen instead of in front of a professor and mentor. It is education directed at the head at the expense of the heart, at the mind at the expense of the soul, at the individual at the expense of the community...try to find an online course that can replicate the experience our students receive in small, on-campus classes. You will discover that these classes and experiences do not exist. (Docking & Curton, 2015, p. 26)

Docking and Curton's statements articulate their views on the incompatibility between online education and the TLAC culture. However, their opinion cannot be shared by all traditional liberal arts presidents as one research study conveyed that more than half (61%) of liberal arts colleges presidents report having online courses taught at their institutions (Parker et al., 2011).

Therefore, the current study also seeks to understand the outlook of online education from the unique perspective of TLAC presidents. College presidents represent a complex and less understood group, especially concerning their roles in organizational change, such as adopting innovations like online education (Rudolph, 2013). The modern day college

presidency consistently deals with organizational change as internal and external forces impact how these institutions are led. TLAC presidents in particular must demonstrate effective leadership as these institutions continue to evolve as a few of them are financially unpredictable in today's competitive global marketplace. Much of the existing online education research reports on the quantity of online students, faculty, courses, and programs; yet, few of the studies report on how college presidents, specifically TLAC presidents, think about the adoption of online education. This study addresses this current lack of empirical evidence by investigating the presidential perceptions of online education adoption at specific institutions. Overall, this study's findings provide insight into how TLACs and their presidential leaders are dealing with the burgeoning educational innovation of online education. This study provides empirical contributions to the areas of higher education presidential leadership, traditional liberal arts colleges, and online education.

Research Questions and Design

Drawing upon the diffusion of innovations (DoI) theory as the framework for informing the data collection, this study employs a two-phase, sequential mixed method design. Two research questions guided this study: 1) To what extent has online education been adopted at TLACs?; and 2) How do presidents at TLACs think about the adoption of online higher education in general, within traditional liberal arts institutions, and within their institutions specifically? The first phase was exploratory in nature in order to determine the level of online instructional education activity at each TLAC. This fact-finding quest included queries to the NCES IPEDS from the 2015-2016 academic year database to determine which institutions reported distance learning offerings, institutional website reviews, and a survey to TLAC registrars (see Appendix A). The data analyses in this phase

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of the study provided a general overview of what was happening in online education by

TLACs and informed the selection of participants for the second phase of the study. In the

second phase, qualitative interviews with TLAC presidents was conducted to understand how

these administrators feel and think about the adoption of online education in general, within

traditional liberal arts institutions, and within their own institutions specifically.

This study used DoI as a theoretical lens to examine the adoption of online education

by TLACs and understand how presidents think about the adoption of online education.

Specifically, this study employed an extended form of Rogers' model of diffusion of

innovations theory using Moore and Benbasat's (1991) perceived characteristics of

innovation of TLAC presidents. Based on the findings from phase one, college presidents

representing each of the online education usage categories were selected for participation in

interviews. The interview protocol was based on Moore and Benbasat's (1991) perceived

characteristics of innovation (PCIs). The guided questions revolved around creating an

understanding of the eight perceived characteristics of innovation by the presidents: relative

advantage, compatibility, ease of use, trialability, visibility, image, voluntariness, and result

of demonstrability. For this study, the eight constructs are valuable because they afford a

framework for understanding the perceived characteristics that impact adoption of an

innovation, which in this case is online education.

Setting and Sample

The sample for the study included those higher education institutions that are

considered traditional liberal arts. In defining liberal arts colleges, Breneman (1994) stated

that "the liberal arts college itself offers virtually no undergraduate professional education"

(p. 12). Likewise, the research sample only included institutions that focus primarily on

undergraduate arts and science curriculum and offer no undergraduate professional education

or graduate education. Given this acknowledgement, the 2015 version of the Carnegie

Classification of Institutions of Higher Education™ was utilized to determine which

institutions met these criteria in the United States. The Undergraduate Instructional Program

Classification filter titled *Arts & Sciences plus professions, no graduate coexistence* was

applied to generate the list of TLACs. This classification filter includes institutions with "60–

79 percent of bachelor's degree majors in the arts and sciences, and no graduate degrees were

awarded in fields corresponding to undergraduate majors" (The Carnegie Classification of

Institutions of Higher Education, n.d., para. 18). This filter eliminates institutions that

provide graduate degrees or more than 20% of professional degrees.

Application of the *Arts & Sciences plus professions, no graduate coexistence* to the

2015 version of the Carnegie Classification of Institutions of Higher Education™ yielded 84

institutions. However, after further investigation of each institution, 29 institutions were

eliminated because they offered some form of graduate coursework. Thus, the research

sample consisted of 55 TLACs (see Appendix B). The first phase of the study was

exploratory in nature and gathered only public information via multiple data sources. The

emergent categories from the study reflected the level of adoption of online education within

the TLAC social system. Based on the findings from phase one, TLAC presidents

representing each of the emergent categories of institutions were selected for participation in

interviews.

Limitations and Delimitations

As a point of clarification, there are a few related areas that this study does not

address. This study focuses solely on TLACs in the United States of America. Therefore,

international liberal arts institutions and U.S. liberal arts institutions that offer any type of graduate courses, degree programs, or certificates were not included in this study. Additionally, this study did not examine the success or failure of online education implementation in TLACs. Further, this study did not explore the development or evolution of online education in TLAC environments.

In the first phase, a limitation of this study was the ability to collect accurate data regarding hybrid/blended courses in TLACs. Since each institution has complete autonomy regarding how courses and course types (online, hybrid, traditional) are specified in each institution's course catalog, institutions could potentially offer hybrid/blended courses without this information being indicated. Thus, there may be an issue with underreporting. To mitigate this issue, multiple data sources including surveys from TLAC registrars, the NCES IPEDS database, and institutional web searches were collected in addition to the course catalog data.

Key Terms Defined

For the purpose of this study, some key terms need to be operationalized.

Liberal arts colleges (LACs): four-year institutions that focus primarily on undergraduate studies in the fields of arts sciences but may also have professional undergraduate studies such as nursing, engineering, or business as well as have graduate studies.

Traditional liberal arts colleges (TLACs): four-year institutions that exclusively focus institutional goals and curricular structures on undergraduate studies in the fields of arts and science, such as philosophy, religion, languages, social sciences, and physical sciences. These colleges focus on broad skills in thinking and writing and confer bachelor's degrees such as B.A. (bachelor of arts) or B.S. (bachelor of science) and do not offer professional or

graduate degrees. These institutions are typically small in size and have residential student enrollments of less than 2,500.

Online education: education that uses the Internet as the primary technology to deliver instruction to students who are physically separated from the instructor. This type of education is used to support regular and substantive interaction between the students and the instructor synchronously or asynchronously. This definition of online education is adapted from the NCES IPEDS distance education definition (U.S. Department of Education, National Center for Education Statistics, 2016). This online education definition includes but is not limited to hybrid/blended courses, fully online courses, hybrid/blended programs/degrees, and fully online programs/degrees.

Hybrid/blended course: courses that have traditional face-to-face on campus instruction and some on campus activities have been replaced by online learning activities.

Fully online courses: courses that have all content and course activities including meetings online with no traditional face-to-face on campus instruction.

Hybrid/blended degree programs: degree programs that have traditional face-to-face on campus instruction and some on campus activities have been replaced by online learning activities.

Fully online degree programs: degree programs that have all content and course activities including meetings online.

Overview of the Study

This chapter provides an overview of the problem and its significance within the higher education landscape. Chapter 1 provides the reader with background information regarding online education as well as presents the study's purpose, significance, and research

questions. The second chapter that follows provides an extensive review of the literature in four specific areas: liberal arts colleges and universities, online education, college and university presidency, and diffusion of innovations. The third chapter details the methodology for the study including the research design, sample size, methods of data collection and analyses, and my role as the researcher. The fourth chapter presents the findings from the exploratory first phase of the study, which addresses the first research question: to what extent has online education been adopted at TLACs? The fifth chapter provides the qualitative findings from the second phase of the study, which addresses the second research question: How do presidents at TLACs think about the adoption of online higher education in general, within traditional liberal arts institutions, and within their institutions specifically? The final chapter summarizes the key findings and provides a discussion on theoretical and practical implications as well as make recommendations for future research. Additionally, appendices that are referred to throughout the six chapters are included as well.

CHAPTER 2: REVIEW OF LITERATURE

This chapter reviews literature that is pertinent to the research study: the adoption of online education by TLACs and how TLAC presidents think about online education adoption. In particular, this chapter examines four significant areas: liberal arts colleges and universities, online education, college and university presidency, and diffusion of innovations. First, a discussion about liberal arts institutions specifically traditional liberal arts colleges outlining their history, characteristics, and challenges is presented. The second section reviews online education within higher education by exploring the history of distance education, highlighting the contemporary state of online education, examining the value and legitimacy of online education, and identifying institutional motivations and barriers to online higher education adoption. Third, a review of the college and university presidency literature as well as presidential leadership within the liberal arts college context are examined. The fourth section provides an overview of diffusion of innovations (DoI) theory, reviews the DoI literature in postsecondary education with regard to online education, highlights limitations and criticisms of DoI theory and model, and explains how the DoI model as conceptualized by Moore and Benbasat (1991) will be used as a theoretical framework in this study.

This literature review included literature from numerous sources. ProQuest Education, EBSCOhost, JSTOR, Academic Search Complete, ERIC, and Google Scholar databases as well as top tiered higher education journals were queried to locate relevant empirical research studies. Additionally, the literature review was expanded to include journals specifically related to educational technology, distance learning, and online education. Further, the ProQuest Dissertations and Theses Global database was queried for

Ph.D. dissertations from institutions with very high research activity according to the 2010 version of the Carnegie Classification of Institutions of Higher Education™. In some cases, popular press literature from *The Chronicle of Higher Education* and *Inside Higher Ed* were included as well. A literature review matrix was created in Google Sheets and utilized in to aid in the management the literature. Keyword searches were conducted.

This literature review was conducted using a systematic approach for each content area. In the liberal arts colleges and online education content areas, literature included an audit of peer reviewed journal articles, books and reports that are considered seminal works, dissertations, and popular media from the aforementioned sources. Additionally, the liberal arts colleges and online education literature searches were not restricted to a time frame because of the importance of understanding these content areas from conception to modern times. Initially, the college/university presidency literature was restricted to empirical research studies and dissertations conducted since 2005 because the focus of this study deals with how current presidents regard a specific innovation. However, there was a dearth of empirical studies regarding the college/university presidency in recent years. Consequently, the presidency literature search scope was expanded to include research conducted since 1960. On the other hand, the DoI review of the literature search was restricted to peer reviewed articles published after 2005 and relevant dissertations published since 2010 that used the DoI framework with regard to postsecondary education and online education. Overall, the approach to the literature review was methodological which resulted in a comprehensive literature review.

Liberal Arts Colleges and Universities

Higher education is a diverse and complex environment, and its diversification is

often regarded as one of its strengths. Among the oldest of American institutions, liberal arts colleges have been a distinctive component of the ever-changing United States higher education system for nearly three hundred years (Bonvillian & Murphy, 1996). Unlike the multipurpose institutions of universities and community colleges, liberal arts colleges are single-purpose institutions with the sole capacity to educate undergraduate students (Breneman, 1994). According to Hawkins (2000), the public has accepted a relatively firm meaning for the liberal arts college: "focusing its attention on candidates for the B. A. degree who are generally between the ages of eighteen and twenty-one, an institution resistant to highly specific vocational preparation and insistent on a considerable breadth of studies" (p. 23).

In contrast to a professional, vocational, or technical curriculum, the aim of this type of higher education institution is to focus single-mindedly on the education of young minds by imparting general knowledge and develop general intellectual capacities (Neely, 2000). Liberal arts colleges are undergirded by the philosophy of liberal arts that emphasizes the philosophy of a democratic society in which citizenship, social responsibility, and community are inseparable (Lang, 1999). This section provides an overview of liberal arts colleges, examines the evolution of liberal arts colleges, and explores challenges regarding this segment of American higher education.

The liberal arts college was created based on European education principles (Harriman, 1935; Pfnister, 1984; Thelin, 2011). However, most liberal arts colleges today are based on the American higher education model (Redden, 2009). The commitment to the highest quality of undergraduate education makes liberal arts colleges distinctively American

(Neely, 2000). This institutional type has all but disappeared in Western Europe where it originated (Pfnister, 1984).

Typically, liberal arts colleges have small class sizes which affords the opportunity to experiment with alternative undergraduate curricula and pedagogy (Baker, Baldwin, & Makker, 2012). Students in a liberal arts college have a major discipline yet are exposed to a wide range of academic subjects including sciences as well as traditional humanities. Scholz (2013) expressed that the definitive liberal arts college experience "revolves around the transformation of individuals, intellectually, and emotionally, to produce exemplary citizens" (p. 255). Currently, liberal arts colleges account for educating at most two percent of all college students (Breneman, 1994; Pope, 2012). According to Breneman (1994) and Neely (2000), many larger multipurpose institutions imitate the liberal arts college model in their honors college thereby insinuating that the liberal arts model remains the ideal form of undergraduate education.

History

Many liberal arts colleges today can trace their origins back to the 17th and 18th centuries (Breneman, 1994; Pfnister, 1984). While the longevity of these institutions make them prominent American success stories, the literature on these liberal arts colleges describes a "nearly broken history of concern of its survival" (Breneman, 1994, p. 1). Historically, liberal arts colleges have endured the development of the American higher education system. According to Koblick and Graubard (2000), the first residential liberal arts colleges began with the founding of Harvard in 1636 and William and Mary in 1693. As the country expanded, similar institutions opened in nearly every state. Initially, these institutions were designed to serve religious, intellectual, personal, local, and practical needs.

Pressures to change have been a historic constant for liberal arts colleges (Lang, 1999). Confusion of the liberal arts college's role and identity is highly debated within the literature. During the last 100 years, many scholars and practitioners predicted the demise and extinction of liberal arts colleges. Pfnister (1984) advocated that at three points in American higher education the future liberal arts college has been seriously questioned: early nineteenth century when former colonies were being transformed into a new nation; at the end of the nineteenth century with entrance of new American education functions and structures including land-grant colleges, technical schools, and research universities (Koblik & Graubard, 2000; Pfnister, 1984); and the beginning in the 1970s as the emphasis in collegiate education increases toward the vocational preparation of students (Baker et al., 2012; Breneman, 1994; Pfnister, 1984). Despite declining in numbers for nearly three decades (Breneman, 1994; Baker et al., 2012) and predictions of becoming obsolete, liberal arts colleges have survived through many historical threats through a combination of carving out its own unique identity and being progressive in their thinking of ways to remain relevant in the higher education enterprise. These institutions continue to persist.

Characteristics

Known for their distinct role within higher education (Bonvillian & Murphy, 1996; Breneman, 1994; Docking & Curton, 2015), liberal arts colleges have many distinctive characteristics: small in size (Breneman, 1990, 1994; Baker, Baldwin, & Makker, 2012; Koblick & Graubard, 2000; Pope & Oswald, 2012), residential undergraduate teaching emphasis (Breneman, 1990, 1994; Hawkins, 2000; Koblick & Graubard, 2000; Pope & Oswald, 2012; Neely, 2000), promotion of liberal education (Breneman, 1994; Hawkins, 2000; Pope & Oswald, 2012; Shoenberg, 2009), and private control (Breneman, 1994) that

create a unique culture. Liberal arts colleges typically enroll no more than 2,500 students, and majority of them enroll between 800 and 1,800 students (Breneman, 1990; Pope & Oswald, 2012). As reported by Koblick and Graubard (2000), the average liberal arts college enrollment is 1,316. The low enrollment generates small student to faculty ratios that provide the opportunity for students to receive more personal attention. Liberal arts institutions encourage faculty-student collaboration that offer a distinct alternative to the forms of instruction found in multipurpose institutions.

Students who attend liberal arts colleges primarily are enrolled full-time and are between the ages of 18 and 24 years of age and tend to live on campus in residential housing. Liberal arts colleges emphasize the educational and social importance of the residential experience. According to Hawkins (2000), these institutions have continued commitment to students living together in dormitories in order to foster both the intellectual and personal development of students. The majority of liberal arts colleges are physically attractive and usually located in non-urban areas (Koblick & Graubard, 2000; Pope & Oswald, 2012). Furthermore, residential liberal arts colleges remain committed to educational principles that make the teaching role primary (Koblick & Graubard, 2000). The small class sizes combined with the students residing on campus provide an environment that lends itself to cultivating a sense of community among students, faculty, and staff. This type of community network is difficult to achieve in larger settings.

Characteristically, liberal arts colleges emphasize liberal education, which may be pursued through any subject matter. According to Shoenberg (2009), a liberal education in the liberal arts is "an education that is purposefully designed to develop critical and communicative powers and a sense of complexity and diversity of the world is the best

preparation for work, for citizenship, and for a satisfying life" (pp. 58-59). Graduates of such education take their places among the cultured and are prepared for positions of leadership in civil affairs (Koblick & Graubard, 2000). Along those same lines, Hawkins (2000) insisted that a liberal education prepares "one for living, not for making a living" (p. 15). The "open curriculum" or "system of liberty" espoused by several liberal arts colleges leaves the door open for students to pursue a narrow education (Koblick & Graubard, 2000; Shoenberg, 2009). However, this decision is ultimately up to each individual student.

Moreover, Breneman (1994) made an economic case for liberal education by suggesting that an education that focuses on the general skills of reading, writing, and critical thinking are more valuable due to the constantly changing economy because specific training can become obsolete. Consequently, liberal arts education can be associated with flexibility and adaptability. Liberal arts colleges are the source of a disproportionate number of graduates who go on to earn doctorates and pursue academic careers (Breneman, 1990, 1994; Fuller, 1986; O'Shaughnessy, 2012; Pope & Oswald, 2012). According to Breneman (1994) and Pope and Oswald (2012), many doctorates found their undergraduate liberal arts education so rewarding that they come back to teach at these institutions despite salaries being lower than at universities. In addition to academic careers, liberal arts colleges continue to produce an inordinate share of America's leaders including doctors, lawyers, teachers, politicians, civil servants, and businessmen (Koblick & Graubard, 2000). More recently, Detweiler, the president of the Great Lakes College Association, shared initial results from a study about the long-term impact of liberal arts college attendance (Jaschik, 2016). The results indicated that a liberal arts-style education "can be associated with greater odds, compared to others with bachelor's degrees, on such qualities as being a leader, being

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seen as ethical, appreciating arts and culture and leading a fulfilling and happy life" (Jaschik, 2016, para. 4).

Another characteristic that sets many liberal arts colleges apart is their privateness. Although public liberal arts college exist, majority of them are private. These private entities can integrate certain values, such as religion or otherwise, into their mission unlike state institutions (Breneman, 1990). History, tradition, values, and the ideology of community are elements that contribute to the institutional cohesiveness of liberal arts colleges (Bonvillian & Murphy, 1996). These organizational character elements provide a common sense of purpose for the liberal arts colleges that becomes ingrained in the organizational life thereby affecting its organizational culture.

Despite the number of shared characteristics among liberal arts colleges, variation exists. Koblick and Graubard (2000) stated, "The residential liberal arts colleges of the country once predominantly tied to specific religious denominations and now more frequently secular, once gender-separated and now more often coeducation, pride themselves on what they perceive to be their newly achieved "diversity" (p. xii). In order to differentiate themselves from one another, liberal arts colleges emphasize a combination of location, history, religious affiliation, single-sex, or racial orientation, curricular emphasis, and perceived quality/prestige according to Breneman (1994). Yet, Docking and Curton (2015) declared that liberal arts colleges should not regard one another as competition but other types of institutions, such as large public universities.

There is parceling within the liberal arts colleges sector. Breneman (1994) indicated that colleges listed by the Carnegie Foundation for the Advancement of Teaching as liberal arts colleges have become something different from a liberal arts college. According to

Koblik and Graubard (2000), "Some have strayed farther from the traditional liberal arts concept; some remain more true to it" (p. 38). Thus, some liberal arts colleges can be viewed as traditional. Traditional liberal arts colleges are defined as four-year institutions that exclusively focus institutional goals and curricular structures on undergraduate studies in the fields of arts and science, such as philosophy, religion, languages, social sciences, and physical sciences. These colleges focus on broad skills in thinking and writing and confer bachelor's degrees such as B.A. (Bachelor of Arts) or B.S. (Bachelor of Science) and do not offer graduate degrees unlike some liberal arts colleges. These institutions are typically small in size and have residential student enrollments of less than 2,500. Furthermore, Breneman (1994) posited, "a college that is awarding most of its degrees in business administration, nursing, education, engineering, and health professions, and communications is simply no longer a true liberal arts college" (p. 13). Given his definition, the American higher education industry has lost many liberal arts colleges (Breneman, 1994). This study focused exclusively on traditional liberal arts colleges.

Thriving, Surviving, or Endangered?

Through a sobering methodical analysis on the economic conditions of private and small liberal arts colleges in the United States by examining how the changing financial circumstances of the 1980s impacted independent liberal arts colleges, Breneman (1994) declared while some liberal arts colleges are definitely thriving, others are doing their best to survive, and a few are on the verge of closing their doors. Initially, Breneman (1990, 1994) planned to use the Carnegie Foundation's 1987 classification of institutions of higher education to identify the private liberal arts colleges that would be used in the study. Breneman (1990, 1994) divides them into two categories: *liberal arts plus*, which is

essentially small universities, and *liberal arts minus*, which is essentially small professional colleges with few liberal arts majors but usually with a liberal arts core and tradition. After some deliberation and consultation with other scholars, Breneman (1990, 1994) decided to create his own definition of the liberal arts college thereby generating a different list than Carnegie classification and reducing the number of institutions from 540 to 212.

Conceptually, Breneman (1994) concluded that liberal arts colleges represented both an educational ideal and an economic type. Educationally, liberal arts colleges award bachelor degrees and are residential, primarily enroll full-time students between 18 and 24 years of age, and limit the number of majors to roughly 20 to 24 fields in the arts, humanities, languages, social sciences, and physical sciences. The education these institutions provide might be described as pre-professional, for many students enroll in graduate or professional programs upon graduation, but the liberal arts college itself offers virtually no undergraduate professional education. Economically, liberal arts colleges have revenue and cost structures that can be reliably and intelligently compared, for they derive from institutions with similar programs and purposes (Breneman, 1994).

In 2012, Baker, Baldwin, and Makker sought to answer Breneman's question "Are we losing our liberal arts colleges?" through a replication of his 1990 study. The primary question proposed in this updated study was "What is the position of liberal arts colleges in the landscape of American higher education?" (Baker et al., 2012, p. 48). The updated study employed the same methodology for classifying liberal arts colleges. Baker et al. (2012) excluded institutions that did not meet Breneman's (1990, 1994) criteria. The analysis revealed 130 institutions remain as "true liberal arts colleges" out of the 212 Breneman identified in 1990, which is approximately a 39% decline (Baker et al., 2012, p. 51). Of the

130 remaining liberal arts colleges, 91 (70%) were classified as Liberal Arts I (Baccalaureate Arts and Sciences), and the remaining thirty-nine (30%) were classified as Liberal Arts II (Baccalaureate Diverse Fields). Nine institutions originally classified as Liberal Arts I in Breneman's (1990) study were now classified as Liberal Arts II in the 2012 study due to the 50% rule (awarded more than 50%, but less than 60%, of their degrees in professional fields) or the percentage of graduate degrees awarded (Baker et al., 2012).

Using Breneman's classification system, many liberal arts colleges still meet his criteria; yet some were no longer categorized as liberal arts colleges. Regarding the number of degrees awarded in professional fields, the analysis documented some liberal arts colleges increased in professional degrees conferred which was expected given the trend in professional higher education. However, other institutions decreased in the number of professional degrees conferred which Baker et al. (2012) found unexpected. Relatedly, some institutions professional degrees awarded remained unchanged.

While the findings confirmed the drift away from traditional arts and sciences, the Baker et al. (2012) did not discern if liberal arts colleges are disappearing from the higher education landscape or if these institutions are redefining what it means to be a liberal arts college in the 21st century. Of the 82 institutions no longer classified as liberal arts colleges, Baker et al. (2012) noted some interesting trends. Larger institutions due to financial challenges and the threat of closure subsumed a modicum of liberal arts institutions. Additionally, thirty-six institutions changed their mission dramatically in order to introduce a broader range and higher-level of academic programs. Given the research findings, Baker et al. (2012) hypothesized there may no longer be one dominant model of liberal arts college education. As liberal arts colleges evolve, the emergence of different paths to achieve a

liberal arts education may be a strong consideration in the future. Despite the 39% decline in liberal arts colleges since 1990, Baker is optimistic that liberal arts colleges can retain their value while continuing to evolve (Pope, 2012). Baker et al. (2012) did not publish the list of the 130 liberal arts colleges that met Breneman's (1990, 1994) classification criteria. Baker advised the list was not published due to potential political issues that may result given which institutions were and were not on the list (personal communication, August 4, 2015).

Challenges. Currently, TLACs, like all higher education institutions, have been forced to deal with escalating external factors. The most prominent peripheral factors include new learning tools, global considerations, and increasingly diverse constituencies and their growing service demands as expressed by Lang (1999). Although private liberal arts colleges in the 2010s experienced different pressures than they did in the 1980s and 1990s, the survival of this higher education model continues to be at stake. Baker et al. (2012) echoed Breneman's claim, "liberal arts colleges are disproportionately affected by the ever-changing educational environment" (Baker et al., 2012, p. 48). Traditional liberal arts colleges, even the strongest of them, face an uncertain future. "In a market-driven world, the primary threat to liberal arts colleges is found in the marketplace" (Neely, 2000, p. 29). Many of the market forces reach beyond the influence of one individual college or the colleges as a collective whole. Forces such as globalization, cultural trends, and demographic, economic, and geographic shifts, play an integral role in the higher education marketplace. The market defines the need of traditional liberal arts colleges, and it is possible that there are more traditional liberal arts colleges than what is needed (Biemiller, 2016; Koblik & Graubard, 2000).

Recent literature revealed several challenges to today's liberal arts colleges. Baker et

al., (2012) identified residential education cost, competition from new education providers (including online and for-profit educational programs), job market in transition to a knowledge and service-based economy, and vocationally oriented students more interested in financial security rather than liberal arts goals as four powerful threats to liberal arts colleges. The latter two are complementary as students are becoming more attuned with the job market. Other researchers (Breneman, 1994; Docking & Curton, 2015) posited that changing financial circumstances are a predominant challenge for private liberal arts colleges. As liberal arts colleges evolve, they may "lose their distinct purpose" (Breneman, 1990, p. 5) and their educational purpose becomes less clear (Baker et al., 2012). Based on the literature, five themes persisted as dominant issues for traditional liberal arts colleges: finances and costs conditions; competition; transition in economy from knowledge to service; mission creep; and enrollment decline.

   Finances and costs. The cost for institutions to provide higher education has continued to increase since the 1980s (Archibald & Feldman, 2010). Several factors influence the costs of higher education including but not limited to maintenance and creation of new facilities, employee salaries and benefits, federal and state funding, endowments, and tuition. Tuition plays a much larger role in private higher education. "In the American 'system' of higher education, small independent colleges are the most vulnerable institutions; often lacking sizable endowments, heavily dependent on tuition, and without direct support from government, these colleges can fail if times are hard enough" (Breneman, 1994, p. 20). Similarly, Koblick and Graubard (2000) indicated that more than three-quarters of liberal arts colleges' revenue come from tuition, net of the revenues they rebate to students in the form of student-aid grants. Typically, the remaining revenue derives from income on endowment,

which unfortunately can vary from year to year depending on the prevailing economic conditions. Thereby causing numerous institutions to rely on an inconsistent financial contribution that influences the operating budget.

Breneman (1994) explained in order to maximize the quality and diversity of the student body and the quality of faculty and facilities as well as other related educational resources, colleges must incur operating and capital costs, which are covered by total revenues. Tuition is the most important revenue source for the majority of private colleges; thus, the tuition rate is a key decision variable that each college sets annually. Since tuition is the dominant revenue stream for these institutions, the linkage among the published tuition price, unfunded student aid, and enrollments is the central financial puzzle each institution must solve if the financing of traditional liberal arts colleges is to be understood as said by Breneman (1994). Offering more institutional aid to compete for the best students can be a problematic trend for traditional liberal arts colleges. More prominent liberal arts colleges can use their substantial resources to subsidize their education program and to help provide financial discounts, yet less prominent liberal arts colleges, which happen to be the majority of traditional liberal arts colleges, lack the resources to provide deep subsidies to their educational efforts or to help finance student-aid as suggested by scholars, Breneman (1994) and Koblick and Grabuard (2000). Ultimately, the lack of customer base (students) that is willing and able to cover the costs of enterprise is the foundational problem.

Further, Docking and Curton (2015) feared that small liberal arts colleges are going to run out of money, reach insolvency, close their doors, or be swallowed up larger state universities as satellite campuses over the next several years. The findings from the Breneman (1994) and Baker et al. (2012) research studies confirmed that Docking and

Curton's fears are warranted. According to Docking and Curton (2015), in 2011 150 small private colleges failed the federal financial responsibility audit. This type of fiscal failure suggests that the category of traditional liberal arts colleges have a vulnerable economic future.

Competition. Liberal arts colleges have the problem of sustaining their traditional academic character in a competitive environment (Lang, 1999). Despite the fact that many liberal arts colleges are experimenting with ways to adapt their educational model and to connect it more directly with the world beyond campus and with career opportunities (Baker et al., 2012), the competition within higher education remains aggressive. These traditional institutions must compete with universities that provide more undergraduate courses including studies in the technical and professional fields, which are in high demand (Breneman, 1990). Traditional liberal arts colleges continue to face growing competition from the public sector of higher education. According to Docking and Curton (2015), traditional liberal arts colleges are not in competition with each other but with larger public universities. Docking regrettably stated, "you really take your life into your own hands thinking that a pure liberal arts degree is going to be attractive enough to enough 18-year-olds that you fill your freshman classes" (as cited in Pope, 2012, para 9).

Although competition previously existed, the competition has been exacerbated by the continual decline in federal and state student aid. According to Breneman (1994), public universities have created honors colleges that imitated the best features of the liberal arts colleges thereby requiring these public institutions to engage in more private fundraising. Further, competition often increases costs. Koblick and Graubard (2000) suggested that rivalry within the liberal arts sector leads colleges to increased costs and prices. Increased

prices consequently can cause sticker shock for potential students and possibly deter many diverse and able students from applying.

Transition in economy from knowledge to service. Breneman (1994) and Baker et al.'s (2012) analyses revealed a historical trend towards more professional education and less of pre-professional education that liberal arts colleges provide in the American higher education system. As a result, many liberal arts colleges have abandoned or reduced their traditional arts and sciences curriculum in order to provide more vocational and career focused curriculum to aid students with entrance into the job market. In 1990, Breneman's findings indicated that many liberal arts colleges were beginning to evolve into more career-oriented "professional colleges" where majority of the students major in professional fields, such as nursing, business, or health as opposed to arts and sciences disciplines, such as English, biology, or history. As a result, the professional college is becoming more prominent.

Some scholars, such as Delucchi (1997) and Koblik and Graubard (2000), argued many liberal arts colleges attempt to maintain the liberal arts title, but the curriculum of these institutions is inconsistent with the liberal arts college mission. Thus, the term "liberal arts represents nostalgia more than the curriculum" (Neely, 2000, p. 36). According to Delucchi (1997), many of these institutions have passed the tipping point at which they relinquish their liberal arts college roots and therefore have become a different type of institution.

Breneman (1990), Delucchi (1997), and Lang (1999) suggested that traditional liberal arts colleges have added programs in professional fields in order to attract vocationally oriented students. Since 1972, this shift from liberal arts fields to professional education became a dominant strategy to ensure survival by hundreds of private colleges (Breneman,

1994). Recently in response to the job market transitioning to a service-based economy, many traditional liberal arts colleges have chosen to supplement traditional classroom learning strategies and exclusively arts and sciences–based curricula with more vocationally oriented fields and associated experiential learning opportunities (Baker et al., 2012). According to Koblik and Graubard (2000), American higher education is seen as credentialing in order to provide a certificate that an individual will be able to exchange for a job; yet, the best American traditional liberal arts colleges recognize that their product of intelligent living is something other than a negotiable instrument designed to guarantee employment. Delucchi (1997) reported, "Enrollment concerns in recent years have compelled many liberal arts colleges to abandon or sharply scale back their arts and sciences curriculum in order to accommodate student preoccupation with the immediate job market" (p. 414). In the American Freshman Survey in 1966, more than 80% of respondents identified "Develop a meaningful philosophy of life" as a the purpose of college, but by 1990, this figure decreased below 50% according to Neely (2000). Conversely, in 1966 45% of respondents listed "Be very well off financially" as the purpose of college, but by 1990, this figure had risen to more than 70% (Neely, 2000, p. 37).

 Mission creep/confusion. Curriculum and pedagogical techniques should not be stagnant and therefore need to be updated cyclically. Likewise, Lang (1999) suggested that "liberal arts education must periodically refresh the substance of its mission--most immediately by adapting its content and structure to address the needs and objectives of a democratic society that has undergone and continues to undergo major transformation" (p. 138). This is not a new concept. However, there is substantial difference between refreshing and shifting focus.

The Yale Report of 1828 clearly outlined that the mission of liberal arts education was to provide a superior foundation for thinking, yet this mission is often debated and in jeopardy. According to Aldersley (1995), mission creep is "the tendency of institutions to introduce higher-level programs" (p. 51). Mission creep is also referred to as mission drift (Jaquette, 2013). As many liberal arts colleges look to survive, some of these institutions adjust their original education missions in the arts and science in order to teach professional subjects that are higher in demand (Breneman, 1994); thus, these institutions have become victim to mission creep and are no longer considered traditional liberal arts colleges. Furthermore, Delucchi (1997) posited that many institutions claim the liberal arts academic mission statement; however, their professional curriculum is inconsistent with mission. This incongruence effects the institutional purpose. Along with the findings of Brint, Riddle, Turk-Bicakci, and Levy (2005), Morphew and Hartley (2006), Hartley (2014), and Baker et al., (2012) suggested that liberal arts colleges are in these predicaments because they desire to maintain legitimacy with key constituents so they emphasize liberal arts education in their mission statements when in fact their curricular offerings may paint a different picture. Furthermore, Neely (2000) indicated that many colleges call themselves liberal arts colleges but the term represents sentiment more than the curriculum. "Hundreds of colleges still place the name liberal arts upon themselves, but in fact they graduate thousands of students in nursing, journalism, criminal justice, business, and almost any undergraduate degree to match a job that one can image" (Neely, 2000, p. 36).

Baker et al. (2012) reported that a handful of liberal arts colleges have been absorbed by larger institutions due to fiscal challenges and thirty-six institutions changed their mission dramatically thereby indicating mission creep (Aldersley 1995). Some former liberal arts

colleges desire to move toward the model of a more comprehensive institution offering a broader range of academic programs as surmised Baker et al. (2012). Jaquette (2013) posited that a change in organizational name, such as Aurora College to Aurora University, symbolizes the transition from a liberal arts mission to a comprehensive university mission. Additionally, Jaquette found that the name shift from college to university is often in response to declining freshmen enrollments, prior adoption of curricula associated with the comprehensive university model, and when network contacts previously became universities.

Unfortunately for some liberal arts institutions, their only means to survive in such a rapidly changing marketplace is to change and become less traditional and more of a small professional college, which Breneman (1994, 1990) referred to as *liberal arts college plus*. Institutions need clearly defined missions expressed and understood by all stakeholders. Mission ambiguity can cause confusion and leave the mission of the institution open to interpretation. According to Neely (2000), liberal arts colleges that are not the most or least highly selective suffer the greatest from uncertainty about their mission because they seek economic salvation in meeting student demands for specialized training.

Numerous liberal arts colleges are shifting and changing in order to remain competitive in the higher education marketplace. For example, MacMurray College, founded in 1846, initially had the mission "for the intellectual and moral education of women in the interests of government and society" (MacMurray College, 2016b, para. 1), but is currently advertised "as a four-year, career-directed college with a strong liberal arts tradition, committed to preparing graduates for satisfying and productive professional careers, effective leadership, and enriched lives of continuing learning, achievement, and service" (MacMurray College, 2016a, para. 1). This present day mission shift example clearly demonstrates the

evolution Breneman (1994) discussed. Ultimately, the shift in the labor market for more college graduates increased the student-demand to move from liberal arts to professional. Thereby, prompting scholars to question the sustainability of the liberal arts college model.

   Enrollment decline. Student choice of where to attend colleges are influenced by the price as indicated by economic scholars, such as Archibald and Feldman (2010). As stated by Breneman (1994), "A rough rule of thumb often mentioned in discussions of small colleges is that financial problems intensify when enrollment falls below 1,000 students--there are simply too few students to carry the necessary overhead costs" (p. 129). Consequently, declining enrollments lead to cost cutting measures, which visibly harms quality thereby further decreasing enrollment and causing a dismal cycle (Neely, 2000). Several traditional liberal arts colleges have seen steady declines in enrollment since 2000 (Flaherty, 2015). According to Docking and Curton (2015), if their new enrollment model failed at Adrian College, then the college would have quickly gone out of business and defaulted on several million dollars in loans. Traditional liberal arts colleges provide a specific educational alternative for undergraduate education (Baker et al., 2012). The aforementioned challenges could cause these institutions to morph into another type of higher education alternative--the small professional college that Breneman (1994) predicted or even worse become extinct. This section provided an overview of related research literature regarding liberal arts colleges specifically traditional liberal arts colleges, which informs the broad context for this study.

Online Learning in Higher Education

   Recent national research studies indicated that students are enrolling in more online courses than ever (Allen & Seaman, 2010, 2012, 2013, 2014, 2015, 2016). Present-day trends

indicate a rise in the demand of online and hybrid courses from higher education students with over 28% of enrolled students taking at least one online course, which equates to over 5.8 million online students (Allen & Seaman, 2016). Due to popularity and demand of online education, 63.3% of chief academic officers are integrating online learning into their long-term strategic planning (Allen & Seaman, 2016; Chen, Lambert, & Guidry, 2010). However, Allen and Seaman (2015) and Bidwell (2014) implied the rate of growth is at the slowest pace in a decade and seems to be plateauing. The current demand for online education is being met by more than a thousand degree-granting institutions including public, private, and for-profit institutions; thus, creating intense competition in a limited marketplace. Some colleges and universities are investing time, energy, and resources in providing online courses and program offerings, while others are not. This section provides an historical overview of online education, highlights the current state of online higher education in America, and examines salient factors and barriers of online higher education adoption.

History of Online Education

Online education and learning has roots in the tradition of the broader category of distance education, which goes back more than 100 years to early correspondence courses (Braude & Merrill, 2013; Means, Toyama, Murphy, Bakia, & Jones, 2009). The fundamental premise of distance education is that students and teachers are separated by space, time, or both for the majority or the complete duration of teaching and learning (Moore & Kearsley, 2004). According to Holmberg (2005), the origins of distance education can be traced to early mid-18th century when novel shorthand writing teacher Caleb Phillips who lived in the city of Boston suggested that people outside of the city could participate in his learning program by having lessons sent to them each week without diminishing the quality of

instruction. This type of distance education is referred to as a correspondence course and is first generation of distance education (Braude & Merrill, 2013; Means et al., 2009). Generally, distance education has gone through either three (Anderson & Dron, 2010; Bates, 2005; Keegan, 1993) or five generations (Anderson, 2008; Taylor, 2001), depending on whether the focus is on the adopted technology or on the pedagogical approach. Correspondence study is universally recognized as the first generation (Anderson, 2008; Anderson & Dron, 2010; Bates, 2005; Keegan, 1993; Taylor, 2001). With correspondence study, the mode of delivery was through the postal service and provided a slow, one-to-one communication between instructors and students through written work. Students received paper-based course materials from the instructor using the postal service, and the students would follow the directions of the instructor and return written assignments for evaluation, grading, and feedback (Holmberg, 2005). The instructors would evaluate the students' written work and return it via the postal service.

According to Keegan (1993), the second generation of distance education utilized broadcasting as simpler and faster delivery of learning material. Like the correspondence study, the interaction was quite limited (Bates, 2005; Garrison, 1985). The advent of broad availability of audio conferencing technology in the mid-1960s enabled distance education with limited student-student interaction through two-way communication (Anderson & Dron, 2010). Following audio conferencing, video conferencing was available although it was not widely adopted due to the high equipment costs (Garrison, 1985). For the most part, video technology was viewed as a one-way communication in which the instructors would transmit video to students. Bates (2005) and Keegan (1993) considered broadcasting and conferencing to be two forms of the same, a second generation of distance education while other

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researchers including Anderson (2008) and Taylor (2001) considered them as separate generations thereby causing a discrepancy in the number of distance education generations that scholars report. In addition to educational benefits, De Vaney and Butler (1996) discussed how scholars such as Robert Gagne, Charles F. Hoban, Jr., and Kenneth Norberg contributed to the growth and development of educational technology preceding, during, and after World War II. The final generation of distance education (could be third or fifth) employs digital computing technology, the Internet, and the World Wide Web, which had an all-encompassing impact on the domain of education (Siemens, Gašević, & Dawson, 2015). This generation of distance education provides an opportunity for interactive, two-way communication among students and instructors.

The global shift towards knowledge-based work within the last 50 years has made distance education highly relevant today (Hanna, 2003; Siemens et al., 2015). Additionally, the inherent need to transcend physical distance between students and instructors, distance education has always been highly dependent on the current state of technological development (Anderson & Dron, 2010). Thus, the scope and definition of distance education evolves as new forms of educational technology develop. According to Moore and Kearsley (2004), the introduction of digital technology has also brought a plethora of different terms and abbreviations, such as online learning, web-based learning, blended learning, elearning, learning management systems (LMS), computer-aided instruction (CAI), computer-supported instruction (CSI), computer-based learning (CBL), technology-enhanced learning (TEL), Internet-based training (IBT), and virtual learning environments (VLE), which to a large extent all fall under the umbrella term of distance education.

The history of distance education has taught us that the general public will readily assume that the technology alone can transform education (Blin & Munro, 2008); however, this assumption has proven to be inaccurate several times. For example, educational television technology was proclaimed to revolutionize learning, yet this technology did not reform education as predicted. Clark (1983) argued that different educational technologies and media are mere vehicles that deliver instruction, and the modality does not influence student achievement. Instead, it is the pedagogical techniques and instructional design that influence how well students learn. Overall, behaviorists and cognitive models of learning in which the locus of control is heavily on the teacher and instructional designer characterized distance education pedagogy, and the student primarily learns individually (Anderson & Dron, 2010).

Online Education Approaches

According to Allen and Seaman (2015), courses can be classified into four different models: traditional, web-facilitated, blended/hybrid, and online. Allen and Seaman have utilized these definitions consistently in national reporting on state of online higher education since 2003. A traditional course has no online technology used in instruction, and the content is delivered in writing or orally. A web-facilitated course uses web-based technology, such as a learning management system or course website, to facilitate what is essentially a face-to-face course with 1-29% of course content delivered online (Allen & Seaman, 2015). A blended/hybrid course combines online and face-to-face learning with 30-79% of course content delivered online. Typically, blended/hybrid courses use online discussions and has reduced the number of face-to-face meetings. Other scholars, such as Bernard, Borokhovski, Schmid, Tamim, & Abrami (2014) indicated that courses with at least 50% of course content

delivered online are classified as blended/hybrid courses. An online course delivers most or all (80% or more) of course content online. Online courses typically do not have face-to-face meetings. The definitions of these course models vary greatly within the literature.

Unlike earlier online programs that tended to implement only one model or the other, current online learning affords rich educational resources and technologies in multiple media forms that support both synchronous and asynchronous communication between instructors and learners according to Means et al. (2009). Different technology applications support different models of online learning. "More recent applications tend to combine multiple forms of synchronous and asynchronous online interactions as well as occasional face-to-face interactions--a blended learning approach" (Means et al., 2009, p. 1). This blended learning approach has become increasingly popular among higher education constituencies (Kim & Bonk, 2006). Blended learning is often touted as ideal because it integrates both online learning including asynchronous and synchronous with traditional classroom learning. Means, Toyama, Murphy, and Baki (2013) conducted a meta-analysis regarding the effectiveness and online learning. According to Bernard et al. (2014), this research has been the only meta-analysis devoted to blended learning to date. While acknowledging the difficulty with controlling for time spent outside of class and the somewhat unequal distribution of materials used in blended learning, Means et al. reported that blended learning conditions were found to significantly outperform traditional face-to-face classroom instruction where no blending occurred. Researchers (Bernard et al., 2004; Means et al., 2013) cautioned that the pedagogical setups for blended learning do make a difference. The major findings from the Bernard et al. (2014) and Means et al. meta-analyses revealed that there is a general consensus of the effectiveness of online learning compared with traditional

classroom instruction which indicates there is little difference in these two instructional modalities. Yet, Bernard et al. reported wide variability among studies, from those strongly favoring online learning to those favoring classroom instruction.

In addition to these four models, flipped classroom and massive open online courses (MOOCs) are two additional models that have emerged in the online higher education landscape in recent years. In a flipped classroom approach, the student interacts with the learning concepts outside of class, which could be in the form a video or websites, and then the student uses class time to practice what he/she learned. The flipped classroom allows the instructor and peers to be available to students as they are practicing and working through activities and assessments. MOOCs are courses available to anyone via Internet, and many of the nation's highly selective institutions including Harvard, Princeton, and Stanford have been pioneers in developing this new format (Selingo, 2012). The premise of MOOCs is that the general public and students at various institutions would have access to some of the top scholars in a number of fields and topics. In the early 2010s, MOOCs were predicted to be a disruption to higher education (Horn & Christensen, 2013) thereby affecting the price, pedagogical techniques, and access higher education. Similar to the educational television prediction, however, MOOCs to date have not revolutionized education as forecasted.

Quality, Effectiveness, and Legitimacy

Even as online enrollment continues to grow, concerns remain about the legitimacy, effectiveness, quality, and value of online education in higher education. The debate about the effectiveness of online learning has historically been debated in terms of how electronic delivery of instruction compares with other forms of delivery, particularly traditional

classroom delivery, which remains the most common form of instruction in higher education as indicated by Bell and Federman (2013).

Quality. Quality of online education seems to be of primary concern of many higher education administrators, faculty, and students. According to Kim and Bonk (2006), much of literature attempts to assess quality through two measures: student achievement and student satisfaction. Overall, the academic achievement literature has shown mixed reviews; however, some researchers including Allen and Seaman (2015), Bartini (2008), and Means et al., (2009), indicated that online learning can be at least as effective as traditional classroom instruction. Hill, Wiley, Nelson, and Han, (2004) posited that student satisfaction in online programs indicated both satisfied and dissatisfied students similar to findings of traditional classroom instruction. More recent research conducted by Blankson and Kyei-Blankson (2008) revealed that students are satisfied with blended and fully online programs. However, some students have been so displeased with their online degree experience that they have filed class-action lawsuits against certain institutions claiming "the program doesn't live up to its promise of being designed for an online setting and not a physical classroom" (Straumsheim, 2016, para. 2). In addition to student achievement and satisfaction, faculty training and support contribute to the quality of online education (Kim & Bonk, 2006). According to Kim and Bonk (2006), in order to implement changes in the teaching process or transition from a traditional learning environment to an online environment, faculty must receive adequate institutional leadership support.

Effectiveness. Among researchers, views on the relative effectiveness of online and traditional instruction are divided into two primary perspectives. The first perspective is online learning (and other forms of elearning) should be no more or less effective than any

other form of instructional delivery (Bell & Federman, 2013). As with any type of instruction, online learning effectiveness relies on the design of the holistic instructional experience that accounts for instructional design, pedagogical approaches, and teacher practices as remarked by Bell and Federman (2013). The second view suggests that online learning (and other forms of elearning) provide a unique learning experience that can lead to improved academic outcomes. Bonk and Kim's (2006) survey findings supported this latter view in that respondents predicted that learner-centered techniques used in the online education indicated a shift from traditional teacher-directed approach.

Online learning falls within the broader scope of elearning (also referred to as electronic learning). According to Bell and Federman (2013), elearning research has been hindered by several important methodological limitations including single group pretest which can lead to an upward bias in effect sizes, post-test designs, and non-random assignment in which participants may have the ability to self-select into different instructional conditions. Although these deficiencies are sometimes beyond the control of researchers, they have nonetheless led researchers, such as Bell and Federman (2013), to question the validity of such research findings. Despite the acknowledged shortcomings, Bell and Federman (2013) concluded that existing meta-analyses provide the most comprehensive assessment of the effectiveness of elearning relative to other delivery media. Consequently, Bell and Federman (2013) focused on four meta-analyses regarding elearning research.

Out of the elearning meta-analyses discussed by Bell and Federman (2013), one analysis focused exclusively on online learning. The U.S. Department of Education Office of Planning, Evaluation, and Policy Development Policy and Program Studies Service conducted a systematic search of the research literature from 1996 through July 2008 that

identified more than a thousand empirical studies of online learning (Means et al., 2009).

Findings from the meta-analysis revealed that, on average, students in "online learning conditions performed better than those receiving face-to-face instruction" (Means et al., 2009, p. ix). Additionally, findings from the experimental and quasi-experimental studies indicated that blended/hybrid instruction had a larger advantage relative to exclusive traditional classroom instruction or online instruction (Means et al., 2009), which provides a rationale for the effort required to design and implement blended learning approaches.

More recently, Bernard et al. (2014) conducted a meta-analysis in order to understand of the effectiveness of blended learning in higher education. Similar to Means et al. (2009) and Bell and Federman (2013), Bernard et al. (2014) expressed the methodological problems associated with conducting this type of research. Bell and Federman (2013) and Bernard et al.'s (2014) findings specified minimal difference between online education and traditional classroom instruction, which contradicted the earlier findings by Means et al. (2009). Furthermore, a meta-analysis conducted by Jaggars and Bailey (2010) disputed previous meta-analytic researched that favored online and hybrid learning over traditional learning. According to Jaggars and Bailey, those findings did not hold true for the studies included in the meta-analysis that pertained to fully online, semester-length courses. The review of current literature demonstrated wide variability among scholarly studies, from those strongly favoring online education to those favoring classroom instruction. Isolating variables and investigating a phenomenon as complex as online learning experiences for comparison has proven to be a challenge for scholars. Consequently, more consistent, rigorous research regarding online education is warranted.

Legitimacy. Regardless of the differences in the empirical studies, more general

surveys and polls conducted by various research groups signal that skepticism still exists

regarding the validity of online education. According Allen and Seaman (2016), since 2007

no more than one third of academic officers reported that their faculty accepted the value and

legitimacy of online education. Additionally, in 2014 Allen and Seaman reported that many

academic leaders at for-profit institutions are concerned about the level of acceptance of

online degrees by potential employers. Furthermore, a Gallup poll conducted in 2013

declared Americans' views toward online learning were still "tepid at best" (Saad, Busteed,

& Ogisi, 2013, para. 3). In fact, the Gallup poll indicated that many Americans tend to think

the quality of both the instruction and the instructors for online learning is far below that of

traditional classroom education. Moreover, nearly half of the Americans polled said they

believe online degrees are less accepted by employers (Saad et al., 2013). Likewise, a survey

administered to employers from the nonprofit organization Public Agenda illustrated that

56% of employers preferred applicants with traditional degrees from average universities

over those with an online degree from a top university (Bidwell, 2013). Still, nearly half of

same surveyed employers indicated that online programs require more discipline and self-

regulation on part of the student. Results from a more recent Gallup poll (Calderon &

Soreson, 2014) corroborated the Public Agenda's findings (Bidwell, 2013) as nearly half

(47%) of American business leaders say they would hire someone with an online degree to

work for their companies. The 2014 Gallup poll found that although trust in the quality of

online education remains relatively low in comparison to trust in the quality of brick-and-

mortar institutions, the public's confidence in the graduates of online programs is much

higher. More than half of adults surveyed (59 %) said that, all else being equal, employers

are at least somewhat likely to hire a graduate of an online program (Calderon & Soreson, 2014), which alludes to an optimistic outlook for advocates of online higher education.

Institutional Motivation for Adopting Online Learning

The most cited reasons for the growth in online learning in the nation's colleges and universities include the aspirations to improve access (Braude & Merrill, 2013; Campbell & Campbell, 2011; Christensen & Eyring, 2011; Kuenzi, Skinner, & Smole, 2004; Lake & Pushchak, 2007; Parsad & Lewis, 2008; Pianko & Jarrett, 2012; Picciano, 2006; Radford, 2011; Rudestam & Schoenholtz-Read, 2010), generate new revenue streams (Christensen, Horn, Caldera, & Soares, 2011; Curran, 2004; Means et al., 2013; Twigg, 2005), offer students and faculty greater scheduling flexibility (Bacow et al., 2012; Bell & Federman, 2013; Bidwell, 2014; Chau, 2010; Compton & Schock, 2000; Graham, Woodfield, & Harrison, 2013; Jaggars & Bailey, 2010; McPherson & Bacow, 2015; Parsad & Lewis, 2008), improve efficiency (Bacow et al., 2012; Means et al., 2009; Twigg, 2005), increase retention (Bacow et al., 2012; Scholz, 2013; Twigg, 2005), and respond to space constraints (Bacow et al., 2012; Gabriel, 2010; Graham et al., 2013; Twigg, 2005). Additionally, some researchers, including Allen and Seaman (2015), Campbell and Campbell (2011), and Sitzmann, Kraiger, Stewart, and Wisher (2006) suggested refining learning outcomes, increasing technology exposure for students, and reducing gas emissions as additional motivational factors for the adoption online in the higher education industry. Substantiated with empirical research and popular press and media, the following sections specify driving factors for online higher education adoption.

Improving access. In the Higher Education Amendments of 1998, Congress declared, "Distance education holds the promise of expanding access to higher education at a

time when the number of postsecondary students will be expanding, including those seeking retraining and those in rural communities without access to local colleges and universities" (H.Rept. 105-481, p. 144). The goal of improved access is one of the top drivers of institutional decision-making regarding increases in online education offerings (Parsad & Lewis, 2008). According to Allen and Seaman (2015), online courses and programs have provided millions of potential students with access to college who would otherwise might have been denied because of time or geographic constraints. Likewise, Parsad and Lewis (2008) suggested 67% of students now have access to a college education who previously would not have had access. The fact that nearly 6 million students taking online courses today is sufficient evidence that this modality is meeting a clear demand on the part of students (Allen & Seaman, 2016).

Nontraditional students. In 1996, Horn and Carroll defined non-traditional students based on the following criteria: "delayed enrollment into postsecondary education; attended part time; financially independent; worked full time while enrolled; had dependents other than a spouse; was a single parent; or did not obtain a standard high school diploma" (p. i). Horn and Carroll (1996) suggested if a student has even one of these identified characteristics, he/she is considered non-traditional; two to three, moderately non-traditional; and four or more characteristics, extremely non-traditional. Bacow et al. (2012) extended Horn and Carroll's definition of non-traditional student to include "older students who are attending school while employed, students who are located some distance from campus, including those in rural areas, disabled students, active military students, and students in urban settings with high commuting costs" (p. 10). Institutions need to be cognizant of the different academic and social needs of non-traditional students and implement appropriate

planning techniques in order to identify and meet their diverse needs as well as continuing to serve traditional students (Lake & Pushchak, 2007). Many working adults are unable to participate in traditional campus life due to time constraints, limited finances, or even personal and professional obligations (Bell & Federman, 2013; Chau, 2010; Jaggars & Bailey, 2010; Means et al., 2009; Rudestam & Schoenholtz-Read, 2010; U.S. Department of Education, National Center for Education Statistics, 1996).

In 2016, Academic Partnerships reported that nontraditional students account for 74% of all American postsecondary students (Academic Partnerships, 2016). Further, Carnevale and Olsen (2003) claimed there were an estimated "70 million working adults [who] have never earned a college degree" (para. 9). Similarly, Curran (2004) insinuated widening access to education is still commonly associated with providing a second chance opportunity for mature students to earn a baccalaureate degree, especially for individuals who did not have a chance to attend college or university during late adolescence or early adulthood. With such a large number of working adults who have not obtained a college education, this population presents a large untapped education market available to higher education institutions. Consequently, many institutions are currently incorporating or intend to integrate online education as a means to reach and meet the diverse needs of the non-traditional student population. The attractiveness of pursuing a degree online, at home, fitting into their already busy personal and work schedules, offers an appealing alternative for many working adults.

A commitment to improving access to education, especially for non-traditional students, is a common goal of many institutional online strategies (Compton & Schock, 2000; Curran, 2004; Lake & Pushchak, 2007; Pianko & Jarrett, 2012). According to Curran

(2004), the importance of various goals to institutions' distance education programs (a high proportion of which use online technology as a primary or supporting medium of instruction), two out of three U.S. four-year public institutions indicated that increasing student access was a very important goal; either by "making courses available at convenient locations" (72%), or by "reducing time constraints for course taking" (66%) (p. 4). The corresponding figures for four-year private institutions were also high (65% and 61% respectively). In the United States, 69% of four-year public institutions reported that "increasing the institution's access to new student audiences" (p. 4) was an important goal of their distance education courses, and the corresponding figure for four-year private institutions was 64%. Further, Compton and Schock (2000) stated, "In addition to convenience, most distance learning courses don't require new or different technology than students may already own" (p. 17), which undoubtedly has contributed to the rise of enrollment of non-traditional students in American postsecondary education.

Moreover, online education allows American institutions to tap into the global higher education marketplace. Bacow et al. (2012) specified that many private institutions are utilizing online teaching to expand internationally. The researchers cite Georgetown University as an example institution that uses online classes to establish stronger connections between its main campus and its Qatar campus. Online education provides a way to explore international opportunities particularly in areas where a high demand for English-language education.

Furthermore, online technology supports educational opportunities for homebound students and students with mobility disabilities (Picciano, 2006; Radford, 2011). The U.S. Department of Education reported that students with mobility disabilities enrolled in distance

education courses more often than students without disabilities (26% compared with 20%) (Radford, 2011). Moreover, Rudestam and Schoenholtz-Read (2010) also suggested that online education allows military personnel whose careers/jobs require them to travel to continue their education and obtain degrees and certifications.

Additionally, Hanna and Associates (2000) cited consumer demand as the primary factor creating new forms of distance learning. In addition to increased student access, demand comes from the need for and interest in lifelong learning and professional and work-related training. Thus, many university administrators attribute the growth of their online programs to student demand. In addition to earning credit for undergraduate or graduate programs, many institutions are also using online education to provide continuing education for existing professionals.

Traditional students. In addition to improving access for non-traditional students, Pianko and Jarrett (2012) suggested that increasingly traditional-age students (ages 18-24) are leveraging online learning environments due to its flexibility, convenience, and cost. Online education removes the geographic location barrier that hinders numerous traditional and non-traditional students from pursuing higher education. Online education supporters argue that this type of learning and education has the potential to improve access to higher education among lower-income and academically underprepared students regardless of age. However, Jaggars and Bailey (2010) pointed out that there is little evidence to support the claim that online learning has increased college access or academic success for low-income and underprepared students. According to Bell and Federman (2013), online learning makes postsecondary education more affordable and expands geographic access to include rural areas. This declaration was supported with empirical evidence from a Pennsylvania case

study conducted by Lake and Pushchak (2007). Regarding the contemporary issues and the state of higher education in 2012, scholars Kurre, Ladd, Foster, Monahan, and Romano (2012) proclaimed,

> In its current iteration, online education is an equal opportunity phenomenon: All colleges and universities have a similar opportunity to take in learners far outside the geographical area from which they have traditionally drawn their student body. Smaller schools can act big by using technology to benefit from inbound marketing. (p. 235)

Overall, online education provides access to numerous types of learners from varied demographic backgrounds.

Additionally, anytime anywhere learning is becoming more synonymous with online learning. Means et al. (2009) indicated that online learning has become popular because it provides "flexible *access to content and instruction at any time, from any place* [author emphasis]" (p. 1). Online education and learning affords locale convenience for non-traditional and traditional students as well as faculty and staff. Findings on distance education at Title IX degree-granting postsecondary institutions conducted by the U.S. Department of Education cited the most common factors affecting distance education decisions were meeting student demand for flexible schedules (68%) (Parsad & Lewis, 2008). According to Bacow et al. (2012) and Foster (2015), some institutions develop online courses to meet the needs of traditional students who desire to take courses in the summer so they can remain on track for graduation or move ahead to graduate earlier than originally expected, which could have retention implications.

Busteed commented, "adult learners already often turn to online education for its flexibility and convenience, but if they also believe it can provide a quality degree, 'that's going to change the game' (as cited in Bidwell, 2014, para. 10). Further, Picciano (2006) stated that online learning provides more convenient access to urban and suburban students who lead busy lives combining career/work/family responsibilities. Computing technologies provide an opportunity for self-paced and student-centered learning, and asynchronous online learning in particular afford students the freedom to work on the course material when they have time, perhaps after work hours or on weekends (Bidwell, 2014; Scholz, 2013). Similarly, recorded video lectures can be paused at any point so students can take notes without missing what is explained next. Additionally, students can also view video examples or read supplementary materials linked to the lecture. Furthermore, Braude and Merrill (2013) suggested synchronous discussion threads and synchronous online chatrooms may be less intimidating for those students who are more comfortable in online social environments than in live physical classroom environments.

Increasing economic returns. Numerous scholars and practitioners mentioned economic returns and financial benefits that accompany the adoption of online higher education including generating new revenue streams, increasing enrollment, decreasing facilities cost, and lowering the overall costs of higher education. Many scholars and practitioners examined the economic benefits of online higher education.

New revenue streams. Academic Partnerships (2016) suggested that as late as 2008, public universities left a majority of the online education market to the for-profit institutions. Slowly, however, public universities have recognized the immense opportunity in the online world and are now active contributors in the online education marketplace. In a study

exploring the key obstacles to widespread adoption of online learning at traditional colleges and universities, Bacow et al. (2012) reported that the most common rationale for the development of online degree programs among the sample institutions was the desire to generate new revenue streams by reaching students who would not otherwise enroll in traditional degree programs. According to McPherson and Bacow (2015), asynchronous online courses in particular are attractive to institutions because of their low marginal cost and their potential to expand markets substantially by offering credit-bearing courses to students in various geographic locations. In times of budgetary scarcity, numerous institutions view online education as a significant revenue source. However, Bacow et al. (2012) indicated not all institutions reported net revenue from their online learning programs.

For the institutions that did report an increase in net revenue they typically had established a separate program with a different (usually lower) cost structure often using less expensive space, adjuncts or other lower cost faculty, and a separate administrative mechanism while charging equal or greater tuition than traditional onsite courses. According to Bacow et al. (2012,) many public institutions are using the revenue generated from online education to counterbalance declines in public appropriations or to supplement faculty compensation; meanwhile, private institutions are using online education revenues to either address budgetary shortfalls or to directly support traditional modes of instruction. Although lower overall higher education costs are often cited as one of the primary reasons for adopting online education (Campbell & Campbell, 2011; Christensen & Eyring, 2011; Curran, 2004; Means et al., 2009; Means et al., 2013; Twigg, 2005), Bacow et al. (2012) suggested that very few institutions use online education revenue to reduce the price of higher education to students.

Chau (2010), an opponent of online higher education, argued that the online learning movement is purely motivated by capitalistic ideals in an increasingly knowledge-based economy whereby "education is transformed into a commodity, students into consumers, faculty into entrepreneurs, and institutions of higher learning into storefronts" (p. 178). Thus, he alluded that there are revenue gains with the utilization of online higher education.

Increasing enrollments. According to Bell and Federman (2013), online education attracts new students, which creates new revenue streams. Similarly, Curran's (2004) study indicated that 58% of four-year public institutions and 57% of four-year private institutions ranked increasing institution enrollment as important to their institutions. Further, Parsad and Lewis (2008) suggested 45% of the institutions they studied were seeking to increase student enrollment through increasing online education efforts. Likewise, university faculty and administration conjectured that the potential enrollment growth could be obtained by pursuing online programming as implied by Lake and Pushchak (2007). Furthermore, Twigg (2005) expressed a widespread problem in many states is that the demand for higher education is far greater than what can be met through existing traditional delivery modes. As a result, incorporation of online learning technologies and strategies, such as National Center for Academic Transformation hybrid-like redesign methodology, enables institutions to increase enrollments and provide greater access while maintaining the same or even a reduced level of investment.

The works of Bacow et al. (2012), Gabriel (2010), Graham et al. (2013), and Twigg (2005) suggests that some institutions are capitalizing on online education in order to avoid constructing new facilities or, alternatively, to avoid having to offer classes or sections at times that are perceived to be unattractive to students and faculty. Thus, online education is

viewed as an alternative to new construction and as a way to grow enrollments within the physical enrollment caps at numerous institutions including the University of Central Florida (Twigg, 2005), George Washington University's Foggy Bottom campus (Bacow et al., 2012), and Brigham Young University (Graham et al., 2013). Many suburban institutions are beginning to struggle with rapid enrollment growth. These institutions thus find themselves under pressure to serve growing populations more efficiently while unable to expand physical campuses fast enough to keep pace with the enrollment growth. Due to enrollment caps, Brigham Young University introduced hybrid courses in order to reduce half of their traditional class sessions (Graham et al., 2013). Utilizing technology to bridge the gap between increased membership and enrollment caps were the primary driver behind launching online education at Brigham Young University and their various campus locations.

Similarly, the University of Central Florida redesigned its political science course in order to deliver parts of it via the Internet as a substitute for traditional classroom instruction (Twigg, 2005). This hybrid approach allowed two or three courses to be scheduled in the same classroom in comparison to just one course before the redesign. Additionally, in 2010 at the University of Florida residential students earned 12% of their credit hours online, and that figure is expected to grow in the upcoming years as predicted by Gabriel. He further expressed that the move to online education was a matter of economics as the University of Florida campus did not currently have a lecture hall large enough to accommodate the 1,500 undergraduates enrolled in the introductory economics course.

Projected cost savings. In 2014, Bowen, Chingos, Lack, and Nygren conducted cost simulations in order to estimate how much the six institutions in their study could save by shifting from traditional learning as it is usually offered by their campus, typically with about

three hours of face-to-face instruction each week, to hybrid learning with machine-guided instruction accompanied by one hour of face-to-face instruction each week in large introductory statistics courses. Although the simulations are speculative and the results vary depending on the adopted assumptions, Bowen et al. (2014) found hybrid learning may promise significant savings in total instructor compensation costs in the long run. However, instructors rather than machines lead majority of the current online courses; thus, the institutions do not see much of these instructor compensation cost savings as Bowen and his colleagues estimated. When courses move to more machine-guided courses than of instructor or facilitator led online courses, perhaps there will be an increase in cost savings. Furthermore, the potential reduction in facilities expenses is generally seen as a principal benefit to online education as indicated by Bacow et al. (2012).

On the financial benefit side, Figlio, Rush, and Yin (2013) emphasized that universities might potentially realize tremendous financial savings by recording lectures and replaying them for multiple years with an instructor taking a less hands-on approach. However, even assuming courses could be devised and delivered anew each term, there may be financial advantages to offering Internet delivery of courses. The researchers stated that in order for Internet-based delivery of traditional lectures to be financially beneficial, a college or university would typically need to provide fewer support services for Internet-based classes or use the same lectures for a number of years with a lower level of faculty participation (Figlio, Rush, & Yin, 2013).

According to Figlio et al.'s (2013) calculations, web-based courses only make financial sense either at institutions with low faculty teaching loads, or for fields with relatively high faculty salaries, or at other institutions/fields if a course is developed once and

replayed with much lower levels of faculty involvement. Consequently, the conclusions of their experiment suggested that the break-even point at which Internet only, lecture-based classes pass a benefit-cost test is higher than the figures they calculated.

Lowering higher education costs. A number of scholars and practitioners speculated that online learning can contribute to lowering the overall costs of higher education and thereby increase educational fulfillment for many Americans. For example, Christensen, Horn, Caldera, Soares, and Louis (2011) asserted that traditional universities and colleges have natural advantages to delivering online learning because they have the necessary assets (e.g., subject-matter expertise of faculty, existing computers systems, Internet, etc.) to compete effectively in the online marketplace with the potential of quality and cost advantage. Unlike newcomers to online education, such as some of the proprietary institutions that must build their information technology infrastructures from scratch and find content experts, existing universities and colleges can add online offerings at low marginal costs by capitalizing on spare computer capacity and faculty members who can temporarily act as course developers (Christensen et al., 2011). Similarly, Means et al. (2009) and Means et al. (2013) proposed that cost savings are realized in online education due to cost efficiency gained from assembling and disseminating instructional content more efficiently. Further, Bacow et al. (2012) contended that while improving retention, shortening time-to-degree, and raising completion rates are highly desirable consequences of online education, these factors are also an effective way to reduce the costs of achieving higher levels of educational attainment.

Curran (2004) posited that reducing the cost of higher education is sometimes touted as the top objective for institutional online adoption, yet much of the initial investment by

universities and colleges in online education seems to be overlooked with regards to cost considerations. In a 2004 U.S. survey, respondents ranked the goal of "reducing institution's per-student costs" rather low: only 18% of public four-year institutions and 11% of four-year private institutions indicated it was an important goal of their distance education programs (Curran, 2004, p. 18). Some scholars, such as Christensen et al. (2011) and Bacow et al. (2012), probably would have expected these numbers to be higher. Additionally, Curran (2004) noted that "the shift from a traditional course environment to a technology-based, student-centered learning environment" indicated "a measurable decrease in the cost of delivering the course" (p. 20).

Corroborating Curran (2004) statements, Twigg (2005) and her colleagues at the National Center for Academic Transformation reported that hybrid course redesigns resulted in cost savings in nearly 70 different campus cases. Based on institutions in the National Center for Academic Transformation study, Twigg stated that costs were reduced by 37% on average (ranging between 20% to 77%) and generated a collective annual savings of about $3 million. Twigg implied that costs savings are materialized as institutions implement online tutorials, online automated assessments, high-tech learning management systems, staffing substitutions as well as share resources in order to reduce faculty and staff duplication efforts. Bowen et al. (2012) criticized Twigg's findings claiming that these case studies did not provide rigorous, randomized studies, which produce robust results but rather the case studies were based on before and after studies that lack controls. Furthermore, Bowen et al. (2012) stated that result of Twigg's study were self-reported and not obtained through a third-evaluator, which would be preferred. Additionally, Chau (2010) affirmed that online learning provides institutions with the possibility of lessening cost through the reduction in

the fees associated with maintaining facilities, hiring more staff, and costs associated with extra teaching loads or extra office hours. Seemingly, the interest in measuring the cost and assessing cost-effectiveness of online education is a research area that will continue to grow.

Furthermore, in an analysis of online versus on-campus course prices of 103 American educational institutions, Wang (2015) found that,

> educational institutions set significantly lower prices of their online courses than that of on-campus courses, private educational institutions set significantly lower prices of their online courses than public institutions, and small institutions or large institutions set significantly lower prices for their online courses than medium-sized institutions. (para. 11)

Increasing efficiency. In 1998, Congress stated that distance education may help institutions to control costs by more efficiently using their educational ability to offer distance education programs and courses (H.Rept. 105-481). Allen and Seaman (2015) echoed Congress's statement indicating one of the primary anticipations of online education was that teaching with technology would be more efficient than current instructional methods. Further, Christensen and Eyring (2011) argued that when online courses are developed centrally that they allow for a lower development cost and more systematic focus on cognitive learning outcomes. In a meta-analyses, Means et al. (2009) implied that online learning enables instructors to handle more students while maintaining learning outcome quality equivalent or comparable to face-to-face instruction. Additionally, when targeting entire introductory courses, Twigg's (2005) redesign research revealed that the duplication of effort among faculty can be substantially decreased as course development and delivery

becomes a shared responsibility. Further, the redesign case studies conclusions insinuated that faculty saved considerable amounts of time while achieving greater course consistency.

Improving retention. Some scholars including Twigg (2005) and Bacow et al. (2012) indicated that some institutions are utilizing online courses as a means to improve retention rates by making courses available to students who would otherwise be closed out of traditional courses due to limitations on course size or conflicts with other required courses. Bacow et al. (2012) cited Morgan State University as an example to substantiate their improved retention claim. At Morgan State University, majority of the 35 to 40 online or hybrid courses offered for traditional students were chosen specifically because they are required for graduation and therefore are in higher demand so students often struggle to fit these courses into their schedules. Furthermore, Bacow et al. (2012) indicated improving retention, shortening time-to-degree, and raising completion rates as highly desirable consequences of online education in and of themselves. Relatedly, McPherson and Bacow (2015) argued that online courses may be a means to improve speed or rates of degree completion at large institutions, but currently there was a lack of empirical evidence to support this notion. However, 10 years prior Twigg's findings (2005) noted that 18 of the 24 projects measuring retention reported a decrease in drop-failure withdrawal rates and an increase in course-completion rates. Thus, National Center for Academic Transformation's redesign methodology produced an increase in course completion and student retention. ". . . students [taking redesign courses] outperformed . . . and outscored . . . on 29 of 30 items . . ." (Twigg, 2005, p. 4). High attrition and dropout rates lead to wasted resources for both students and institutions; hence, leveraging an effective system such as online education can be targeted at curtailing these high rates.

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Bacow et al. (2012) also noted that institutions are also using online learning to improve retention by focusing specifically on developmental courses that prepare students for college success. At large public institutions, such as the University of Texas, that enroll large numbers of students with uneven levels of high school preparation, this problem is particularly critical. To such a degree, these institutions often must offer hundreds of sections of developmental classes, especially in math and writing, at enormous expense. In addition to meeting developmental needs, Scholz et al. (2013) suggested that online offerings also helped students stay on track to graduate even while taking advantage of off-campus opportunities like study abroad, internships, and practicums.

Improving learning outcomes. Similar to the variation in traditional classroom instruction where faculty vary their teaching depending upon course objectives, academic level of students, and discipline, the same variation exists in online learning. Picciano (2006) illustrated some different online learning scenarios that may occur on the same campus. In one course, online learning may be used to enhance the traditional lecture with electronic instructor notes, additional readings, and images of charts, graphs, multimedia, or other handouts. Yet, in another course, online learning may be blended with face-to-face instruction so that, rather than meeting in a classroom three hours a week, a course meets two hours per week with the third hour consisting of an online threaded discussion as confirmed by Bowen et al. (2014). Still, another course may utilize an interactive asynchronous learning network in which coursework is conducted online using a modern learning management system, such as Canvas, Blackboard, or Schoology.

Additionally, Bacow et al. (2012) cited improved learning outcomes and enhanced student-faculty interaction as motivational factors for pursuing online learning for some

institutions. Bryn Mawr College, for example, implemented select modules from Carnegie

Mellon's Open Learning Initiative in an effort to improve the quality of its introductory

Science Technology Engineering Mathematics courses (Bacow et al., 2012). Bacow et al.

(2012) indicated that Bryn Mawr's experience is typical for highly selective, elite

institutions. Furthermore, Jaggars and Bailey (2010), Scholz (2013), and Twigg (2005)

advocated numerous pedagogical advantages to online learning. Resonating with Seely

Brown and Adler (2008), Rudestam and Schoenholtz-Read (2010) predicted that the future of

online would increase in learning by doing (active learning) and decrease in learning about

(passive learning). Scholars, professors, and other stakeholders have cited immediate

feedback (Compton & Compton, 2000; Scholz, 2013, Twigg, 2005), mastery learning

(Twigg, 2005), on-demand support and online tutorials (Twigg, 2005), extending the

classroom conversation (Gabriel, 2010; personal communication, John Nash, April 11, 2014;

Twigg, 2005), adaptive learning (Christensen and Eyring, 2011; McPherson and Bacow,

2015), collaborative learning (Kim & Bonk, 2006), and learning analytics (Blackboard,

2011) as ways to improve learning outcomes through the integration of online education.

Improving personal health and the environment. One unexpected consequence of

online education is health improvement. When students and faculty participate in online

learning from home or work rather than in large classroom environments, the amount of

germs are significantly reduced thereby controlling disease diffusion. During times such as

cold and flu seasons, this reduction in the spreading of germs can help to improve the health

conditions of students and faculty. Furthermore, Campbell and Campbell (2011) researched

an additional benefit of online education, the mitigation of anthropogenic carbon dioxide

emissions contributing to global climate change. Of the 500 students surveyed who were

enrolled in online courses on three college campuses, students who commuted by personal car were asked to estimate whether taking courses online resulted in fewer driving trips to campus. The results indicated that providing lower-division classes of 100 students with an online format leads to reduced carbon dioxide (CO_2) emissions of 5 to10 tons per semester. This type of environmental advantage of online education has the potential to enhance student, faculty, and administrative satisfaction.

Challenges to Online Education Adoption

The literature review revealed more discussion regarding obstacles rather than prominent factors for adoption of online higher education. Scholars acknowledge numerous hurdles to online higher education adoption including faculty resistance (Allen & Seaman, 2012, 2015, Bacow et al., 2012; Chau, 2010; Curran, 2004; Rudestam & Schoenholtz-Read, 2010), costs including startup (Bacow et al., 2012; Bell & Federman, 2013; Best, 2016; Bowen et al., 2014; Brown, 2015) and sustainability (Bell & Federman, 2013; Kim & Bonk, 2006), student retention (Allen & Seaman, 2015; Bell & Federman, 2013; Braude & Merrill, 2013; Chau, 2010; Curran, 2004), academic dishonesty (Bacow et al., 2012; Bell & Federman, 2013; Kennedy, Nowak, Raghuraman, Thomas, & Davis, 2000; Lanier, 2006), and accreditation (Bacow et al., 2012). Affirmed with empirical research and popular press and media, the following sections outline the major roadblocks for online higher education adoption. According to Allen and Seaman (2007), only 3.3% of southern chief academic officers agreed that there are no significant barriers to widespread adoption of online learning.

The following discussion focuses on the challenges and obstacles that are common the body of literature. This discussion includes a focus on the following challenges: faculty resistance, costs, student retention, ethics, and accreditation.

Challenge 1 - Faculty resistance. Faculty instructional technology integration and resistance is a widely researched area regarding online higher education. Allen and Seaman (2015) suggested that a persistent failure of online education is the inability to convince faculty of its worthiness and importance. In 2012, Allen and Seaman (2012) conducted a nationally representative sample of higher education faculty members who were teaching at least one course during the current academic year. The scholars found nearly two-thirds (66%) of the faculty believe that the learning outcomes for an online course are inferior or somewhat inferior to those for a comparable traditional face-to-face course, and less than 6% of faculty considered online to be either superior or somewhat superior to face-to-face instruction. Despite the faculty resistance, however, 60% of the faculty reported that they have recommended an online course to a student or an advisee. Further, Allen and Seaman (2015) posited that the lack of acceptance among faculty has remained virtually the same since their inaugural report in 2003 at 27.6%. In the 2015 report, 28.0% of academic leaders say that their faculty accept the value and legitimacy of online education.

Facilitating online courses is reported to be more time-consuming than teaching a conventional face-to-face course (Allen & Seaman, 2012, 2015; Bacow et al., 2012; Curran, 2004). Consequently, the additional effort required and professional development needed for faculty presents a barrier to online education. Allen and Seaman (2015) noted that 78% of academic leaders believe that delivering an online course requires additional effort and time for faculty. One reason that contributes to the faculty's additional time and effort is the

learning curve with teaching in a different modality. Bacow et al. (2012) postulated that online instruction is alien to most faculty thereby "calls into question the very reason that many pursued an academic career in the first place" (p. 19). Thus, it is somewhat expected that many faculty view online instruction suspiciously both because it differs from how they learned and how they were taught as students. Faculty who teach online must migrate all their materials to a digital form, create or adapt a website or learn how to use a learning management system, provide for online feedback, and think about how to create and assess learning outcomes at a distance (Bacow et al., 2012).

Many faculty worry this new modality distances them from their students and does not provide the ideal amount of faculty-student interaction (Bacow et al., 2012). Furthermore, many faculty fear that online instruction will be used to replace them and diminish faculty ranks (Bacow et al., 2012; Curran 2004). A common concern on many campuses is that online instruction should not be used to reduce faculty employment, and therefore the faculty-student ratio should remain the same for online courses as traditional face-to-face courses.

Moreover, academic ownership and freedom contributes to faculty resistance. According to Bacow et al, (2012) and Curran (2004), faculty are extremely reluctant to teach courses that they did not create or "own." Faculty typically take great pride and ownership in deciding the content and instructional sequences and methodologies for the courses they teach; thus, they are hesitant to relinquish control over the course design and development process and use pre-packaged courses (Bacow et al, 2012). Curran (2004) stated that professional autonomy can be lost with online course development thereby affecting faculty's academic freedom. Some scholars such as Noble (2003) claimed that use of such

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pre-packaged instruction invariably leads to the de-professionalization of the professoriate. The exception is for faculty who were hired specifically to develop courses or teach online (Bacow et al., 2012; Curran 2004). Further, most faculty express no to little interest in teaching online courses developed by third parties (Noble, 2003).

Challenge 2 - Costs. As previously indicated, one of the most common reasons cited by higher education academic leaders for developing online courses and programs is to generate new revenue streams and perhaps lower the overall costs of providing a higher education. However, the cost-effectiveness of online learning is still a deficient research area. Bell and Federman (2013) discussed how uncertainties about the cost of online education have the potential to reduce the adoption online instruction. Bacow et al., (2012) and Bell and Federman (2013) indicated that launching online offerings requires significant start-up costs including investments in technology, instructional and course design, web design, and training of instructors in online pedagogy. Additionally, Bacow et al. (2012) indicated that developing online courses requires significant initial investment of faculty time, and often many institutions compensate faculty members with $500 to $5,000 per course for this investment. These incentive programs, however, typically have conditions that must be met and approved through some type of official process, which could be viewed as an infringement of faculty's academic freedom.

Further, Bacow et al., (2012) and Bowen et al., (2014) posited that most institutions expect to amortize initial costs and are hopeful that online instructional costs will decline over time due to experience and scale economies. For some institutions that do not have the startup resources to launch into the online space, they may partner with for-profit companies referred to as online-education enablers (Brown, 2015) or other non-profit institutions such

as community colleges ("For a practiced president, another small college to turn around," 2014).

Relatively few institutions believe that online learning reduces their costs. In fact, most believe that online courses are at least as expensive to provide as traditional courses (Bacow, 2012). Kim and Bonk (2006) surveyed college faculty and administrators who were members of either the Multimedia Educational Resource for Learning and Online Teaching or the Western Cooperative for Educational Telecommunications, both premier associations for online education, respondents identified monetary support as the number one factor that most significantly affects the success of online programs. Whether institutions that invest in online learning see a significant return on their investment requires further investigation. Perhaps, the future adoption of more interactive, computer-guided courses could significantly lower costs; however, in higher education majority of online courses are taught by instructors--not machines as expressed by Bell and Federman (2013).

In addition to initial costs, recurring costs of coordination demands and technical support are potential barriers to online education adoption (Bell & Federman, 2013). Costs regarding scalability should also be a consideration as institutions must be prepared for scale especially in the admissions, information technology and infrastructure, and other resources. Consequently, costs (or perceived costs) can be a significant barrier to entry for institutions seeking to adopt online education.

Challenge 3 - Student retention. Although some scholars (Bacow et al., 2012; Scholz, 2013; Twigg, 2005) indicated that online education can increase student retention, others scholars including Bell and Federman (2013) and Curran (2004) reported high dropout rates for students in online courses and programs which may be unsettling for those

institutions who are considering online education adoption. According to Allen and Seaman (2015), academic leaders believed that retaining students is more problematic for online courses in comparison to traditional courses (44.6% in 2014 versus 40.6% in 2013). Additionally, Braude and Merrill (2013) and Herbert (2006) noted that overall retention rates are much lower in online courses in comparison to the national average for college students. While some results support the notion that student retention for online courses is a greater problem than in traditional courses, the reasons contributing directly to the online retention issues have not been fully realized and more empirical evidence is needed.

There are several contributing factors to low online student retention rates. One major concern for online student retention is student self-regulatory skills. Allen and Seaman (2015) and Bidwell (2013) reported that academic leaders and employers need to be more self disciplined to succeed in an online course than in a traditional course. In 2005, majority of respondents (64.7%) agreed with this statement, "Students need more discipline to succeed in an online course than in a face-to-face course" (Allen & Seaman, 2015, p. 23). By 2013, the proportion had grown to 68.9%, and in 2014 the results stand at 68.3%. Additionally, students must have technical acumen to navigate online courses, modules, assignments, and the like. Allen and Seaman (2015) questioned that if the low retention rates are a reflection on the nature of students or the nature of the courses. Another reported causation of high attrition rates of online student is lack of interest. According to Kim and Bonk (2006), bored students drop out of online classes simply because they are bored and desire richer and more engaging online learning experiences. Student retention in online courses and programs may be a viable obstacle to integrating online education at some institutions.

Challenge 4 - Ethics. Research indicates that cheating has become more pervasive among college students over the years (Bowers, 1964; McCabe & Trevino, 1997). More recent studies specifically examined academic dishonesty in online environments. Findings indicate that cheating was more prevalent in online classes than traditional classes (Lanier, 2006), both students and administrators believe it is easier to cheat in distance learning courses (Kennedy, Nowak, Raghuraman, Thomas, & Davis, 2000), and nearly a quarter of undergraduate and graduate admit to having cheated on a web-based exam (Chapman, 2004). Although there are considerable differences among institutions and institutional types, majority of them have some form of honor code and or academic honesty policy. In 1992, Davis, Grover, Becker, and McGregor reported that students at small, private liberal arts colleges reported lower cheating rates than their peers.

Many higher education institutions are investigating avenues to combat academic dishonesty in online learning environments. Bacow et al. (2012) and Bell and Federman (2013) reported strategies included the employing approved testing centers, requiring students to take exams on campus, and replacing high-stakes tests with longer-term final projects that are seen as less susceptible to cheating. Additionally, some institutions are experimenting with video proctoring (Bacow et al., 2012). Each of these reported strategies has a financial cost associated with it. Moreover, institutions need to ensure proper policies are in place regarding academic dishonesty and that students understand the repercussions of violating the policies. In order to create a culture of academic integrity, the policies must be strictly adhered too (Lanier, 2006). Concerns about online fraud and cheating have the potential to undermine the adoption online instruction (Bell & Federman, 2013). The longitudinal work of McCabe, Trevino, and Butterfield (2001) in academic dishonesty

advocates that perceived social norms, attitudes toward cheating, and knowledge of institutional policy regarding cheating will typically predict course conduct from students in online learning environments.

Challenge 5 - Accreditation. Despite being often cited as a hindrance to online education, Bacow et al. (2012) specifically noted that accrediting bodies do not seem to be impeding the growth of online learning. Although it is commonly cited as a hindrance to online education. Their findings did not reveal any specific examples where accrediting agencies prevented institutions from expanding online offerings and programs. Some opponents of online education claim that accrediting bodies create confusion because they do not all define the term "online" courses and programs in the same manner. Ultimately, this incongruence in online terminology often contributes to the disparity regarding online higher education empirical research because the term has different meanings for various stakeholders.

The present-day demand for online programs is being met by more than a thousand degree-granting institutions including public, private, and for-profit institutions thereby creating an intense competition in a limited marketplace. Still, not all higher education institutions are adopting online education. Online education is slowly gaining more legitimacy nationwide by students, faculty, college presidents, and employers in comparison previous years; yet, a fair amount of reluctance still exists. Institutions have different rationale for adopting online education, and leaders of each institution must determine whether online education is appropriate for their institution. According to Keaster (2005), there is too much invested (e.g., time, money, faculty energy) to merely jump on what might be perceived as the technology-driven bandwagon without ample consideration of salient

motivational factors and barriers. Overall, a review of the online learning in higher education literature revealed diverse factors for the integration of online education in the higher education marketplace. This section provided an overview of relevant research literature regarding online higher education, which informs the innovation context for this study.

College/University Presidency

As American higher education continues to evolve and compete globally, institutions face unparalleled challenges in achieving their goals and missions. Dealing with these unprecedented demands have made leading American higher education institutions in the 21st century no ordinary charge. As a result, it is more important than ever to research college and university presidents to understand who they are, their embodied leadership qualities and characteristics, and their perceptions. This section provides a review of college/university presidency literature and examines presidential leadership within the liberal arts college context.

The college/university presidency literature is extensive; however, there is a paucity of empirical studies regarding the college/university presidency in recent years. Most of what is known about the college presidency is informed by publications resulting from a longitudinal study on the Institutional Leadership Project of college presidents conducted by Robert Birnbaum and colleagues (Bensimon, 1989, 1990b; Birnbaum, 1986, 1989a, 1989b; Birnbaum, Bensimon, & Neumann, 1989; Neumann, 1989, 1990; Neumann & Bensimon, 1990; Tierney, 1989); presidential demographic research titled *The American College President* conducted by American Council on Education (ACE) since 1986 (Cook & Kim, 2012; Green, 1988; King & Gomez, 2007; Ross, 1993; Ross & Green, 2000); and numerous memoirs and books written by former or current presidents (Bornstein, 2003; Bowen, 2009,

2010; Carbone, 1981; Chaffee, 1988; Docking & Curton, 2015; Duderstadt, 2000, 2007, 2009; Fisher, 1984, 1988, 1996, 2004; Gardner, 2005; Hardesty, 2007; Kauffman, 1980, 1982; Padilla, 2005; Pierce, 2014; Vineyard, 1993).

In addition to the three aforementioned areas that have informed the college/university presidency, scholars have also researched the presidential hiring and selection process (Bensimon, 1989; Monks, 2012; Schrum, 2013; Skinner, 2010), presidential compensation (Bartlett & Sorokina, 2005; Langbert, 2006; Parsons & Reitenga, 2014; Pfeffer & Ross, 1988; Sorokina, 2003; Tang, Tang, & Tang, 2000), and presidential diversity (Bates, 2007; Brown, 1998; Brown, 2005; S. Cook, 2012; Esters & Strayhorn, 2013; Holmes, 2004; June, 2015; Kezar, Eckel, Contreras-McGavin, & Quaye, 2008; Kezar, 2007; Lum, 2008; Waring, 2003), and presidential leadership (Beardsley, 2015; Cohen & March, 1974; Shapiro, 1998). The following is a summary of the college presidency literature relevant to this research study.

Presidential Profile

Considered the most comprehensive sources of data on higher education's highest office, the *American College President (ACE)* reports provide information on the demographics, career paths, and experiences of college and university presidents (American Council on Education, 2016). In 1986, the first year of ACE's college president study, the demographic profile of the typical campus leader was a white male in his 50s who was married with children, Protestant, held a doctorate in education, and had served in his current position for six years (B. Cook, 2012). Nearly three decades later, with only a few exceptions, the presidential profile remains unchanged. Nowadays, college and university presidents are typically in their 60s as most institutions prefer seasoned presidents with

ample experience (B. Cook, 2012; S. Cook, 2012). In the ACE 2012 report, the average presidential age was 61. Between 1986 and 2011, the racial makeup of college presidents only increased from 8 to 13% despite the vast diversification of the racial and ethnic makeup of student body populations (B. Cook, 2012).

Presidential Leadership

Not only is whose leading college and universities an important topic worth investigating in higher education, but also how are these individuals leading institutions is a significant matter worthy of exploration. Questions such as, "What do today's college/university presidents really do?" and "What is the role of a college/university president in the 21st century?" permeate the minds of many higher education stakeholders. Yet, "there is much misinformation, mystery, and nostalgia abroad regarding the work of contemporary university presidents" (Shapiro, 1998, p. 65). Much of the literature focused specifically on college presidential leadership are books written by current or former college presidents (Bowen, 2010; Bowen & Shapiro, 1998; Brown, 2006; Chaffee, 1988; Duderstadt, 2007; Fisher, 1984, 1988, 1996; Hardesty, 2007; Vineyard, 1993) or college/university presidency scholars (Bargh, Bocock, Scott, & Smith, 2000; Bensimon & Neumann, 1993; Birnbaum, 1986, 1989a, 1990, 1999). Therefore, majority of literature on presidential leadership is not based on empirical evidence but first-hand experience and observations. Of the empirical research related to presidential leadership, most of the contributions were the result of the five-year Institutional Leadership Project, which examined leadership at 32 colleges and universities from 1986 to 1991. Sponsored by the National Center for Postsecondary Governance and Finance, the Institutional Leadership Project was conducted primarily by Robert Birnbaum and colleagues, Estella M. Bensimon, and Ann Neumann.

Although the presidential profile may not have changed much since the 1980s and 1990s (B. Cook, 2012), the leadership challenges and issues that current presidents face have changed considerably.

Presidential role and responsibilities influence how presidents are evaluated. There are conflicting views regarding the role of the presidency and whether or not a college/university president is important at all (Beardsley, 2015). While some scholars argued that presidents are more symbolic than significant (Cohen & March, 1974), others contended that modern day institutional presidents function more as chief executive officers (CEOs) in the business industry (Bargh et al., 2000). Given the disparities among scholars, one surmises that the college and university presidency is a multifarious position that requires the use of numerous hats (fundraiser, visionary, strategic planner, communicator, etc.) and an amalgamation of multiple leadership frameworks and methods (Bensimon, 1989; Bolman & Deal, 2008; Kezar et al., 2008; Neumann & Bensimon, 1990). Based on extensive research on the college presidency, Birnbaum (1986) asserted that presidents are intuitive scientist as they often "must sample, code, store, retrieve, and arrange [ambiguous] information that is relevant to the problem being considered" (p. 382). Furthermore, Neumann (1995) suggested that an essential task for presidential leaders is "forming relationships that will support their own learning about the beliefs and values of those to whom they seek to relate" (p. 271). Relationship building requires intentionality on the part of presidential leaders.

According to ACE fellow K. Johnson Bowles (2013), the university president must possess the traits and characteristics of a boxer, a minister, a police officer, a psychologist, and a Nobel laureate in order to be successful. Bowles implied that a university/college

president must have the agility and stamina of a boxer, be called to the presidency like a minister, serve and protect his/her campus and constituencies like an officer of the law, have the ability to cope and stay centered like a psychologist, and demonstrate innovative, deep, steadfast intelligence like a Nobel laureate. In an editorial, Hahn (1995) advised that the growing list of "godlike criteria" is simply unrealistic since institutions are unable to find leaders who can measure up to all of the prescribed standards of success (p. 14). With a mythical ideal presidential leader in the minds of higher education stakeholders, former, current, and future presidents will typically always fall short and truly never be good enough. Thus, Hahn proclaimed, "If presidential leadership is a problem, *all of us are a major part of that problem*" (p. 15). Consequently, it would behoove higher education stakeholders to consider their collective responsibilities in shared governance rather than abdicating all official university and college responsibilities to the presidency.

Power and Shared Governance

In his book, *Power of the Presidency*, former university president Fisher (1984) discussed five forms of power: coercive, reward, legitimate, expert, and charismatic that college and university presidents often exercise. Fisher proclaimed, "The president who uses charismatic power in conjunction with expert and legitimate, along with a carefully measured portion of reward power, and little or no coercive power, will be most effective" (p. 50). The presidency role may be viewed as one with complete power and authority in decision making thereby able to make change happen perhaps in the form of coercive power; however, in reality presidential power is constrained by shared governance and the organizational structure of institutions' loosely coupled systems (Weick, 1976). Birnbaum (1988) argued, "Leaders in higher education are subject to internal and external constraints that limit their

effectiveness and may make their roles highly symbolic rather than instrumental" (p. 29).

Furthermore, Neumann (1995) indicated that presidential leaders are unable to induce change

in others directly, but they may indirectly impact change through a collegiate setting. Even

though constituencies including students, staff, alumni, and the community are important,

Birnbaum (1988) argued that presidential success depends on support from three key

constituencies: the board, faculty, and executive officers. Hahn (1995) emphasized that these

three groups do not have equal power; he insinuated that the board carries more weight.

Leadership in Liberal Arts Colleges and Universities

The type of institution, whether a public research university, a liberal arts college, a

historically black college or university, a community college, or regional college,

significantly impacts the presidential role, power, and expectations. Liberal arts colleges are

a unique segment of the higher education landscape. Among the oldest of American

institutions, liberal arts colleges have been a distinctive component of the ever-changing

United States higher education system for nearly three hundred years (Bonvillian & Murphy,

1996). Despite the long standing history of these institutions, there is a deficiency in the

liberal arts colleges' presidential literature. The following is a review of the available

literature on the liberal arts college presidency. Much of the empirically based research

regarding liberal arts college presidencies were from dissertations.

In a multi-site case study dissertation, Gaylor (2003) examined how presidents and

their constituents at three regional private, liberal arts colleges understand presidential

influence on critical decisions. Gaylor posited that the current presidential power literature

only focuses on research at elite universities, which may be incongruent with presidential

power found at other types of institutions. Thus, the study investigated presidential power

within the context of private regional liberal arts colleges. The three research sites included Thornton College, Saint Mary's College, and Hillcrest College. Data analysis was informed by the five theoretical perspectives of power (anarchic, rational, contextual, interpretative, and transformative) in the context of private regional liberal arts colleges. The findings confirmed the notion that context does matter when considering presidential influence in critical decision making. The presidents in this study described, and constituent accounts affirmed, that presidents subscribe to a spectrum of influence strategies rather than using a more one-dimensional approach as portrayed in previous research. As a result, Gaylor recommended that a multi-frame model of power is necessary for presidents of private regional liberal arts colleges to be effective.

Similarly, Rudolph (2013) conducted a multi-site case study. The focus of this dissertation research was to explore the roles that university presidents play during the transformational change to increase the environmental sustainability of their campuses. Rudolph found that an overarching presidential persona (while different for each president) was central throughout all stages of the change process and significantly influenced the various presidential roles. In a more recent dissertation, Beardsley (2015) found that the number of nontraditional liberal arts college presidents are on the rise. Majority of these nontraditional presidents are men as most women presidents follow the traditional presidential pathway. This finding supports S. Cook's (2012) axiom "women are hired based on what they've done, while men are hired based on their potential" (p. 2). Further, Beardsley suggested that institutional context and characteristics are factors that influence the likelihood of having a nontraditional president. Beardsley's research outcomes also provided insight on nontraditional presidents' lessons learned on the selection and transition process.

Alternatively, in previous works, Peck (1983) and Puglisi (2011) indicated that the typical small liberal arts college president begin as faculty members and rise through ranks. Puglisi, a former president of Virginia Intermont College, provided advice to presidents of struggling colleges based on his presidential experience. Peck, on the other hand, conducted an investigation on small colleges in order to uncover the common factors that contribute to successful administration operations. Both scholars insinuated that the traditional career trajectory does not provide new presidents with the type of financial competencies often needed to be successful in the presidential role. Furthermore, Peck proposed that successful small college administrators must have entrepreneurial spirits and operate intuitively, which supports Birnbaum (1986) notion that college presidents are intuitive scientists.

Moreover, Bartlett and Sorokina (2005), Lalani (2007), and Sorokina (2003) each specifically investigated salaries of presidents at liberal arts colleges. Barlett and Sorokina found that personal characteristics and college tier level affect presidential compensation just as much as and in some cases more than presidential performance. Lalani created a framework to understand the president's role and explain the connection between high wages and relatively weak pay for performance. Lalani stated that to a small degree liberal arts presidents are rewarded for institutional performance.

More so than empirically based studies, there were several narratives and editorials from liberal arts college presidents in open academic forums. In *The Chronicle of Higher Education*, Elms College president, Sister Mary Reap, shared how lack of consistent leadership for a decade truly hurt the institution ("For a practiced president," 2014). With that type of turnover, Reap, who left retirement in order to lead Elms College out of a financial struggle, posited that people were unable to work toward a unified goal because everything

seemed temporary. Reap credited the college with the establishment of collaborative partnerships with community colleges prior to her taking the helm. In a similar format on ACE, president of St. Olaf College David R. Anderson shared his commitment to transparency (2015). According to Anderson, the creation of a report mechanism for student outcomes that is publicly available was the result of the increasing skepticism about higher education and especially the value of a liberal arts education.

The limited research available on the liberal arts college presidency indicates that this is research area that needs further exploration.

According to Rudolph (2013), presidents represent a complex and less understood group, especially concerning their roles in organizational change. The modern day college/university presidency consistently deals with organizational change as internal and external forces impact how these institutions are lead. TLAC presidents in particular must demonstrate effective leadership as these institutions continue to evolve as a few of them are financially unpredictable in today's global marketplace. This section provided a review of germane research literature regarding the college/university presidency and presidential leadership. This research study seeks to contribute to the existing modest body of literature of the TLAC presidency with regards to online education adoption.

Theoretical Framework: Diffusion of Innovations

The spread and uptake of ideas, products, and/or services, which can be thought of as innovations, is a phenomenon that has intrigued scholars since early in the twentieth century (Rogers, 2003). The diffusion of an innovation often goes through various stages before becoming established. The diffusion of innovations (DoI) influences how a society evolves. DoI is one of the most widely used social science theories particularly in the areas of

communication, agriculture, public health, social work, and marketing. Thus, a myriad of researchers in various disciplines, such as education, business, communication, medical and health, and sociology, use the DoI as a theoretical or conceptual framework to conceptualize and guide their empirical research. This section provides an overview of DoI theory and pertinent concepts, highlights limitations and criticisms of DoI theory and model, and explains how the DoI model as conceptualized by Rogers (2003) was used as a theoretical framework in the study.

Foundations for the Diffusion of Innovations Theory

According to Kinnuen (1996), the roots of diffusion theory can be traced back to the second half of the nineteenth century when European anthropologists were searching for an all-embracing meta-theory to cultural change for which diffusion would be the key. This curiosity continued as different disciplines began to show interest in diffusion research into the twentieth century. Diffusion refers to spreading of social or cultural properties from one society or environment to another (Kinnuen, 1996). Rogers acknowledged the work of Frenchman Gabriel Tarde and German Georg Simmuel as well as other German-Austrian and British diffusionists and how their findings and contributions were considered in his conceptualization of DoI model.

Tarde is often referred to as a founding father of innovation diffusion research (Kinnuen, 1996; Rogers 2003). Tarde, a French lawyer and judge concerned with societal trends, proposed the "laws of imitation" as way understand why some innovations would spread and others would be forgotten. Tarde (1903) referred to innovation as imitation, an act occurring when an individual emulates other's adoption behavior of accepting an innovation. In today's vernacular, the term imitation can be replaced with adoption with regard to

diffusion of innovations. In his influential book, *The Laws of Imitation,* originally published in French in 1882 and then translated into English in 1903, Tarde examined universal repetition, social resemblances and imitation, societies, archaeology and statistics as it relates to history, the logical laws of imitation, and extra-logical influences. Tarde concluded his scholarly observations and proposed how over time innovations adhere to a S-shaped curve (Rogers, 2003). Although Tarde's work has had a profound influence on diffusion research (Kinnuen, 1996), and he is recognized as "one of the European forefathers of the diffusion field" (Rogers, 2003, p. 41). His suggested approach to diffusion research was not followed up with empirical evidence until 1943 by Ryan and Gross in their investigation of hybrid seed corn in Iowa.

Living around the same time frame as Tarde, Georg Simmel also influenced a foundational component of diffusion research. Simmel was regarded as a sociologist, philosopher, critic, and teacher. The book, *The Sociology of Georg Simmel,* was translated and edited by Wolff in 1950. Simmel's (1950) conceptualization of stranger is defined as an individual who is a member of system but who is not strongly attached to the system. The stranger concept contributes significantly to his explanation of sociology. His innovative work led to future scholarship about communication networks (Rogers, 2003). Communication networks are instrumental in understanding the intricacies of how an innovation diffuses throughout a social system.

Furthermore, Rogers (2003) indicated that an early group of anthropologists in England and Germany-Austria who were called diffusionists were influential in the foundation of diffusion research as well. According to their viewpoint "diffusionism was the point of view in anthropology that explained social change in a given society as a result of the

introduction of innovations spread from one original source, which argued against the existence of parallel invention" (Rogers, 2003, p. 43). Because of the extreme belief that all social change could be explained solely through diffusion, diffusionism does not currently having a following (Rogers, 2003). However, the diffusionists were the first scholars to use the term 'diffusion' and their work caused other social science scholars to recognize the importance of diffusion.

In exploring the history of diffusion research field, Rogers (2003) cites nine main research traditions beginning with anthropology. Each research tradition consists of an academic discipline or sub-discipline and typically focused on investigating diffusion of one main type of innovation. The nine research traditions include: anthropology, early sociology, rural sociology, education, public health and medical sociology, communication, marketing and management, geography, and general sociology. Within the rural sociology research tradition, Ryan and Gross's (1943) study on the hybrid corn seed adoption by Iowa farmers over time is one of the most widely cited references in the diffusion of innovation. According to Rogers (2003), their study, more than any other study influenced the methodology, theoretical framework, and interpretations for future diffusion research.

Diffusion of Innovations Model

The primary concern of innovation diffusion research focuses on how innovations are adopted and why some innovations are adopted at a faster or slower rate than others. In 1962, Rogers (2003) conceptualized the DoI theory in which he argued for a general DoI model and published the first edition of his book *Diffusion of Innovations* (Rogers, 2003). Since the publication of the book, thousands of researchers in different disciplines have used the DoI model, and use of DoI remains prominent in recent online technology and education research

studies in postsecondary education including faculty integration of instructional technology and faculty development (Drape, Westfall-Rudd, Doak, Guthrie, & Mykerezi, 2013; Molina, 2013; Huun & Hughes, 2014; Jordan et al., 2012; Lewis & Slapak-Barski, 2014, Martin, Parker, & Allred, 2013; Soffer, Nachmias, & Ram, 2010;), business courses and education (DeClercq, 2015; Jebeile & Abeysekera, 2010), counseling education (Ratts & Wood, 2011), medical education (Struwig, Beylefeld, & Joubert, 2014), nursing education (Cash & Tate, 2012), MOOCs (Claffey, 2015), innovation policies (DeRousie, 2014), team-based learning (Freeman, 2012), mobile campuses (Han & Han, 2014), personalized learning (Karmeshu & Nedungadi, 2012), information and communication technology in developing countries (Richardson, 2011), and organizational culture (Shiflett, 2013). Thus, Rogers' work is considered seminal in diffusion research. Soffer et al. (2011) suggested that theories and models dealing with DoI usually address questions relating to the success, rate and time of adoption of an innovative "idea" or "product."

According to Rogers (2003), "diffusion is the process in which an innovation is communicated through certain channels over time among the members of a social system" (p. 5). There are four fundamental elements: an innovation, communication channels, time, and social system (Rogers, 2003). As terminology and language is imperative in how the DoI theory is explained, the following sections define key terms and concepts described by Rogers.

DoI terminology. "An innovation is an idea, practice, or object perceived as new by an individual or other unit of adoption" (Rogers, 2003, p. 12). The innovation definition indicates a critical point—the newness of the "idea, practice, or object" is not objectively measured but rather based on the perception of the adopter. According to Rogers, five

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attributes of innovations include relative advantage, compatibility, complexity, trialability, and observability. An innovation can be accepted, rejected, or re-invented. While adoption is "a decision to make full use of an innovation as the best course of action available" (Rogers, 2003, p. 37), it means that a person does something differently than what they had previously. Examples might include the purchase of an eReader or use a learning management system, or acquire and perform a new behavior like teaching online. Rejection, on the other hand, is a decision not to adopt an innovation. Further, Rogers (2003) highlighted the importance of re-invention, a capability that increases adoption by allowing users to make an innovation fit their local needs. "Re-invention is the degree to which an innovation is changed or modified by a user in the process of its adoption and implementation (Rogers, 2003, p. 17).

"A communication channel is the means by which messages get from one individual or other unit to another" (Rogers, 2003, p. 18). Communication channels include mass media (e.g., newspapers, television, radio, etc.) and interpersonal channels (e.g., personal networks or academic communities). According to Rogers (2003), mass media channels are more effective in generating knowledge of innovations, yet interpersonal channels are more effective in influencing the attitudes towards the adoption or rejection of an innovation. Often evaluation of an innovation is completed through subjective evaluation of adopter peers rather than being based on scientific research. This point reiterates the importance of perception in the diffusion of an innovation.

"Time is involved in diffusion in (1) the innovation-diffusion process, (2) innovativeness, and (3) an innovation's rate of adoption" (Rogers, 2003, p. 37). According to Rogers, the innovation-decision process is the progress through which an individual (or other decision-making unit) passes from first knowledge of an innovation, to the formation of an

attitude toward the innovation, to a decision to adopt or reject, to implementation and use of the new idea, and to confirmation of this decision. Five stages in the innovation-decision process include: knowledge, persuasion, decision, implementation, and confirmation. In an effort to decrease uncertainty about an innovation's expected consequence, an individual (or other decision-making unit) continually seeks information during the various stages (Rogers, 2003). The decision stage leads to adoption, a decision to make full use of an innovation as the best course of action available, or rejection, a decision not to adopt an innovation. Discontinuance is the decision to reject an innovation after it has previously been adopted. The implementation stage may lead to re-invention.

Innovativeness is defined as "the degree to which an individual (or other decision-making unit) is relatively earlier in adopting new ideas than other members of a social system" (Rogers, 2003, p. 22). Given this definition, Rogers (2003) conceptualized five adopter categories: innovators, early adopters, early majority, late majority, and laggards. The rate of adoption is the relative speed with which an innovation is adopted by members of a social system (Rogers, 2003).

"A social system is defined as a set of interrelated units that are engaged in joint problem solving to accomplish a common goal" (Rogers, 2003, p. 23). According to Rogers (2003), the social and communication structure of a system can either enable or impede the diffusion of innovations in a system. Norms, one aspect of a social structure, can be viewed as the established behavior patterns for the members of a social system. Different roles, such as an opinion leader or a change agent, can affect the social system.

Overall, the characteristics of an innovation, as perceived by the members of a social system, determine the rate of adoption. In Rogers's (2003) attempt to provide a

comprehensive theory of diffusion, he distinguishes five separate concepts of diffusion: Innovation-Decision Process, Rate of Adoption, Perceived Attributes of Innovativeness, Adopter Categories, Diffusion Networks, and Consequences of Innovations. Of these ideas, four are among the most widely-used concepts used in diffusion research: Innovation-Decision Process; Individual Innovativeness; Rate of Adoption; and Perceived Attributes (Gilbert & Kelly, 2005; Surry & Farquhar, 1997). The concept of Perceived Attributes is the most pertinent for this study.

Perceived Attributes of Innovativeness Concept

Rogers (2003) indicated that there are five attributes of innovation that explain differences in adoption rates: relative advantage, compatibility, complexity, trialability, and observability; and these five attributes account for most of the variance, 49 to 87%, in the rate of adoption of an innovation. The five attributes are defined as:

1. Relative advantage: "the degree to which using an innovation is perceived as being better than the idea it supersedes" (p. 229). Advantage can be gained from an economic or from a status perspective.

2. Compatibility: "the degree to which an innovation is perceived as consistent with the existing values, past experiences, and needs of potential" (p. 240). Compatibility can apply to organizational culture, social norms, or organizational goals.

3. Complexity: "the degree to which an innovation is perceived as relatively difficult to understand and use" (p. 257) by the potential adopter.

4. Trialability: "the degree to which an innovation may be experimented with on a limited basis" (p. 258) by the potential adopter.

5. Observability: "the degree to which the results of an innovation are visible to others" (p. 258).

Rogers (2003) identified five attributes of innovation dominated the DoI literature. Freeman (2012), Han and Han (2014), Ilie, Van Slyke, Green, and Hao (2005), Lewis and Slapak-Barski (2014), Liao (2005), Martin, Parker, and Allred (2013), Masalela (2006), Spiering and Erickson (2006), Struwig, Beylefeld, and Joubert (2014), and West, Waddoups, and Graham (2007), measured these perceived attributes (or some variation of them) in their research. Surveys and interviews were the most common data collection mechanisms utilized to measure these attributes. In addition to the five perceived attributes, Ilie, Van Slyke, Green, and Hao (2005) added critical mass as an element in their regression analysis in order to determine if there were gender differences in the impact of perceptions of innovation characteristics on the intention to use a particular communication technology. Differing, Liao (2006) excluded observability as a measure proclaiming that observability does not pertain to the use of a web-based learning system so it was not included in the study.

Subsequently, research regarding these attributes have been conducted, modified, operationalized, and expanded by Davis (1989), Holloway (1977), Tornatzky and Klein (1982), and Moore and Benbasat (1991). Moore and Benbasat suggested and tested two additional constructs that they thought were important in the decision to adopt an innovation beyond Rogers' five attributes. Several other researchers including Rogers combined image as an aspect of relative advantage. However, some researchers, including Tornatzky and Klein, found the effect of image to be different from relative advantage. Moore and Benbasat agreed with Tornatzky and Klein's view and considered image as a separate factor. In addition to image, another construct deemed to be necessary was voluntariness of use. Moore

and Benbasat indicated that when examining the diffusion of innovations, consideration must be also given to whether individuals are free to implement personal adoption or rejection decisions. Further, Moore and Benbasat's analysis of the observability items indicated that the original construct was quite complex. Thus, the researchers divided observability into separate factors: visibility and result demonstrability. As a result, the research by Tornatzky and Klein and Moore and Benbasat generated three additional diffusion constructs: 1) image: the degree to which use of a system is perceived to enhance one's image or status in one's social system; 2) voluntariness: the degree to which use of the innovation is perceived as being of free will; and 3) result demonstrability: ability to show the results of using an innovation with others.

While Rogers (2003) provided a general approach with his DoI model, Moore and Benbasat (1991) focused specifically on the adoption of information technology innovation. More explicitly, Moore and Benbasat created a survey instrument to measure eight constructs: relative advantage, compatibility, ease of use (formerly called complexity), trialability, visibility (formerly called observability), image, voluntariness, and result of demonstrability, which they refer to as perceived characteristics of innovation (PCIs). The revised constructs have been used in numerous studies including Jebeile and Abeysekera (2011), Richardson (2007, 2011), Tabata and Johnsrud (2008). According to Damanpour (1991), the single most widely studied aspect of DoI is the impact that characteristics of an individual or organization have on adoption.

Strengths and limitations. Individuals' perception of these attributes/characteristics of innovations predict an innovation's rate of adoption. According to Rogers (2003), the attributes account for account for most of the variance (49-87%) in the rate of adoption of

innovations. Thus, research regarding these attributes/characteristics are most common. While each of the attributes/characteristics has its own impact on the adoption rate, it is often difficult to isolate one attribute/characteristic. Richardson (2011) indicated that the PCIs were rarely discussed in isolation when conducting interviews because the PCIs often overlap. Thus, researchers must be cognizant of this limitation when examining perceived attributes/characteristics of innovations.

Criticisms of Diffusion of Innovations

Despite the popularity among scholars, the DoI framework is not without shortcomings. Limitations of the diffusion research is well documented. Numerous diffusion researchers including Rogers (2003) have criticized the DoI theory and concepts. While Soffer et al. (2010) agreed that the seminal work of Rogers has led to the construction of various diffusion models, the researchers argued that these models are inconsistent and no unified theory has been produced. Likewise, Botha and Atkins (2005) commented that DoI is meta-theory, which has both strengths and deficiencies. And as a result, each model focuses on a different aspect of the diffusion process or a different type of innovation or organization.

Further, Walterman (2004) argued that the DoI theory does not consider the possibility that individuals (or decision-making units) can/will reject an innovation even they fully comprehend it. Additionally, lack of consideration is given to innovation attributes and how they may change over time according to Wolfe (1994). In the DoI theory, innovations are treated as static orientation that remain unchanged during the course of adoption, but in reality many innovations are dynamic in nature and are developing while moving through the diffusion continuum. Consequently, adoption decisions rather than implementation are the focus of numerous studies (Radnor, Feller, & Rogers, 1978).

Pro-innovation bias, which implies that all members of a social system should adopt innovations and adoption should happen more quickly, is often cited a limitation of DoI theory (Kole, 2000; Rogers, 2003). Not all innovations should be adopted quickly by everyone in the social system. If everyone jumps on an innovation bandwagon at the same time, the social system will be in disequilibrium. Plus with the rapid pace of today's technology, it is difficult to determine which innovations will be long-term or simply short-term trends.

Additionally, Shiflet (2013) indicated the DoI theory has been used most extensively as a research framework to understand and predict the adoption of new technology or processes and therefore has not been used as a way to classify organizational culture within institutions. Furthermore, Lundbald (2003) explicitly stated that "there is a gap in the research and theory of diffusion of innovation across organization" (p. 63). While individuals certain play important roles in the diffusion of innovation in organizations, there is a unique context for the diffusion of innovation within and across organizations that have particular nuances and distinctive factors (Lundbald, 2003). In order to enhance the DoI theoretical base, scholars can build on DoI theory by researching diffusion both within and across organizations to create a strong connection between existing research.

Moreover, Straub (2009) critiqued the stages within the DoI theory by suggesting stages in diffusion concepts may not be true representation of the nature of the decision-making process. Additionally, Mahajan et al. (1990) contended that the DoI model does not account for internal and external factors into its normal curve distribution. Another limitation of the DoI framework is that it only deals with adoption and does not explain how an innovation is implemented after adoption although implementation is acknowledged as the

fourth stage in the Innovation-Decision process. Application of an additional framework, such as Implementation Science, is necessary for investigating implementation of an innovation.

Rogers (2003) proclaimed that diffusion scholars have been working where the ground is soft, he challenged scholars to "move beyond the proven methods and models of the past, to recognize their shortcomings and limitations, and to broaden their conceptions of the diffusion of innovations" (p. xvi). In spite of its limitations, the DoI theory has been used effectively to describe a wide variety of adoption activities, including those in a higher education arena (Shiflett, 2013).

Application of Diffusion of Innovations as a Theoretical Framework

Given Rogers' (2003) innovation definition, online education is viewed as an innovation because it can be thought of as something that is new. Some scholars even refer to online education as a disruptive innovation (Christensen & Eyring, 2011; Christensen, Horn, Caldera, & Soares, 2011; DeClercq, 2015). This study used DoI as a theoretical lens to examine the adoption of online education by TLACs and understand how president think about the adoption of online education at their institutions. Specifically, this study employed an extended form of Rogers' model of diffusion of innovations theory using Moore and Benbasat's (1991) perceived characteristics of innovation of TLAC college presidents. Based on the findings from phase one, college presidents representing each of the emergent categories will be selected for participation in interviews. The interview protocol will be conceptually based on Rogers' (2003) model of the DoI and the work of Moore and Benbasat (1991). The guided questions will revolve around creating an understanding of the eight perceived characteristics of innovation by the presidents: relative advantage, compatibility,

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ease of use, trialability, visibility, image, voluntariness, and result of demonstrability. This study drew upon DoI theory as the framework for informing the data collection.

A review of the literature revealed that many of the DoI studies in online higher education investigate the perceptions, attitudes, or adoption of faculty (Drape et al., 2013; Eldridge, 2014; Gilbert & Kelly, 2005; Jordan et al., 2012; D. Lewis & Slapak-Barski, 2014; Lumpkin, 2012; Martin et al., 2013; Masalela, 2006; Samarawickrema & Stacey, 2007; Soffer et al., 2010; Tabata & Johnsrud, 2008; West et al., 2007; Zayim et al., 2006). Very few studies focused on presidential leadership or institutional adoption (DeRousie, 2014). While the DoI theory forms a large body of research, only a small number of studies investigate online education adoption in higher education with even fewer directed towards a specific segment of higher education, such as traditional liberal arts colleges. This study addresses this gap in the DoI literature. Furthermore, Shiftlet (2013) suggested that Rogers' (2003) DoI model provides a useful lens for analysis of online program management because it has been thoroughly vetted, used as a frame of reference within the field of higher education and employed as a way to understand adoption of new products or processes, such as those for online learning. According to Tabata and Johnsrud (2008), diffusion theory has been applied to multiple disciplines, most notably the adoption of information technology. The numerous DoI studies regarding higher education online learning in the above literature review as well as the anticipated use of the DoI theoretical framework substantiate this claim. This section provided a review of pertinent research literature regarding the DoI theory and model, which informs the theoretical framework for the study.

Summary of Literature Review

This chapter provides an intersection of the four elements that are paramount to this study's research questions regarding the adoption of online education by traditional liberal arts colleges and how traditional liberal art college presidents think about online education adoption. Specifically, this chapter examined four significant areas: liberal arts colleges and universities, online education, college and university presidency, and diffusion of innovations. The literature included a discussion about liberal arts institutions specifically traditional liberal arts colleges outlining their history, characteristics, and challenges, a synopsis of online higher education from a historical context to the present-day, a review of the college and university presidency including presidential leadership within the liberal arts college context, and an overview of diffusion of innovations theory and explanation of how the DoI model will be used as a theoretical framework in this study. The literature provided in this chapter informed the methodological strategies and techniques considered for this study, and the subsequent chapter outlines the methodological approach in detail.

CHAPTER 3: METHODS AND DESIGN

This chapter outlines the methodological approach applied in this research study. Two research questions guided this study: 1) To what extent has online education been adopted at TLACs?; and 2) How do presidents at TLACs think about the adoption of online higher education in general, within traditional liberal arts institutions, and within their institutions specifically? This chapter includes the study's research design, research context, research sample and data sources, instruments and procedures, data collection, data analyses, the role of the researcher, and a subjectivity statement from the researcher.

Research Design

Drawing upon the Diffusion of Innovations (DoI) theory as the framework for informing the data collection, this study employed a two-phase, sequential mixed method design. According to Creswell (2009), "sequential mixed methods procedures are those in which the researcher seeks to elaborate on or expand on the findings of one method with another method" (p. 14). To investigate the adoption of online education by TLACs and TLAC presidential perceptions regarding online education, this methodological approach was selected because it afforded the opportunity to begin with an exploratory method to understand the overall landscape of online instructional education in TLACs followed by a qualitative method involving the detailed examination of TLAC presidential perceptions of online education.

Phase One

In order to uncover the level of online instructional activity at each TLAC, the first phase was exploratory in nature. This phase sought to answer the first research question, "to

what extent has online education been adopted at traditional liberal arts colleges?" In this

phase, a fact finding quest to ascertain the level of online instructional activity at each TLAC

included queries to the NCES IPEDS from the 2015-2016 academic year database to

determine which institutions report distance learning offerings, institutional website reviews,

and a survey to TLAC registrars (see Appendix A). These data were collected in this order.

Additionally, I collected and analyzed other data, such as consortium data, relevant to the

research question during this exploratory phase. The data analyses provided a general

overview of what is happening in online education in TLACs and informed the selection of

participants for the second phase of the study.

Phase Two

College presidents participating in the second phase of the study were purposefully

selected in order to have representation from each online instructional education category.

With purposeful sampling, certain participants are deliberately selected because they are

information rich and bring particularly relevant details to the research questions at hand that

may not be gathered from other participant choices (Maxwell, 2013; Patton, 2015). The

qualitative interviews with TLAC presidents were conducted to understand how these

administrators feel and think about the adoption of online education in general, within

traditional liberal arts institutions, and within their own institutions. Although this study

utilized a mixed methods approach, the study relies heavily on qualitative inquiry as the "the

design of a qualitative study [is] able to change in interaction with the context in which the

study is being conducted, rather than simply being a fixed determinant of research practice"

(Maxwell, 2013, p. 7). Consequently, I used descriptive statistics and qualitative inquiry to

aggregate and analyze the data. Specifically, elite interviewing was used as a data collection

strategy. Combined, these design tactics provided the necessary tools to conduct an empirical study regarding the adoption of online education within TLACs.

Quantitative research typically tests theories deductively in order to control for alternative explanations and have the ability to generalize and replicate findings, while alternatively qualitative research tends to have more of an inductive style that focuses on exploring and understanding the meaning individuals or groups (Creswell, 2009). I applied more of an abductive analysis approach to this design that blends both deduction and induction styles causing movement back and forth between the two. According to Timmermans and Tavory (2012), abductive analysis begins with the theoretical background the researcher brings to the research, but the researcher then generates novel theoretical insights that reframe empirical findings in contrast to those existing theories initially brought to the research. "Abductive analysis emphasizes that rather than setting all preconceived theoretical ideas aside during the research project, researchers should enter the field with the deepest and broadest theoretical base possible and develop their theoretical repertoires throughout the research process" (Timmermans & Tavory, 2012, p. 180). The following sections include the rationale behind choosing each method.

Quantitative Inquiry

During this exploratory analysis, document analyses were conducted in order to quantify data on the status of online education at TLACs. Data from NCES IPEDS, institutional and liberal arts college consortium website reviews, and institutional information from TLAC registrars were evaluated in order to report descriptive statistics including the number/percentages of TLACs that have adopted online education and what level of online instructional education has taken place at each TLAC. Descriptive statistics aid in the

explanation or summary of data in a meaningful and digestible manner such that patterns might emerge from the data. Unlike inferential statistics, descriptive statistics do not allow researchers to make conclusions beyond the data analyzed (Lane, 2013). According to Sandelowski (2000), descriptive research has been described as the lowest form of quantitative research in the past. However, when the descriptive elements are combined with qualitative elements, the researcher has the opportunity to present a simplistic portrayal of the data using rich qualitative themes to support any numerical information that is discovered (Sandelowski, 2000), which is the intent in this particular two-phase, sequential mixed method study.

Qualitative Inquiry

The goal of this study was to investigate the level of online education adoption by TLACs and gain an understanding of TLAC presidents' perceptions of online education adoption. As stated in the review of the literature, much of the existing online education research reports on the quantity of online students, faculty, courses, and programs; yet, few of the studies report on how college presidents, specifically TLAC presidents, think about the adoption of online education. Presidential perceptions often influence the way these leaders engage with their various constituents, make decisions, and interface within their institutional culture. As a result, learning more about online education TLAC presidential perceptions can help to explain the rationale behind institutional online education adoption. Consequently, qualitative inquiry was utilized to provide insight into this phenomenon.

Although once believed to be inferior to quantitative methods, qualitative research employs different philosophical assumptions, strategies of inquiry, and methods of data collection, analysis, and interpretation (Creswell, 2009). As such, qualitative descriptive

studies are an ideal way to examine complex relationships or phenomenon at a high level, which may lead to further empirical studies in the form of qualitative, quantitative, or mixed method approaches for deeper understanding (Sandelowski, 2000). Qualitative data manifests in a myriad of formats, and there is not a single type that is better than the others. This qualitative inquiry employed two dominant data collection techniques: document analysis and elite qualitative interviews with TLAC presidents.

Document analysis. Patton (2015) emphasized the value of documents and documentation. "Records, documents, artifacts, and archives, what has traditionally been called 'material culture' in anthropology, constitute a particularly rich source of information about many organizations and programs" (Patton, 2015, p. 376). In addition to the quantitative data collected in phase one from NCES IPEDS, I also collected course catalog and course schedule information for each TLAC and consortia course offerings.

Prior to interviewing college presidents, Kezar, Eckel, Contreras-McGavin, and Quaye (2008) gathered background information on the individuals interviewed from websites, documents requested from campuses, press releases, and through personal contacts. Likewise, prior to conducting TLAC presidential interviews, I conducted extensive analyses of documents and background work on the presidents by gathering documents similar to as Kezar et al. (2008). I thought it was necessary to gather information on the colleges and universities from institutional websites as well as biographical information about each of the presidents, presidential press releases, speeches, and/or videos, and each president's curriculum vitae. This information significantly contributed to my elite interviewing technique as described below.

Elite interviewing. Borrowing from the sociology and political science disciplines, the this study used an adaptation of elite interviewing as the research methodology as described by Dexter (1970) and Richards (1996). In this context, elite refers to people in important or exposed positions that may require VIP interviewing treatment on the topics which relate to their importance or exposure (Dexter, 1970). According to Dexter, this methodology is based on the assumption that access to elites is often difficult and therefore should be given special, non-standardized treatment in order to learn what the problem, the question, and the situation is. Other researchers who interviewed college presidents also employed elite interviewing as a research methodology (Kezar et al., 2008; Kezar, 2007). Gathering pertinent background information and data is pertinent to conducting elite interviews. This background research and literature aided in informing the interview protocol (see Appendix C). In addition to this background research and literature, the interview protocol was informed by the literature on TLACs, presidential leadership, online education, and the diffusion of innovations theory. Further, using the information gathered from websites and staff, Kezar et al. (2008) suggested that interviewers attempt to establish an immediate connection with each interviewee in order to earn their trust and interest in the study as quickly as possible before beginning the formal interview process. I adhered to this recommendation by integrating either personal or career familiarity about each president into the interview.

Furthermore, Dexter (1970) emphasized that elite interviewing requires the interviewer to be flexible and provide the interviewee some level of freedom in order to shape the direction of the interview because after all the interviewee is the expert on the subject being investigated. Use of open-ended questions allowed me to yield in-depth

responses (Patton, 2015) about the TLAC presidential perceptions, opinions, feelings, and knowledge regarding online education. Also, due to the limited time TLAC presidents have for interviews, I electronically provided the consent form and a list of potential interview questions to TLAC presidential staff prior to the interview so the president could be briefed on the study and the questions.

Interview protocol development. The interview protocol (see Appendix C) was designed to elicit responses regarding general and specific online education presidential perceptions. The first set of questions asked the TLAC presidents to convey their thoughts and feelings of online education in general. Questions including "Generally, how would you describe your thoughts about online education in higher education?" and "Still thinking generally, please list three adjectives to describe your attitude towards online education." were inquired. Then, a second set of questions requested that TLAC presidents communicate their thoughts and reactions of online education specifically at their own institutions. Moore and Benbasat's (1991) eight perceived characteristics of innovation significantly influenced the development of these set of questions. These questions focused on voluntariness, image, relative advantage, compatibility, ease of use, result demonstrability, trialability, and visibility as shown in Table 1. Questions, such as "Describe any advantages and disadvantages of adopting online education at your institution."; "How relevant is online education to your institution?"; and "Describe how easy or difficult it would be to implement online education at your institution", were asked. These questions helped with the understanding of presidential perceptions of online education characteristics as the various traditional liberal arts institutions.

Table 1

Perceived Characteristics of Innovation Evidenced in Interview Questions

Perceived Characteristics of Innovation	Interview Questions/Prompts
Voluntariness	Is online education at your institution required?
	Do you require students to take an online education course at your institution? Please explain your answer.
Image	Talk to me about how other traditional liberal arts colleges and universities that adopt online education are perceived.
	(If applicable) Talk to me about how faculty who teach online (hybrid/fully online courses) at your institution are perceived.
Relative Advantage	Describe any advantages and disadvantages of adopting online education at your institution.
	How relevant is online education to your role as president? Can you give examples?
	How relevant is online education to your institution? Can you give examples?
Compatibility	Talk to me about how online education is compatible or incompatible with your institution's needs.
	Talk to me about how online education is compatible or incompatible with your institution's teaching emphasis.
	Talk to me about how online education is compatible or incompatible with your institution's pedagogy.
Ease of Use	Describe how easy or difficult it would be to implement online education at your institution. Can you give me examples?
Results Demonstrability	What have been the results of online education adoption at your institution? Can you give me examples?

Table 1 (continued)

Perceived Characteristics of Innovation Evidenced in Interview Questions

Perceived Characteristics of Innovation	Interview Questions/Prompts
Trialability	*(For institutions without online education)* - Is online education something that your institution has previously tried out or plans to try out in the future? Please explain your answer.
	(For institutions with online education) - How did your institution get involved in online education? Was it something that your institution was able to try out before adopting?
Visibility	Is online education visible at your institution? Can you give me examples?

Next, TLAC presidents were asked to "Talk about how other traditional liberal arts colleges and universities that adopt online education are perceived?" Then, TLAC presidents were directed to provide a digital technology self-rating on a scale from one (1) to five (5). Finally, the TLAC presidents were given the opportunity to share anything they wanted about online education, their presidency, or traditional liberal arts colleges and universities. The questions on the interview protocol served as an outline to start and guide the conversations; however, I was flexible in allowing the conversations to transpire as naturally as possible given the suggestions of previous scholars (Kezar et al., 2008; Kezar, 2007).

Prior to interviewing a TLAC president, I conducted a cognitive interview with a provost of a liberal arts college. As opposed to producing codable responses to questions, cognitive interviews focus on providing a view of the processes elicited by the questions (Presser, Couper, Lessler, Martin, Martin, Rothgeb, & Singer, 2004). Completing this

process, helped me refine the wording of questions as well as the order in which I asked the questions. The provost provided several helpful suggestions including the elimination of some questions, and she also provided the rationale for the suggestions. For example, she suggested that the digital technology self-rating question be the last question as opposed to the first question so the presidents are not "beginning the interview by judging themselves. Remember, the point of the interview is to understand their thoughts" (personal communication, Clarenda Phillips, July 8, 2016). Overall, the cognitive interview process improved the interview protocol.

<div align="center">

Research Context

</div>

According to Patton (2015), "sensitivity to context is central in qualitative inquiry and analysis" (p. 9). Thus, it is important to understand that TLACs account for less than 2% of the higher education enrollment in the higher education landscape (Breneman, 1994; Pope, 2012). As the review of literature in the previous chapter revealed, TLACs are considered the oldest institution in American higher education and have existed for over 300 years (Bonvillian & Murphy, 1996); yet, modern times have led some scholars to predict demise for the institutions as they are faced with numerous challenges including but not limited to dramatic new learning tools, global considerations, and increasingly diverse constituencies and their growing service demands (Lang, 1999). More recently, Baker et al. (2012) reported on the challenges facing liberal arts colleges that have managed to thrive and survive over two decades after Breneman's (1994) original study regarding the liberal arts institutions thriving, surviving, or endangered. Baker et al., (2012) identified residential education cost, competition from new education providers (including online and for-profit educational programs), job market in transition to a knowledge and service-based economy, and

vocationally oriented students more interested in financial security rather than liberal arts goals as four powerful threats to liberal arts colleges.

Speculatively speaking, TLACs that are merely surviving or those on the verge of closure may look to online education as an option to increase revenue streams through rising enrollment numbers and tuition dollars. Enrollment and net tuition revenue are integral variables in the sustainability of TLACs (Breneman, 1994). However, these institutions and institutional leaders may be integrating online education perhaps without closely examining if and how online education aligns with their existing TLAC environment, mission, culture, and curricula. Additionally, college presidents represent a complex and less understood group, especially concerning their roles in organizational change, such as adopting online education. The modern day college presidency consistently deals with organizational change as internal and external forces impact how these institutions are led. TLAC presidents in particular must demonstrate effective leadership as these institutions continue to evolve as a few of them are financially unpredictable in today's competitive global marketplace.

Sample and Data Sources

The sample for the study included those higher education institutions that are considered traditional liberal arts. In defining liberal arts colleges, Breneman (1994) stated "...the liberal arts college itself offers virtually no undergraduate professional education" (p. 12). Likewise, the research sample only included institutions that focus primarily on undergraduate arts and science curriculum and offer no undergraduate professional education or graduate education. The 2015 version of the Carnegie Classification of Institutions of Higher Education™ was utilized to determine which institutions meet this criterion. The Undergraduate Instructional Program Classification filter titled *Arts & Sciences plus*

professions, no graduate coexistence was applied to generate the list of TLACs. This classification filter included institutions with "60–79 percent of bachelor's degree majors in the arts and sciences, and no graduate degrees were awarded in fields corresponding to undergraduate majors" (The Carnegie Classification of Institutions of Higher Education, n.d., para. 18). This filter eliminated institutions that provide graduate degrees or more than 20% of professional degrees.

Consequently, application of this filter replaced Breneman's (1990, 1994) 50% criterion (any institution that awarded less than half of their baccalaureate degrees in arts and science fields was eliminated) for Liberal Arts I, and 60% criterion (any institution that awarded 60% or more of its degrees in professional fields was eliminated) for Liberal Arts II. Restricting the Bac/A&S: Baccalaureate Colleges - Arts & Sciences (formerly Liberal Arts I) and the Baccalaureate Colleges: Diverse Fields (formerly Liberal Arts II) categories to only include the Undergraduate Instructional Program Classification *Arts & Sciences plus professions, no graduate coexistence* afforded a narrower classification of liberal arts colleges than previously used by Breneman and Baker et al. (2012). Although Breneman referred to these institutions as true liberal arts colleges in his research, in this study these institutions are referred to as traditional liberal arts colleges (TLACs).

Application of the *Arts & Sciences plus professions, no graduate coexistence* to the 2015 version of the Carnegie Classification of Institutions of Higher Education™ yielded 84 institutions. However, after a closer investigation of the 84 institutions, 29 institutions were omitted because they offered some form of graduate coursework. Thus, the research sample consisted of 55 TLACs (see Appendix B). Figure 1 displays the geographical location for the TLACs.

Figure 1. Geographical location of each TLAC in the United States of America.

Only one of the 55 institutions, University of Minnesota-Morris, is public. The remaining 54 institutions are private not-for-profit organizations. The sizes and settings of the institutions are either four-year, small, highly residential or four-year, very small, residential. An institutional profile for each TLAC in the study was created that included: enrollment, size, religious affiliation, campus setting, total tuition cost, financial aid, graduation rates, and endowment (see Appendix D). The institutional profile is based on data gathered from the 2015 version of the Carnegie Classification of Institutions of Higher Education™ and the NCES IPEDS 2015-2016 academic year. Exploratory in nature, the first phase of the study gathered only public information via multiple data sources. The emergent categories from the study reflected the level of adoption of online education within the TLAC social system.

Based on the findings from phase one, college presidents representing each of the emergent categories of institutions were selected for participation in interviews. Prior to interviewing each president, I provided him/her as well as his/her administrative support staff person(s) with a consent form that outlined the purpose of the study and explained how the president's rights as participant are protected (see Appendix E).

Data Collection: Instruments and Procedures

Due to the sequential mixed method approach taken for this study, varying data collection mechanism and processes were employed and executed. According to Creswell (2009), mixed method research poses a challenge for researcher because of the need for extensive data collection, the time-intensive nature of analyzing both text and numeric data, and the requirement for the researcher to be well versed with both quantitative and qualitative forms of research. The following sections chronologically outlines the instruments and procedures used.

Phase One

The first phase of the study employed a variety of data collection procedures. In order to manage and organize the data I gathered, I used a combination of Google Sheets and Google Documents. This fact-finding quest began with queries to the NCES IPEDS 2015-2016 academic year database to determine which TLACs reported "distance learning" offerings (U.S. Department of Education, 2015). The four distance learning offerings options were *Not offered*; *Offers undergraduate courses and/or programs*, *Offers graduate courses and/or programs*, and *All programs offered completely via Distance Education*. These data from the NCES IPEDS database by TLAC were entered into a Google Sheet. In addition to

the distance learning offerings data, other institutional data including institutional characteristics, student charges, student financial aid, enrollment, and retention and graduation were collected. Next, I conducted extensive Internet searches of institutional websites to determine if these institutions offered online education. A majority of the TLACs have their course catalog and offerings publicly available online, and many of the institutions indicated which courses are offered via traditional classroom instruction or online instruction. A Google Drive folder for each TLAC was created to house pertinent information obtained from the institutional website searches including course catalogs and course schedules.

After gathering the NCES IPEDS data and other publicly available institutional data, I contacted each institution directly to confirm the accuracy of the data gathered at that time as well as seek additional insight about their online educational offerings. Because registrars tend to be most familiar with course offerings, I contacted each TLAC registrar. On May 24, 2016, I emailed each TLAC registrar to request his/her participation in a brief phone survey before June 17, 2016 (see Appendix F). Seven registrars (12.72%) responded directly to the email with their responses within a week as opposed to talking with me via phone, and four registrars (7.27%) responded via email within 2-3 weeks. Several registrars provided a date and time for me to talk with them by phone, and I surveyed four registrars (7.27%) within one week of the email request. Two registrars (3.63%) elected not to participate in the phone survey. Due to the high percentage of unresponsiveness of the email after two weeks, I called each registrar directly. Eighteen of the registrars (32.77%) participated in the phone survey on the spot, and I left phone messages for 19 registrars (28.65%) who were unresponsive. One registrar (1.82%) requested the phone survey for a future date when called directly.

Phase one data analysis provided a snapshot of online education given the traditional liberal arts college as a specific higher education model. Further, analysis of this data allowed me to divide the TLACs into categories. The categories from the study reflect the level of adoption of online instructional education within the TLAC social system including: no online offerings, hybrid course offerings, and fully online course offerings.

Phase Two

Based on the findings from phase one of the study, presidents were divided into the appropriate categories and selected for participation in interviews. The intent was to obtain a sample of presidents from each category, and ultimately have proportional representation of presidents across adoption categories corresponding with the proportion of institutions in the adoption categories. Elite qualitative interviews with TLAC presidents were conducted to understand how these presidents feel and think about the adoption of online education. Using an extended form of Rogers' model of the diffusion of innovations theory using Moore and Benbasat's (1991) perceived characteristics of innovations (PCIs), an interview protocol utilizing semi-structured questioning focused on better understanding of TLAC presidents' perceptions of online education adoption was developed and utilized (see Appendix C). Similar to Richardson (2011), the guided questions revolved around creating an understanding of the eight perceived characteristics of innovation: relative advantage, compatibility, ease of use (formerly called complexity), trialability, visibility (formerly called observability), image, voluntariness, and result of demonstrability. The eight PCIs were used to inform the semi-structured interview protocol. The interview protocol design elicited dialog from TLAC presidents regarding the eight PCIs as well as their insight regarding the

online education in general in higher education and specifically at their traditional liberal arts institutions.

Presidential access challenges. Gaining access to these high profile participants was a challenge that I overcame by employing various strategies. A primary challenge was determining the best communication method to use to gain initial access to TLAC presidents. A president's administrative assistant or staff person in many ways serves as a gatekeeper to the president. Thus, sending an invitation letter or email directly to presidents requesting participation may not be the best recruitment technique due to the high quantity of emails and invitations TLAC presidents likely receive on a daily basis. Consequently, another key challenge to accessing the TLAC presidents is their limited time availability. The aforementioned review of college/university presidential literature indicated that presidents have extremely busy schedules and work laboriously to meet the needs of their various constituencies. This perception may even be more pronounced for TLAC presidents as many of them often cite teaching as the most important aspect of higher education as opposed to research. Hence, participating in a dissertation research study (more than likely) may not be a priority for them.

Another concern was potential low response rates. Scholars who have studied college and university presidents reported response rates between 37 and 65% (Langbert, 2006; Singell & Tang, 2013; Smerek, 2013). Smerek sent invitation letters to 40 presidents and received positive responses from 18 yielding a response rate of 45%. Ten of the 40 (25%) presidents declined to be interviewed due to time constraints, and the remaining 30% did not respond. Singell and Tang (2013) had an average response rate barely over 37% in which responses were considerably higher for research institutions (73.4%) whereas the response

rate for Master's institutions were lower (24.4%). Singell and Tang did not specifically report the response rate for liberal arts colleges. Using the *U.S. News & World Report* rankings, Langbert (2006) insinuated that rankings impact response rates from college presidents indicating that tier one liberal arts institutions had a 94.6% response rate in comparison to the 54.9% response rate of tier-four liberal arts institutions. Furthermore, TLAC presidents simply may not be interested in participating in a research study regarding online education. Some may not see the value added in discussing their thoughts, feelings, and perceptions regarding online education, and therefore do not wish to participate in an interview.

Despite these types of challenges, other dissertation researchers were able to successfully access college presidents and conduct interviews (Beardsley, 2015; Filer, 2013; Gaylor, 2003; Rudolph, 2013). Thus, accessing TLAC presidents was challenging but not impossible for this study.

Presidential access strategies. In order to overcome the presidential access challenges previously specified, I used a variety of strategies to increase the likelihood of participation from TLAC presidents. First, I attempted to gain access to the TLAC presidents during the summer months of June and July. Since most TLACs do not have summer course offerings, I suspected that requesting presidential interviews during this time would increase the likelihood of participation. To combat the resistance of the gatekeeper, there are a several techniques I implemented. I began with my personal networks to help achieve TLAC presidential access since I did not know any of the potential president participants directly. A colleague of mine who is a former American Council on Education (ACE) fellow, graduate of a TLAC, and currently in administration of a liberal arts college was willing to make introductions on my behalf to presidents she knew personally. Additionally, another

colleague who has been in the higher education sector for over 30 years used her networks to solicit presidential participation on my behalf. I requested similar networking assistance from my committee members. Further, once I established a rapport with the participants whom I interviewed, they were asked to recommend my study to other eligible TLAC presidents; thus, variation of the snowball sampling technique was utilized to increase the participation of TLAC presidents. According to Patton (2015), researchers can build their sample while interviewing by asking each interviewee for suggestions about people who have a similar or different perspective thereby creating a chain of recommended informants.

In addition to personal networks, I solicited access assistance from various consortia. I emailed consortia (see Appendix G) that had one or more of the sample institutions as members to see if their organizations were willing to help me gain access to their presidential members who met the proposed research criteria. This list included the following organizations: Associated Colleges of the South (ACS), Consortium of Liberal Arts Colleges (CLAC), Associated Colleges of the Midwest (ACM), Great Lakes College Association (GLAC), Council for Independent Colleges (CIC), Five Colleges of Ohio, Five College Consortium. Out of these seven consortia, only GLAC Association passed along my request to eight of their institutional presidential members on my behalf via email. The ACS responded that they were unwilling to solicit participation members on my behalf but stated, "contact information for the people in whom you are interested is readily available on each institution's website, should you wish to contact them directly" (D. Lord, personal communication, June 21, 2016). Similarly, the ACM were unwilling to solicit participation from members and recommended that I contact each institution directly; however, the consortium expressed interest in learning about the results of the research study. The

remaining four consortia were unresponsive.

Besides organizational, personal, and social networks, an additional strategy for overcoming the resistance of the gatekeeper is to contact to him/her directly. I emailed each TLAC's presidential executive assistant/office manager individually in the hope of gaining access to presidents (see Appendix H). In most cases, the TLACs presidential executive administrative assistant/office manager was the person I needed to contact in order to coordinate logistics for the interview so establishing an initial rapport with him/her was critical. this technique did allow me to secure a few participants.

Next, I contacted potential presidential participants directly. One of my initial presidential participants suggested that I create a video to introduce myself, state the purpose and significance of the study, and communicate that the sample pool was only 55 presidents in order to entice TLAC presidents to participate. Since this advice was from a member of my target population, I adhered to the recommendation and created a two-minute YouTube video (https://youtu.be/punduPsk_0s) soliciting TLAC presidential participation. In an email, I sent this link and a brief introduction as well as the nature of the email to potential presidential participants that I had not secured as participants (see Appendix I).

To mitigate the issue of anticipated low response rates, I utilized two different communication strategies. First, I attempted to make contact more than once after a minimum of 10 business day timespan. Second, I attempted to make contact using an alternative communication method than I used initially. For instance, if I initially made contact via a colleague email introduction directly to the president, the second attempt was to email or call the president's executive administrative assistant/office manager to encourage participation. Persistence was vital, and each contact attempt is documented in a Google

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Sheet.

Given the nature of TLAC presidents' schedules, the elite qualitative interviewees were given the option for the interview to take place in three different modalities: face-to-face, video web conference, or phone conference. Conducting face-to-face interviews allow the researcher to gather more non-verbal cues during the interviews and provide more insight and context into each campus' culture. Nevertheless, face-to-face interviews were not feasible for some of the presidential participants; therefore, interviews also took place using UberConference or via Zoom video web conference. For the Zoom interviews, the TLAC presidents and I connected to the video web conference environment using our individual computers with video and audio capability. With the interviews that used UberConference as the medium, the TLAC presidents had the option to use their phone or computer to connect to the conference. The TLAC presidents elected to use their office or mobile phones to call in while I connected using my computer with audio capability. Regardless of the interview medium, each interview was recorded.

Presidential sample. Various recruitment strategies and techniques yielded 11 presidential interviews out of 55 potential participants (20%). Seven of the eleven presidents (72.72%) were leaders of institutions that fell under the no online education offerings category. Three of the eleven presidents (27.27%) were leaders of institutions where hybrid courses are offered, one president was a leader of an institution that had fully online course offerings. Eight presidential participants were males (72.72%) and three were females (27.72%). The average length of presidency among participants was six years with a range between two months and 18 years at the time of this study.

Data Analysis

According to Coffey and Atkinson (1996), "the search for one perfect method of data analysis is fruitless…There is no single right way to analyze qualitative data; equally, it is essential to find ways of using the data to think with" (p. 2). As a result, this study applied multiple techniques during data analysis.

Phase One

Since the first phase of the study was an exploratory analysis, relevant data analyses were implemented as data were collected and examined. As I gathered data from multiple sources, I cataloged all data in a Google Sheet in order to compare the various sources to determine if there were any discrepancies. The intent was to determine if the various sources of data (institutional website reviews, NCES IPEDS, and TLAC phone surveys) confirmed the same type of online instructional education activity present at each TLAC in order to report quantitatively on the state of online education at TLACs. Additionally, I kept written and audio researcher memos during the data collection process in order to maintain records on my thoughts while immersed in the data. Analyses of these data provided a snapshot of online education given the traditional liberal arts college as a specific higher education model. Findings indicated that TLACs are adopting and rejecting online education.

Phase Two

The second phase of the study required a more complex data analysis approach. Qualitative data analysis involves "making sense out of the text" and "conducting different analyses" in order to move into a deeper level of understanding (Creswell, 2009, p. 183). Due to the complexity of this type of analysis, it must be an ongoing process that involves

continual reflection about the data and questioning the data. Data analysis began with the first interview. Data from interviews were recorded as either a .mp3, .mp4, or .m4a files. During each interview, I made handwritten notes on each interview protocol. And after each interview, I recorded my thoughts about the interview, the responses, and the participant using Evernote on my mobile device. During qualitative interview timespan from July 14, 2016 to August 19, 2016, I wrote several researcher memos.

Additionally, I began transcribing interviews in the midst of the data collection phase so that I could be immersed in the data. The interview transcripts were uploaded to Dedoose, a web application for qualitative and mixed method data analysis. Utilizing computer software designed specifically for qualitative data analysis has become more prevalent due to the strength in categorizing analysis (Maxwell, 2013). Each transcript was coded in Dedoose. Coding data enable researchers to think about and with the data (Coffey & Atkinson, 1996). The initial coding scheme began with the keywords identified from researcher memos and audio reflections and then expanded into broader emergent themes and concepts as the data were consistently compared over a span of time. Each transcript was read numerous times during the coding process, and all codes were checked for accuracy after all transcripts were initially coded. Thus, the data analysis approach was an open coding scheme in order to capture the full story of the interview participants. "The traditional approach in the social sciences is to allow the codes to emerge during the data analysis" (Creswell, 2009, p. 187).

Validity

In order to address validity concerns for this research study, I employed several strategies including: mindfulness of reactivity, respondent validation, triangulation, and recognition of researcher bias. Being mindful of my reaction during the presidential

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interviews was vital because as the researcher "it is important to understand *how* [I] am influencing what the informant says, and how this affects the validity of inferences [I] can draw from the interview" (Maxwell, 2013, p. 125). To avoid the possibility of misinterpreting the meaning of what participants say, I used respondent validation in the form of member-checking. After each interview was transcribed, I emailed each participant a copy of the transcript in order to solicit his/her feedback to ensure I accurately captured the conversation. Additionally, I shared the phase two research findings, specifically emergent themes, with the participants to ensure I had accurately analyzed their perceptions. Further, the participants were reminded that I may use direct quotes from our conversations; however, his/her identity was protected through the use of fictitious personal alias. Additionally, 6 out of the 11 presidential participants (54.55%) had to have an excerpt in each theme for it to be considered a valid theme. According to Borgen and Amundson (1984), valid participation rate of 25% is needed for each theme to be considered valid. This study exceeds that number by nearly 30%.

This study used multiple forms of information to triangulate the data so that one data source does not dominate the data analyses and interpretation. Triangulation "reduces the risk of chance associations and of systematic biases due to specific method, and allows a better assessment of the generality of the explanations that one develop" (Maxwell, 2013, p. 128). Data sources include NCES IPEDS 2015-2016 academic database, institutional websites, course schedules and offerings, survey results from TLACs registrars, TLACs presidential biographies, TLACs presidential press releases, and elite interviews with TLACs presidents. According to Creswell (2009), "if themes are established based on converging several sources of data or perspectives from participants, then this process can be claimed as adding

to the validity of the study" (p. 191). In addition, as my role as the primary investigator, I explained my role in the research process and highlighted what biases I bring to the research project in the following section.

Role of Researcher

According to Patton (2015), qualitative inquiry is personal as the researcher brings his/her background, experience, training, skills, interpersonal competence, capacity for empathy, cross-cultural sensitivity, and personal engagement in fieldwork and analysis. Consequently, my role in this research study is to be the instrument of inquiry (Maxwell, 2013; Patton, 2015) while being mindful to reflect on who I am as a researcher, an instructional designer, and an instructor of online higher education. I subscribe to Coffey and Atkinson's (1996) position that data analysis is not "a distinct stage of research; rather it is a reflexive activity that should inform data collection, writing, further data collection, and so forth" (p. 6). Thus, I wrote memos throughout the data collection and data analysis process thereby giving myself the opportunity to continually reflect on the process and my own biases. Completely eliminating researcher bias is impossible; thus, the following section addresses who I am and what biases I may bring to the research project.

Subjectivity Statement

The chosen topic, adoption of online education, is relevant to me as a practitioner and a scholar. In my previous and current role as an instructional designer in both the American private sector and in higher education, I assist faculty members and departments with the design of blended/hybrid and fully online courses and programs. I provide professional development sessions for faculty and staff members in the areas of learning management

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systems, online course design, and other instructional technology tools. I also have taught and currently teach postsecondary blended/hybrid and fully online courses. Consequently, I am familiar with some of the motivations and barriers to online adoption at the faculty, department, and college levels. I have over a decade of instructional design experience and am intrigued by the access opportunities that online education afford. However, I am not convinced that online higher education will completely replace conventional higher education instruction especially in some institutions, such as TLACs with strong cultures toward faculty-student face-to-face engagement and interaction. Still, I believe that all institutions should be receptive to pedagogical innovations and decide if and how various innovations are appropriate for them.

As a scholar, the study of higher education technology leadership particularly in the area of online learning is central to my research agenda because I am interested in how non-profit higher education institutions and leaders are dealing with the adoption, implementation, management, and sustainability of online education at their institutions. My previous experiences and scholarship have not included examining online adoption at an institutional-level or obtaining presidential leadership perceptions; thus, this study increases my knowledge base and placed me outside of my comfort zone. This research study combines three specific areas: online education, presidential leadership, and traditional liberal arts colleges that are of scholarly interest to me. Throughout this research endeavor, I was mindful of who I am as a practitioner and truly focused on my role as a scholar seeking empirical evidence.

Ethical Stance

In order to maintain ethical standards, I attempted to adhere to a precise research design and methodology. Prior to fieldwork, I secured approval for the study from the Institutional Review Board (IRB) at the University of Kentucky. The IRB letter of approval is included in Appendix J. Before conducting the interviews, I had all 11 participants sign the informed consent form allowing me permission to use any data gathered in my study. Any notes taken during the interviews and during my analysis were kept private and on a password protected computer. The identities of the presidential participants will be kept as private as possible to the extent allowed by law to ensure for human protection. Presidents participating in the study were assured confidentiality in my study. All presidential participants agreed to be either video-taped or audio-recorded for the interviews with the understanding that it remained private even after the conclusion of this study.

Summary

This chapter explained the methodological approach that was used for the research study that sought to determine the extent to which online education has been adopted at TLACs and explore how TLAC presidents think about the adoption of online education. This chapter outlined the sequential mixed methodological research design, provided the research context, discussed how the research sample was determined, indicated the type and number of data sources that were utilized, advised the data collection procedures and mechanisms, described the data analysis techniques, pointed out validity strategies that were implemented, confirmed the role of the researcher in the research process, and stated the researcher's ethical stance.

CHAPTER 4: PHASE ONE FINDINGS

This chapter presents the findings from phase one of this research study. The results from this phase answer the first research question posed in Chapter 1, "To what extent has online education been adopted at TLACs?" Since this phase of the study was exploratory, data were gathered from multiple sources including NCES IPEDS from the 2015-2016 academic year database, institutional website reviews, TLAC registrar phone surveys, and various consortia data. These data were analyzed in order to determine the level of online instructional education activity at each TLAC. Analyses of these data provided a snapshot of online education given the traditional liberal arts college as a specific higher education model. Findings indicated that TLACs are adopting and rejecting online education. This chapter is organized in terms of grouping the results from each data source and followed by a categorization of the TLACs.

NCES IPEDS 2015-2016 Academic Year

Since 2013, the National Center for Education Statistics' (NCES) Integrated Postsecondary Education Data System (IPEDS) has collected and reported on "distance" learning in addition to the to the wealth of other data they provide on U.S. higher education institutions (Allen & Seaman, 2015; U.S. Department of Education, 2015). Of the 55 TLACs, five institutions (9.09%) reported *"Offers undergraduate courses and/or programs"* distance learning to IPEDS for the 2015-2016 academic year. These five institutions included Agnes Scott College, Albion College, Cornell College, Shimer College, and University of Minnesota-Morris. The remaining fifty traditional liberal arts institutions did not report any distance learning offerings to the NCES.

Table 2

Percentage of Distance Learning Offerings for TLACs from NCES IPEDS 2015-2016

TLACs Distance Learning Offerings	
No Distance Learning Offerings	50 (90.91%)
Distance Learning Undergraduate Courses/Program Offerings	5 (9.09%)

Institutional Websites

Each TLAC institutional website was extensively searched for evidence of online education activity. Course catalogs and course schedules revealed that some institutions only offer for-credit fully online course offerings during the summer semester, yet others offered fully online or hybrid courses during the fall and spring semesters. Five TLACs (9.09%) provided fully online summer courses during the 2015-2016 academic year: Agnes Scott College, Albion College, Cornell College, Hanover College, University of Minnesota-Morris. The types of fully online courses offered during the summer are provided in Table 3. As defined in Chapter 1, fully online courses are courses that have all content and course activities including meetings online with no traditional face-to-face on campus instruction. The fully online course topics offered during summer varied and included but not limited to: mathematics, foreign languages, sciences, business, education, and music. Of the 55 TLACs, twenty-seven (49.09%) did not offer any type of online course offerings during the summer semester.

Table 3

Summer Fully Online Course Offerings at TLACs

Institution	Number of Fully Online Summer Courses	Fully Online Summer Course Offerings (2015-2016 academic year)
Agnes Scott College	16	AST-120/120L: The Solar System, with lab (online); CHI-101: Elementary Chinese I; ENG-230: Topics in Film Study: Romantic Comedy; FRE-201: Intermediate French I; MAT-115: Elementary Statistics; PSY-101: Introductory Psychology: Biological Foundation and Cognitive Processes; WS-100: Introduction to Women's Studies; ANT-101: Cultural Anthropology; CHI-102: Elementary Chinese II; EDU/ENG-320: Literature for Children and Young Adults; FRE-202: Intermediate French II; FRE-232: French/Francophone Civilization and Culture; HIS-101: Europe from the Middle Ages to the Enlightenment; PSY-102: Introductory Psychology: Development, Social Behavior, and Individual Differences; PSY-200: Developmental Psychology; WS/PH-225: Issues in Women's Health
Albion College	8	BIOL 300: Genetics; COMM 209: Sport Communication; COMM 213: Intercultural Communication; E&M 362: International Management; KIN 200: Medical Terminology; MATH 125: Precalcus; MATH 141: Calculus of a Single Variable; MATH 209: An Intro to Statistics
Cornell College	2	EDU 340: Language, Literacy, and Communication; EDU 360: Reading Assessment, Diagnosis, and Evaluation
Hanover College	5	COM 212: Introduction to Communication; EDU 354: Special Education Law & Policy; ANTH 162: World Cultures & Societies; ECO 113: Principles of Microeconomics; EDU 356: Learning Environments & Transition

Table 3 (continued)

Summer Fully Online Course Offerings at TLACs

| University of Minnesota-Morris | 18 | ECON 1111: Principles of Microeconomics; ECON 1112: Principles of Macroeconomics; ED 2201: Perspectives on Young Adult Literature: Schooling, Society, and Culture; GWSS 2001: Gender and Sexuality in Media Fandom; IS 104: Health Sciences Terminology; LAT 2001: Intermediate Latin I; MUS 1043: American Jazz Styles; PHIL 1101: Introduction to Philosophy; POL 1201: American Government and Politics; POL 1401: World Politics; PSY 1051: Introduction to Psychology; PSY 2411: Introduction to Lifespan Developmental Psychology; PSY 2581: Drugs and Human Behavior; PSY 3313: Psychopathology; STAT 3501: Survey Sampling; STAT 3601: Data Analysis; STAT 4671: Statistical Computing; STAT 4681: Introduction to Time Series Analysis |

Six TLACs (10.91%) provided for-credit hybrid or fully online courses during fall and spring semesters of the 2015-2016 academic year. As defined in Chapter 1, hybrid/blended course delivery are courses that have traditional face-to-face on campus instruction and some on campus activities have been replaced by online learning activities. Two institutions (3.64%), Agnes Scott College and University of Minnesota-Morris, offered both hybrid and fully online courses during the academic year. Amherst College, Southwestern University, and Vassar College only offered hybrid course offerings, and Pitzer College only offered fully online courses during the fall and spring semesters. The topics of the courses as well as the course format are presented in Table 4.

Table 4

Online Course Offerings at TLACs During the 2015-2016 Fall and Spring Semesters

Institution	Hybrid Courses	Fully Online Courses
Agnes Scott College	AS 340/GER 340: Afro-German History, Literature, and Culture; EDU 380: Teaching Exceptional Children	THE 180: Theatre from Page to Stage to Screen; AS340/GER 340: Afro-German History, Literature, and Culture; EDU 380: Teaching Exceptional Children
Amherst College	BLST 474/ENGL 474: Panama Silver, Asian Gold: Reimagining Diasporas, Archives, and the Humanities	
Pitzer College		MS 134 PZ: Feminist Dialogues on Technology
Southwestern University	Topics in Greek Literature II - offered on a five-year cycle: Homeric Poetry, Greek Lyric Poetry, Comedy, Literature of the 4th Century, Hellenistic Literature	
University of Minnesota-Morris	ED 2221: Diversity and Identity in Literature and Film; HMSV 2001: Introduction to Human Services; PSY 4102: Intro to Prof Conduct, Legal Constraints, Ethics in Human Services	GEOG 2001: Problems in Geography; HIST 1301: Introduction to U.S. History; HIST 3359: Native Strategies for Survival, 1880-1920; PSY 3313: Psychopathology; SOC 1101: Introductory Sociology; ENGL 1011: College Writing; IS 1041: Health Sciences Terminology; PSY 1051: Introduction to Psychology ; PSY 4102: Intro to Prof Conduct, Legal Constraints, Ethics in Human Services

Table 4 (continued)

Online Course Offerings at TLACs During the 2015-2016 Fall and Spring Semesters

Institution	Hybrid Courses	Fully Online Courses
Vassar	GERM 210: Intermediate German I - Identity in Contemporary Germany; GERM 211: Intermediate German II - Space in Weimar Germany	

Similar to the fully online course offerings, the topics of the hybrid course offerings during 2015-2016 fall and spring semesters varied. Topics included foreign languages, Greek literature, education, and others. Different institutions provided hybrid courses in different formats. For example, with the Greek literature hybrid courses offered at Southwestern University, students participated in weekly webcast lectures offered through Sunoikisis, an online discussion moderated by faculty members from participating institutions, and weekly tutorials with faculty members. Alternatively, Pitzer College offered a Feminist Dialogues on Technology course in a massively distributed collaborative learning forum and archive on the topic of feminism and technology taught by 28 international scholars, taken by students all over the world, and co-sponsored by Pitzer College and University of Southern California.

In addition to official hybrid and fully online courses offered at TLACs, there were a number of institutions that enhance their traditional face-to-face courses using various technologies. However, due to the type of institutional website search conducted it was difficult to ascertain the level of technology used by each institution. Some institutions, such as Haverford College, were explicit about their technology integration but did not specify if hybrid courses were offered. According to the 2015-2016 Haverford Academic Catalog, many courses mix online discussion groups, web resources and other electronic resources

with traditional lectures, in-class discussions and printed materials for a full and varied learning environment. For example, ENGLH292 B001: Poetry Writing II Contemporary Voices required online journals.

Non-Credit Online Education

While exploring each TLAC website, I noted that few institutions offered online modules, courses, or trainings that were not for academic credit. Shimer College provided four online courses/seminars that lasted two to six session lasting approximately 90 minutes each. Course/seminar topics included: Two Attacking Games of the Young Kasparov, The Last Days of Socrates, What is Critical Thought?, and Reading Poems. These courses/seminars were targeted toward the general public and Shimer alumni with no more than twelve participants per course. Prices for the courses ranged from $40 to $120, and Shimer alumni received discounts. Similarly, Lafayette College offered three mini-online courses for alumni. These three courses were titled: Fictional Worlds, The Uniquely American Musical, and The Miracle of Flight: Designing a Dream. These non-credit mini courses were developed in partnership with faculty members, research students, and instructional technologists and featured live discussion sessions. At Wellesley College, the Department of Italian Studies provided free online summer Italian courses for alumnae and their families in order to promote lifelong learning.

In addition to these lifelong learning types of online offerings, some TLACs also provided online training modules for employees and students. For instance, Hampden-Sydney College provided a Harassment and Discrimination Course for all new employees. This course must be taken during the first month of employment and is estimated to take between 60 and 90 minutes to complete. Dickinson College require all new incoming

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students to take three online modules prior to arriving on campus: AlcoholEdu for College, Every Choice, and Academic Integrity. Likewise, at Wabash College it is mandatory for students to take online modules regarding academic conduct prior to the start of the semester. In both cases at Dickinson and Wabash, students have further discussion with faculty in freshman seminar courses. Students at Macalester College are mandated to complete online modules regarding Title IX as well as drug and alcohol abuse.

Learning Management Systems

During the institutional website explorations, I searched to determine if the colleges and universities were using learning management systems (LMS) or some type of college or content management systems (CMS). I discovered that all but one institution (98.18%) had officially adopted a LMS. The level of LMS integration varied greatly from institution to institution, and I suspect even in many cases from instructor to instructor. TLACs used several different types of LMSs as evidenced in Table 5. Nearly 70% of the TLACs adopted either Moodle and Sakai. These two LMSs are often appealing to smaller institutions, such as TLACs, due to fact that they are open-source platforms that allow for customizable solutions.

Table 5

LMSs Adopted by TLACs

Learning Management System	Number (percentage)
Moodle - https://moodle.com/	32 (58.18%)
Sakai - http://sakaiproject.org/	6 (10.91%)
Blackboard - http://www.blackboard.com/	5 (9.09%)
Canvas - http://canvas.instructure.com/	4 (7.27%)
Jenzabar - https://www.jenzabar.com/	2 (3.64%)
Courseworks - http://www.webcourseworks.com/	1 (1.82%)
Lyceum - http://thelyceum.org/	1 (1.82%)
Populi - http://www.populiweb.com/	1 (1.82%)
Blakbaud - NetClassroom - https://www.blackbaud.com/	1 (1.82%)
Unknown	1 (1.82%)

Massive Open Online Courses

While conducting the individual institutional website searches, I found that three TLACs (5.45%) were involved with MOOCs. In December 2012, Wellesley College became the first liberal arts college to join the edX learning collaborative, and also the first women's college to offer MOOCs (Wellesley, n.d.). edX is one of the leading MOOC providers, and this particular MOOC provider is both nonprofit and open source unlike some its competitors like CourseEra and Udacity. Wellesley is an edX charter member, and edX charter members aid in driving the vision and mission of the nonprofit organization. WellesleyX offers a dozen courses. These courses include: Personal Finance, Part 1: Investing in Yourself; Global Inequality; Global Social Change; Global Sociology; Introduction to Human Evolution; Italian Language and Culture: Beginner; Italian Language and Culture:

Intermediate; and Italian Language and Culture: Advanced, Shakespeare: On the Page and in Performance. These courses and their descriptions can be found on the WellesleyX website - https://www.edx.org/school/wellesleyx. The length of WellesleyX courses ranged from 4 to 12 weeks. Students can audit these courses for free. Some WellesleyX courses offer a verified certificate for students who want to pay a small fee of $49 or $50 to obtain a certificate. Many of the courses are self paced, yet others have archived dates or upcoming course start dates. The most recent WellesleyX MOOC was the Personal Finance, Part 1: Investing in Yourself course offered on October 18, 2016.

Similarly, Davidson College is an edX charter member that offers five courses through DavidsonX. These five DavidsonX courses include: Applications of Linear Algebra I, Applications of Linear Algebra I, Electronic Literature, Medicinal Chemistry: The Molecular Basis of Drug Discovery, and Representations of HIV/AIDS. The courses and their descriptions can be found on the DavidsonX website - https://www.edx.org/school/davidsonx. The length of DavidsonX courses ranged from 4 to 8 weeks. Although the courses are verified, the verified certificate option is closed for these five courses. As a result, students can only audit these courses for free. The most recent DavidsonX MOOC was the Medicinal Chemistry: The Molecular Basis of Drug Discovery course offered on March 12, 2016 and future course start dates were not indicated. Therefore, only course archived materials are available.

Unlike Wellesley and Davidson that are edX charter members, Hamilton is an edX member. edX member institutions are a carefully selected group of institutions, non-governmental organizations, businesses, and other high-profile quality course builders.

HamiltonX provides four MOOCs including: Incarceration's Witnesses: American Prison Writing; Jazz: The Music, The Stories, The Players; Ethics of Sports: Do Sports Morally Matter?; Spirituality and Sensuality: Sacred Objects in Religious Life. These length of these courses range from 2 to 7 weeks, and their descriptions can be found on the HamiltonX website - https://www.edx.org/school/hamiltonx. Similar to the WellesleyX MOOCs, students can audit these courses for free or pay a small fee of $49 or $50 to obtain a verified certificate. The most recent HamiltonX MOOC was the Ethics of Sports: Do Sports Morally Matter? course offered on October 18, 2016. The remaining three course materials are archived. Although only a few TLACs offered MOOCs, these MOOC partnerships have been in the works since in 2012 and still continue in 2016.

Consortia Websites

Some TLACs leveraged their consortium members in order incorporate online education into their current offerings. In 2013, Macalester College in partnership with the Associated Colleges of the Midwest (ACM) offered its first fully online calculus course during the summer. The ACM is a consortium of academically excellent, independent liberal arts colleges located in Illinois, Iowa, Minnesota, Wisconsin, and Colorado. The request for this online course came from the ACM Board of Directors. The course developed from the ACM's Online Learning Project, which is a consortia effort to explore ways in which online learning might be used to enhance the educational mission of small, residential liberal arts institutions. Calculus: A Modeling Approach was offered for the fourth time in summer 2016 and may be offered in the future. The class was developed and taught by Macalester math professor Chad Topaz and St. Olaf College math professor Tina Garrett. This course is designed primarily for students in the natural sciences and social sciences, such as

economics, environmental science, psychology, medicine, ecology, and chemistry, who want to apply quantitative modeling tools in their discipline. Course activities included pre-recorded lectures, online student forums, homework assignments, quizzes and exams, and weekly, live videoconference tutorials with the instructors. Enrollment in the course is limited to a maximum of 20 students in order to preserve the best features of a similar on-campus liberal arts college course and is offered only to students at ACM colleges. Eight of the fourteen ACM institutions are within the sample: Beloit College, Carleton College, Cornell College, Grinnell College, Knox College, Lawrence University, Macalester College, and Ripon College.

Through a Teagle Foundation grant, the Midwest Hybrid Learning Consortium was created to enhance classroom teaching with digital technology in order to create new approaches involving online learning. This six-member alliance consisting of Albion College, DePauw University, Grinnell College, Hope College, Lawrence University, and Wabash College, received a $335,000 grant to create hybrid and blended learning environments. Nine different collaborative efforts among the six institutions were currently in development at the time of this study. DePauw University and Albion College were developing hybrid environments for English, Mathematics and multivariate calculus, and other digital humanities for the upcoming 2017 academic year. DePauw was also in the midst of creating a hybrid learning environments for kinesiology courses. Grinnell College and Lawrence University were partnering to create hybrid resources for mathematics and statistic courses. Lawrence University was also working with DePauw University to create videos for a History of Economic Thought course. Albion College and Hope College were collaborating in order to create online websites and resources for a history course that explores the Black

Lives Matter movement. Wabash College was working with Hope College to hybridize the peer review process in order to help students improve their writing skills. Lawrence University and Hope College were collaborating on hybrid learning modules that examine the topic of violence in the sacred texts of the Abrahamic religions of Judaism and Islam. Although the courses created as a result of this collaborative effort incorporated online components, they are traditional face-to-face classroom courses, not fully online courses.

Similar to the Midwest Hybrid Learning Consortium, the Five College Consortium developed the Blended Learning Program in order to advance student learning by combining online and in-person forms of student engagement. The consortium included two institutions from the sample: Amherst College and Hampshire College. The purpose of the consortium program was to engage faculty members in the exploration and evaluation of blended learning in liberal arts settings with support from grants. During the 2015-2016 academic year, Hampshire College created technology-based resources and pedagogical strategies for two different blended projects: Media in Cars and Translating the Classics. In the Media in Cars course, students learned about the technological, design, and social factors of media in cars from 1920 in the U.S., and they will construct 3D online models of media in cars as well as an online database of foundational information. With the Translating the Classics project, students explored literary translation across time as well as across languages and to engage in its practice by producing enhanced digital texts that combine a new translation made by the student with visual, audio, and virtual data.

For the 2016-2017 academic year, grants have been awarded to Hampshire to create blended learning assets and strategies for four topics in two areas. In areas of critical social inquiry, From Sugar Plantation Laborers to "Gangnam Style Consumers: Transnational

History of Korean American's and Refugee Narratives courses will adopt blended approaches, such as student developed course websites, online discussions, and blogs. In the humanities, arts, and cultural studies area, Beyond the Riot: Zines in Archives and Digital Space and Reading Photography blended course goals included online data visualization and online course modules.

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TLAC Registrar Phone Survey

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This section outlines the findings from the thirty-four TLAC registrars (61.82%) who responded to the survey (see Appendix A). An email requesting participation in a brief phone survey was sent to each TLAC registrar in the sample (see Appendix F). Seven registrars (12.72%) responded directly to the email with their responses within a week as opposed to talking with me via phone, and four registrars (7.27%) responded via email within 2-3 weeks. Several registrars provided a date and time for me to talk with them by phone, and I surveyed four registrars (7.27%) by phone within one week of the email request. Two registrars (3.63%) elected not to participate in the phone survey. Due to high percentage of unresponsiveness of the email after 2 weeks, I called each registrar directly. I left phone message for 19 registrars (28.65%) who were unresponsive, and 18 of the registrars (32.77%) participated in the phone survey on the spot. One registrar (1.82%) requested the phone survey for a future date when called directly.

Ten of the TLAC registrars indicated that their institutions provided summer courses. Each registrar specified the LMS adopted by his/her institution. When asked, "Are there any online or distance learning classes in your institution's course offerings?", 10 of the registrars expressed that their institutions was involved in some type of online or distance learning beyond the traditional face-to-face instruction. Four out of these ten registrars specifically

mentioned study abroad and how students may do coursework prior, during, or after returning from their abroad experience. Three of the ten registrars discussed their involvement with a consortia that offers online learning opportunities. One registrar stated how the college partnered with the flagship university in the area to provide students the opportunity to take online courses the his/her college does not offer.

Regarding blended/hybrid and fully online offerings, seven TLAC registrars indicated that their college or university provided courses. In some cases, the registrars were able to name specific hybrid courses, and in other cases they spoke in more general terms. Sterling College-Craftsbury Common College specifically identified two upper level courses, Agroforestry and Security Sovereignty and Food Justice, as hybrid courses based on the definition provided. Knox College utilized a hybrid approach in some of their computer science courses. Wellesley College indicated that the Introduction to Probability and Statistical Methods and Intensive Elementary Italian courses met three times a week face-to-face and had online laboratory components. Likewise, Lafayette College stated that their Italian courses were hybrid as well.

Three TLAC registrars stated that their institutions provided or plan to provide fully online courses. Albion College indicated that the institution was in its fourth year of offering fully online summer courses. Typically, Albion averaged about 8-10 courses each summer. In the summer of 2016, 93 students were enrolled among eight courses. University of Minnesota-Morris indicated that 3-4 fully online courses were offered in the fall and spring semesters; yet, there was a significant increase during the summer semester with 15-18 fully online courses offered. Lafayette College indicated that a fully online course in Documentary Storymaking is slated for Spring 2017. Survey results revealed that the only a limited number

of TLAC institutions were offering blended/hybrid and online courses. The survey results also revealed that TLACs do not offer blended/hybrid or fully online degree programs.

Online Course Transfer Policy

Several of the TLAC registrar remarked about their online course transfer policies. Some institutions, such as Beloit College, Macalester College, Spelman College, and Grinnell College had institutional policies, yet others, such as DePauw University, Lafayette College, Swarthmore College, and University of Minnesota-Morris, transfer policies were determined by discipline or department. With the colleges and universities that have institutional policies, the policies varied substantially. Colby College, Grinnell College, Spelman College, The College of Wooster did not permit students to transfer online course credit. On the other hand, Sterling College-Craftsbury Common College and Shimer College claimed to accept any transfer credit from any accredited institution if the grade is a C or better. The Sterling College-Craftsbury Common College registrar specifically mentioned that many of their students take online courses at the community college of Vermont and transfer those course credits. Along those same lines, the Hampshire College registrar indicated that their institution willing accepted online course credit. Beloit College and Ripon College accepted up to 12 semester hours of online course credit. The registrar of Macalester College indicated that they have had a longstanding college policy that limits students to 8 semester credits, but "it is becoming increasingly difficult to tell if a course is online" (personal communication, Jayne Niemi, June 8, 2016). Whitman College did not have a policy regarding online transfer courses.

There were a couple of interesting findings from the TLAC registrar surveys worth noting. Wellesley College does not permit online transfer courses, yet this college is an edX

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charter member and has developed several MOOCs and hybrid courses. Thus, it appeared that Wellesley College deems online content and course delivery important when they are the curators, but the institution did not accept online content and online course delivery from other institutions. Grinnell College was experimenting with guided learning during summers. Students sign up for an independent study with an instructor and take a MOOCs via edX or Coursera. The instructor from Grinnell must approve the course as well as take the course with the student(s). In this case, the MOOC served as course content and the instructor provided additional content and assessment opportunities.

Data Triangulation

The aforementioned data sources were triangulated through cross verification to determine accuracy. The cross verification process began with the IPEDS 2015-2016 academic year data. This data source revealed that five institutions (Agnes Scott College, Albion College, Cornell College, Shimer College, and University of Minnesota-Morris) reported distance learning. However, after comparing these data with the various information gathered from each TLAC's website, the exploration confirmed that four (Agnes Scott College, Albion College, Cornell College, and University of Minnesota-Morris) of those institutions provided online education but also revealed that five additional institutions (Hanover College, Amherst College, Pitzer College, Southwestern University, and Vassar College) provided online education course offerings. During the institutional website exploration, the type of online education courses, blended/hybrid or fully online, provided at these nine institutions were identified. Consortia websites reviews confirmed that two institutions (Albion College and Amherst College) were involved in online education; however, the consortia website reported that five additional institutions (DePauw University,

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Grinnell College, Lawrence University, Macalester College, and Wellesley College) either currently provided hybrid courses or plan to do so in the near future. TLAC registrar phone survey data confirmed that two of the institutions (DePauw University and Grinnell College) did indeed offer hybrid courses. Additionally, the phone surveys revealed that six other institutions (Denison University, Knox College, Lafayette College, Ripon College, Spelman College, and Sterling College-Craftsbury Common) were either beginning to pilot or currently offering hybrid courses.

Comparing and contrasting the data sources proved to be a time-consuming but necessary task. Results of the data triangulation are provided in Table 6. Ultimately, the cross verification process confirmed that none of the TLACs offered blended/hybrid or fully online degree programs. The triangulation process also corroborated the LMS adopted by the TLACs. In many cases, the TLACs that offered fully online courses were affirmed through two or more sources. Yet, confirming the institutions that offered blended/hybrid courses were difficult to verify through two or more sources. In numerous instances, the hybridization of a course was not necessarily explicit on an institutional website or reported to IPEDS. Thus, the discovery of majority of the TLACs that offered online courses came from consortia website reviews or TLAC registrar phone surveys.

Table 6

Online Education Results from Four Data Sources

Institution	IPEDS Database Distance Learning	Institutional Website Review	Consortia Website	Registrar Survey Result
Agnes Scott College	Undergraduate courses and/or programs	Online and hybrid fall, spring, & summer courses	✖	✖
Albion College	Undergraduate courses and/or programs	Online summer courses	Hybrid course development	Online summer courses
Allegheny College	Not offered	Not offered	✖	Not offered
Amherst College	Not offered	Hybrid fall & spring courses	Hybrid course development	Not offered
Austin College	Not offered	Not offered	✖	✖
Bard College at Simon's Rock	Not offered	Not offered	✖	✖
Barnard College	Not offered	Not offered	✖	Not offered
Bates College	Not offered	Not offered	✖	✖
Beloit College	Not offered	Not offered	Online course	Not offered
Bowdoin College	Not offered	Not offered	✖	Not offered
Carleton College	Not offered	Not offered	Online course	✖
Centre College	Not offered	Not offered	✖	Not offered
Colby College	Not offered	Not offered	✖	Not offered
College of the Holy Cross	Not offered	Not offered	✖	Not offered

Table 6 (continued)

Online Education Results from Four Data Sources

Institution	IPEDS Database Distance Learning	Institutional Website Review	Consortia Website	Registrar Survey Result
Cornell College	Not offered	Online summer courses	Online course	Cornell College
Davidson College	Not offered	Non-credit online courses	✖	✖
Denison University	Not offered	Not offered	✖	Not offered
DePauw University	Not offered	Not offered	Hybrid course development	Not offered
Dickinson College	Not offered	Non-credit online courses	✖	Not offered
Franklin and Marshall College	Not offered	Not offered	✖	Not offered
Gettysburg College	Not offered	Not offered	✖	Not offered
Grinnell College	Not offered	Not offered	Fully online course; Hybrid course development	Not offered
Hamilton College	Undergraduate courses and/or programs	Not offered	✖	Not offered
Hampden-Sydney College	Not offered	Non-credit online courses	✖	✖
Hampshire College	Not offered	Not offered	Hybrid course development	Not offered

Table 6 (continued)

Online Education Results from Four Data Sources

Institution	IPEDS Database Distance Learning	Institutional Website Review	Consortia Website	Registrar Survey Result
Hanover College	Not offered	Online summer courses	✖	✖
Haverford College	Not offered	Not offered	✖	✖
Kalamazoo College	Not offered	Not offered	✖	Not offered
Kenyon College	Not offered	Not offered	✖	✖
Knox College	Not offered	Not offered	Online course	Hybrid course
Lafayette College	Not offered	Non-credit online courses	✖	Hybrid course
Lawrence University	Not offered	Not offered	Online course; Hybrid course development	✖
Lycoming College	Not offered	Not offered	✖	✖
Lyon College	Not offered	Not offered	✖	✖
Macalester College	Not offered	Non-credit online courses	Online course	Hybrid course
Pitzer College	Not offered	Online fall & spring courses	✖	Not offered
Pomona College	Not offered	Not offered	✖	Not offered
Providence Christian College	Not offered	Not offered	✖	✖
Randolph-Macon College	Not offered	Not offered	✖	✖

Table 6 (continued)

Online Education Results from Four Data Sources

Institution	IPEDS Database Distance Learning	Institutional Website Review	Consortia Website	Registrar Survey Result
Ripon College	Not offered	Not offered	Online course	Not offered
Scripps College	Not offered	Not offered	✖	✖
Shimer College	Not offered	Non-credit online courses	✖	Not offered
Southwestern University	Not offered	Hybrid fall & spring courses	✖	✖
Spelman College	Not offered	Not offered	✖	Hybrid courses
Sterling College-Craftsbury Common	Not offered	Not offered	✖	Hybrid courses
Swarthmore College	Not offered	Not offered	✖	Not offered
The College of Wooster	Not offered	Not offered	✖	Not offered
Thomas More College of Liberal Arts	Not offered	Not offered	✖	Not offered
University of Minnesota-Morris	Undergraduate courses and/or programs	Online and hybrid fall, spring, summer courses	✖	Online & hybrid courses
Ursinus College	Not offered	Not offered	✖	Not offered
Vassar College	Not offered	Hybrid fall & spring courses	✖	✖
Wabash College	Not offered	Non-credit online courses	Hybrid course development	Not offered

Table 6 (continued)

Online Education Results from Four Data Sources

Institution	IPEDS Database Distance Learning	Institutional Website Review	Consortia Website	Registrar Survey Result
Wellesley College	Not offered	Non-credit online courses	✖	Hybrid courses
Wells College	Not offered	Not offered	✖	✖
Whitman College	Not offered	Not offered	✖	Not offered

Online Adoption Categories

Based on the triangulated data, categories were developed to divide the level of adoption of online education within the TLAC social system. These three categories include: no online course offerings, hybrid course offerings, and fully online course offerings. More than half of the TLACs (61.82%) did not offer any online courses. A dozen TLACs (21.82%) offered hybrid courses, and nine TLACs (16.36%) provided fully online courses. Table 7 exhibits the categories and the number of institutions and percentages. Data analyses provided a picture of online education at TLACs.

Table 7

Online Adoption Categories

Category	Number of Institutions (Percentage)
No Online Course Offerings	34 (61.82%)
Hybrid Course Offerings	12 (21.82%)
Fully Online Course Offerings	9 (16.36%)
*Both Hybrid and Fully Online Course Offerings	2 (3.64%)

*Note: This total is over 100% because some two institutions belonged to two categories.

Summary

In this chapter, the data generated from exploratory phase one of the study were reported in order to answer the first research question, "To what extent has online education been adopted at TLACs?" Data sources included NCES IPEDS from the 2015-2016 academic year database, institutional website reviews, TLAC registrar phone surveys, and various consortia websites. These data were analyzed in order to determine the level of online instructional education adoption at each TLAC. Findings indicated that more than half of TLACs are rejecting online education and the remaining TLACs are adopting online education either as fully online or hybrid courses. This next chapter discusses the findings from phase two of the study.

CHAPTER 5: PHASE TWO FINDINGS

This chapter presents the findings from phase two of this two-phase, sequential mixed method design research study. The results from this phase answer the second research question posed in Chapter 1, "How do presidents at TLACs think about the adoption of online higher education in general, within traditional liberal arts institutions, and within their institutions specifically?" This phase consisted of interviews from 11 traditional liberal arts college and university presidents. Analyses of these data provided insight into presidential perceptions regarding online higher education in general and within traditional liberal arts institutions. Dedoose, a web application for qualitative and mixed method data analysis, was used to code each interview and categorized codes into larger themes. Researcher memos and notes also played a large role in the data analysis process. Findings indicated that in general, TLAC presidents are cautious about online education, believe online education is inferior to conventional education, and interested in exploring online education opportunities. Additionally, their personal experiences vary greatly. This chapter begins with a description of the TLAC presidential sample followed by presidential experiences. This background information is then followed by thematic analysis and concludes with a summary of the findings. Major emergent themes from the data include: *Apprehensions Regarding Online Education, Perceived Inferiority of Online Education*, and *Potential Opportunities from Online Education*. Pseudonyms were given to TLAC presidents in order to protect the presidential participants' identities.

Participant Sample

As previously stated, the presidential sample consisted of 11 presidents out of a population of 55 potential participants (20%). Seven of the 11 presidents (72.72%) were

leaders of institutions that fell under the no online education offerings category. Two of the 11 presidents (18.18%) were leaders of institutions where hybrid courses were offered, one president was a leader of an institution that offered fully online course offerings. Eight presidential participants were males (72.72%) and three were females (27.72%). The average length of presidency among participants was six years with a range between two months and 18 years at the time of this study.

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Personal Experiences

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The TLAC presidents' personal experience with online education differed considerably. Over 80% (9 out of 11) of the presidents expressed that they had no online education experience as a student. Yet, six of them (54.55%) specifically indicated that they participated in some form of online professional development but not an actual academic course. Half of these online professional development experiences were mandatory, such as Title IX, diversity, or sexual harassment compliance training. The other half of the online experiences were voluntary and included participating in online webinars and modules, leading an online female mentoring group, and watching TED Talks.

Four of the 11 presidents (36.36%) discussed their desire to take an online course. Time seemed to be a major obstacle in completing this task. President Munroe noted, "I've wanted to take a MOOC for some time to get a sense for it. I just haven't had the chance." Similarly, President Reid explained, "Oh yeah, I've considered it. For me, it's all about the time." Two of the presidents specifically mentioned taking a foreign language course online in the near future. President Adock shared,

> I actually have set an intention for this coming year to take an online course. Well,
> I'm going to take something that's interesting because our faculty would say to you

that you can't learn a language online. I'm going to try to do a language course

online...I'm either going to learn Portuguese or Spanish.

Additionally, another president expressed the desire to learn Spanish in an online learning

context.

None of the presidential participants had taught a fully online or hybrid course. In

fact, seven of the participants (63.64%) explicitly communicated that they have not taught

online before; however, several of them insinuated that they have used a blended learning

approach to supplement their conventional classroom instruction. President Lional explained,

I've never taught a fully online course. I have taught a course that actively used the

course management system. And so on my hybrid spectrum, I would put that very

close to the traditional; but still, I was using certain kinds of activities where students

were having to do the learning activities online. But it was almost exclusively still a

traditional course.

Relatedly, another president shared a similar experience. President Adock remarked,

I've had online components of courses, but they are more like flipping lectures so I'm

recorded, and then students can access that lecture at any time. But that is an add-on

to a thoroughly conventional course right. In other words, I'm still meeting with the

students three times a week.

One president pointed out that he often brought expert guest lectures into his traditional

classroom via video web conference to interact and engage with students on specialized

topics.

In addition to these examples of blended learning, another president explained how

technology was used in conjunction with a study abroad course. President General disclosed,

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I used to have a seminar where I used to take students abroad for a summer in Spain. And, before we went, we would have a number of classes, probably about five classes. Some of my students would not be on my campus because they would already be studying abroad in other parts of the world. So, we would have a student join us from Panama, a student join us from southern Spain, a student join us from Mexico, and then we would have the 10 students on campus. And, all of us basically would have that session [online].

In addition to their personal online education experience, an important consideration is that some of the presidents currently still teach courses while others have not taught in the last 2 to 18 years.

Technology Savviness

Each TLAC president ranked himself/herself on a technology savviness scale from 1 to 5 with one (1) being not technology savvy at all and five (5) being very technology savvy. Out of the 11 presidential participants, no one ranked themselves a 1 or a 5; thus, the range of the technology savviness self-rating was two (2) to four (4) with the average score of 3.18. Two TLAC presidents (18%) rated themselves a 2. Five TLAC presidents (45%) rated themselves a 3. Four TLAC presidents (36%) rated themselves a 3.

Mobile devices. When asked to provide examples to support their technology savviness self-rating, more than half (6 out of 11) of the TLAC presidential participants mentioned the use of mobile devices and or specific mobile applications. TLAC presidential mobile users views are exemplified in this statement by President Russell, "I, like most people now, I'm tied to my iPhone and my iPad. I'm a user of basic technology." In line with this sentiment, President Taylor expressed,

I'm constantly answering emails, reading news, and so on my phone so you know for

an old guy I'm not bad. I use quite a few technology apps of various sorts for

navigating through life. For example, I used Uber to come out to the airport today.

Several TLAC presidential participants noted specific types of mobile devices including

iPhones, iPads, Kindles, and Window Surfaces.

Social media. Similar to their acknowledgement of using mobile devices, more than

half (6 out of 11) of the TLAC presidential participants commented about social media. Four

of them (36.36%) were in favor of using social media in their current roles and have active

Twitter accounts. Each of these TLAC presidents noted that they used Twitter. President

General noted why he believes using social media like Twitter is important:

I mean sometimes a tweet can reach a student in a way that, an email won't, or even a

statement in class won't. And so yeah, you need to see wherever they are and you

go there. And perhaps, Twitter is too old now, maybe Instagram is what you need to

do or Snapchat is what you need to do.

In addition to Twitter, one participant indicated that he used Facebook as well. Although

some TLAC presidential participants are active users of social media, not all of them use it.

Three of the presidential participants indicated that they did not use social media for three

different reasons: time, technology skill set, and potential negative consequences associated

with presidential engagement on social media. TLAC presidential views on social media

usage were varied.

General Attitudes Toward Online Education

In order to understand TLAC presidential participants' overall perceptions of online education, participants were encouraged to communicate their general thoughts about online education. TLAC presidential participants provided three adjectives to describe their attitudes toward online education. *Curious* and *open* were the top adjectives, given by five participants. Four participants gave *skeptical* and *excited* as adjectives for online education. The remaining adjectives were only given once by TLAC presidential participants. All adjectives are provided in the word cloud figure below.

Figure 2. Word Cloud Adjectives Describing Online Education by TLAC Presidential Participants

Apprehensions Regarding Online Education

Among all the TLAC presidential participants, a general impression of apprehension was evident even for those who have already adopted online education. Numerous presidential participants conveyed that they were open yet cautious. Their expressions and explanations insinuated mostly skepticism as depicted in this statement by President Hendricks, "Yeah, I have some openness to it, but some reservations as well." Some presidents were suspicious about potential cost savings while others were concerned about shifting the focus away from their strength of the high engagement, face-to-face undergraduate residential experience. Additionally, competing with other higher education institutions in a space where they are just beginning to explore and faculty preparedness were prominent issues discussed.

Alignment with TLAC Mission and Culture

TLAC presidential participants consistently expressed that online education must be integrated within their current institutional mission, culture, model, and values. Presidents of institutions that have not adopted online education provided insight as to why online education may be misaligned with their mission. A few participants, such as President Hendricks briefly declared, "It is incompatible with our model. We are a very small intimate liberal arts experience with an average class size of 13." Relatedly, President Lional expressed his view on where the value proposition lies for TLACs. "The model we operate here is...is not high tech but high touch. And that's where our value proposition is." Other presidential participants explained why online education is inconsistent with their institutional mission in more detail.

I think there's certainly kinds of online education that are incompatible with our

mission, because they're better geared towards students outside of traditional college age, or because they're better geared towards students who are pursuing a more narrow or technical kind of education. Or because they're geared toward students who are not pursuing an education that is about building community and peer-to-peer learning as much as, you know, faculty to student learning...I think the kinds of ways that online technology can be helpful really have to be matched to the mission of whatever institution is offering that kind of higher education, you know, that degree or that class. (President Harrison)

Comparably, other presidents specified that the community development is key to a successful undergraduate residential experience and creating that type of community in an online environment would be challenging.

There's a kind of community that happens in a residential setting. I am aware that you can cross boundaries and connect in online ways with people not like you, but I think there is something about the physical sharing of a space, a set of facilities, that is different because you can't go home from it in the same way. You don't turn the computer off and then you're back in your bubble. So, you know I think that when it comes to that kind of aspect of college or university life where people are physically coming together to form a new community. I still think there's something that can be done in our kind of education that can't be done online. (President Adock)

Similar to President Adock, President Quinton also stated, "We are a residential community. We anticipate remaining a residential community. We anticipate primarily being a face-to-face community where human relationships matter, but I wouldn't be so presumptuous to say that such relationships couldn't even form online."

While some presidents used their institutional mission and culture as a rationale to reject online education, other presidents who are considering adopting online education at their institutions discussed how online education has to be incorporated purposefully within the TLAC setting. President Munroe explained, "I think the way we will approach online is...are there opportunities consistent with our identity as a very much residential environment where we try to bridge curriculum and co-curriculum to enhance the student experience?"

For institutions that have adopted online education, presidential participants explained how online education supplements their current educational offerings. "I've tried to explain 'look this is why we are going to'...We're going to do online individual courses in the summer, but we will not do online programs. Why? We can't win with that? Why? That's not our mission?" (President Lional). Further, President Lional explained the importance of monitoring the level of online instructional education at his institution:

> At a certain point probably we start crossing an imaginary line that moves beyond our sense of mission and who we are. So with the question of individual courses versus programs, and I think that's a pretty hard line right now for us. Some individual courses in the summer yes. Online programs no.

Likewise, President Russell of a college that offers fully online courses indicated that online education is different from the college's central mission, which caused some reluctance among faculty. In addition, President Dixon shared concern for the online education already available at his college, "I would say we're competing in an area where others do it better. And we're moving away from what we do best."

Dilution of the brand. Several presidents expressed how adopting online education may be viewed as diluting their brand; therefore, they have reservations about embracing online education at an institutional level. President Harrison pointed out why she is concerned,

> As a residential liberal arts college our value added, the reason that, you know, one of the key things we say is valuable about the experience we offer is that it is very personalized. It's very face-to-face, it's very relationship driven. And so one concern is that we would be diluting our brand, and we would be offering something that undermines what we claim is what makes us so worthwhile.

Another president participant shared a similar concern,

> I think that I would say that the faculty would fear the dilution of the brand. That if you are doing online...why would anybody pay our cost to come to a small college, and so I think there are significant cultural barriers...there are cost barriers. And culture is the big one. (President Adock)

Along those same lines, President Taylor shared his view about the potential brand jeopardization with the introduction of fully online education at his institution,

> We didn't think we had the resources to do it in a way that would be high quality and commensurate with the residential liberal arts education we offered. We were concerned that if we went out and did something that was second or third rate it would actually damage our brand.

Moreover, President Russell suggested that a chief disadvantage of their adoption of online education is the potential for it to undermine their brand name.

The biggest disadvantage is that it would essentially weaken our reason for being. The whole reason for a small liberal arts college to exist is to create a close living community...living learning community and bringing people together on the same campus at the same time from all over the world to live with and learn from one another. And to the extent that we diminish one of the core purposes of the college so that's why I say I don't...I mean...if we ever become chiefly an online institution the college as we know it will go away, which and you know those things do happen. But certainly it diminishes what we say about ourselves, which is that it is about being in the same place at the same time with people who are different from you.

TLAC presidential participants seemed to believe that embracing online education wholly would place their institutions' reputation at stake.

Faculty Resistance

Over 80% of the TLACs presidential participants revealed concern about faculty resistance. According to the presidents, faculty "push back" on online education for different reasons including but not limited to a strong predisposition toward traditional classroom instruction, fear of the unknown, generational differences, and job security. President Harrison simply questioned, "whether the faculty will be persuaded that this [online education] is a positive opportunity or not?" Yet, other presidents insisted that their faculty members have a negative propensity toward online education because they are uneducated about it. President Reid shared,

[They think] it's still really second-rate stuff, and that's where I think they're being unfair. They don't know anything about it, but it's gotta be. C'mon. I put it in that

category, it's an intellectual prejudice. Any time you use prejudice you got people's attention.[chuckles] So it's not racial prejudice, not gender or sexual orientation, it's intellectual prejudice...Here's a person that claims to be somebody committed to the study, the openness to fresh ideas and new ways of thinking. And they'll look right at it and say, 'This stuff's bankrupt. It can't possibly be good.' I'm thinking, 'Who are you?' If you're committed to the life of mind, then you have to allow for change, for new innovation. New ways of knowing and thinking. Otherwise, we're still back in the dark ages. Yeah, I mean there's not gonna be a lot we can do to convince those people. We're just...You know what? We'll go right by them. They'll be sitting on their end of the stump, mad, and bitching and moaning; and we'll go right past them. And then they'll realize, 'Gosh, oh, I didn't realize they left. 'Cause there's no winning them over, we have some faculty members here who think that this whole distance learning, even blended stuff, that's just laziness.

The issue described above suggested that some TLAC faculty members have unfavorable perceptions about online education without piloting it for themselves or obtaining appropriate research based evidence.

Several TLAC presidential participants stated that faculty resist online education because they simply do not want to change. President General declared, "For the most part especially faculty members when they see that an effort like this fail, they're very happy because most faculty don't want change. I suspect many faculty see it with sort of a skeptical eye." Along those same lines, President Quinton commented, "I think that there are people who just resist. I think that's a mistake. I think that there are people here who are very deeply skeptical of the role of technology period." A few presidents even implied that substantial

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faculty resistance is the result of the belief that educating the whole person must be done in person with in class and out of class experiences and interactions.

One president shared that resistance was directly addressed by faculty with online education experience during a faculty meeting.

One of the things that was interesting in the full faculty conversation is that when there were some online naysayers some of these faculty [with online education experience] stood up and said I've taught an online [course] before. Then, it did answer some of the concerns. Some of the naysayers were about online education in general and then some of them simply said why would we want to compete with these other schools that can do online better than we can. But then there were other voices that said, "Hey if we don't do this we will never develop those competencies." And those voices won out. (President Lional).

Generational challenges. Several presidents insinuated that the resistance to change seemed to be more prevalent among more senior faculty; however, this claim did not hold true for all TLACs. President Munroe said, "Many faculty who would say look that's not me. I've been doing this a long time and my students love me, but I do it in a certain way and it's not that." Likewise, President Adock shared what she inferred about her faculty members,

It's going to be hard because the majority of our faculty are older, and I mean it's just harder to change when you've been teaching for decades. You know, it's just harder to change and so it's going to require faculty development. So there's that piece just the comfort with technology. But I think believing it is important and useful is harder because you can hold their hands, but you can't make them believe it's a powerful

technology. They have to experience it in different ways. And they haven't have

thirty years of experiencing it.

Some presidential participants pointed out a division among their faculty members. President

Lional indicated,

I think one of the challenges is that there is a generational divide among the faculty

on that [online education]. Some younger faculty are much more comfortable and

experienced. They come here experienced with Moodle or some other type of course

management system. So, then they are more comfortable with doing that type of thing

and then as a result too that opens the door for things like flipped classroom, which I

think are really great opportunities for small liberal arts colleges like ours.

Other TLAC presidential comments support this notion of a generational divide when it

comes to online education. President Dixon expressed, "This new generation of faculty are

growing up where they do everything on a device. They are going to continue to do that

because it is second nature to how they teach." Along those same lines, President Adock said,

"I think it's an age issue too...a generational issue and as we get younger faculty. Frankly,

those faculty are going to perceive the potential in ways that some of our more senior faculty

do not." Despite the generational divide, President Lional also indicated that "One of our

tenured professors is teaching an online course. From what I understand, and I'm still a little

new here. He's always been an early technology adopter. You know one of these people that's

always ahead of things on technology."

Meanwhile other presidents, such as Harrison discussed how the senior faculty are

leading the hybrid pilot initiative on campus. President Harrison commented, "Interestingly,

they are both very long time faculty members, full professors, very senior...I think it's a

mistake to just divide it up between young and old faculty. I really don't think that's the key divide there." Relatedly, President Munroe shared his perspective, "I wouldn't want to overly generalize, but I think if I had to lean one way it might be the younger faculty, but there are examples of the more seasoned faculty senior faculty who are doing it as well."

Job security threat. A couple of presidents explicitly stated that they believe their faculty are concerned about their job security if online education is too widely adopted. President Reid proclaimed, "Part of our population that resist change will see it as a direct threat to their future, to their employment. That's not where we're going, but they'll fear that so any conversation about it is to be feared." Regarding job security, President Munroe inquired if stakeholders will begin to question if as many faculty are needed if more and more classes are taught online. "I wonder down the road though as you start teaching more and more of the introductory courses online you know one of the things people are going to ask is do you need as many faculty." In general, TLAC presidents have concerns about faculty resistance when considering and adopting online education at their institutions, which increases their apprehensiveness.

Costs

Online education startup costs for institutions and potential costs savings were prevalent concerns among the participants. TLAC presidents articulated that cost to attend their institutions were expensive, and therefore they believe their students and their parents expect high quality deep personal interactions, which are inconsistent with online education. President General explained,

> If schools like ours were to go to online education, then we're not that different from many schools that cost a lot less than we do. The reason we can justify charging

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$50,000 a year for tuition is because we promise families that the students are going to sit in a classroom with somebody that is thinking on the spot, that is working with the students. They're gonna be able to see the person one-on-one in their offices. So, a disadvantage for us to try to adopt that [online] model is that then how are we different from the large universities that are doing online education?

Students who are interested in online education and desire to pay less for their education would be more likely to pick a different type of institution rather than a TLAC; thus, the price differential for online education makes it difficult for TLACs to successfully compete. President Lional declared,

We're expensive...One of the things that I worry about for a place like our college is in trying to compete with fully online programs is that I view it as it makes education into more a commodity. And so the problem with a commodity is that it always competes on price and if our college has to compete on price we will always lose. Because there's always someone who can deliver something cheaper than we can. We're private not public...We cannot win on price…[it] would be difficult for us to compete on price with our public competitors.

Numerous presidents do not believe adopting online education would be a cost saving opportunity. President General said, "We need to go through this with the eyes wide open. I'm very skeptical it's going to reduce cost. I would be very skeptical in the majority of cases to say that doing online would save us money." Similarly, President Harrison expressed,

I'm skeptical about the possibility that it could really be a cost savings for me…I kind of believe maybe I'm wrong, but I kind of believe that if you really build it up to be

the kind of quality that is going to enhance the way my students learn, it's not going to be cheaper or significantly cheaper.

In addition to general online education costs, TLAC presidents were also concerned about startup costs.

Startup costs. Several presidents spoke of the startup costs necessary to launch significant online education models. President Adock reflected, "I think people certainly discovered with the MOOCs how expensive it is to deliver a reliable consistent product across multiple…different kinds of devices, time zones...I do think that the cost the start-up costs are a disadvantage." Another president implied that some of his colleagues who have implemented online education have said, "it's harder than we thought it was going to be, and it's not really generating as much revenue as we thought but we're going to stay with it and see if we can grow it". According to the participants, some level of resources, albeit technology infrastructure or faculty and staff time and energy, are necessary when considering or adopting online education even in a pilot phase. President Taylor commented, "It would be a significant investment involved in getting those resources together. There would be a lot of time involved in training or educating our faculty about how to do courses well." Comparably, President Hendricks exclaimed, "No college has the money to put up the upfront cost. Big universities kind of have to do it, and they can actually continue to drive their costs lower by doing it."

More than half of the presidents insinuated their concerns about information technology infrastructure prices. Some presidents had anxiety regarding their current campus technologies. President Lional shared, "We had some conversations about whether or not our IT infrastructure could support more active online coursework. We don't have a great record

of always being able to be a 100% consistent on the quality of our IT." While other presidents seemed more apprehensive about selecting an appropriate cost effective online education environment. "I think one disadvantage of course is finding the right platform and just the technical demands of this," said President Adock. Meanwhile, President Taylor suggested that colleges like his would need to form partnerships in order to have the proper faculty and technology support necessary to have "good and authentic" online learning. "We're not capable of doing that unless we go out and partner with some other entity that would provide a lot of instruction for our faculty and would provide us with the kind of information technology background."

Quality and cost seemed to be a recurring talking point among presidents who equated high quality learning to higher costs. "To provide the quality of experience [online] that we like to provide at a school like this one, it would be very, very expensive," said President General. Several presidents indicated that faculty professional development and perhaps additional staff persons would be necessary in order to produce high quality blended and fully online education at TLACs because most existing faculty do not have expertise in these areas. President General said, "It would require a lot of technical knowledge. It requires staff. We'll require training of our faculty in effective online education." Likewise President Taylor shared,

> There would be a lot of time involved in training or educating our faculty about how to do courses well. I know I talked to faculty at other institutions where it's been imposed on them without any training, and the faculty are angry about this. We are considering the possibility of hiring an instructional technologist, and the decision to do that will be driven you know sort of by how many faculty start evidencing an

interest in doing blended options and the demand starts to develop so that we could

really make good use of an instructional technologist.

Overall, TLAC residential experience costs, potential cost savings, and startup costs

including infrastructure and human resources were main topics of discussion for TLAC

presidents when considering online education adoption.

Quality

More than half of the presidential participants were concerned about the existing

quality of online education and if and how their institutions would be able to produce high

quality online education. President Taylor emphasized,

If you try to actually incorporate video component, video lecture component to it and

you know you sort of just take a camera and have the faculty member talk. Again, it's

not [quality] you know. It looks amateurish, and it's not engaging to students to just

have a head in front of them talking continuously...I think sometimes people think

that you know all you have to do is kinda take your existing course notes and quizzes

and just kind of drop them into you know an Internet-based source and maybe you

know get your lecture notes typed up and that's all there is to it. That'd be a pretty bad

example.

Meanwhile, President Reid shared thoughts on the quality diversification of online education.

It's like a lot of things in life, my guess is you got online educators and coursework

that is top-drawer, first-rate. You know really transformational, albeit at a distance.

And then you got some other stuff that's you know the next tier, it's okay. For a real

devoted learner, it's acceptable plus. And then you got another section of it that's just

bankrupt. They're just buying credits, making money...and not really delivering an educational experience that I think is constructive.

One president was not only concerned about the quality of online education the institution could produce, but also regarding the quality of online courses students were taking locally and then transferring credit. President Lional revealed his concern,

It was a quality question so wondering whether or not the online intro sociology at the community college or the university would be better than our online course just because we just don't have that much experience with it, and they do...and who knows what the quality of that instruction is. And it's an accrediting institution. They [students] get a C or better in the course, and really we're required by law to take that credit.

Complexity

Based on the TLAC presidential participant remarks, presidential perceptions regarding what was considered online educations was varied on a broad spectrum. President Lional articulated his depiction of the spectrum, "On the one end is the very traditional classroom you know faculty-centric and then on the other end the fully online. And I just think there's a whole lot of stuff in between...It's a big continuum." For some TLAC presidents online education signified synchronous video class meetings, and for others it is equated to a correspondence course or MOOCs. President Harrison provided an example, "I think one of the reasons that's hard is because everything gets painted with such a broad brush. If I say online learning to my faculty I think what they think about are MOOCs."

Numerous TLAC presidential participants indicated that online education is still in its infancy; and therefore, there are many unknowns about it. President Adock exclaimed, "I

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think there is no overall judgment that I'm prepared to make because I think we're still exploring the potential...we have to figure out what's best and then figure out how to use them together. In the same manner, President Quinton stated, "I just don't think we understand it yet...I don't think we know enough about it." Moreover, President Munroe shared, "I don't in my own mind know that we have it figured out to the point that it is in the immediate future going to transform all of higher education as institutions such as ours."

Perceived Inferiority of Online Education

In comparison to conventional education, each TLAC presidential participant implied that online education is inferior in some aspect. TLAC presidential participants cited technology barriers, lack of student maturity, static learning, and lack of personal interaction as contributing to what they believed to be the inferiority of online education. While some participants, such as President Lional, explicitly described fully online courses as "cheap, convenient, and I'll just be honest, low quality," other presidents expressed, "I don't think it is inherently inferior" (President Munroe). Another president commented that she was uncomfortable making a broad general statement, such as "online learning is definitely better, or online learning is definitely worse, or online learning has no place here" (President Quinton). It was evident that traditional face-to-face classroom instruction was viewed as the ultimate pedagogical approach by most presidents. President Russell shared his perspective,

> I confess that I am one of those people who still believes that face-to-face human contact is not replaceable by and probably better than virtual contact. Maybe it's just my age or my generation. I really believe that there's no complete substitute for being in the same place with other people who you can look at and react to in a way that's

very hard to do in a virtual setting so my general feeling is that it's going to be

difficult for online instruction to replicate that.

Further, faculty members' ability to recognize students' nonverbal cues in class, such as body

language and confused looks, was also mentioned by several participants as reasons why

online education is of lesser quality. President Reid comments exemplified this impression:

There is communication that is not picked up, even with the highest technology, it's

just not. I think there are some interactions in the learning experience that are not just

about facts and data. Some of it's about tone. Some of it's about your body language,

the whole kind of non-verbal stuff. And I don't think anybody who's being fair would

agree that the online educational experience can't quite in any way be the same.

Numerous reasons were mentioned that led to the overall TLAC presidential perception of

online education's inferiority.

Adequate Alternative?

Several TLAC presidential participants indicated that online education was an

acceptable alternative to traditional education despite their perception of it being of lesser

quality. Phrases such as "good second best", "better than nothing", "doesn't work as well",

and "not 100%" were used to describe presidential thoughts regarding online education.

President Reid explained in detail why he believed online education is inferior:

It's not the same as you know being over here in one of our classrooms--it's lovely

and inviting. You got a professor who you know, and she knows your name. And

you've had her for two other classes, so is that the same? No. Is it good enough?

Yeah, it's good enough. I think it is inferior. The question that you might ask is,

"Okay, but is it dangerously inferior, is it bankrupt?" And the answer is decidedly no.

Okay, it's not 100%. It's 80% as good and that's better than zero. And 80% is good

enough. So, perfect is having you there, and everything goes great. You know that's

100%. So it's not like having you up here technologically is half as good, it's way

more than that. It's 80% as good.

Another president shared a similar view on the quality of online education in comparison to

conventional education. "Like I said online education may be a good education, but it's just

not the best. It's just not as high quality as what we can do on a face-to-face basis," said

President Hendricks. Likewise, President General shared, "I don't think it's going to be as

effective as having a faculty member on my campus teaching Korean to my students and

interacting on a day-to-day basis. But, again, it's a good second best." These comments

indicated that TLAC presidential participants are willing to consider and adopt online

education alternatives with the mindset that it is somewhat inferior.

Static, Impersonal Learning

More than half of the TLAC presidential participants suggested that online education

represented static, impersonal learning. President Dixon implied that faculty who teach

online do not get to know their students personally because they only interact in an online

space:

Students who come to our institution want to learn how material from one of my

courses relates to another. That's difficult to do in an online course because you have

to know that student today...know what course you're taking that's different from

everyone else in the class. I get to know you very well because I talked to you at the

play. I knew you were at the play last night so I can talk about how this material

relates to the play you watched last night. It's all of those quick response unexpected opportunities. You do that learning on the fly...online education doesn't work as well.

Numerous presidential participants discussed the importance of co-curricular learning that extends beyond the classroom setting. President Adock pointed out,

> There's also the learning that happens outside the classroom. For example, our men's soccer team had students from Hong Kong, Nigeria, Ghana, Singapore, Japan, Brazil, Mexico, Texas, California, Illinois, New York, Oh and Ireland okay. That's a soccer match; it's a team. It's physical. It's not to be an online soccer match right? They're competing in a way that's very physical. Our students sing in a choir, and the choir tours around the country. Those are experiences of such impact. They're very high impact practices as we say in the education world. It's very hard to imagine what could substitute for that in a fully online environment.

Determining how to replicate or substitute some of the traditional undergraduate residential experiences posed a challenge for several TLAC presidential participants. President General expressed, "We also provide opportunities for people to get to know each other, and again, that doesn't happen as easily in the online world. We also promote the mentorship relationship between a faculty member and a student."

Another issue was the currency of online courses. One president was concerned that if online education courses were created that faculty would use the same course repeatedly without updating it frequently so it would not be as current as it would be if the course was taught face-to-face by faculty who would be expected to bring in current events. "What you need to do in the class is engage the students and depending on the way that they're reacting you need to bring the examples from what happened yesterday or what happened last week to

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make it relevant," said President General. He further expressed, "Education is about watching a mind going through difficult material and sometimes that mind is gonna get stuck, or sometimes they're gonna make a mistake. And for you to watch the process live is what teaches you a lot." As a result, presidential participants implied that both students and faculty are not required to "think on their feet" as much in an online environment.

Additionally, some presidents were troubled by the barriers that the technology can create. President Harrison criticized, "You always have to devote a certain amount of time to just dealing with the technology and that is intrusive...It makes it less fluid. I don't think you get the same depths of conversation that we get face-to-face." In general, TLAC presidential participants regard online education as inferior to the type of traditional education that they provide at their institutions.

Potential Opportunities from Online Education

Despite the level of apprehension and inferiority previously outlined, TLAC presidential participants were optimistic about some potential opportunities online education can or could provide TLACs. Increasing access to higher education, supplementing existing curriculum and pedagogies, incorporating external perspectives, maximizing digital citizenship skills, investigating additional revenue streams, testing new pedagogical strategies, and providing flexibility for students are areas of interest that TLAC presidential participants were willing to explore. Additionally, partnering with consortiums, local colleges and universities, and institutions abroad was mentioned by several presidents as a possibility that they would like to consider.

Increasing Access to Higher Education

Several TLAC presidents cited increasing access to higher education as a legitimate reason for embracing online education. Extending higher education access to different communities and non-traditional students were mentioned as ways to "earn goodwill for your institution, for the country...provide access to people in faraway communities, whether within the country or around the world. Then, obviously online education can be helpful to reach communities that we normally don't reach," noted President General. However, not all presidents felt that their institutions would play a large role in boosting access. President Adock remarked,

> It creates greater access to education. So, whether it's my institution doing it [online education] or others, the possibility of access being expanded, and the fact that the possibility that we could create different avenues of outreach to students. We as smaller liberal arts colleges educate you know less than three percent of college students in this country. I do think that there are things we do that are unique and that are important and that are important to the country, but also important to the country is access to education and so for students to be able to access education at different times without having to travel to combine them with other life experiences. You could be raising a family...you could be working...all that expansion of access to me is a really critically important opportunity with online education. But that doesn't necessarily mean our institution has to do it, but I believe that that kind of expansion of access is a hallmark of this education and really important.

In the same spirit, Presidents Dixon and Taylor indicated that online education has been important because it "extends educational opportunity to audiences" beyond what typical

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residential institutions can provide. President Dixon said, "One of the strengths of American higher education is the diversity of offerings so people can find what works for them. Online education is ideal for some learners and not for others. It fulfills a need that's important." Largely, the TLAC presidential perceptions of online education were optimistic in terms of broader higher education; however, the presidents implied that their traditional liberal arts institutions would not be major members in these expansion efforts thereby insinuating that other American institutions are responsible for these online developments.

Incorporating Different Pedagogical Strategies

Nearly all the presidential participants discussed ways that online education could or already does enhance what their faculty are doing in the classroom as well as their interest in exploring new pedagogical techniques through online technologies.

Supplement. Many TLAC presidents explained how online education supplements their current curriculum. Words such as, "complement", "expand", "enhance", "supplementary", "additive", "in addition to", and "tertiary" were used to described how online education is considered at TLACs. Presidents involved in the Associated College of the Midwest explained how the online calculus course "is a good example you know of just figuring out how to do this in addition to what we're already doing," shared President Russell. Further, President Dixon explained that his institution began offering fully online summer school courses to meet a student need.

Students arrive in June to do a summer orientation registration. They say they want to be an engineer or an engineering student, and we give them a math readiness exam. And they're not ready to take pre-engineering courses. Last summer right after the first summer orientation section we realized that we had maybe a dozen students

maybe 20 students who are going to have to put off their career, and someone said I'll

do an online course for them. So there isn't any rule that says we can't solve our

problems with online courses. So if we have a problem, online education is a valid

solution, but we can't propose it as a solution and go look for a problem for it to

solve. So it's fulfilling a specific need. It's not replacing something we normally do.

It's an enrichment activity rather than a replacement.

TLAC presidents consistently emphasized that online education would not displace their

institutions' commitment to residential face-to-face undergraduate educational experience.

While many TLACs were already incorporating some aspects of online education,

others were considering how "it [can] enhance the kind of teaching and learning we do,"

(President Harrison). One TLAC is interested in leveraging online technology to enhance

community building:

We're looking at how we can use technologies and virtual connection to enhance our

relationship with college advising. I think both we don't know what it's potential is to

change what we think about community and building communities and learning

communities. And then there are places where it is clearly a good choice to try.

Similarly, President Adock mentioned the potential of online communities, "I think that we

are only at the cusp of exploring how the online community differs from the face-to-face

community."

Using online education in a supplemental aspect seemed to be the most preferred way

to integrate it into TLACs. Ultimately, TLAC presidential participants perceptions can be

summarized in this statement by President Reid, "we're not prepared to suggest that we

change the very essence of what we are...but be prepared to imagine us being more accommodating to ideas, ways of learning that are different than what we're accustomed to."

External perspectives. In addition to enhancing existing curriculum and services, presidents also expressed an interest in exposing their students to varied perspectives outside of what their traditional liberal arts institutions can offer. Some TLAC presidents were simply interested in including guest lectures or speakers while others were fascinated with the potential for their students to learn from other professors and experts from all of the world via online education. President Reid exclaimed, "how do we bring educational experiences into the life of these students, that they could otherwise not get? And that's where technology, wow, it's got some potential there that is incredibly important and relevant for what we're doing."

A couple of presidents suggested that bringing in guest lectures via video web conferencing mechanisms were both convenient and cost-effective. President Adock explained,

> If you are geographically isolated like we are that creates an impetus for our faculty
> to figure out how to bring into their classroom something that's physically not present
> here. And I think that's really part of how it started. We have an alum who is a
> Pulitzer prize-winning reporter for The New York Times. The idea is well let's have
> him teach a course wouldn't that be great, but he doesn't want to come live here for
> ten weeks you know...people would pay for that.

The notion of featuring other perspectives beyond those found in the conventional education setting was definitely an area of online education that excited TLAC presidents.

Digital citizenship skills. Several TLAC presidents indicated that online education increases their students' digital competencies and citizenship skills. President Adock suggested that online education is relevant,

> because our students are going to graduate and go out into a world in which their subsequent professional development is going to be online. I mean they're going to show up on day one on the job and someone's going to tell them here's the link to your orientation program you know what I mean. If our students are not competent at this form of education they are not good skilled digital learners. They're going to be left behind in the future so it's relevant educationally.

Along the same lines, President Reid shared that online technology is "the way of the world nowadays"; therefore, students must know how to be successful in today's world.

New pedagogy strategies. More than 80% of the TLAC presidential participants indicated that it was relevant to consider new pedagogical strategies that online education could provide their institutions. An example of this mentality was evidenced by President Harrison's simple statement, "I think it's relevant to me to think about any potential new pedagogy or opportunity for our students." Other TLAC presidential participants explained why it is important for them as presidents to "know what's going on outside, to see if there are segments of online education that we should be adopting...I think that we will always be trying new approaches to teaching" (President General). Likewise, President Quinton commented,

> We are entrusted in producing new knowledge and doing original work and enabling a whole bunch of kids to learn. So, we're interested in any kind of technology that speaks to that. So, we...I'm more interested in thinking about how all of these learning

technologies can improve learning in a residential context. I think we are still

experimenting with how best to use it and what contexts are most appropriate for it. I

think it is potentially a very powerful tool. I think so far we've mostly taken stuff that

we were doing in person and put it online. I don't think that's the most powerful use of

these new technologies so I'm interested to see how the technologies shape the ways

we imagine what's possible. And I don't know that we've done that yet.

Other presidents suggested that institutions must stay abreast of online and blended education

research evidence in order to provide their students with the best possible education.

President Russell explained his position,

If there's evidence of certain online technologies particularly through blended

learning that teach students more and students learn more then it's definitely relevant

for us. We shouldn't turn ourselves away from any pedagogy that has the ability to get

better learning outcomes. So for me at the end it's about student learning. And if this

can be shown to improve student learning, then I think we have an obligation to take

it very seriously. Anything that will make students learn better should be a good

thing. And if evidence develops that some of these blended pedagogies in particular

enable students to learn better we should embrace it.

One president pointed out that some empirical evidence to support online education already

existed. President Quinton shared, "So even something like real time grading. There's no

question that that's better...so there's evidence that's that better...There's some evidence that

when students can ask questions more anonymously their more willing to ask questions."

When discussing online education as a means to improve student learning outcomes,

TLAC presidents were more apt to consider it. President Taylor exclaimed, "It has the

potential for expanding our student learning...the potential that students can learn even more in a course than what is ordinarily the case. That's the exciting part for a residential liberal arts college like ours." It was apparent that TLAC presidents were hopeful that online education could add value and quality to their students' current residential experience.

Increasing authentic learning experiences. Several TLAC presidential participants indicated that online education affords faculty the ability to use their classroom time for more engaging and authentic learning because some course content can be provided prior to the student entering the classroom. This notion of "flipped classroom" was explicit and implicit in the presidential participants' responses. President Lional shared,

> It allows us then to take advantage of that class time to do what is our strength and our kind of area of advantage. But the fact that our classes are small. The fact that we can have these very intimate interactions where everyone has that opportunity and to be involved in that way or to do other kinds of simulations or things that can be really done well in a classroom environment. So let course...content delivery be done online. I think there are some great opportunities for us there. And so I hope that's what we'll grow into.

Furthermore, President Dixon explained how a flipped classroom approach could work and why it might be difficult for faculty to adjust to this approach:

> If I need to have students have some background information something I would normally spend 15 minutes lecturing on, I either prepare for the students to access on the Internet or more interestingly to me I could go out and look and see what's out there and say there's a lecture on the second law of thermodynamics from a professor from MIT, and it's really good. Why should I try to do a better one. And so I can do

something else in class. I'm going to do laboratory exercises. I'm going to do conversations. I'm going to do problem sessions, but I'm not going to do any lecturing alright. I'll let someone else do all my lecturing...The classroom time is dramatically different. It's almost a course like a group meeting for students to talk about their progress and talk about what to do. Now, the role of the faculty changes from the transmission of knowledge to coach or advisor. I think at some point I don't have to prepare tomorrow's basic presentation. It's online and students may actually come to class, and we may all sit in a horseshoe around the screen and watch and stop the presentation and discuss it from time to time. So the advantage is that it allows professors to do what they do well with people. And that's the input students, listen to students, ask questions, figure out where the misunderstanding is. So in a way it will make faculty nervous because when we start out we're experts in our field. So what we really do in our classroom is primarily impart knowledge. I have control of that knowledge. I know exactly what knowledge. When someone else is imparting the knowledge, I go in and say okay we're going to spend the next hour to kind of figure out where you are stuck. We're going to relate this to what's going on in the day. It is a more intimidating...it's a more imposing...it's a more difficult thing to do. And so I think that it puts greater uncertainty and greater burden on the faculty member by doing the easy thing right...doing the basic thing and then having students do only what we do uniquely well.

President Russell echoed this sentiment as well. "It just makes common sense if I'm a student, and I have the opportunity to get information passed along to me before I walk into the classroom I can already indicate to the instructor what I don't understand."

Potential Revenue Stream

In essence, each presidential participant implied that the current financial model for TLACs is problematic even for those with substantial endowments. Expressions, such as "facing potential financial challenges" and "the business model problem," were common during the presidential interviews. Some presidents suggested that online education has the potential to generate additional revenue. President Dixon professed,

> If you look at our financial model, everyone worries about how are we going to survive as liberal arts colleges? In an environment where this time our cost except for a few is over the top by five percent for students unless we use extensive financial aid. And at some point if you rely on large financial aid for 95% of your students. Some parts of the financial model doesn't work. So how do we continue to offer quality education? How do we do all the things given the costs? So we think that the future of online education can help.

Other presidents simply questioned, "Is there an auxiliary revenue? Is there a revenue stream there?" with regards to online education. Meanwhile presidents of institutions that currently provide fully online courses in summers discussed increases in revenue. President Lional shared, "that's a lot of advantage because we are able to capture more of that student revenue and guarantee the quality of instruction better because it comes from our own faculty."

New markets. Expanding current educational offerings to explore new markets to generate new revenue streams was mentioned by several TLAC presidents. According to President Harrison,

> I think each president does need to think about whether or not there is some financial imperative or opportunity there. It may be that you're able to branch out into new

markets. If you can procreate an adult program or an area, specialty area, that you

couldn't support on campus, but maybe there's the market for. So I do think presidents

need to be responsible to consider that at their institutions.

President Reid expressed interest in providing online education on a small scale to people
who are not enrolled at his College.

I think we will do it on a limited scale, particularly with a couple, three, four, five, six

professors who are lights out, and they teach in subject areas where they are nearly

unique. Teaching a subject matter that only occurs at maybe a half a dozen sites in

America. You got some serious student who has heard about [one of our professors].

And we could package him up and sell him. And not just sell him to like make

money, but I mean provide an experience.

Although all presidents are considering examining new markets for their institutions, several
TLAC presidents seem to be giving the online education concept some thought.

Graduate coursework. A few TLAC presidents mentioned the possibility of offering

graduate level coursework and using online education as a delivery method. President Lional

shared, "As the College thinks about its future and whether or not we want to offer graduate

level coursework that's something we will explore then...it turns into a very different

conversation about what online means for us." He implied that a hybrid option would be

ideal for the institution. President Munroe discussed how conversations about offering

graduate programs typically come up during strategic planning sessions. "It will come

up...should we add a small number of graduate programs because we're a completely

undergraduate institution? If we added one or two graduate programs you know that would

be perhaps an opportunity for more online consideration."

Alumni. Nearly a third of the TLAC presidential participants discussed providing online education for their alumni. President Adock shared her thoughts on offering additional education programs.

> I think we've got to offer some other form of educational credential you know beyond the baccalaureate degree. And that's why I mentioned something like alumni. Our faculty would be very interested in reaching out to alumni. Our alumni would be interested in potentially teaching to our students as well right...The reason I mentioned alumni is it seems like the cultural barriers are a little bit lower for faculty and for the student. I mean they want to see what the college has to offer them whereas you know I'm not sure that the University class would be as appealing to one of our alumnus. So, I'm very interested in exploring whether they are short courses that we would offer to alumni that's a very easy way to do it to get into the [online] model...but at the end of the day, it's a very small market.

Similarly, President Taylor also mentioned exploring online education for alumni.

> We decided that at some point we might want to explore offering a very limited range of courses to our alumni, who might be in a position where they need some additional mileage in order to pursue a career advancement or something like that. I'd offer accounting as an example. Sometimes a student won't take accounting when they're an undergraduate 'cause you know the thought of taking accounting is painful [chuckles]. So they avoid taking the course but then they get into their career, and they realize that for that next job that they'd like to have they need to have some background in accounting. We haven't yet launched this but we're continuing to explore whether there's a way in which we could take a very small number of courses

that might be of interest to our alumni and offer it to them as a way to help them

advance their careers...I think those would be more fully online because I think we

would imagine alumni from different places around the country simultaneously taking

the course. We would not expect them to come to campus, but we have not yet

launched that, that's just something that we have in the hopper as a potential initiative.

Increasing alumni relations through online education seemed to be an idea that several

presidents shared. President General commented,

> If you want to engage your alumni, I can see online education being a very effective
>
> way to try to recreate the learning environment that alumni had 30 years ago and they
>
> so fondly remember. Albeit that they're scattered all over the world, you won't be able
>
> to bring them on campus and do it. But perhaps through online education you can do
>
> some of that. So to get closer to your alumni, you can do it.

Overall, TLAC presidential participants were interested in ways online education can

increase their value proposition both educationally and financially.

Summary

This chapter provided the findings from the phase two of this two-phase, sequential

mixed method design research study. In order to answer the second research question, "How

do presidents at TLACs think about the adoption of online higher education in general,

within traditional liberal arts institutions, and within their institutions specifically?", data

from 11 traditional liberal arts college and university presidents interviews were analyzed

into themes. Analyses of these data provided insight into presidential perceptions regarding

online higher education in general and within traditional liberal arts institutions. This chapter

began with a description of the TLAC presidential sample followed by presidential

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experiences, which varied greatly. This background information was then followed by thematic analysis. Major emergent themes from the data include: *Apprehensions Regarding Online Education, Perceived Inferiority of Online Education*, and *Potential Opportunities from Online Education*. Findings indicated that TLAC presidents are apprehensive about online education, believe online education is secondary to traditional education, and interested in exploring online education opportunities.

CHAPTER 6: SUMMARY, DISCUSSION, AND CONCLUSION

This final chapter includes a restatement of the research problem, a review of the study's methodological approach, a summary of the major findings, a discussion of the results, and a discussion of implications. National research studies have indicated that students are enrolling in more online courses annually (Allen & Seaman, 2010, 2014, 2015); yet, not all higher education institutions are adopting online education. Institutions have different rationale for adopting online education, and leaders of each institution must determine whether or not online education is appropriate for their institutions. In order to understand more about adoption of online education in higher education and presidents' perceptions of online education, this study investigated the adoption of online education by traditional liberal arts colleges (TLACs). These institutions and their presidents currently face numerous challenges and threats as TLACs try to remain relevant in the 21st century while maintaining their liberal arts mission. The importance of this study lies in the realization that many higher education institutions and leaders are making decisions about the adoption of online education while also examining if and how online education aligns with their existing environment, mission, culture, and curricula. TLACs have distinct missions, cultures, and traditions that impact their adoption of innovations like online education.

Summary of the Study

This study sought to determine the extent to which online education has been adopted at TLACs and explore how TLAC presidents think about the adoption of online education at their institutions. Drawing upon the diffusion of innovations theory as the framework for informing data collection, this study employed a two-phase, sequential mixed method design. Two research questions guided this study: 1) To what extent has online education been

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adopted at TLACs?; and 2) How do presidents at TLACs think about the adoption of online higher education in general, within traditional liberal arts institutions, and within their institutions specifically? In order to determine the level of online instructional education activity at each TLAC, the first phase was exploratory. This fact-finding quest included queries to the NCES IPEDS from the 2015-2016 academic year database to determine which institutions reported distance learning offerings, institutional website reviews, consortia website reviews, and a survey to TLAC registrars (see Appendix A). The data analyses in this phase of the study provided a general overview of what was happening in online education by TLACs and informed the selection of participants for the second phase of the study. In the second phase, qualitative interviews with 11 TLAC presidents were conducted to understand how these administrators feel and think about the adoption of online education.

The findings and results for this study were divided into chapters four (phase one) and five (phase two). The research sample for phase one of the study consisted of 55 TLACs (see Appendix B) that solely provided undergraduate curriculum in the arts and sciences, such as philosophy, languages, social sciences, and physical sciences. Major findings from phase one of the study indicated that more than half of TLACs (61.82%) did not have online education and did not offer any online courses. The remaining TLACs adopted online education either as fully online (16.36%) or hybrid (21.82%) courses. Analyses from interviews with 11 presidents provided insight into presidential perceptions regarding online higher education in general, within traditional liberal arts institutions, and within their institutions specifically. The presidential sample consisted of 11 presidents out of a population of 55 potential participants (20%). The presidents' personal experience with online education was quite diverse ranging from absolutely no online education experience at all to experience

facilitating online professional development. Also, on a technology savviness scale from 1 to 5 with one (1) being not technology savvy at all and five (5) being very technology savvy, the TLAC presidents' mean technology savviness self-rating was 3.18. Out of the 11 presidents, no one rated themselves a 1 or a 5. Three dominant themes emerged from the TLAC presidential interviews resulted in three emergent themes: *Apprehensions Regarding Online Education, Perceived Inferiority of Online Education*, and *Potential Opportunities from Online Education*. Findings indicated that in general, TLAC presidents are cautious about online education, believe online education is inferior to conventional education, and are interested in exploring online education opportunities.

Discussion, Implications, and Recommendations

The purpose of this discussion is to examine the study's major findings in the context of the existing literature, consider some of the implications, and provide recommendations where appropriate. The discussion to follow is in these areas: limited understanding of online education, current online education adoption activity among TLACs, online education concerns, perceived inferiority of online education, and perceived characteristics of innovations.

What Exactly is Online Learning/Education?

Although more than half of the TLACs (61.82%) in the sample did not have online education courses, there was evidence of online technology use at nearly each institution in the sample. Based on the multiple forms of data collection, most (if not all) of these institutions use some form of online technology in their classrooms either through videos, external websites, assignments, guest lectures, learning management systems (LMS), etc.

This discovery supports Bacow et al.'s (2012) claim that some form of online learning takes place at just about every college and university in the nation. Two contributing factors that may have led to discrepancy in the data include the presidents' limited understanding of online education and their misunderstanding of online education terminology.

Limited understanding of online education. Numerous TLACs may be using online learning technologies without considering them to be online education tools. For example, many faculty members provide syllabi and PowerPoint presentations or assign quizzes through an institutional LMS. Use of some of these technologies has become so commonplace that presidents and faculty members do not necessarily consider them as a form of online education even though they are given the definition of online education for this research study. For the purpose of this study, online learning/education is defined as education or learning that uses the Internet as the primary technology to deliver instruction to students who are physically separated from the instructor.

Furthermore, TLAC presidents' personal experiences or lack thereof with regard to online education and digital technologies varied considerably. On average, presidents have not had much exposure to different types of online education models; thus, in general they have a limited understanding of online education. This limited understanding of online education was evidenced by numerous comments made by TLAC presidents. Several participants remarked that they simply "don't know" much online education. Presidents lack of knowledge and experience with regard online education may be a contributing factor to their perceptions of inferiority, their concerns of disengagement between faculty and students, and their concerns about institutional alignment with online education.

Along similar lines, comments, such as "Education is about watching a mind going

through difficult material and sometimes that mind is gonna get stuck, or sometimes they're gonna make a mistake. And for you to watch the process live is what teaches you a lot" and "I really believe that there's no complete substitute for being in the same place with other people who you can look at and react to in a way that's very hard to do in a virtual setting," insinuate that some TLAC presidents think of online education only asynchronously and therefore believe that real-time student-faculty interaction and student-student interaction is perhaps minimal or nonexistent. Yet, research suggests that "More recent applications tend to combine multiple forms of synchronous and asynchronous online interactions as well as occasional face-to-face interactions--a blended learning approach" (Means et al., 2009, p. 1). TLAC presidents may lack exposure to such synchronous and asynchronous online interactions and therefore draw assumptions based on what they have heard from others as opposed to using research-based evidence.

Terminology confusion. Many of the TLACs that were found to not have online education utilize online technologies. This finding is an indication that TLACs are somewhat more comfortable integrating a more blended education approach into their conventional undergraduate curriculum rather than a hybrid or fully online approach. In communicating with TLAC registrars and presidents, the terms hybrid/blended and fully online were defined and used interchangeably; however, many of them seemed to view hybrid and blended differently. Perhaps, the term blended learning is less intimidating than hybrid learning, or the term has gained significant popularity in the higher education enterprise thereby causing it to be a trending buzzword. According to Allen and Seaman (2016), a blended/hybrid course combines online and face-to-face learning with 30-79% of course content delivered online. Typically, blended/hybrid courses use online discussions and have reduced the

number of face-to-face meetings. Or, perhaps the term web-facilitated is often improperly substituted for the term blended learning. According to Allen and Seaman (2016), a web-facilitated course uses web-based technology, such as a learning management system or course website, to facilitate what is essentially a face-to-face course with 1-29% of course content delivered online. Means et al. (2013) suggested that "the terms *blended learning* and *hybrid learning* are used interchangeably and without a broadly accepted precise definition" (p. 5). The lack of a broadly accepted precise definitions and participants prior to knowledge of terms blended, hybrid, and online may have caused some confusion for participants in this research study despite being given definitions for the context of this study. Online education terminology has been problematic when conducting meta-analyses and attempting to compare and contrast other online education research.

Further, TLAC presidents did not consider that students may take hybrid and or fully online courses and conventional courses simultaneously. As a result, faculty members may see and interact with their students outside of online courses. Lack of student-faculty interaction and community seemed to be a major roadblock when TLAC presidents consider online education, which aligns with the interaction limitations that Bates (2005) and Garrison (1985) previously identified as problems for earlier distance learning programs. However, more recent search from Siemens, Gašević, and Dawson (2015) suggests that Internet provides a robust interactive, two-way communication channel for faculty and students.

Recommendations. Given the limited understanding of online education and the online education terminology confusion, TLAC presidents need a better understanding of what constitutes online learning. Two ways to increase their understanding of online education include research and direct online education experience. Although expecting

presidents to conduct individual research on online education is a somewhat unreasonable expectation, presidents can create task force teams or steering committees to gather pertinent information about online education in general and regarding traditional liberal arts institutions and report back to president directly, the board of trustees, or faculty governing bodies. Additionally, presidents can join forces with other presidents or consortium in request research-based evidence and the design of pilot online programs, which one president indicated is currently taking place. A better understanding of online education literature can help TLAC presidents speak about online education with more confidence and help them make sound research-based decisions when considering or adopting online education.

Secondly, TLAC presidents need more exposure to the various types of online education including synchronous and asynchronous components in hybrid and fully online courses. Increased exposure to different online education models allows presidents to experience the medium directly so they have a better understanding of what the potential and limitations are. Ideally, TLAC presidents are encouraged to gain experience as both an online instructor and a student. Increasing online education exposure from a faculty and student perspective can help TLAC presidents learn about the various possibilities that online education can afford. Direct online education experience can help TLAC presidents differentiate between the different online education models that their institutions may be considering adopting and also allow them to speak from experience about online education. Additionally, when TLAC presidents facilitate or take online courses they are modeling a desired behavior they expect. Modeling behavior to helps presidents have a better understanding of the what they expect their faculty to do. This notion aligns McCarthy's (2009) finding that "campus leaders need to better understand the characteristics of the online

teaching populations on their campus and use communication strategies that target and

engage all faculty members" (p. 6). Within higher education, extensive variance exists for

what constitutes as online learning/education so it is important for leaders of higher

education institutions to be knowledgeable of models and terminology associated with online

learning/education.

Current Online Education Adoption Activity Among TLACs

Although numerous higher education institution types, such as research universities,

comprehensive colleges, and community colleges, have and are embracing online education

wholeheartedly due to the increase in student demands (Allen & Seaman, 2015), TLACs

have been somewhat hesitant to join as "online education has had a harder time gaining a

foothold" at residential liberal arts colleges (Kolowich, 2012, para. 1). Some TLACs are

reluctant while others are beginning to pilot and experiment with various online educational

models including massively open online courses (MOOCs), hybrid, and fully online courses.

Kolowich shared that several top-rated liberal arts colleges have begun experimenting with

online course modules and MOOCs. Additionally, evidence from this study substantiated this

report. One reason TLACs have been slow to join the online education space is they desire to

integrate online education within their liberal arts missions and cultures and determining if

and why to adopt online education takes time, research, and resources.

Despite the fact that some form of distance education has been in existence arguably

since the mid-18th century (Holmberg, 2005), TLACs are beginning to explore ways to

incorporate online education into their existing undergraduate curricula. As technology

continues to improve and the digital technology skills for both faculty and students increase,

the extent of online education adoption at TLACs may also rise. Online education must fit

within the cultures of TLACs in order to see an increase. Research reports from Means et al. (2013) and Bernard et al. (2014) indicated that blended/hybrid learning has the opportunity to increase student satisfaction and learning outcomes. As more scholars conduct empirically based research and more evidence to support online and blended/hybrid education is reported, TLACs may take notice and conceivably look for avenues to adopt online education in ways they deem appropriate for their institutions. Also, student demand for online courses has increased tremendously since the mid-2000s and if this demand continues across all types of institutions including liberal arts colleges, TLACs may desire to address this demand by offering online education opportunities or risk losing potential tuition revenue.

   Fully online summer and alumni courses. One online education area on the rise for TLACs is fully online summer courses. The majority of TLACs that offered fully online courses did so during the summer semester. This finding aligns with Foster's (2015) belief that "the utilization of summer was a near-perfect approach to implementing an online and hybrid course program for both logistical and philosophical reasons...The existence of this underlying ethos regarding summer provided an important context for developing new approaches" (p. 93). Many TLACs do not offer traditional summer semester courses; thus, providing students with an online summer alternative seemed to be an acceptable approach. Fully online summer courses allow TLACs to obtain additional revenue while meeting the needs of their students thereby aiding in the retention and matriculation of students as suggested by Bacow et al., (2012), Scholz (2013), and Twiggs (2005). In addition to increased revenue and retention efforts, implementing this type of approach affords TLACs the ability to experiment with different educational models while allowing institutions to remain true to their liberal arts mission without "diluting their brand."

Similarly, the idea of providing fully online courses to alumni seems like a worthwhile pursuit for TLACs. Since only faculty members and students who are interested in these online opportunities will be the ones who participate in them, fully online alumni represents a relatively low cultural challenge to overcome for those reluctant to online education. Faculty would not be mandated to teach certain courses online, but rather they will be asked to create and facilitate courses that they believe would be beneficial to alumni. For alumni, taking an online course with an institution that they are already familiar with and faculty they may already know may entice them to want to enroll given the topics are of interest to them. Similarly to the offering the fully online summer courses, offering alumni fully online courses would generate additional revenue while introducing a different model of online education to traditional liberal arts institutions. As a result, fully online summer and alumni courses seem more like an supplement to already existent residential undergraduate experience.

Recommendations. Offering fully online summer courses could result in a mutually beneficial opportunity for numerous TLAC constituents. Leveraging the summer as time to explore online education has lower cultural challenges to overcome for TLAC administrators, faculty, and students. As a result, TLACs that have not explored any fully online course offerings may consider starting with a pilot of a fully online course during a summer semester in order to assess the level of interest among faculty members and incoming and current students. The fully online summer course offered should be carefully selected and input from the faculty considered. Or, TLACs that are considering offering a fully online course may began with offering a fully online pilot course to alumni. Institutions can survey alumni to determine which topics seem to be most desired and survey faculty to determine if

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and which courses they are interested in teaching online.

For TLACs that have already offered fully online summer or alumni courses, sharing with other TLACs and consortia about the experience would be helpful. Perhaps, providing a list of lessons learned for other institutions would be valuable to those who are considering online education adoption. Also, institutions that have provided fully online courses should consider gathering and reporting data on the process, the student outcomes, faculty experiences and outcomes, as well as any other data they think will be helpful to others. Perhaps, various consortia could aggregate the data across multiple TLACs.

Learning management system adoption. According to Bacow et al. (2012), students and faculty have embraced LMSs to distribute digital content, access multimedia, facilitate student-to-student and teacher-to-student interaction as well as for the submission and evaluation of homework, quizzes, and exams. Out of the 55 TLACs, 54 had adopted a LMS (see Table 5). However, the extent to which traditional liberal arts institutions utilize the various LMSs' functionality is diverse. Some TLAC faculty members are recording lectures and administering quizzes in the systems, while others do not even add students' grades to the systems. Faculty use of LMSs may be divided among TLACs' campuses, and faculty members have complete autonomy over their classroom experience so whether they choose to use a LMS to support their traditional classroom and how they choose to use the LMS features and functionality is solely up to them. As indicated by some TLAC presidents, students complained about faculty not using LMSs.

> They would really like for more of their faculty to use Moodle especially the grade book function so that they can have easier access to where they stand. There are many students who were upset that they don't have that access when either the faculty

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member is keeping their grades on an excel spreadsheet on a computer or on a an old

fashion grade written grade book, and they're both here. (President Lional).

Faculty reluctance to use institutional learning management could be due to a number of

factors including but not limited to time, comfort level, interest, or experience.

   Recommendations. One recommendation regarding LMSs is to provide professional

development for administrators and faculty members on how to the use their specific

institutional LMS. TLACs can provide professional development sessions on site and

existing informational/instructional technologist or a knowledgeable faculty member to

facilitate the sessions. Another alternative is to provide the LMS professional development

online. This online professional development opportunity could be created and facilitated on

site or outsourced to the specific LMS organizations or other consultants. Providing this

professional development opportunity online allows administrators and faculty members the

opportunity to be online students, which provides direct online education experience. As

previously stated, TLAC presidents and faculty need more exposure to the various types of

online education including synchronous and asynchronous components in hybrid and fully

online courses. Perhaps, this online professional development opportunity will increase

exposure to different online education models allow presidents and faculty members to

experience the medium directly so they have a better understanding of what the potential and

limitations are. Increasing online education exposure from a student perspective can help

TLAC presidents and faculty members learn about the various possibilities that online

education can provide their students. Direct online education experience can help TLAC

presidents and faculty differentiate between the different online education models that their

institutions may be considering adopting and also allow them to speak from experience about

online education.

Overall, online education has not been widely adopted at TLACs; however, some TLACs are beginning to explore and consider appropriate ways of integrating online education amidst their traditional cultures and missions. TLACs are a unique segment of the higher education landscape so it is important they be mindful of who they are and what type of students they recruit as they begin to consider online education. As the presidents indicated, offering fully online or hybrid degree programs is inconsistent with the TLACs' commitment to the residential undergraduate experience in the arts and sciences. However, there is ample opportunity for TLACs to consider hybrid/blended learning and fully online learning approaches as well as other new pedagogical strategies that involve technology.

Online Education Concerns

TLAC presidents cited numerous concerns, including lack of community development, incompatibility with institutional culture, startup and ongoing costs, faculty resistance, and quality, as reasons why they are hesitant to consider or adopt online education at their institutions. Most of their suspicion parallels with existing literature regarding barriers to online education adoption. TLAC presidents specified that the community is paramount to a successful undergraduate residential experience and creating that type of community in an online environment would be challenging if not impossible. Some scholars including Hurst and Hollis (unpublished), Walther (1993), and Wegerif (1998), however, proposed that building community in online spaces can be equivalent or more meaningful than in traditional educational settings. Since birth majority (if not all) human interaction and community building has been socially constructed in a shared physical space either in family homes, at schools, at churches, and in the local community, so shifting from this well-known

physical community space to a virtual community space may seem foreign to those who have not grown up with as much virtual community building as digital natives.

Results also indicated that some of the TLAC presidents would agree with Docking and Curton (2015) that "online education is disengaged education that places students in front of a computer screen instead of in front of a professor and mentor. It is education directed at the head at the expense of the heart…" (p. 26) thereby arguing that online education is incompatible with the TLAC culture. Gaining a better understanding of how TLAC culture and mission influence presidential perceptions regarding online education was insightful. TLAC presidents consistently used terms such as "mission", "brand", "value", "our model", and "shared governance" to help explain how their institutional culture affects their very existence and their decision-making processes. Evidence of Schein's (2004) classification of cultural levels was prominent in the TLAC presidential interviews. Schein proposed that culture, particularly in organizations, can be analyzed at several different levels, *artifacts and practice*, *values*, and *basic assumptions*, with the term level meaning the degree to which the cultural phenomenon is visible to the observer. As such, these layers affect visibility within traditional liberal arts institutions and consciousness among those teaching and leading those institutions similar to what Maslowski (2001) found in secondary schools. Organization culture played a critical role in the consideration and adoption of online education by TLACs.

Given the rising institutional costs of higher education, the TLAC presidential participants were skeptical about online education startup costs for institutions and potential costs savings. These concerns are legitimate and often specified as reasons to delay or abandon online education adoption. Although several scholars including Bacow et al. (2012),

Bowen et al. (2014), Means et al. (2013), and Twigg (2005) purport projected and realized cost savings with online education, other scholars including Bell and Federman (2013), Best (2016), Brown (2015), Kim and Bonk (2006) have indicated that integrating online education requires significant startup and sustainability funding. Remarks from this study, such as "I would be very skeptical in the majority of cases to say that doing online would save us money", "I do think that the cost the start-up costs are a disadvantage", and "No college has the money to put up the upfront cost," support the latter set of scholars' views that online education does not translate to cost savings.

None of the TLACs in the sample offered hybrid or fully online certificates or degree programs, and the TLAC presidents indicated that their institutions are not interested in offering these types of programs. Since these institutions do not plan to start fully or hybrid online programs and their student populations tend not to exceed 2,500 students, startup costs may be fairly inexpensive in comparison to startup costs for larger institutions with larger student populations. Further, all but one of TLACs has an existing LMS. Thus, purchasing an online learning platform will not be an additional costs to TLACs. As a result, startup costs to offer pilots or offer a small amount of hybrid or fully online courses may be more feasible than TLAC presidents realize. TLACs would still need resources to design and create the online courses.

Although some TLAC presidents indicated that a handful of their faculty members are early adopters and online education champions, most of them feared the objections they would receive from faculty regarding embracing online education. This sentiment is echoed throughout the online education literature. According to Allen and Seaman (2015), a persistent failure of online education is the inability to convince faculty of its worthiness and

importance. As leaders of TLACs, presidents must be instrumental in communicating the value and relevancy of online education while being mindful not to undermine the faculty governance present at their institutions by dictating that online education be implemented. More than half of the TLAC presidents indicated that online education is relevant to them as leaders and to their institutions because it is important to be aware of pedagogical changes and shifts in higher education. As result, having conversations with faculty and other administrators about online education within their institutional culture will be necessary if TLACs plan to consider or offer hybrid or fully online courses. Perhaps, allowing online education in the form of blended and fully learning to develop more organically may be the best course of action for TLACs. As one president pointed out, "There isn't any rule that says we can't solve our problems with online courses. So if we have a problem, online education is [sometimes] a valid solution."

Additionally, TLAC presidents were particularly concerned about the generational challenges that typically accompany more senior faculty. Bacow et al. (2012) postulated that online instruction is alien to most faculty thereby "calls into question the very reason that many pursued an academic career in the first place" (p. 19). Therefore, TLAC presidents need to reassure faculty that their jobs are not in jeopardy and that it is necessary to explore new pedagogical approaches and strategies that may seem uncomfortable and foreign. As previously stated, one way to combat this fear of the unknown is for faculty to participate in an online course as a student to aid in their understanding of learning in an online environment.

Given this backdrop of resistance and challenges, the TLAC presidents were concerned about their institutions' abilities to create and deliver online education

opportunities of the same quality as their traditional classroom education. The lack of expertise in this area was at the forefront of several of the participants' minds. Various resources are needed to adopt online education effectively. As a result, some TLAC presidents perceive that the benefits of online education may be too costly to adopt. In order to address the quality concerns, TLACs should consult the existing best practices research and non-profit organizations regarding online course design and development. Considered a leading provider of tools and processes used to evaluate quality in course design, Quality Matters (2016) provides a research-based rubric to aid in the design of hybrid/blended and fully online courses. Similarly, the Online Learning Consortium offers professional development opportunities including certificate programs, workshops, and webinars for those interested in providing quality online education.

Recommendations. For TLACs that are considering adopting online education or those who have already adopted, an examination of the existing conditions that facilitate the adoption, implementation, and institutionalization of educational technology innovations as proposed by Ely (1990) should be considered as the process of change is a complex concept. Ely proclaims that eight conditions including: dissatisfaction with the status quo, knowledge and skills, resources, time, rewards, participation, commitment, and leadership are fundamental when considered adoption of an educational innovation, such as online education. Providing TLAC presidents with a framework to use when considering or embracing online education can help them focus the endeavor and look at the adoption process more systematically. This framework can be shared and used as a point of discussion with key TLAC constituents.

Perceived Inferiority of Online Education

Generally, TLAC presidents believe online education is inferior in comparison to conventional education used in traditional liberal arts institutions. This finding from this study supports findings of other scholars who have studied the perceptions of college and university presidents. Parker et al. (2011) found that private college presidents are among the most skeptical about the value of online learning. Only 36% believe a course taken online provides the same value as a class taken in person in comparison with 50% of four-year public university presidents. However, presidential perception does not support the meta-analyses findings of Means et al. (2013) and Bernard et al. (2014). Means et al. (2013) reported that blended learning conditions were found to significantly outperform traditional face-to-face classroom instruction where no blending occurred. The major findings from the Bernard et al. (2014) and Means et al. (2013) meta-analyses revealed that there is a general consensus of the effectiveness of online learning compared with traditional classroom instruction, which indicates there is little difference in these two instructional modalities.

Yet, TLAC presidents perceive online education as inferior to traditional education because conventional education is different than what they are accustomed to. These presidents feel that they manner in which they were taught and have taught others is the ultimate way for students to learn. After all, conventional education helped them rise to ranks to become college presidents. This perception, however, translates into a precarious assumption that online education is of lesser quality than traditional education even if they believe so only slightly. Comments such as "it's not 100% but it's better than nothing" and "The model we operate here is not high tech but high touch." depreciate the value and quality of online education. Some researchers including Allen and Seaman (2015), Bartini (2008),

and Means et al., (2009), have reported that online learning is at least as effective as traditional classroom instruction. Online education has faced scrutiny in terms of quality, effectiveness, and legitimacy from various stakeholders, yet the same stakeholders do not scrutinize conventional education methods in the same way.

Perceived Characteristics of Innovation

Within the diffusion of innovations framework, the eight perceived characteristics of innovation concept as described Moore and Benbasat (1991) were evident in the emergent themes and subthemes. The relative advantage PCI linked to presidential discussions regarding the importance of institutional missions, the overall access online education can provide to those interested in higher learning, and potential costs and revenue streams. Discourse related to institutional mission, quality of online education, and the complexity of online education related to the compatibility PCI. The ease of use PCI manifested in the concerns about faculty resistance, the complexity of online education, and the potential for new pedagogical strategies and techniques that online education can/could afford TLACs. Relatedly, the faculty resistance dialogue demonstrated a connection to the trialability and voluntariness PCIs. Visibility and image relate to TLACs institutional mission. For the TLACs that have piloted or adopted online education, perceptions of the experiences and examples were shared. The discussion of experiences and examples regarding online education being an adequate alternative, increasing access to current and potential students, and experiences with faculty resistance from junior and senior faculty members connect to the results demonstrability PCI. Table 8 displays the connection between the eight PCIs and the emergent themes and subthemes.

Table 8

Perceived Characteristics of Innovation Evidenced in Emergent Themes

Perceived Characteristics of Innovation	Emergent Theme Connection
Voluntariness	Apprehensions Regarding Online Education – Faculty Resistance
Image	Apprehensions Regarding Online Education – Alignment with TLAC Mission and Culture
	Perceived Inferiority of Online Education – Adequate Alternative
	Perceived Inferiority of Online Education – Static, Impersonal Learning
Relative Advantage	Apprehensions Regarding Online Education – Alignment with TLAC Mission and Culture
	Apprehensions Regarding Online Education – Costs
	Potential Opportunities from Online Education - Increasing Access to Higher Education
	Potential Opportunities from Online Education – Potential Revenue Stream
Compatibility	Apprehensions Regarding Online Education – Alignment with TLAC Mission and Culture
	Apprehensions Regarding Online Education – Complexity
	Apprehensions Regarding Online Education – Quality
	Perceived Inferiority of Online Education – Adequate Alternative

Table 8 (continued)

Perceived Characteristics of Innovation Evidenced in Emergent Themes

Perceived Characteristics of Innovation	Emergent Theme Connection
Ease of Use	Apprehensions Regarding Online Education – Faculty Resistance
	Apprehensions Regarding Online Education – Complexity
	Potential Opportunities from Online Education - Incorporating Different Pedagogical Strategies
Results Demonstrability	Apprehensions Regarding Online Education – Faculty Resistance
	Perceived Inferiority of Online Education – Adequate Alternative
	Potential Opportunities from Online Education - Increasing Access to Higher Education
Trialability	Apprehensions Regarding Online Education – Faculty Resistance
Visibility	Apprehensions Regarding Online Education – Alignment with TLAC Mission and Culture

Future Research

As some TLACs have moved forward with online education, adopting fully online courses and hybrid courses, both during the academic year and/or during the summer terms, a study of institutions' adoption and implementation of online education approaches is warranted. Implementation science (Halle, Metz, & Martinez-Beck, 2013) would be an appropriate framework for such a study. Implementation science is defined as the scientific

investigation of factors associated with effective implementation (Halle, Metz, & Martinez-Beck, 2013). Implementation science is now being used in the fields of health, mental health, social services, juvenile justice, education, early childhood education, employment services, and substance abuse prevention and treatment (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005) to understand how programs and services are integrated. More recently, educators have used implementation science to focus on the implementation of evidence-based practice in the early child care (Halle et al., 2013) and applied psychology (Kelly & Perkins, 2012).

Another area of research would be to explore the development or evolution of online education in TLAC environments over time. A topic for closer examination includes the alignment of TLAC culture with educational innovations. Pursuing a clearer understanding of TLACs' cultures, missions, and visions in the 21st century is fundamental to my research agenda as I seek to be a reputable scholar in American liberal arts colleges.

Conclusion

Online education is a complex construct with multiple dimensions, and different audiences have varying perceptions about what it means. The current research study demonstrated that the extent to which the TLACs considered and adopted online education, and revealed that TLAC presidents prefer to use online education to supplement their existing conventional education approach. While some TLACs did not have online learning/education courses, others are considering and implementing online education in the form of blended, hybrid, and some fully online courses. TLAC presidents' perceptions regarding online education influence how they define and decipher online education's multiple dimensions. This study contributes a unique presidential perspective to the field of online education in the context of traditional liberal arts institutions. Adhering to the

aforementioned recommendations can aid TLACs and their leaders as they consider, adopt, and integrate online education into their existing undergraduate education model.

Summary

This sixth chapter restated the research problem, reviewed the sequential mixed methods design approach employed, and discussed the results, implications, and conclusions of the study. Following these six chapters are the references and appendices that are referred to throughout the chapters. Additionally, the approved nonmedical expedited IRB forms are included in PDF format.

Appendix A: Phone Survey Questions for TLAC Registrars

1. Does your institution offer any graduate courses?
   a. If no, continue with question 2.
   b. If yes, conclude phone survey.

2. Does your institution offer any courses during the summer?

3. Has your institution officially adopted a Learning Management System (LMS)?
   a. If so, what is it?

4. Are there any online or distance learning classes in the institution's course offerings?
   a. If no, conclude phone survey.
   b. If yes, continue with question 5.

5. Hybrid course delivery is defined as courses that have traditional face-to-face on campus instruction and some on campus activities have been replaced by online learning activities. Are there any hybrid courses offered at your institution?
   a. If so, in what area(s) are hybrid courses offered?
   b. If so, are hybrid courses offered during the academic year and summer? Academic year only? Summer only?

6. Fully online courses are defined as courses that have all content and course activities including meetings online with no traditional face-to-face on campus instruction. Are there any fully online courses offered at the institution?
   a. If so, in what area(s) are fully online courses offered?
   b. If so, are fully online courses offered during the academic year and summer? Academic year only? Summer only?

7. Hybrid degree programs are defined as degree programs that have traditional face-to-face on campus instruction and some on campus activities have been replaced by online learning activities. Are there any hybrid degree programs offered at your institution?
   a. If so, in what area(s) are hybrid degree programs offered?

8. Fully online degree programs are defined as degree programs that have all content and course activities online including meetings. Are there any fully online degree programs offered at your institution?
   a. If so, in what area(s) are fully online degree programs offered?

Appendix B: Research Sample - Traditional Liberal Arts Colleges

Application of the *Arts & Sciences plus professions, no graduate coexistence* to the 2015 version of the Carnegie Classification of Institutions of Higher Education™ yielded 84 institutions Traditional Liberal Arts Colleges and Universities. After further investigation, 29 institutions were eliminated because they offered some form of graduate course coursework. Thus, the research sample consisted of 55 TLACs.

IPEDS Unit ID	Name	City	State
138600	Agnes Scott College	Decatur	GA
168546	Albion College	Albion	MI
210669	Allegheny College	Meadville	PA
164465	Amherst College	Amherst	MA
222983	Austin College	Sherman	TX
167792	Bard College at Simon's Rock	Great Barrington	NA
189097	Barnard College	New York	NY
160977	Bates College	Lewiston	ME
238333	Beloit College	Beloit	WI
161004	Bowdoin College	Brunswick	ME
173258	Carleton College	Northfield	MN
156408	Centre College	Danville	KY
161086	Colby College	Waterville	ME
166124	College of the Holy Cross	Worcester	MA
153162	Cornell College	Mount Vernon	IA
198385	Davidson College	Davidson	NC
202523	Denison University	Granville	OH
150400	DePauw University	Greencastle	IN

212009	Dickinson College	Carlisle	PA
212577	Franklin and Marshall College	Lancaster	PA
212674	Gettysburg College	Gettysburg	PA
153384	Grinnell College	Grinnell	IA
191515	Hamilton College	Clinton	NY
232256	Hampden-Sydney College	Hampden-Sydney	VA
166018	Hampshire College	Amherst	MA
150756	Hanover College	Hanover	IN
212911	Haverford College	Haverford	PA
170532	Kalamazoo College	Kalamazoo	MI
203535	Kenyon College	Gambier	OH
146427	Knox College	Galesburg	IL
213385	Lafayette College	Easton	PA
239017	Lawrence University	Appleton	WI
213668	Lycoming College	Williamsport	PA
106342	Lyon College	Batesville	AR
173902	Macalester College	Saint Paul	MN
121257	Pitzer College	Claremont	CA
121345	Pomona College	Claremont	CA
455770	Providence Christian College	Pasadena	CA
233295	Randolph-Macon College	Ashland	VA
239628	Ripon College	Ripon	WI
123165	Scripps College	Claremont	CA
148849	Shimer College	Chicago	IL

228343	Southwestern University	Georgetown	TX
141060	Spelman College	Atlanta	GA
231095	Sterling College-Craftsbury Common	Craftsbury Common	VT
216287	Swarthmore College	Swarthmore	PA
206589	The College of Wooster	Wooster	OH
183275	Thomas More College of Liberal Arts	Merrimack	NH
174251	University of Minnesota-Morris	Morris	MN
216524	Ursinus College	Collegeville	PA
197133	Vassar College	Poughkeepsie	NY
152673	Wabash College	Crawfordsville	IN
168218	Wellesley College	Wellesley	MA
197230	Wells College	Aurora	NY
237057	Whitman College	Walla Walla	WA

Appendix C: Interview Protocol Guide

Good Morning/Afternoon *President* _____!

Given your schedule, I truly appreciate you making the time to participate in my dissertation research project. For dissertation research project, I am investigating the consideration and adoption of online education by traditional liberal arts colleges (like _____ College) and exploring what presidents of these types of institutions think about online education at their institutions.

For ease of note taking, I would like to ask permission to record our conversation. This recording will be kept confidential and on a password protected computer. If at any time you would prefer that I stop recording, please let me know and I will do so immediately. Do I have your permission to begin recording our conversation?

-Start recording if applicable-

I anticipate that our conversation will take about 45 minutes.

In order to make sure we are on the same page, I would like to define three terms for the purpose of this study. Online education is defined as education that uses the Internet as the primary technology to deliver instruction to students who are physically separated from the instructor whether synchronously or asynchronously. Within the online education umbrella, there are two types of modalities. First, hybrid/blended courses are courses that have traditional face-to-face on campus instruction and some on campus activities have been replaced by online learning activities. Secondly, fully online courses are courses that have all content and course activities online in which there is no traditional face-to-face on campus instruction. Do you have questions about these terms?

Let's begin.

1. Generally, how would you describe your thoughts about online education in higher education?

2. Still thinking generally, please list three adjectives to describe your attitude towards online education.

3. Have you ever taught online before? If so, please tell me about it.

4. Have you ever taken an online course before? If so, please tell me about it.

5. Do you feel online instruction is inferior, superior, or about the same as traditional face-to-face instruction? How so?

6. How would you describe your thoughts about online education at your current institution?

7. Describe any advantages and disadvantages of adopting online education at your institution.

8. How relevant is online education to your role as president? Can you give examples?

9. How relevant is online education to your institution? Can you give examples?

10. Talk to me about how online education is compatible or incompatible with your institution's needs? Talk to me about how online education is compatible or incompatible with your institution's teaching emphasis? Talk to me about how online education is compatible or incompatible with your institution's pedagogy?

11. Describe how easy or difficult it would be to implement online education at your institution. Can you give me examples?

12. Is online education visible at your institution? Can you give me examples?

13. *(For institutions without online education)* - Is online education something that your institution has previously tried out or plans to try out in the future? Please explain your answer.

    (For institutions with online education) - How did your institution get involved in online education? Was it something that your institution was able to try out before adopting?

14. Talk to me about how other traditional liberal arts colleges and universities that adopt online education are perceived.

15. *(If applicable)* Talk to me about how faculty who teach online (hybrid/fully online courses) at your institution are perceived.

16. Is online education at your institution required? Do you require students to take an online education course at your institution? Please explain your answer.

17. What have been the results of online education adoption at your institution? Can you give me examples?

18. On a scale of one to five, how would you rate yourself with respect to digital technology, such as mobile devices, computer programs, with one being not technologically savvy at all and five being very technologically savvy? Can you provide an example of how you have used digital technology?

Conclusions

      19. Is there anything else about the online education, your presidency, or traditional liberal arts colleges and universities that you would like to share?

Thank you so much for participating in this interview. I appreciate your time today. After I look over the transcript of our conversation *[or my notes, if permission is not given to record]* may I contact you if I have further questions?

Thank you. If you have any further questions for me, please do not hesitate to contact me at any time. Your assistant has my contact information. Upon conclusion of the research project, I will email you a summary of the major findings.

Thank you. Have a great day.

Appendix D: Traditional Liberal Arts Colleges' Institutional Profiles

TLAC Institutional Profiles

Institution	State	Enrollment Profile	Undergrad Profile	Size & Setting	Religious Affiliation	Campus Setting	*Endowment (FY 2014)	**Total On Campus Cost	***% of All Undergrad Student Receiving Aid	Avg Amount of Aid Received (2013-14)	Enrollment (Fall 2014 Total)	****Graduation rates (Total in %)
Agnes Scott College	GA	Exclusively undergrad 4-year	4-year, full-time, more selective, lower transfer-in	4-year, very small, highly residential	Presbyterian Church (USA)	Suburb: Large	$272,300,000	$48,832	96	23,348	873	73
Albion College	MI	Exclusively undergrad 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	United Methodist	Town: Fringe	$187,700,000	$49,685	97	21,914	1,268	72
Allegheny College	PA	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	United Methodist	Town: Distant	$184,700,000	$53,980	99	$23,792	2,023	78

College	State	Undergraduate Profile	Full/Part-time, Selectivity	Size & Residential	Religious Affiliation	Locale	Endowment					
Amherst College	MA	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	Suburb: Large	$2,149,000,000	$64,006	61	$43,136	1,792	94
Austin College	TX	Very high undergraduate	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	Presbyterian Church (USA)	City: Small	$135,800,000	$47,993	98	$20,919	1,301	76
Bard College at Simon's Rock	MA	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, very small, highly residential	N/A	Rural: Fringe	$10,925,069	$63,749	91	$28,121	329	59
Barnard College	NY	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	City: Large	$282,000,000	$63,220	45	$34,450	2,573	89
Bates College	ME	Exclusively undergraduate	4-year, full-time, more selectiv	4-year, small, highly residential	N/A	City: Small	$263,900,000	$62,770	46	$37,156	1,773	89

		4-year	e, lower transfer-in								
Beloit College	WI	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	City: Small	$130,800,000	$52,270	93	$24,371	1,303	80
Bowdoin College	ME	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	Town: Fringe	$1,216,000,000	$61,650	51	$34,789	1,805	93
Carleton College	MN	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	Town: Distant	$792,700,000	$62,465	64	$28,876	2,057	93
Centre College	KY	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	Presbyterian Church (USA)	Town: Distant	$267,200,000	$49,440	96	$22,267	1,387	82

Colby College	ME	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	Town: Remote	$740,600,000	$61,100	47	$35,002	1,847	91
College of the Holy Cross	MA	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	Roman Catholic	City: Midsize	$726,200,000	$59,642	55	$30,883	2,787	92
Cornell College	IA	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	United Methodist	Town: Fringe	$73,773,269	$50,525	97	$24,545	1,086	66
Davidson College	NC	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	Presbyterian Church (USA)	Suburb: Large	$647,900,000	$60,921	65	$31,441	1,770	93
Denison University	OH	Exclusively undergraduate	4-year, full-time, more selectiv	4-year, small, highly residential	N/A	Suburb: Small	$799,100,000	$58,700	96	$25,230	2,278	82

		4-year	e, lower transfer-in								
DePauw University	IN	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	United Methodist	Town: Distant	$627,700,000	$55,896	97	$25,159	2,215	80
Dickinson College	PA	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	City: Small	$396,300,000	$62,289	70	$27,395	2,364	84
Franklin and Marshall College	PA	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	City: Small	$339,200,000	$63,269	51	$35,369	2,209	87
Gettysburg College	PA	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	City: Small	$289,300,000	$60,320	75	$26,877	2,447	84

College	State				Locale						
Grinnell College	IA	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	Town: Remote	$1,830,000,000	$59,317	88	$32,080	1,734	89
Hamilton College	NY	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	Rural: Fringe	$927,500,000	$61,770	52	$34,807	1,904	91
Hampden-Sydney College	VA	Exclusively undergraduate 4-year	4-year, full-time, selective, lower transfer-in	4-year, small, highly residential	N/A	Rural: Distant	$150,900,000	$54,266	98	$21,784	1,105	67
Hampshire College	MA	Exclusively undergraduate 4-year	4-year, full-time, inclusive, lower transfer-in	4-year, small, highly residential	N/A	Suburb: Large	$46,363,182	$62,015	85	$24,027	1,376	75
Hanover College	IN	Exclusively undergraduate 4-year	4-year, full-time, selective, lower transfer-in	4-year, small, highly residential	Presbyterian Church (USA)	Town: Distant	$151,100,000	$45,773	100	$21,847	1,145	69

in

College	State				Affiliation	Locale	Endowment					
Haverford College	PA	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	Suburb: Large	$490,700,000	$64,226	49	$39,325	1,194	94
Kalmazoo College	MI	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	City: Small	$222,000,000	$52,654	98	$24,422	1,461	82
Kenyon College	OH	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	Town: Distant	$212,200,000	$62,160	56	$30,340	1,662	89
Knox College	IL	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	Town: Distant	$124,400,000	$51,121	98	$23,363	1,399	80
Lafayette College	PA	Exclusively	4-year, full-	4-year, small,	Presbyterian Church	Suburb: Large	$832,800,000	$61,905	54	$31,450	2,503	90

			time, more selectiv e, lower transfer- in	highly residential	(USA)							
Lawrence University	WI	Exclusi vely undergr aduate 4-year	4-year, full- time, more selectiv e, lower transfer- in	4-year, small, highly residential	N/A	City: Small	$249,500,000	$53,790	95	$23,146	1,511	80
Lycoming College	PA	Exclusi vely undergr aduate 4-year	4-year, full- time, selectiv e, lower transfer- in	4-year, small, highly residential	United Methodist	City: Small	$198,100,000	$48,154	99	$22,836	1,353	62
Lyon College	AR	Exclusi vely undergr aduate 4-year	4-year, full- time, more selectiv e, lower transfer- in	4-year, very small, highly residential	Presbyterian Church (USA)	Town: Remote	$45,020,624	$35,090	100	$23,967	712	49
Macalester College	MN	Exclusi vely undergr aduate 4-year	4-year, full- time, more selectiv e, lower transfer-	4-year, small, highly residential	Presbyterian Church (USA)	City: Large	$749,600,000	$59,743	76	$31,056	2,073	90

in

Pitzer College	CA	Exclusively undergraduate 4-year	4-year, full-time, inclusive, lower transfer-in	4-year, small, highly residential	N/A	Suburb: Large	$134,900,000	$63,750	40	$29,881	1,076	84
Pomona College	CA	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	Suburb: Large	$2,101,000,000	$62,632	63	$36,994	1,650	93
Providence Christian College	CA	Exclusively undergraduate 4-year	4-year, full-time, inclusive, higher transfer-in	4-year, very small, highly residential	Undenominational	City: Midsize	$26,068	$40,276	100	$20,468	91	60
Randolph-Macon College	VA	Exclusively undergraduate 4-year	4-year, full-time, selective, lower transfer-in	4-year, small, highly residential	United Methodist	Suburb: Large	$152,100,000	$49,340	100	$21,997	1,394	62
Ripon College	WI	Exclusively undergraduate	4-year, full-time, selectiv	4-year, very small, highly residential	N/A	Town: Distant	$82,493,657	$44,917	97	$30,617	840	68

		4-year	e, lower transfer-in									
Scripps College	CA	Very high undergraduate	4-year, full-time, more selective, lower transfer-in	4-year, very small, highly residential	N/A	Suburb: Large	$310,500,000	$63,740	57	$31,305	988	87
Shimer College	IL	Exclusively undergraduate 4-year	4-year, full-time, more selective, higher transfer-in	4-year, very small, primarily nonresidential	N/A	City: Large	$900,947	$46,749	100	$17,152	74	30
Southwestern University	TX	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	United Methodist	Suburb: Large	$265,600,000	$49,090	97	$21,281	1,538	73
Spelman College	GA	Exclusively undergraduate 4-year	4-year, full-time, selective, lower transfer-in	4-year, small, highly residential	N/A	City: Large	$367,000,000	$43,741	78	$14,425	2,135	74

Sterling College-Craftsbury Common	VT	Exclusively undergraduate 4-year	4-year, full-time, inclusive, higher transfer-in	4-year, very small, highly residential	N/A	Rural: Remote	$1,040,895	$44,988	99	$25,635	116	52
Swarthmore College	PA	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	Suburb: Large	$1,877,000,000	$62,450	55	$35,767	1,542	94
The College of Wooster	OH	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	Town: Distant	$278,100,000	$55,500	97	$25,686	2,049	76
Thomas More College of Liberal Arts	NH	Exclusively undergraduate 4-year	4-year, full-time, inclusive, higher transfer-in	4-year, very small, highly residential	Roman Catholic	Suburb: Midsize	$40,389	$32,000	94	$14,125	93	31
University of Minnesota -Morris	MN	Exclusively undergraduate	4-year, full-time, more selectiv	4-year, small, highly residential	N/A	Town: Remote	$11,236,222	$23,199	76	$8,718	1,899	67

Institution	State	Level	Type	Size & Setting		Locale	Endowment					
			4-year		e, higher transfer-in							
Ursinus College	PA	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	Suburb: Large	$146,600,000	$60,902	97	$26,655	1,681	81
Vassar College	NY	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	Suburb: Large	$974,200,000	$63,390	64	$40,432	2,421	92
Wabash College	IN	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, very small, highly residential	N/A	Town: Distant	$371,200,000	$49,380	97	$20,591	926	74
Wellesley College	MA	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	Suburb: Large	$1,834,000,000	$61,088	59	$38,172	2,323	91

Wells College	NY	Exclusively undergraduate 4-year	4-year, full-time, selective, lower transfer-in	4-year, very small, highly residential	N/A	Rural: Distant	$34,128,654	$51,000	97	$33,574	550	58
Whitman College	WA	Exclusively undergraduate 4-year	4-year, full-time, more selective, lower transfer-in	4-year, small, highly residential	N/A	City: Small	$504,500,000	$58,228	76	$20,687	1,498	87

*Value of endowment assets at the end of the 2014 fiscal year. Endowment assets consist of gross investments of endowment funds, term endowment funds, and funds functioning as endowment for the institution and any of its foundations and other affiliated organizations.

**Total On Campus Cost (on-campus) = Cost of attendance for full-time, first-time, degree/certificate-seeking undergraduates: 2014-2015 academic year

***% of All Undergraduate Student Receiving Aid for the 2013-2014 academic year

**** Graduation rates of full-time, first-time, degree/certificate-seeking undergraduates within 150% of normal time to program completion, by gender and race/ethnicity and transfer out-rate: 2008 cohort (Total in percentage).

Consent to Participate in a Research Study

WHY ARE YOU BEING INVITED TO TAKE PART IN THIS RESEARCH?
You are being invited to take part in a research study about online education adoption in traditional liberal arts colleges and universities. You are being invited to take part in this research study because you are the president of a traditional liberal arts college or university. If you volunteer to take part in this study, you will be one of about 84 people invited to participate nationally.

WHO IS DOING THE STUDY?
The person in charge of this study is Ericka Hollis, a Ph.D. Candidate of University of Kentucky Department of Educational Leadership. As dissertation chair and faculty advisor, Wayne Lewis Jr., Ph.D is guiding Ericka Hollis in this research study. There may be other people on the research team assisting at different times during the study.

WHAT IS THE PURPOSE OF THIS STUDY?
This study seeks to determine the extent to which online education has been adopted at traditional liberal arts colleges and universities and explore how traditional liberal arts college and university presidents think about the adoption of online education at their institutions. Two research questions guide this proposed dissertation study: 1) To what extent has online education been adopted at TLACs?; and 2) How do presidents at TLACs think about the adoption of online higher education in general, within traditional liberal arts institutions, and within their institutions specifically?

By doing this study, we hope to learn more about online education adoption in this unique segment of American higher education.

ARE THERE REASONS WHY YOU SHOULD NOT TAKE PART IN THIS STUDY?
The potential participants have been selected based on his/her position as president at a traditional liberal college or university. There is no reason why a participant should not take part in this study.

WHERE IS THE STUDY GOING TO TAKE PLACE AND HOW LONG WILL IT LAST?

The research procedures will be conducted as a face-to-face, phone, or video web conference interview depending on your needs. If you opt for a face-to-face meeting, this one-time interview can take place in your personal workspace on your campus or in a private location of your choice. If you opt for a phone or video web conference meeting, this one-time interview can take place at your convenience. The interview will take about 45-60 minutes. The total amount of time you will be asked to volunteer for this study is 55 to 75 minutes over the next couple of months including verifying the accuracy of the recorded transcript.

WHAT WILL YOU BE ASKED TO DO?
The research will be conducted as a face-to-face, phone, or video web conference interview. Prior to conducting the interview, you will be required to provide written or verbal consent. The interview will be recorded in order to capture the conversation for later analysis. These recordings will be used for transcription purposes. Throughout the interview, you will be asked questions related to your perceptions of online education adoption in traditional liberal arts colleges and universities. During data analysis, I will search for common themes to emerge and compile the data from the interviews to publish findings for the purpose of dissertation research.

WHAT ARE THE POSSIBLE RISKS AND DISCOMFORTS?
To the best of my knowledge, the things you will be doing have no more risk of harm than you would experience in everyday life.

WILL YOU BENEFIT FROM TAKING PART IN THIS STUDY?
There is no guarantee that you will get any benefit from taking part in this study. Your willingness to take part, however, may, in the future, help society as a whole better understand this research topic. Also, your responses may help the higher educational system across the United States to better understand online education adoption.

DO YOU HAVE TO TAKE PART IN THE STUDY?
If you decide to take part in the study, it should be because you really want to volunteer. You will not lose any benefits or rights you would normally have if you choose not to volunteer. You can stop at any time during the study and still keep the benefits and rights you had before volunteering.

IF YOU DON'T WANT TO TAKE PART IN THE STUDY, ARE THERE OTHER CHOICES?
If you do not want to be in the study, there are no other choices except not to take part in the study.

WHAT WILL IT COST YOU TO PARTICIPATE?

There are no costs associated with taking part in the study.

WILL YOU RECEIVE ANY REWARDS FOR TAKING PART IN THIS STUDY?
You will not receive any rewards or payment for taking part in the study.

WHO WILL SEE THE INFORMATION THAT YOU GIVE?
Only the principal researcher and faculty advisor will have access to the interviews, which will be recorded and stored on the principal investigator's computer that is password protected. The interview will be transcribed and be evaluated for overall themes on the researcher's computer, which is password protected.

We will make every effort to keep confidential all research records that identify you to the extent allowed by law. Your information will be combined with information from other people taking part in the study. When we write about the study to share it with other researchers, we will write about the combined information we have gathered. You and your institution will not be personally identified in these written materials. We may publish the results of this study; however, we will keep your name and other identifying information private.
We will make every effort to prevent anyone who is not on the research team from knowing that you gave us information, or what that information is. We will keep private all research records that identify you to the extent allowed by law. However, we may be required to show information which identifies you to people who need to be sure we have done the research correctly; these would be people from such organizations as the University of Kentucky.

CAN YOUR TAKING PART IN THE STUDY END EARLY?
If you decide to take part in the study you still have the right to decide at any time that you no longer want to continue. You will not be treated differently if you decide to stop taking part in the study.

The principal investigator conducting the study may need to withdraw you from the study. This may occur if you are not able to follow the directions they give you, if they find that your being in the study is more risk than benefit to you, or if the technology malfunctions and your data is lost. You can withdraw your data by simply exiting from the interview before completion.

WHAT ELSE DO YOU NEED TO KNOW?
There is a possibility that the data collected from you may be shared with other investigators in the future. If that is the case, the data will not contain information that can

identify you unless you give your consent or the University of Kentucky Institutional Review Board (IRB) approves the research. The IRB is a committee that reviews ethical issues, according to federal, state and local regulations on research with human subjects, to make sure the study complies with these before approval of a research study is issued.

Contacting Research Subjects for Future Studies

Do you give your permission to be contacted in the future by Ericka Hollis regarding your willingness to participate in future research studies about the adoption of online education.

___Yes   ___No   _____Initials

WHAT IF YOU HAVE QUESTIONS, SUGGESTIONS, CONCERNS, OR COMPLAINTS?

Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now. Later, if you have questions, suggestions, concerns, or complaints about the study, you can contact the investigator, Ericka Hollis at 770-262-6737 or ericka.hollis@uky.edu. If you have any questions about your rights as a volunteer in this research, contact the staff in the Office of Research Integrity at the University of Kentucky between the business hours of 8am and 5pm EST, Mon-Fri. at 859-257-9428 or toll free at 1-866-400-9428. We will give you a signed copy of this consent form to take with you.

_____   _____
Signature of person agreeing to take part in the study   Date

_____
Printed name of person agreeing to take part in the study

_____   _____
Name of (authorized) person obtaining informed consent   Date

Appendix F: TLAC Registrar Recruitment Email

Date: 5/24/2016

Hello Mr./Ms./Dr._____!

I'm Ericka Hollis, and I am Ph.D. Candidate in the Department of Educational Leadership Studies at the University of Kentucky. The reason for this email is to request some information about your organization regarding online education. For my dissertation research project, I am focused on two questions:

1. To what extent has online education been adopted at traditional liberal arts colleges and universities?
2. How do presidents at traditional liberal arts colleges and universities think about the adoption of online higher education in general, within traditional liberal arts institutions, and within their institutions specifically?

Your participation in a phone interview will help me answer the first research question. Attached are the 8 questions that I would like your insight. If you are willing to participate in a brief phone interview, please email me at ericka.hollis@uky.edu or call me XXX-XXX-XXX with a date and time that you are available between today and June 17th.

Thanks for your consideration.

All the best,
Ericka Hollis
Ph.D. Candidate | University of Kentucky

_____

Appendix G: Organization Recruitment Email

Date: June 20, 2016

Subject: Participation Needed | Dissertation Research Study

Good Afternoon Mr./Ms. _____!

My name is Ericka Hollis, and I am Ph.D. Candidate in the Department of Educational Leadership Studies at the University of Kentucky. For my dissertation research project, I am focused on two questions:
1. To what extent has online education been adopted at traditional liberal arts colleges and universities?
2. How do presidents at traditional liberal arts colleges and universities think about the adoption of online higher education in general, within traditional liberal arts institutions, and within their institutions specifically?

I would like to request that _____ help me with my study by assisting me in gaining access to your presidential members that meet my research criteria. Based on your institutional member list online, ___ institutions meet the criteria. I would like to request 45-60 minute interviews with presidents of traditional liberal arts colleges or universities. This interview will allow the participants time to answer questions about my second research question. Would you be willing to help me solicit participation from your presidential members by sharing my contact information and purpose of my study?

Please reply to this email and inform me about your intent to help me. If you are interested, I will contact you directly so we can discuss next steps. If you have any questions, please feel free to contact me at any time. If you have any contacts or can help me gain access to any of these presidents, I would be grateful. Thanks for considering this request.

All the best,
Ericka Hollis
Ph.D. Candidate | University of Kentucky
ericka.hollis@uky.edu
XXX-XXX-XXXX

Appendix H: TLAC Presidential Executive Assistant/Office Manager Recruitment Email

Date: July 11, 2016

Subject: Liberal Arts College Presidential Participation Needed

Good Afternoon Mr./Ms. _____!

I'm Ericka Hollis, and I am a doctoral candidate in the Department of Educational Leadership Studies at the University of Kentucky. The reason for my email is to request that President _____ participate in my dissertation research study. For my dissertation, I am focused on two questions:

1. To what extent has online education been adopted at traditional liberal arts colleges and universities?
2. How do presidents at traditional liberal arts colleges and universities think about the adoption of online higher education in general, within traditional liberal arts institutions, and within their institutions specifically?

I would like to request a 45-60 minute interview with President _____ in order to gain great insight from her/him that will help me answer my second research question. Would you be willing to ask if President _____ will participate in this study by having a conversation with me? Participation in this research project may help the higher educational system across the United States to better understand online education adoption.

If she/he is interested, I can schedule a face-to-face, phone, or video web conference interview that best meets her/his availability to complete the interview. I can also send you a consent form to read and keep for her/his records.

If you have any questions, please feel free to contact me at any time.

Thanks for considering this request.

All the best,
Ericka Hollis
Ph.D. Candidate | University of Kentucky
ericka.hollis@uky.edu
XXX-XXX-XXXX

Appendix I: TLAC Presidential Recruitment Email

Date: July 21, 2016

Subject: Liberal Arts College Presidential Participation Needed

Good Evening President ____!

I'm Ericka Hollis, a doctoral candidate in the Department of Educational Leadership at the University of Kentucky. The purpose of my email is to request your participation in my dissertation research study. This brief 2-minute video explains my study, and why I am contacting you directly and requesting your participation.
https://youtu.be/punduPsk_0s
https://youtu.be/punduPsk_0s
If you are willing to participate, I can schedule a face-to-face, phone, or video web conference that best meets your availability. Thank you so much for your consideration. Please let me know if you have questions. I look forward to hearing from you.

All the best,
Ericka Hollis
Ph.D. Candidate | University of Kentucky
ericka.hollis@uky.edu
XXX-XXX-XXXX

Appendix J: IRB Approval letter

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Initial Review

Approval Ends   IRB Number
May 26, 2017   16-0396-P4S

TO: Ericka Hollis

FROM: Chairperson/Vice Chairperson
                 Non-medical Institutional Review Board (IRB)

SUBJECT: Approval of Protocol Number 16-0396-P4S

DATE: June 2, 2016

On May 27, 2016, the Non-medical Institutional Review Board approved your protocol entitled:

The Adoption of Online Education by Tradition Liberal Arts Colleges: A Presidential Perspective

Approval is effective from May 27, 2016 until May 26, 2017 and extends to any consent/assent form, cover letter, and/or phone script.   If applicable, attached is the IRB approved consent/assent document(s) to be used when enrolling subjects. **[Note, subjects can only be enrolled using consent/assent forms which have a valid "IRB Approval" stamp unless special waiver has been obtained from the IRB.]** Prior to the end of this period, you will be sent a Continuation Review Report Form which must be completed and returned to the Office of Research Integrity so that the protocol can be reviewed and approved for the next period.

In implementing the research activities, you are responsible for complying with IRB decisions, conditions and requirements. The research procedures should be implemented as approved in the IRB protocol. It is the principal investigators responsibility to ensure any changes planned for the research are submitted for review and approval by the IRB prior to implementation. Protocol changes made without prior IRB approval to eliminate apparent hazards to the subject(s) should be reported in writing immediately to the IRB. Furthermore, discontinuing a study or completion of a study is considered a change in the protocol's status and therefore the IRB should be promptly notified in writing.

For information describing investigator responsibilities after obtaining IRB approval, download and read the document "PI Guidance to Responsibilities, Qualifications, Records and Documentation of Human Subjects Research" from the Office of Research Integrity's IRB Survival Handbook web page [http://www.research.uky.edu/ori/IRB-Survival-Handbook.html#PIresponsibilities]. Additional information regarding IRB review, federal regulations, and institutional policies may be found through ORI's web site [http://www.research.uky.edu/ori]. If you have questions, need additional information, or would like a paper copy of the above mentioned document, contact the Office of Research Integrity at (859) 257-9428.

N. Van Tubergen, PhD/ah
Chairperson/Vice Chairperson

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Ericka T. Hollis

EDUCATION

University of Georgia   Athens, GA
Masters of Education in Instructional Technology   December 2005
Specialization: Instructional Design and Development

Mercer University   Macon, GA
Bachelors of Science in Technical Communication   May 2004
Minors: Business Administration and Christianity

PUBLICATIONS

Peer-Reviewed Journal Articles
Richardson, J. W., Specker, D. **Hollis, E.**, & Mcleod, S. (2016). Are changing school needs reflected in principal job ads? *National Association of Secondary School Principals (NASSP) Bulletin*.

Coaplen, C., **Hollis, E. T.**, & Bailey, R. (2013). Going beyond the content: Building community through collaboration in online teaching. *Researcher: An Interdisciplinary Journal, 26(*3), 1-19.

Practitioner & Other Articles
Richardson, J. W & **Hollis, E. T.** (2015). Analysis of educational leadership faculty job market. *University Council of Education Administration Review, 56(*3), 10-13.

Online Contributions
Hollis, E. T. (2013-2014). *Education Recoded* [guest blogger].
http://www.educationrecoded.com

Manuscripts in Progress
Hollis, E. T., & Richardson, J. W. (in progress). Adopting online teaching strategies at a research university: The voice of faculty.

Hurst, T., & **Hollis, E. T.** (in progress). A backchannel community: A look into how online educational leadership PhD students communicate.

Lewis, W. D., **Hollis, E. T.**, Jones, W. A., & Hutchens, N. H. (in progress). Increasing faculty diversity in colleges of education, strategically.

Lewis, W. D., **Hollis, E. T**., Jones, W. A., & Hutchens, N. H. (in progress). Strategic approaches to increasing faculty diversity at research universities.

REFEREED PRESENTATIONS

1. **Hollis, E. T.** (2016, November). *The adoption of online education by traditional liberal arts colleges: College presidents' perspective.* Presentation at the Online Learning Consortium Accelerate 2016 Conference in Orlando, FL.

2. **Hollis, E. T.** (2016, April). *Adopting online teaching strategies at a research university: Faculty perceptions*. Paper presentation at the 7th Annual Midwest Graduate Research Symposium (MGRS), Toledo, OH.

3. Richardson, J. W., & **Hollis, E. T.** (2015, April). *An analysis of the educational leadership faculty job market*. Paper presentation at the 2015 American Educational Research Association Annual Meeting, Chicago, IL.

4. Lewis, W. D., **Hollis, E. T.**, Jones, W. A., & Hutchens, N. H. (2015, April). *Strategic approaches to increasing faculty diversity at research universities*. Paper presentation at the 2015 American Educational Research Association Annual Meeting, Chicago, IL.

5. Hurst, T., & **Hollis, E. T.** (2014, November). *A backchannel community: A look into how online educational leadership PhD students communicate*. Paper presentation at the 2014 University Council for Educational Administration Convention, Washington, DC.

6. Lewis, W. D., **Hollis, E. T.**, Jones, W. A., & Hutchens, N. H. (2014, November). *Increasing faculty diversity in colleges of education, strategically.* Paper presentation at the 2014 University Council for Educational Administration Convention, Washington, DC.

7. **Hollis, E. T.,** & Gayheart, T. (2014, May). *A digital learning community, doc students speak out*. Presentation at the 2014 Kentucky Pedagogicon Conference, Richmond, KY.

8. Coaplen, C., **Hollis, E. T.**, & Bailey, R. (2014, May). *Building community through collaboration in online teaching*. Presentation at the 2014 Kentucky Pedagogicon Conference, Richmond, KY.

9. Shavers, M. C., & **Hollis, E. T.** (2013, November). *Using social media to enhance instruction: A critical review of the literature*. Poster Presentation at the 33rd Annual Lilly International Conference on Teaching and Learning, Miami, OH.

PRACTITIONER & INVITED PRESENTATIONS

1. **Hollis, E. T.** (2016, November). *Are you using the quality matters research library to its full potential?* Presentation at the Quality Matters 8th Annual Conference on Quality Assurance in Online Learning, Portland, OR.

2. **Hollis, E. T.** (2016, May). *Creating online learning community*. Panelist at the 2016 Innovation+Design Lab, Lexington, KY.

3. **Hollis, E. T.** (2015, May). *Quality Matters overview: What's in it for me?.* Presentation at 2015 eLearning Innovation Initiative Workshop, Lexington, KY.

4. Shattuck, K., Banker, D., Frese, J. **Hollis, E. T.,** Mikalson, J., Lalla, S., Simunich, B., & Wang, Li. (2014, September). *What we're learning from QM-focused research.* Presentation at the 2014 Quality Matters Conference, Baltimore, MD.

5. **Hollis, E. T.** (2014, April). *Using social media to engage students in higher education*. Presentation at the 31st Annual Kentucky Association of Blacks in Higher Education, Lexington, KY.

6. Carroll, H., **Hollis, E. T.**, & Shavers, M. C. (2013, May). "*Listening" with social media in the higher ed classroom.* Presentation at the annual EDUCAUSE Southeast Regional Conference, Atlanta, GA.

7. **Hollis, E. T.**, Flora, D. L., & Scott, X. (2012, May). *Instructional technology toolbox: Preparing faculty for online teaching*. Presentation at the annual Kentucky Innovation Conference, Erlanger, KY.

8. Branch, R., Francis, A., **Mayweather, E.**, Grizzle, H., & Mazyck, W. (2005, October). *Successful strategies for developing a project management course dedicated to instructional design and technology.* Presentation at the annual Association for Educational Communications and Technology, Orlando, FL.

9. Branch, R., Francis, A., **Mayweather, E.**, Grier, K., Grizzle, H., Murrell, J., & Pitts, E. (2005, March). *Developing a project management course.* Invited presentation to the meeting of the Atlanta Chapter for the American Society for Training and Development (ASTD), Atlanta, GA.

10. Grady, H. M., **Mayweather, E. T.**, Davis, B.W., & LaPlume, A. M. (2004, March). *Strategies for working with authors: How to foster productive author-editor relationships*. Presentation at the 51ˢᵗ Society for Technical Communication International Conference, Baltimore, MD.

CERTIFICATIONS

College Teaching and Learning Certificate	Expected December 2016
Critical Thinking Assessment Test Trainer	November 2013
University of Kentucky School Technology Leadership Graduate Certificate	
	July 2013
Quality Matters Master Reviewer	May 2013
Quality Matters Face-to-Face Facilitator	April 2012
Quality Matters Peer Reviewer	November 2011
Morehead State University Online Teaching Certificate	October 2011
American Society for Training and Development eLearning Instructional Design Certificate	September 2008

PROFESSIONAL AND UNIVERSITY SERVICE

Professional

Quality Matters Research Colleague Review Manager	2015 - Present
Quality Matters Research Colleague	2014 - Present
Association for the Study of Higher Education (ASHE)	2013 - Present
Quality Matters Course Reviewer	2011 - Present
Association for Educational Communications and Technology (AECT)	
	2013 - Present;
American Association of University Women (AAUW)	2013 - Present
American Educational Research Association, Division J	2013 - Present
University Council for Educational Administration (UCEA)	2012 - Present
Center for the Advanced Technology Leadership in Education (CASTLE)	
	2012 - Present
EDUCAUSE Southeast Regional Social Media Team	2013
Association for Talent Development (ATD) (formerly ASTD)	2005 - 2011

Society for Technical Communication (STC)   2001 - 2005

University of Kentucky

Educational Leadership Search Committee   2016 - Present
Phi Sigma Theta, Advisor   2016 - Present
Student Ambassador, College of Education   2015 - 2016

Morehead State University

Member, Strategic Planning Environmental Scanning Committee   2014
Volunteer, Diversity Days Recruitment   2011 - 2013
Member, Library Steering Committee   2011 - 2013
Lead Facilitator and Mentor, Much More to Me   2011 - 2013
Reviewer, Quality Matters Internal Course Reviews   2011 - 2013
Participant, Rites of Passage Ceremonies   2011 - 2013
Creator, Blackboard Beek Squad Patrol   2012 - 2013
Co-Facilitator, iPads for Teaching Professional Learning Community   2012 - 2013
Member, Minority Enrollment and Retention Council   2012 - 2013
Member, Minority Retention Coordinator Hiring Committee   2012 - 2013
Co-Facilitator, Online Course Design Professional Learning Community 2012 - 2013
Member, Quality Enhancement Plan Professional Learning Community 2012 - 2013
Discussant, Commonwealth Commitment Summit   2013
Co-Facilitator, Technology User Group   2011 - 2012
Member, Assistant Registrar Hiring Committee   2012

HONORS AND AWARDS

Wallace Charles Hill Graduate Fellowship in Educational Leadership   2016
University of Kentucky Lyman T Johnson Fellowship   2015 - 2016
David Clark Scholar Seminar Nomination   2014
Quality Enhancement Plan Critical Thinking Fellow   2012 - 2014
Blackboard Catalyst Exemplary Course Award   2013
Instructional Technology Studio Blue Sock Award   2005
Theta Alpha Kappa, Christianity Honor Society   2004
Sigma Tau Chi, Society for Technical Communication Professional Honor Society
                                                                           2004
Outstanding Graduate in Technical Communication Award   2004

CONSULTING

California State University at East Bay   February - March 2015
Assisted the Educational Leadership Department transition to online hybrid course model.

University of Wisconsin at LaCrosse   June 2014
Co-designed a synchronous online beginner to intermediate motivational interviewing for the public health educator course.

Kentucky Department of Education   June - August 2014
Co-facilitated two-day digital enhanced instruction professional development sessions for P-12 educators throughout the state of Kentucky.