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BLENDDED LEARNING: INSTITUTIONAL FRAMEWORKS FOR
ADOPTION AND IMPLEMENTATION

by

ANIDA DUARTE

A DISSERTATION

Presented to the Faculty of the University of the Incarnate Word
in partial fulfillment of the requirements
for the degree of

DOCTOR OF BUSINESS ADMINISTRATION

UNIVERSITY OF THE INCARNATE WORD

December 2016

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Acknowledgments

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BLENDDED LEARNING: INSTITUTIONAL FRAMEWORKS FOR ADOPTION AND IMPLEMENTATION

Anida Duarte, Doctor of Business Administration

University of the Incarnate Word, 2016

Blended Learning in education is the future for higher education. The rapid changes in technology combined with a demand for a more agile environment is transforming the traditional classroom and challenging learning models. Higher education has been adapting by moving classroom time into purely online environments. However, the literature suggests the new wave of learning is extracting the best practices from traditional and online models and infusing them into a blended environment. The agility and use of technology allows the non-traditional student to balance a professional career and life demands while still gaining the benefits of face-to-face time in the physical classroom. Universities also benefit from these models by staying competitive in student recruitment and the ability to increase class demands by forfeiting classroom space. The definition of blended learning for this study is *combination of face-to-face instruction (25-75%) with online (various technological) self-guided modalities*.

The purpose of this study is to analyze frameworks for blended learning adoption and implementation among U.S. business schools that are accredited through the AACSB and ACBSP. The goal was to understand the overall blended learning framework of US business schools and the maturity of these options.

A quantitative data collection instrument was adapted from the qualitative BLAF study by Graham et al. (2013) and administered to a total of 814 AACSB or ACBSP accreditation

business schools during the summer of 2016. The total response rate was 55% and after omitting incomplete responses, a sample size of 227 was analyzed. The overall results indicated that BL is available throughout various levels within business schools, however due to lack of institutionalization; the respondents lacked the knowledge to gauge the maturity of BL options within their university. Finally, results from the study demonstrate an emerging trend and confirm that before assessing BL maturity, institutions should adopt a common framework for comparison to other institutions as a way to measure success and growth.

TABLE OF CONTENTS

Chapter 1: Blended Learning	1
Context of the Study	1
Statement of the Problem.....	16
Purpose of the Study.....	19
Research Questions.....	19
Definition of Terms	20
Summary of Methodology	22
Conceptual and Theoretical Framework.....	24
Significance of Study.....	32
Chapter 2: Literature Review	35
Major Areas of Review	35
Analysis of Supporting Theories	56
Related Research.....	60
Methodological Approach	65
Chapter 3: Research Methodology.....	68
Overall Approach and Rationale.....	68
Research Questions.....	69
Participants.....	69

Table of Contents—Continued

Research Instruments	70
Protection of Human Subjects: Ethical Considerations	72
Data Collection and Analysis	73
Risk Analysis	75
Chapter 4: Results	77
Chapter 5: Recommendations and Conclusions	100
Discussion	100
Conclusions	104
Limitations	105
Recommendations	106
References	109
Appendices	123
Appendix A Permission to Use Faculty Readiness, Competencies, and Levels	125
Appendix B Quality Matters and Online Consortium Comparison	133
Appendix C Graham Consent to Translate Qualitative Study	135
Appendix D Permission to Use Cables Model	136
Appendix E Permission to Use Blended Learning Conceptualization	137
Appendix F Permission to Use Time-Based Blending	138
Appendix G IRB Human Subject Research Determination	139
Appendix H Informed Consent and Blended Learning Survey	140

Table of Contents—Continued

Appendix I Letter Requests to the AACSB And ACBSP	153
Appendix J Letter Sample to AACSB and ACBSP Business Accredited Schools	155
Appendix K Blended Learning Degree Plans Offered	156
Appendix L Blended Learning Degree Plans Maturity	157
Appendix M Disaggregated Strategic, Structure, and Support Maturity.....	158
Appendix N Strategic Maturity Frequency Results	174
Appendix O Structural Maturity Frequencies.....	185
Appendix P Support Maturity Frequencies	193
Appendix Q Permission to Use Cronbach’s Alpha	202
Appendix R Institutional Policy and Adopted Performance Standards.....	203
Appendix S Cronbach’s Alpha Scores if Items Deleted.....	204

LIST OF TABLES

Table	Page
1. Title IV Institution Enrollment	10
2. Blended Learning Adoption Framework	45
3. Response Rates	80
4. Regional Accreditation	81
5. Business Programs Blended Learning Options.....	85
6. Additional Business Program Blended Learning Options	158
7. Maturity of Blended Learning Implementation	86
8. Additional Degree Plans Blended Learning Implementation Maturity	159
9. Degree Levels and Disciplines Offering Blended Learning Options	86
10. Strategy Mean Scores	159
11. Structure Mean Scores	87
12. Support Mean Scores	88
13. Institutional Policy on Blended Learning	89
14. Institutionally Adopted Performance Standards	90
15. Willingness to Share Policies/Standards.....	91
16. Data Collection Instrument Statement Matrix	92
17. Business School's Level of Awareness and Exploration.....	92
18. Business School's Level of Adoption/Early Implementation.....	95
19. Business School's Level of Mature Implementation and Growth	95

20. Quality Matters and Online Consortium Comparisons.....	135
21. Degree Levels-Strategy, Structure, and Support Maturity Levels.....	160
22. Strategic Maturity for All Degree Levels	175
23. Structural Maturity for All Degree Levels.....	189
24. Support Maturity for All Degree Levels.....	197
25. Blended Learning Policies and Standards.....	207
26. Cronbach's Alpha Scores if Items Deleted for All Degree Levels.....	208

LIST OF FIGURES

Figure	Page
1. Research conceptualization for standards in blended learning models	21
2. Blended learning conceptualization	26
3. The Multimodal Model	27
4. Time-Based Blended.....	28
5. The Framework of Complex Adaptive Blended Learning Systems (CABLS).....	31
6. Institutional type	82
7. Institution business accreditation	82
8. Role at institution.....	83
9. Business degree offered at AACSB & ACBSP accredited institutions	84
10. Business degree student enrollment for the 2015-2016 academic year	85
11. Data collection constructs and related measurement item tallies	93
12. Making sense of Cronbach's Alpha.....	94

Chapter 1: Blended Learning

Context of the Study

In a typical work day the average business professional will answer a plethora of emails, attend multiple meetings (either face-to-face, virtually, or both), answer text messages, answer phone calls, simultaneously balance actionable work items, and maintain professional relationships while attempting to juggle a work versus life balance. On top of these daily performance demands is the expectation that the individual enhance their capacity and abilities through certifications, degrees, and various academic media. It comes as no surprise that a professional may seek educational growth through various media. In order to stay competitive while balancing work/home life, many individuals turn to online and blended learning programs that adapt to their schedules. In addition, generations such as X, Y, and Millennials have played a considerable role in the usage of technology in education (Bolton et al., 2013). However, these individuals do not have exponential time to comb through the various programs available or assess which programs uphold the highest quality standards in blended learning. Van Laer, DePryck, Blieck, and Zhu (2015) stated, “blended learning is becoming more and more attractive for adult learners, especially for those who have to combine their studies with work, family and social responsibilities” (p. 955).

Blended learning is the innovative combination of face-to-face (f2f) classroom teaching with online learning. Universities now face challenges of incorporating new models such as blended learning. Research in this area is limited and more reflective in the sense that university teachers and administrators review their own development projects and not overall models (Manninen, 2014). Further concerns about lack of proper theory, basic statistical analysis lacking significance of differences, and universally adopted institutional standards regarding quality for

the creation of blended learning formats plague researchers (Frey, Fisher, & Pumpian 2013; Manninen, 2014). Monteiro (2013) stressed that there is an underutilization and focus on quality and effectiveness in the area of blended learning.

Scholars often use the term *blended learning* interchangeably with the terms hybrid, flex, and mixed-modes of learning (Wang, Han, & Yang, 2015). The literature review includes a comprehensive discussion of the evolution of blended learning. The most widely accepted and high-level understanding of blending learning is the combination of f2f instruction and computer mediated instruction (Bonk, 2006, p. 5). For the purpose of this study, the definition of blended learning is a combination of face-to-face instruction (25-75%) with online (various technological) self-guided modalities.

Similar to finding a synthesized definition of blended learning is locating a common definition of the word quality in higher education. Schindler, Puls-Elvidge, Welzant, and Crawford (2015) conducted a study that broadly separated the definition of quality into thirteen categories. Among these categories, four classifications emerged (purposeful, exceptional, transformative, and accountable). In this study, the definition of the word *quality* is the following:

Purposeful – Institutional products and services conform to a stated mission/vision or a set of specifications, requirements, or standards, including those defined by accrediting and/or regulatory bodies. (Schindler, Puls-Elvidge, Welzant, & Crawford, 2015, p. 5)

Additionally, in order for the reader to understand the evolution to blended learning and the governing quality of this mode of delivery, it is important to establish a brief timeline of historical moments that address quality in higher education. Education has been deeply influenced by governmental policy, economic changes, and societal influences.

Hanushek, Welch, Machin, and Woessmann (2011) described the evolution of education

in the following stages: agrarian economy, industrial economy, scientific era, service era, and knowledge era. Higher education establishments first appeared during the heavily influenced agrarian culture of the colonial era with the purpose of educating Puritan ministers (Kaufman, 2016). In 1636, Harvard was established with a focus on clergy and civil leadership. Forging relationships with government, industry, and economics led to the 1862 passing of Abraham Lincoln's Morrill Land-Grant Act that enabled the funding of 69 colleges across the United States (Library of Congress, 2015). By the mid-eighteenth century, higher education became intertwined with politics and economic growth.

The purpose of the following section is two-fold. First, to provide the reader a high-level overview of historical events in education that addressed quality concerns beginning with accreditation and then to provide context around events that later influenced the metamorphosis of education into a blended format.

Higher education influences. The United States Department of Education (USDE) began collecting information on schools in 1867 with the purpose of helping the states establish effective school systems (USDE, 2012). By 1895, the Southern Association of Colleges and Schools (SACS) became the first entity to accredit eleven institutions in Southern states (SACS, 2016). Though SACS established guidelines for accreditation, they did not address standards consistency among U.S. universities. In February 1900, the Association of American Universities (AAU) was formed with the goal of bringing greater uniformity among institutions, raise the opinion about doctoral degrees outside of the United States, and advance the standards of weaker institutions (AAU, 2016). Presently, the AAU focuses on funding for research, research policy issues, and graduate and undergraduate education. In 1912, the Accrediting Council for Independent Colleges and Schools (formerly known as the National Association of

Accredited Commercial Schools) was created when twenty-three private career schools joined forces to become one of the first national accrediting agencies (ACICS, 2010). By 1918, the Accrediting Council on Education was created with the interest of standardization, effectiveness, and reducing duplication in the accreditation process (ACICS, 2010). ACICS is currently one of only two national accrediting agencies recognized by the USDE and the Council of Higher Education (CHEA) (ACICS, 2010). CHEA was founded in 1996 after the Council of Postsecondary Accreditation (COPA) dissolved with the purpose of unifying accreditation agencies' processes (Eaton, 2011).

In 1916, the Association to Advance Collegiate Schools of Business (AACSB) (formerly known as Association of Collegiate Schools of Business) was established to address business school accreditation, but was not fully recognized by the National Commission on Accreditation until 1953 (AACSB, 2013). The Accreditation Council for Business Schools and Programs (ACBSP) was later established in 1988 to fill the need of recognizing business schools that embraced scholarly research while focusing on teaching excellence and student outcomes (ACBSP, 2013).

During the establishment of educational policies and standards through accreditation and specialized accreditation, the changes to the economy played a prominent role in education. From 1929-1939 the Great Depression significantly affected budgeting and enrollment for higher education (Schrecker, 2009). Inadvertently adding to these challenges was the establishment of the Servicemen's Readjustment Act (GI Bill) that assisted veterans returning from World War II (Mass & Soule, 2005). The GI Bill created a surge in students but left universities struggling for professors and physical classroom space to accommodate this rapid growth (Mass & Soule, 2005). In addition to the veteran surge, the court ruling of Plessy v. Ferguson in 1896 was

overturned in 1954, allowing women and minorities to receive their degrees in higher education (Wolff, 1997). The following Federal Acts further influenced the growth of enrollees:

- The 1958 National Defense Education Act created funding for school improvements and promotion of postsecondary education (NDEA, 2016).
- The 1965 Higher Education Act strengthened educational resources of colleges and universities and provided financial assistance for postsecondary and higher education students (USDE, 2010).
- The 1972 General Education Provisions Act prohibited Federal control of education (Cornell University Law School, 1992).
- The 1974 Women's Educational Equity Act promoted educational equity for girls and women (Madigan, 2009).

The influx of students through civil rights movements, war veterans, and federal policy affected the need for additional professors, facilities, and resources. These economic conditions along with rapid changes in technology have played a major role in the transformation to online and ultimately blended learning models. Policy and societal norms changed the face of education for minorities and women, creating equal opportunity regardless of sex or race. In some aspects, politics and education are intertwined and force adaption based on economic conditions. This was evident during the late eighteenth and early nineteenth-century's Age of the University when government and public/private institutions became concerned about universal standards and policies in higher education (Eaton, 2011). These concerns were fueled through the 1970s and 1980s when institutions were facing declining enrollments by traditional students, increased enrollments of older nontraditional students that did not persist to graduation, decreased resources for institutional specialization, and a plethora of economic issues ranging from high

unemployment to increased global competition (Craven, Bahe, & Vichcales, 2015). Robles (1998) articulated the concern over quality in higher education in his overview of educational reform.

As American higher education entered the 1980s, the environment was an unstable one... As both federal and private funding increased, so did the requirements that colleges and universities be held more accountable for those funds. Thus, there were external pressures in the form of increasing expectations on the part of both the public and private sectors. Internally, there was concern that the loosened requirements of the 60s and the postwar emphasis on access that continued through the 70s had weakened the curriculum to the point where America was not adequately preparing a workforce that was capable of competing in a global economy. Students were less interested in issues of social justice and more anxious about obtaining employment. Faculty were unsettled, in terms of both their working conditions and their perceptions that academic standards had been threatened by the loosened standards of the previous decades, coupled with an influx of nontraditional students. Increasingly concern was expressed about whether the American public school system and higher education were achieving acceptable levels of excellence and quality. (Robles, 1998, p. 19)

An attempt to mitigate concerns over quality began in the mid-1800s through the mid-1900s when accreditation entities were first established. National and regional accreditation bodies provide guidance for postsecondary education, but are not a requirement for an institution to operate, leaving room for various interpretations of quality standards (USDE, 2016). In addition to national and regional accreditation, the AACSB, ACBSP, and the International Assembly for Collegiate Business Education (IACBE) achieved specialized accreditation for business schools (IACBE, 2016). For the purpose of this research, only accreditation bodies that have been in existence for at least 25 years are included in this study and therefore eliminate the IACBE from being included in the data results.

Mool (2015) argued that the AACSB and ACBSP accrediting bodies compliment one another and present a balanced perspective for applied versus theoretical approaches. In essence, they are two sides to the same coin. A university might seek accreditation through these entities based on their institutional guidance and purpose. However, national, regional, and specialized

accreditation does not specifically address online or blended learning institutional standards, and most researcher focus on the online environment only.

Given the current state of education's Knowledge Era and emphasis on the use of technology as a medium for thinking, it is only natural for blended learning to become the next step in educational learning, and quality becomes an overarching point of discussion (Jacobsen and Lock, 2004). Harvard President, Derek Bok, voiced similar concerns in 1986 when he urged academics to forge common goals, work on achievement, and measure student progress, which ultimately demonstrates quality education (Craven, Bahe, & Vichcales, 2015).

Online, blended learning, and millennial growth. Online platforms in education did not exist before the emergence of the World Wide Web in the 1990s (Museum of Science and Industry, 1997). Brick-and-mortar schools were the standard in business education, but the needs of the Millennial student challenged traditional models. The Northern Illinois University website has the following statement (2016).

Millennials are the most diverse generation we have had to teach, thus our approaches must be diverse. Millennials expect to be engaged in their learning ... if you (as a teacher/university) do not have technology that will be part of their learning, they will go somewhere else where they can be engaged with, and interact with, technology. Millennials perceive a sharp contrast between their comfort level of technology and the technology comfort level of their teachers...the trend toward Millennials using iPods and laptop computers rather than desktop reflects their preference toward a more portable learning environment. The Internet allows students to express ideas that they would not have voiced in class and is the preferred method of conducting research... Traditional approaches to teaching may not address the learning preferences of the Millennial student. (Northern Illinois University, Faculty Development and Instructional Design Center, 2016, paras. 2-4)

As of 2015, the Millennial generation (75.4 million in the United States) is defined as individuals born from 1981 through 1997, and surpassed the Baby Boomer generation of 74.9 million individuals (Fry, 2016). Consequently, the Millennial generation is projected to grow to a staggering 81.1 million by 2036 based on immigration projections to the United States (Fry,

2016). Using these statistics Fry (2016) estimates the current age of Millennials stretches from nineteen to thirty-five years of age. Sweeney's (2006) estimate of the Millennial age group varies slightly by including twenty-two to thirty-seven year old students. Additional research from the USDE provides a snapshot of past, current, and future (2008-2019) enrollment increases based on the following age groups.

- Twelve percent of students are 18 to 24 years old;
- Twenty-eight percent of students are 25 to 34 years old; and
- Twenty-two percent of students are 35 years old and over. (IES, 2015, p. 21)

Furthermore, this increase of students approximates that 25% of enrollees are pursuing a post-baccalaureate degree. In 2013, IES (2015) reported that there were 20.2 million students enrolled in postsecondary institutions for undergraduate and graduate degrees.

- Sixty-four percent were under 25 years of age;
- Twenty-one percent were 25 to 34 years of age; and
- Fifteen percent were 35 years of age and older. (IES, 2016, para. 1)

These estimates provide challenges for institutions and educators based on preferred learning methods of Millennial students. Monaco and Martin (2007) highlighted that these learners prefer technological environments, are socially active, and expect real-time feedback. Sweeney (2006) reiterated that Millennial learners are impatient, experiential learners, digital natives, multi-taskers, and gamers who love a flat, networked world while expecting nomadic 24x7 connectivity (p. 1). The flexibility expectations of this generation during the past twenty-five years are supported by research from Georgetown University that estimates that 70 percent of college students worked or are currently working while pursuing their degree (Rapacon, 2015). Sweeney (2006) further stated that these learning preferences affected the academic.

- Millennials have no tolerance for delays and expect service instantly when they are ready. (p. 3)
- Millennials are interested in processes and services that work and speed their interactions ... even taking a distance education class. (p. 4)

- Millennials expect all their academic services to be integrated digitally online so they can pick and choose how they want to learn and when they want to learn. (p. 4)
- Every aspect of colleges and universities must be seamlessly woven with digital service options. (p. 4)
- Colleges and universities must havefer a wider range of learning alternatives. (p. 5)\

Evidence to support preference changes from traditional to more agile learning media is reflected upon by Allen and Seaman (2010) highlighted that by the end of 2009 more than one-in-four students would take a minimum of one online course, while the demand for f2f courses had increased by only 1.2%. By 2011, more than 6.7 million students had enrolled in a minimum of one online class. This was an increase of 570,000 students' year-over-year and reflected 32% of higher education students utilizing an online mode of education (Allen & Seaman, 2013). The response to this demand not only increased the popularity of for-profit universities, but forced top business schools to reformat current learning modalities.

In 2014, the USDE, in partnership with the Institute of Education Sciences: National Center for Education Statistics, reported the following statistics for student enrollment in higher education institutions eligible to receive student loans (Title IV). Table 1 provides a snapshot of the increased popularity among students to have a more flexible educational experience through online modes of delivery.

Table 1

Title IV Institution Enrollment (IES, 2014)

Description	Number	Percentage
Total Student Enrollment	21,147,055	
Students Enrolled Exclusively in Distance Education Courses	2,642,158	12.5%
Students Enrolled in Some but not all Distance Education Courses	2,809,942	13.3%
Students not enrolled in any Distance Education Courses	15,694,944	74.2%

Similarly, Allen and Seaman (2015) reported a 20% growth rate of online users among

2,800 colleges and universities surveyed throughout the United States in 2003, 2005, and 2009. Growth rates slowed to approximately 3.7% from 2012-2013, but even with the slower growth rates in 2012, distance learning increased 1.2% with a total of 20,939,293 students utilizing this platform in 2013. Of the Title IV institutions surveyed, 70.8% of schools believed that online education was a critical long-term strategy, but only 40.9% advised of a plan was in place to execute this strategy.

In 2015, the United States National Center for Education Statistics reported one in ten students were enrolled exclusively in online courses, and 7.1 million American students were engaged in some form of online learning (NMC, 2015). According to this recent report, the shift from online learning to a blended model is currently being explored and increasingly adopted by higher education institutions as an increase of students move towards this combination of learning. The University of Central Florida reported that students felt more engaged in a blended format and that their professors were more accessible versus a purely online environment (NMC, 2015).

Quality in higher education. The competition for students heavily weighs on decision makers as they attempt to balance accessibility, affordability, and limited resources (VanDerLinden, 2014). The growth of technology forces this evolution of entirely f2f or online to blended learning models. There is a need to address quality standards. The aforementioned paragraphs highlight the shift to and need for blended learning programs, but questions remain regarding standards for quality. Volungeviciene, Tereseviciene, and Tait (2014) opined that while blended learning is effective, most designs are different, and no identical strategies exist.

A meta-analysis conducted from 1996-2008 identified more than 1,000 empirical studies of online learning due to the rapid expansion of this learning preference (Means, Toyama,

Murphy, Bakia, & Jones, 2009). However, these analyses only measured the opinions of the professor and student, did not measure standards by which a program was created or delivered, and did not include analysis of blended learning formats. Research presented by Graham, Woodfield, and Harrison (2013) highlighted a lack of institutional standards when reviewing stages institutions adopt for blending learning. The stages include awareness/exploration (Stage 1), adoption/early implementation (Stage 2), and mature implementation/growth (Stage 3) (Graham et al., 2013).

Closer examination of Stage 1 reveals there is no institutional strategy for blended learning, and Stage 2 is an experimentation of new policies only (Graham et al., 2013). Their research did not reveal concrete institutional guidelines in the formation of blended learning per se, but instead moved this creation of blended learning models through a sequence of exploration guided by varying opinions. VanDerLinden (2014) built on Graham's et al. (2013) work by further stressing the importance of and need for institutional guidance throughout the creation, implementation, execution, and measurement of blended learning programs.

Universities that strive to capture new students and balance the innovation and quality of their programs must face non-peer-reviewed periodicals that hold tremendous weight among prospective students. Duke University's Fuqua School of Business Dean, Bill Boulding said, "rankings certainly make a difference for prospective students" (Gellman, 2015, para. 3).

Selingo (2013) highlighted a growing concern over school rankings and theorized that selection, wealth, and research are the bases of the perception of quality. The AACSB echoes similar concerns in the growing competition to recruit students through new learning modes.

These guidelines raise critical issues salient to quality delivery of distance learning. As such, they do not prescribe required features for distance learning, nor do they provide a "how to" manual for creating distance learning. There are two intended audiences for these guidelines. First, educators who design, construct, and deliver distance-learning

programs should consider these guidelines as a source of ideas to ensure quality programs. Second, these guidelines will aid people who conduct reviews of quality (e.g., accreditation) in distance learning. Experienced distance learning educators already will have encountered many of the issues presented here. These guidelines will provide insights and spur thought among people building and assessing quality in distance learning, provide some new ideas even for distance learning veterans, and provide a useful organization of distance learning concerns. (AACSB, 2007, p. 3)

Additionally, in 2006 the USDE Office of Postsecondary Education (OPE) collaborated with twelve of the existing accreditation boards to address the following concerns.

1. Develop, with the help of accrediting agencies and schools, guidelines or a mutual understanding that would lead to more consistent and thorough assessment of distance education programs including developing evaluative components for holding schools accountable for such outcomes, and
2. If necessary, requesting authority from the Congress to require that accrediting agencies use the guidelines in their accreditation efforts. (USDE Office, 2006, p. 2)

The origins of the United States Department of Education (USDE) date back to 1867 when President Andrew Johnson signed legislation creating the first Department of Education (USDE, 2015). Its original purpose was to collect information and statistics on the nation's schools. Critics worried that the new department would exercise too much control over local schools and, as a result, it was demoted to Office of Education in 1868. Over the next few years, the organization changed titles and was housed in different agencies including the United States Department of the Interior and the former United States Department of Health, Education, and Welfare. Influences ranging from the Soviet Union's successful launch of the Sputnik in 1957, Lyndon Johnson's War on Poverty in the 1960s, the expansion of education to include minorities, women, and the disabled during the 1970s influenced the government to pass the Department of Education Organization Act in October 1979. In May 1980, the department became the United States Department of Education.

Congress determined the purpose of the the USDE in 1979 and declared the following:

1. to strengthen the Federal commitment to ensuring access to equal educational opportunity for every individual;
2. to supplement and complement the efforts of States, the local school systems and other instrumentalities of the States, the private sector, public and private educational institutions, public and private nonprofit educational research institutions, community-based organizations, parents, and students to improve the quality of education;
3. to encourage the increased involvement of the public, parents, and students in Federal education programs;
4. to promote improvements in the quality and usefulness of education through federally supported research, evaluation, and sharing of information;
5. to improve the coordination of Federal education programs;
6. to improve the management and efficiency of Federal education activities, especially with respect to the process, procedures, and administrative structures for the dispersal of Federal funds, as well as the reduction of unnecessary and duplicative burdens and constraints, including unnecessary paperwork, on the recipients of Federal funds; and to increase the accountability of Federal education programs to the President, the Congress and the public. (Section 102, Public Law 96-88) (USDE, 2015, pp. 1-2)

The Office of Postsecondary Education (OPE) falls under the umbrella of the USDE (USDE OPE, 2016). Its responsibilities include strengthening the capacity of colleges and universities to promote reform, innovation, and improvement in postsecondary education, promote and expand access to postsecondary education and increase college completion rates for America's students, and broaden global competencies that drive the economic success and competitiveness of the United States. (USDE OPE, 2016, para. 2).

The Council of Postsecondary Accreditation (COPA) was established in 1975 when the National Commission of Accrediting and Federation of Regional Accrediting Commissions of Higher Education merged (ACICS, 2010). These self-regulation agencies were created to improve the process of accreditation. The purpose of COPA was to allow accrediting agencies a catalyst by providing a unified process of recognizing accrediting agencies based on peer-review evaluation and to improve quality assurance throughout American institutions. In 1996, the Council of Higher Education Association (CHEA) replaced COPA. CHEA's tagline states, "Accreditation Serving the Public Interest" (CHEA, 2015). Their purposes include advocacy,

service, and recognition. The organization is a national advocate and institutional voice for promoting academic quality through accreditation. Currently, CHEA boasts an association of 3,000 degree-granting colleges and universities, and recognizes sixty institutional and programmatic accrediting organizations (CHEA, 2015).

Most nationwide academic institutions seek regional accreditation from one of the six bodies currently authorized to award it (Eaton, 2013). Regional accreditation happened before national accreditation. Faith-based or career/vocational institutions and focuses on specific educational routes such as technical, vocational, or distance learning typically seek national accreditation. Agencies are typically reevaluated every three to five years to ensure they maintain the CHEA standards (CHEA, 2016). Specialized accreditation or program-based accreditation is awarded to specific programs or departments within a university. This accreditation is offered for specific fields of study.

The increasing emphasis on accreditation is causing major changes in infrastructure and communication mechanisms in higher education especially in the area of quality concerns (Kourik & Maher, 2012). In order to address quality concerns, universities take additional steps to obtain specialized accreditation for their business school programs.

Specialized accrediting bodies for collegiate business education occupy a unique and often controversial position in American higher education. They promote themselves as public guarantors of academic quality and improvement. If a business school or sub-unit can garner sufficient institutional resources to achieve and maintain accreditation status, the accrediting bodies provide a nationally recognized seal of approval and level of prestige for its programs. (Henninger, 2000, pp. 49-50)

The AACSB and ACBSP are two of three-business program accreditation bodies in the United States that answer the specialized accreditation need for institutions offering business degrees. The researcher chose them for inclusion in this study based on their 25-plus years of existence. While it is not a requirement to obtain this level of accreditation, Graham et al. (2013)

argued the benefits outweigh the cost by showing a university meets quality standards through either the AACSB or ACBSP. Brink and Smith (2012) stated, “accreditation is a means through which business programs can assure stakeholders of the program’s commitment to accountability and quality” (p. 8).

AACSB was established in 1916, is considered the oldest and best known of the two entities, and typically appeals to larger universities that place a greater emphasis on research (Hunt, 2015). They provide an Eligibility Procedures and Accreditation Standards for Business Accreditation manual that requires a program to meet four standards and fifteen criteria based on core values. However, “there is no uniform measure for deciding whether each criterion has been met. Rather, the school must demonstrate that it has an ongoing commitment to pursue the spirit and intent of each criterion consistent with its mission and context” (AACSB, 2016, p. 5).

ACBSP was founded in 1988 and takes a more outcome-based approach, broadens the definition of scholarly activity, and accredits associate, baccalaureate, and graduate business degree programs (Roller, Andrews, & Bovee, 2003). They require schools seeking business program accreditation to meet the ACBSP Standards and Criteria for Demonstrating Excellence in Associate and Baccalaureate/Graduate Degree Business Programs (ACBSP, 2015). An institution must meet the requirements in six standards and twenty-seven criteria sections to receive accreditation.

Although researchers emphasize the need and value of both entities, Julian and Ofori-Dankwa (2006) presented the following argument:

There are signs in business school environments of a trend toward environmental discontinuity. Concomitantly, “accreditocratic” forces increasingly influence the strategic decision making of business schools involved with accreditation. To the extent that the environments of business schools are becoming more turbulent and hypercompetitive, we argue that current accreditation standards increase the likelihood of poor strategic decision-making. (p. 231)

Furthermore, Julian and Ofori-Dankwa (2006) addressed concerns about the blanket policies and processes influenced by business accreditation bodies that do not address specific university guidelines and learning objectives. Julian and Ofori-Dankwa (2006) did not discount the pros of each accrediting body but simply provided concerns about their relevance given the turbulence of the higher education environment. Perhaps if specialized accreditors like AACSB and ACBSP take the lead in promoting consistency of standards and needed guidelines for blended learning formats, it will become the catalyst for action currently absent in blended learning business programs and courses.

Statement of the Problem

Traditionally, brick-and-mortar schools have been and still are the standard in business education, but the needs of the Millennial student challenge traditional models (Afip, 2014; Fry, 2016; Sweeney, 2006). Organizations and universities that fail to adapt may become obsolete in the near future. Society demands faster, more agile, more creative, and more flexible educational solutions.

Many universities have adapted by implementing institution-specific blended learning (BL) models, though research is undeveloped in this area, which is causing variations in how much of these programs instructors offer face-to-face versus online (Graham, 2013). Research is also limited regarding institutional guidelines or policies that govern the design, implementation, and execution of blended learning programs. Garrison and Kanuka (2004) echoed these concerns by noting that clear institutional direction and policies are critical for adoption of blended learning initiatives within universities. The literature review provides a thorough analysis of the history and evolution of blended learning. Existing blended learning research addresses student perception, professor perception, engagement, improvements to course design, and instruction.

Unfortunately, there is limited research addressing institutional policy specific to the development and deployment of blended learning courses and/or programs (Allen, 2013; Ginns and Ellis, 2009; Guzer & Caner, 2014; Kennegwe & Kang, 2013; Means et al., 2009; Park & Bonk, 2007; Owens, 2012; Stubbs, Martin, & Endlar, 2006). Employers, in particular, have a stake in strong graduates from business degree programs, which if delivered using a blended learning format, mimic the business environment, which is characterized by both f2f and virtual interactions on a daily basis. Employers want graduates who are accountable, responsible, have strong critical thinking skills, are agile, are highly skilled in the use of technology, and have strong communication skills in virtual and f2f interactions. The blended learning environment, which combines virtual and f2f instructional methods and requires the student(s) to perform in both individual and group environments, could be considered on-the-job training insofar as the transition from the academic to the professional setting.

Accredited business programs must meet standards related to the delivery of education, particularly as it pertains to student learning outcomes, student/stakeholder satisfaction, retention, and persistence to graduation. As colleges and universities acclimatize to disruptive technologies in new learning formats, it is also important to ascertain whether these new formats, such as blended learning, inhibit or assist the business programs in meeting and maintaining accreditation standards. One way to make certain that student outcomes and student/stakeholder satisfaction are consistent across delivery systems (f2f, online, blended) is by using universally adopted and consistent framework for blended learning models. To date, there is a shortage of evidence in the literature to suggest that universities or institutions are using consistent guidance within their blended learning courses or programs with respect to blended learning quality courses and/or guidelines, and accreditors such as AACSB and ACBSP have not yet taken the

lead in establishing accreditation criteria relevant to blended learning formats.

Adding additional concern is the lack of guidance from the AACSB and ACBSP. The AACSB's document providing Eligibility Procedures and Accreditation Standards for business Accreditation manual only lists six references to the words distance learning, five in-context references to online, and only one reference to *blended* (AACSB, 2016, p. 12, 16, 21, 34, & 35). Each word is embedded under standards that speak to the overall requirements for the business program to become accredited and not necessarily quality standards or guidelines for online or blended programs. Similarly, the ACBSP Standards and Criteria for Demonstrating Excellence in Baccalaureate/Graduate and Associate Degree Business Programs manual has limited references to distance, online, and blended learning quality standards. The document only contains two in-context references to online learning, one reference to distance, and no references to blended learning (ACBSP, 2015, p. 32, 43, & 63).

In contrast, global agencies such as the International Association for Blended Learning (IABL) focus their resources on promoting excellence in teaching, training, and research for blended learning by engaging scholars and practitioners to meet the needs of current learners (Pape & Wicks, 2009). The organization attempts to fill in the gaps and meet the needs of blended learners globally by balancing processes and interactive environments (Merza, 2016). There is currently no formal organization in the United States dedicated solely to helping train, promote, and standardize this rapidly growing preference for learning.

Scholarly research typically follows one of two paths—basic or applied (Sekaran & Bougie, 2013). Basic research is appropriate when there is a lack of knowledge or gap in the existing body of knowledge (p. 5, para. 2). Applied research is used with the intention of applying the results of the findings to solve specific problems (p. 5, para. 3). Creswell (2012)

acknowledged that identifying gaps in research adds to the body of knowledge for that specific topic, provides suggested improvements for practice, gives educators new ideas to consider, helps practitioners evaluate approaches, and assists with building connections in research (pp. 4-5). In addition to helping educators become more effective practitioners, new research also provides information to policy makers when an educational topic is debated (Creswell, 2012, p. 6). An exhaustive review of the literature revealed a clear lack of research about the usage of a consistent framework in the creation and use of blended learning programs/courses. As the demand for blended learning opportunities spreads and blended offerings increase across institutions, it will be important to be able to rely on some framework for consistency, quality assessment, and comparative analysis to demonstrate quality. Blended research continues to be formative in nature, and this research attempts to comprehend and explain the gap in the literature for blended learning programs by using a basic research approach versus applied research approach (Sekaran & Bougie, 2013).

Purpose of the Study

The purpose of this study was to describe the current blended learning environment in accredited U.S. business schools and to determine the maturity of the blending learning frameworks in those schools using the blended learning adoption framework matrix developed by Graham et al. (2013).

Research Questions

Using a quantitative data collection instrument approach the researcher attempts to answer the following research questions and create a demographic profile of respondents.

1. What is the status of blended learning in US accredited business programs?

2. What is the level of strategic maturity of blended learning frameworks in US accredited business programs?
3. What is the level of structural maturity of blended learning frameworks in US accredited business programs?
4. What is the level of support maturity of blended learning frameworks in US accredited business programs?

Figure 1 illustrates the connection among the purpose statement, the research question, and the data collection instrument measurement items.

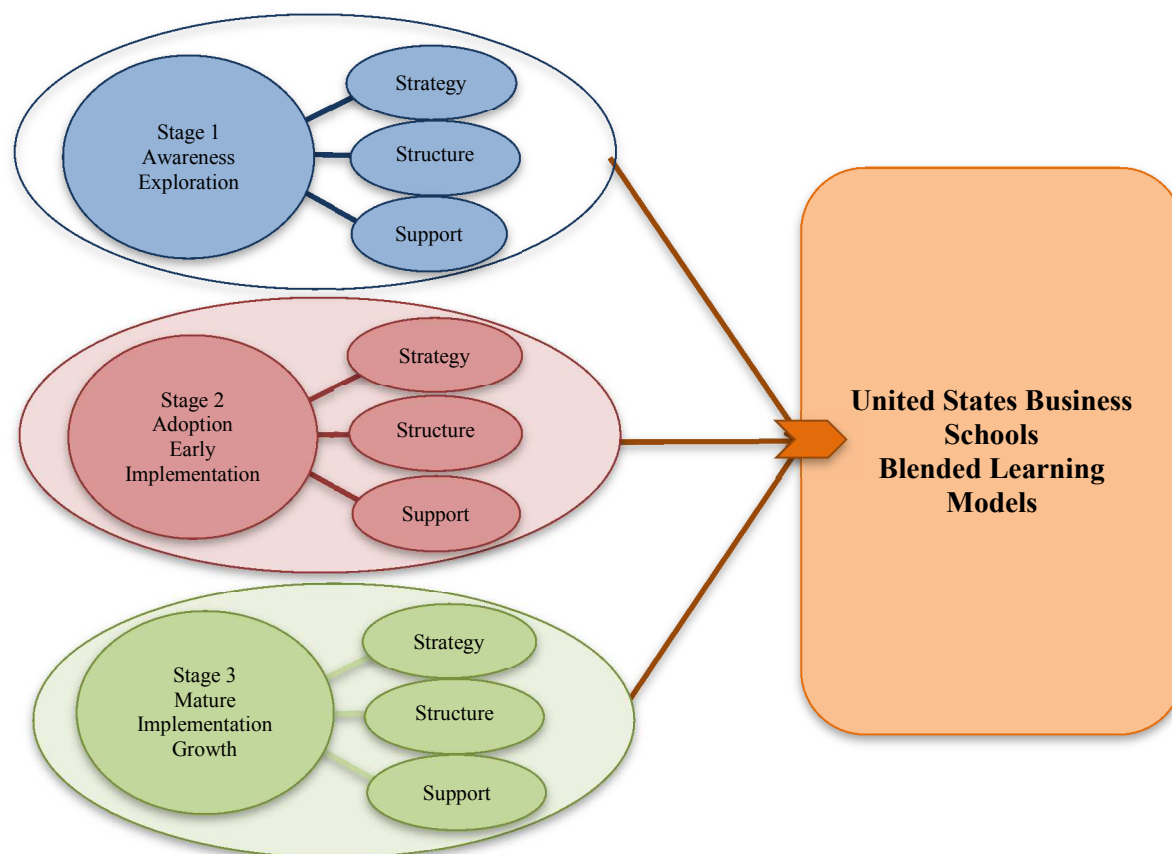


Figure 1. Research conceptualization for standards in blended learning models.

Definition of Terms

Accreditation: Peer-reviewed process to determine quality of an educational program by

evaluating schools using a set of educational standards (iNACOL, 2011).

Association to Advance Collegiate Schools of Business (AACSB): Global, nonprofit membership organization of educational institutions, businesses, and other entities devoted to the advancement of management education (AACSB, 2016).

Accreditation Council Business Schools & Programs (ACBSP): Accreditor of business, accounting, and business-related programs at the associate, baccalaureate, master, and doctorate degree levels worldwide. Recognized by CHEA in 2001 and again in 2011, ACBSP was the first to offer specialized business accreditation at all degree levels (ACBSP, 2013).

Blended course: A course that combines two modes of instruction, online and face-to-face (iNACOL, 2011).

Blended learning: Blended learning takes place any time a student learns at least in part at a supervised brick-and-mortar location away from home and at least in part through online delivery with some element of student control over time, place, path, and/or pace; often used synonymously with Hybrid Learning (Horn & Staker, 2011). For the purpose of this study, blended learning is defined as a combination of face-to-face instruction (25-75%) with online (various technological) self-guided modalities.

Face-to-face: When two or more people meet in person (iNACOL, 2011).

Online learning: Education in which instruction and content are delivered primarily over the Internet (Watson & Kalmon, 2005).

Postgraduate education: Education beyond baccalaureate degrees (iNACOL, 2011).

Stage 1, awareness/exploration: Characterized by no institutional strategy regarding BL, but an institutional awareness of and limited support for individual faculty exploring ways in which they may employ BL techniques in their classes (Graham et al., 2013).

Stage 2, adoption/early implementation: Characterized by institutional adoption of BL strategy and experimentation with new policies and practices to support its implementation (Graham et al., 2013).

Stage 3, mature implementation/growth: Characterized by well-established BL strategies, structure, and support that are integral to university operations (Graham et al., 2013).

Strategy: Comprised of issues relating to the overall design of BL such as definition of BL, forms advocacy, degree of implementation, purposes of BL, and policies surrounding it (Graham et al., 2013).

Structure: Issues relating to the technological, pedagogical, and administrative framework facilitating the BL environment, including governance, models, scheduling structures, and evaluation (Graham et al., 2013).

Support: Involved with issues relating to the manner in which an institution facilitates the implementation and implementation and maintenance of its BL design, incorporating technical support, pedagogical support, and faculty incentives (Graham et al., 2013).

Quality standards: A set of benchmarks or indicators for courses, teaching, professional development, programs, etc., developed by a governing body, association, or accrediting organization (iNACOL, 2011).

Summary of Methodology

This research was conducted in the form of a descriptive study. According to Glass and Hopkins (1984), this approach helps organize, tabulate, depict, and describe the data collected. A descriptive study is one that is either quantitative or qualitative in nature and describes events and studies aimed at carrying the narrative, or attempts to discover a detailed description of people, places, or events (Creswell, 2012). Ghauri (2003) explained that descriptive research is

characterized by clear and rigid specifications of the research problem. The emerging trends in blended learning use a variety of quantitative and qualitative techniques. Using mixed methodology approaches, Garrison and Vaughn (2008) surveyed students to understand their overall feelings and perception of the blended learning experience and interviewed faculty simultaneously. Cooper and Schindler (2008) explained that using descriptive study methods may allow the researcher to create profiles or characteristics of a certain event or phenomenon. The results may answer the questions who, what, when, where, and sometimes how. Using this method may also help the researcher to describe and define a subject, has the potential for drawing powerful inferences, and is popular in research because of its versatility across management disciplines (Cooper and Schindler, 2008). Sekaran and Bougie (2012) further noted that descriptive studies may help the researcher to understand the characteristics of a group in a given situation, think systematically about aspects in a given situation, offer ideas for further probe and research, and help make certain (simple) decisions (p.98).

To accomplish this descriptive study, a quantitative approach incorporating a data collection instrument with closed and open-ended measurement items is appropriate (Sekaran and Bougie, 2013). Creswell (2012) explained the use of open and closed ended questions should relate to the research questions with the intent of answering the purpose statement. Closed ended questions allow the respondent to make quick decisions based on specific answers, while open-ended questions allow the respondent to answer in any way they choose (Sekaran and Bougie, 2013, p. 150). By allowing both options, the respondent is less likely to feel confined or led to answer questions with a specific intent (Sekaran and Bougie, 2013). Creswell's (2012) basis for quantitative research characteristics was used in determining the best fit for the research instrument approach. According to Creswell (2012), a quantitative research design that involves

non-intervention research with the intent to describe trends for a population of people requires a survey instrument technique for data collection (p. 102).

Supporting the survey instrument approach, Sekaran and Bougie (2012) stated, “the survey strategy is very popular in business research, because it allows the researcher to collect quantitative and qualitative data on many types of research questions. Indeed surveys are used in exploratory, descriptive, and in causal research to collect data about people, events, or situations” (p. 102).

Survey instruments measuring institutional policies in blended learning programs/courses do not currently exist. Therefore, a data collection instrument was created by the researcher and reviewed by the dissertation committee for approval. The data collection instrument items were derived from the work of Graham et al. (2013). The data collection instrument Stage 1-awareness/exploration, Stage 2-adoption/early implementation, and Stage 3-mature implementation/growth include three variables within each construct strategy, structure, and support. Dr. Graham was contacted in August 2016 and gave written permission to proceed with translating the BLAF into a quantitative study (Appendix B). Creswell (2012) recommends a survey research approach when attempting to describe trends. He further explains that by surveying a specific population, the researcher may be able to identify specific characteristics, opinions, and behaviors among the group. Cooper and Schindler (2008) explained that this approach is fitting because it is versatile and used to assist with policy planning, monitoring, and evaluating.

Conceptual and Theoretical Framework

As blended learning (BL) challenges traditional roles of faculty and students, facilitators must recognize that successful implementation requires change and commitment (Dziuban &

Picciano, 2004; Shea 2007). BL is arguably the “best of both worlds and may be used to scale up or down the effective enrollment of a course with the potential to positively impact student learning” (p. 3). Allen, Seaman, and Garrett (2007) suggested that BL courses hold as much promise as fully online courses, and is shifting from corporate and higher education into all aspects of education. However, even with growing popularity BL is plagued with concerns of non-existent principles that govern a definitive definition of the term, and the mixing of pedagogic approaches (Graham, 2013; Oliver & Trigwell, 2005).

The term BL is ill defined and inconsistently used. While its popularity is increasing, its clarity is not. Under any current definition, it is either incoherent or redundant as a concept. Building a tradition of research around the term becomes an impossible project because without a common conception of this meaning, there can be no coherent way of synthesizing the findings of studies, let alone developing a consistent theoretical framework that addresses the uniqueness of BL environments (Oliver and Trigwell, 2005, p. 24; Graham, 2013). Researchers have recommended that the conceptualization of BL be rebuilt using grounded learning theory, therefore shifting the emphasis from teacher to learner (Oliver and Trigwell, 2005). Similar concerns are echoed by organizations such as OLC (formerly Sloan-C) and Picciano (2006) attempted to re-conceptualize blended learning using a more grounded learning theory (Figure 2).

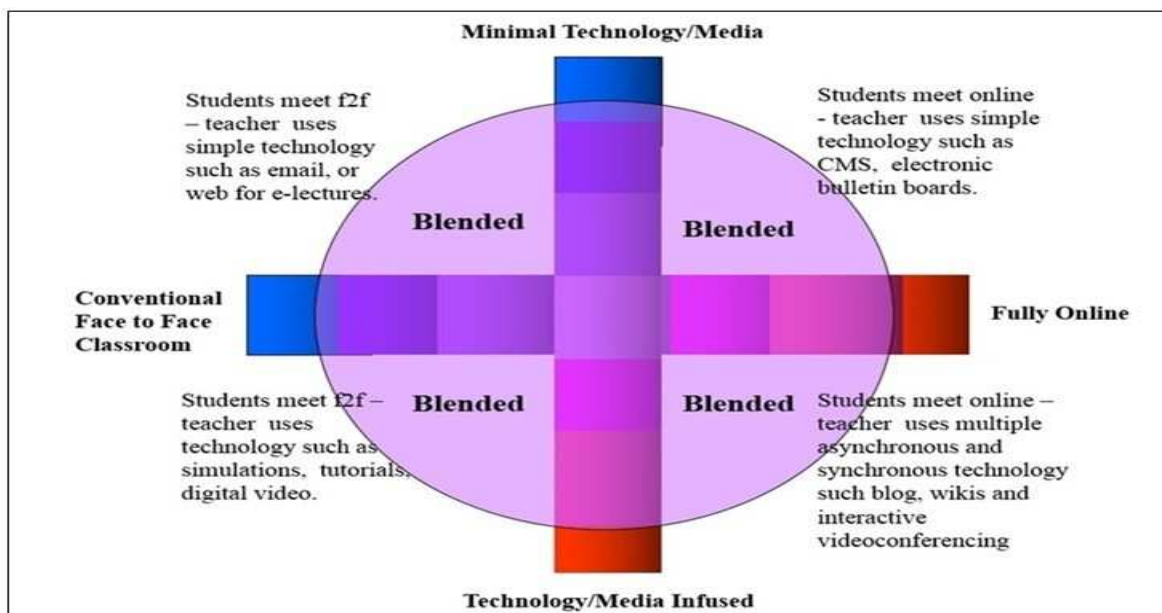
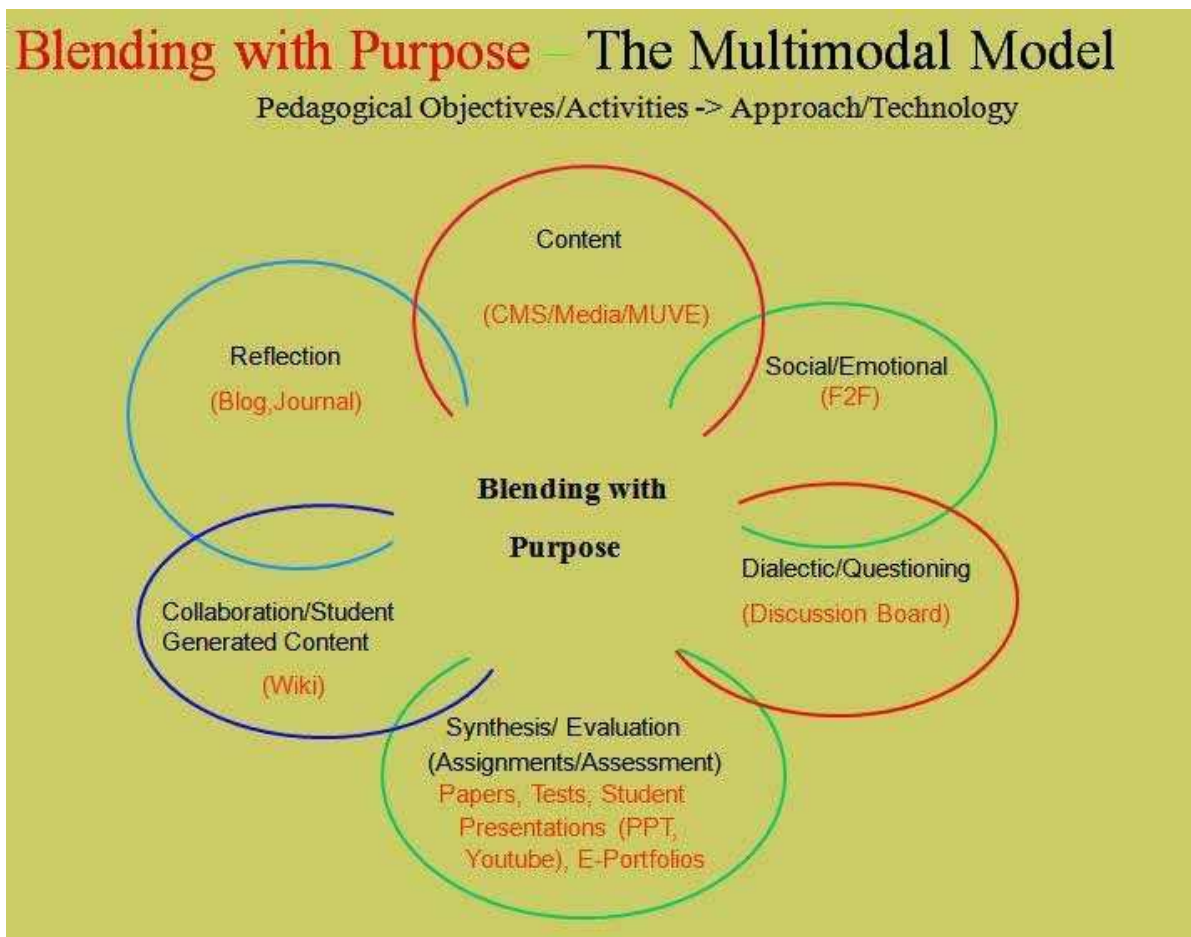


Figure 2. Blended Learning Conceptualization. From "Blended learning: Implications for growth and access," by A.G. Picciano, 2006, *Journal of Asynchronous Learning Networks*, 10(3), 95-102. Copyright 2006 by A.G. Picciano. Reprinted with permission.

While this attempt to re-conceptualize blended learning is useful in providing high-level guidance, it does not necessarily identify key success measures. In a 2006 study, Sharpe, Benfield, Roberts, and Francis recognized that many institutions and practitioners had attempted some form of BL and were doing so successfully using generic standards, but these models lacked institutional monitoring/evaluation, staff support, and a top-down influence to help support BL implementation (p. 77). Sharpe et al. (2006) further recommended more research in this area because consistency with BL frameworks was non-existent.

Picciano (2009) built upon the Blended Learning Conceptualization and designed Blended with a Purpose: The Multimodal Model (Figure 3) with the intent of helping universities design and develop BL courses and programs.



*Figure 3. The Multimodal Model. .From "Blending with a purpose: The multimodal," by A.G. Picciano, 2009, *Journal of the Research Centre for Educational Technology*, 5(1), 4-14. Copyright by A.G. Picciano. Reprinted with permission.*

The purpose of the Multimodal Model is to identify the appropriate approaches that should be taken with varying degrees of learners. It recognizes that learners have various styles including different generations, different personality types, and different learning styles, teachers, and instructional designers (Picciano, 2009, p. 16). Using similar concepts from Figure 1 and Figure 2, Norberg, Dziuban, and Moskal (2011) sought to propose a new model for BL that focused on time and synchronicity as the primary elements for this learning environment (Figure 4).

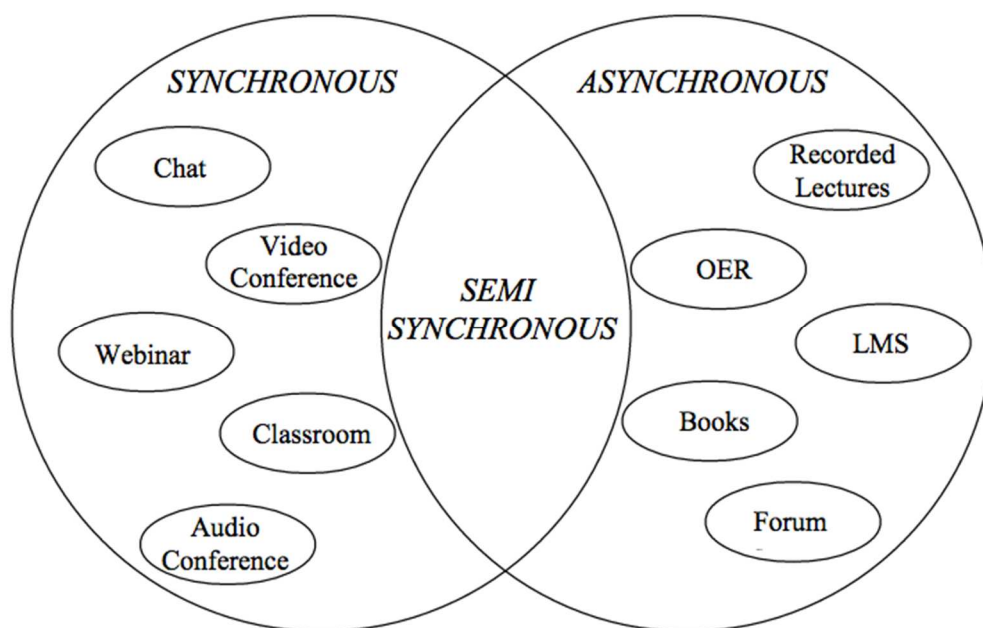


Figure 4. Time-based blending. From "A time-based blending learning model," by A. Norberg, C.D. Dziuban, and P.D. Moskal, 2011, *On the Horizon*, 19(3), 207-216. Copyright 2011 by A. Norberg. Reprinted with permission.

By using the Time-Based Blending Model the researchers attempted to redefine the overall understanding of BL by identifying elements that historically guide higher education into a new reality (Norberg, Dziuban, & Moskal, 2011) They argued that using time as a construct shows an emergence of migration, support, location, learner empowerment, and flow for blended models. These models attempt to answer the foundational challenges of BL research (a) what do humans do well, and (b) what do machines do well, therefore maximizing the benefits of both to improve the service of learning (Graham, 2013).

Because this research is of a descriptive nature and does not seek to establish relationships among variables, rather than a theory that explains characteristics, attitudes, and behaviors, the evolution of a model grounded in expert research is appropriate. Limited efforts have been made to understand the development and use of theory in the domain of blended

learning research (Graham et al., 2013).

Since the 1990s, concepts of blended learning in higher education have been heavily influenced by cognitive and constructivist approaches (Al-Huneidi & Schreurs, 2010). Research suggests that professors use two approaches to teaching: facilitating learning and transmitting knowledge (Owens, 2012). The theoretical framework for this study begins with discussion around the Garrison et al. (2008) evaluation of the evolution of blended learning. Garrison et al. (2008) argued that the foundation of BL is predicated on the unity of public and private worlds, information and knowledge, discourse and reflection, control and responsibility, and processes with learning outcomes.

Another issue that arises is how to properly analyze or develop BL environments using appropriate theory. Xin (2002) suggested the theory of engaged collaborated discourse might assist with mapping learning and growth through online learning. Additional theories that contribute to BL environments include: theory of motivation (Keller, 1983), structuration theory (Giddens, 1984), conversation theory (Laurillard, 1993), and diffusion of innovation (Rogers, 2003). While these theories attempt to solve localized challenges such as: relationships between social structure and individual agency, communication between students and professors, and explaining stages of adoption, current BL research marginally contributes to the coherent development or expansion of BL theory (Graham, 2013). The most comprehensive attempt to extend BL theory can be found in what is arguable the foundation of BL design: the Community of Inquiry Model (COI) (Arbaugh et al. 2008). The COI framework identifies the parsimony between community and inquiry by presenting a cohesive educational experience for the modern business student. Community recognizes the social nature of education while inquiry adapts to the learning style and responsibilities of the student. The Garrison et al. (2008) stated, “a

community of inquiry is inevitably described as the ideal and heart of a higher education experience...a community of inquiry is shaped by purposeful, open, and disciplined critical discourse and reflection” (p. 14). The current COI model identifies applications, communication mediums, educational context, and discipline standards as the encompassing educational experience (COI, 2016). The theoretical foundations of blended learning are heavily influenced by the discipline standards/teaching presence of the COI model. This portion of the framework provides the design, facilitation, and direction of the educational experience (Garrison et al., 2008, p. 24). If institutional policies are considered during the planning stages of a blended learning program, this is the ideal location to include this context. Additional research based on the Garrison et al. (2008) influence in blended learning research has helped usher the expansion of the COI model.

Drawing upon the work of the Garrison, Anderson, and Archer’s (2000) COI model, Graham et al. (2013) concluded that blended learning must move from a simple interest in the concept towards a mature institutionalization of it. Graham’s et al. (2013) research established the three stages of blended learning as: awareness/exploration, adoption/early implementation, and mature implementation/growth. VanDerLinden (2014) added to Graham’s et al. (2013) research by expanding these stages to include creation, implementation, execution, and measurement criteria.

The evidence to support these stages in blended learning environments is found in a reconceptualization of the Garrison’s et al. (2000) COI model. Wang et al. (2015) created the Complex Adaptive Blended Learning Systems Model (CABLS) (Figure 5). The CABLS model provides a framework for blended learning and expands on the original work of Garrison et al. (2000) by providing finite levels of support recommendations (Wang et al., 2015). CABLS

supports the argument that a hyper-focused section for the institution should be included within the original COI model without disrupting the overall intent of the educational experience. The subcategories included within the institution portion include strategy, support, service, and infrastructure. By expanding the CABLS model, noticeable gaps are identified within the COI model, specifically that an institutional level focus must be included in future blended learning models.

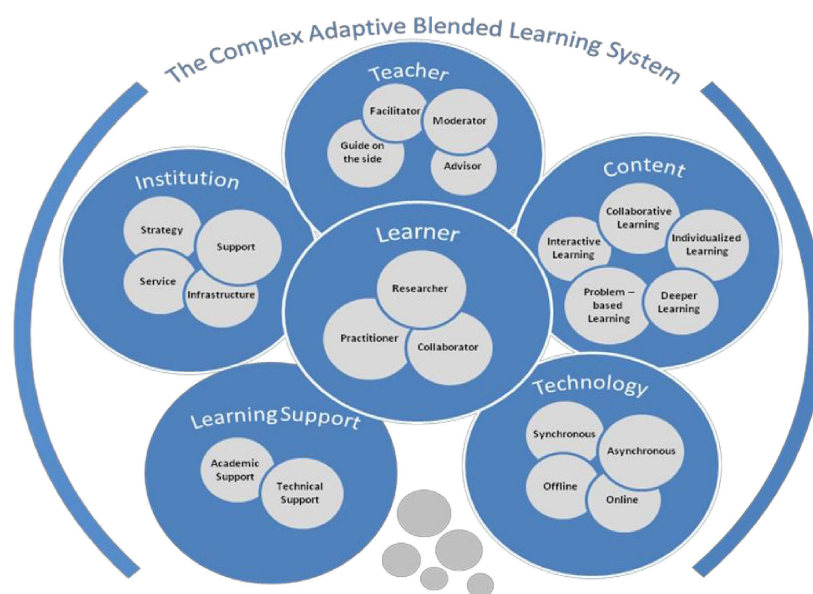


Figure 5. The Framework of Complex Adaptive Blended Learning Systems (CABLS). From "Revisiting the blended learning literature: Using a complex adaptive systems framework," by Y. Wang, X. Han, and J. Yang, 2015, *Journal of Educational Technology & Society*, 18(2), 380-393. Copyright 2015 by X. Wang. Reprinted with permission.

The heart of the CABLS is similar to the COI model and focuses primarily on the learner and the outcome of their experience. Similar research in this field reviews student experiences and highlights concerns about learning results, collaboration, and design but does not necessarily address standards and policies. For example, a longitudinal study conducted by Stewart and Nel (2009) resulted in positive student perceptions of blended and online learning but did not address whether consistency in standards and policies attributed to these positive outcomes. Wong,

Tatnall, and Burgess (2014) used the OECD's model of readiness, intensity, and impact to measure blended learning effectiveness that resulted in evaluating student readiness and intensity of separate delivery approaches only. Additional research by Poon (2012) evaluated 442 surveys on BL and recommended improvements for enhance student learning. Singh (2003) echoed similar concerns by highlighting that formal research does not exist on how to construct the most effective BL designs.

Gibbons and Bunderson (2005) stressed that more theoretically grounded research is needed to guide BL practice, there is a need for theoretical development, and frameworks should address activities of knowledge creation: explore, explain, or design (as cited in Graham, 2013). The focus of this study attempts to determine the maturity of the blended learning frameworks in U.S. business accredited schools using the BL adoption framework matrix developed by Graham et al. (2013)

Significance of Study

To date there is little evidence of a universal framework for adopting and implementing blended learning courses or programs. The rapid growing preference for blended learning programs has challenged traditional models, and the formation of new programs and courses do not follow set policies or guidelines (Afip, 2014; Fry, 2016; Sweeney, 2006). Without clear guidance, institutions are left to ambiguous interpretations and execution of blended learning programs and courses. The results of this research may assist with recommendations for institutional policies and procedures in the creation, execution, and assessment of blended learning programs and courses.

As highlighted in 2006 by the USDE Office of Postsecondary Education and the accreditation boards, the need to develop guidelines and hold colleges accountable for quality in

distance education has not been addressed since this initial discussion. Given the popularity of BL that is heavily influenced by rapidly changing technologies, the findings of this study may assist federal entities such as the USDE Office of Postsecondary Education and private postsecondary entities such as CHEA by identifying the existence of institutional policies and practices that can then become the cornerstone for discussion and expansion throughout academia. In addition, these guidelines may assist university deans or vice presidents with setting consistent policies that impact educational delivery. A common framework for blended learning programs may assist professors with focusing on individual student needs, objectives, and learning outcomes versus wasting resources on creating a new framework each semester. Students may benefit from consistent teaching practices that influence impactful learning, practical application of studies, and degree completion.

A consistent framework for blended learning models appears to be absent. This makes it difficult for researchers to provide consistent recommendations for improvements to blended learning formats. Using a consistent standard may allow entities to measure the quality of programs and courses based on a widely adopted set of practices. Future researchers may be able to use the results of this study to focus on more specific institutional policies and standards in the areas of blended learning such as professor readiness, professor training, student collaboration, student results, student and industry preparedness, and university enrollment or retention improvements. By setting a framework for blended learning models, future researchers may be able to measure the effectiveness of these recommendations.

Limitations of Study

The limitations of the study included school selection, accreditation requirement, and instrument of measurement. The focus of the study only included business schools accredited by

two of the three existing business accreditation agencies in the United States and does not account for other programs such as humanities, education, mathematics, engineering, etc. These disciplines may have blended learning programs or courses that were not surveyed for this study. Additionally, business schools with blended learning programs or courses were not included if they did not meet the requirements to be AACSB or ACBSP accredited. Finally, the quantitative measure for this study was a prototype data collection instrument created by the researcher and approved by the research committee. Due to limitations in current research on blended learning institutional policies a validated instrument of measurement was not available for this study.

Chapter 2: Literature Review

Major Areas of Review

The comprehensive review of the literature on blended learning utilized J.E. & L.E. Mabee Library Primo Search Tools, Business Source Complete, EBSCOhost, and Google Scholar resources covering a timeframe spanning 2001-2016. The following review includes the evolution and modern definition of blended learning, quality of higher education framework and measurement, a theoretical framework based on blended learning theories and pedagogies, and related research. A timeline of the history of blended learning is available in chapter one. The following sections provide the reader a more robust understanding of where former and current research has guided higher education and blended learning programs.

Blended learning. Identifying a universally agreed upon definition of *blended* learning is unavailable in previous and current research. The terms *hybrid*, *flex*, and *blended* are used interchangeably, and the distinction between these definitions is not clearly articulated in the literature (McGee, 2012). Other issues with defining BL involves what is being blended and how blended is interpreted by different individuals (Graham, 2013; Picciano, 2009). According to Graham (2013), the three most common answers include: (a) blending online and f2f instruction, (b) blending instructional modalities or delivery media, and (c) blending instructional methods (pp. 333-334). Torrissi-Steele (2011) attempted to bridge the gap in a comprehensive report defining BL that included more than seventeen different authors and twenty Australian universities. The key pedagogical syntheses extracted from the review are as follows.

- Mixed pedagogical methods or philosophies with or without technology;
- inclusion of various styles, delivery modes, and methods;
- combination of f2f with technology and online delivery;

- supplementing f2f interaction with technology and online delivery;
- co-existence with f2f and online scheduling and requirements; and
- systematic integration of f2f with online technologies. (Torrison-Steele, 2011, p. 365; Picciano, 2009, p. 10)

Researchers noted that the most common use of BL is a combination of traditional f2f and online instructions, and do not just combine but trade-off f2f time with online activity (Graham, 2013; Wallace and Young, 2010). Singh and Reed (2001) defined blended learning in ambiguous but simple terms by explaining this mode of learning is achieved by using a variety of instructional modalities. Ross and Gage (2006) explained the mode of blended learning is found in a variety of environments ranging from traditional f2f classrooms to fully online degree programs. Torrison-Steele (2011) used a combination of the aforementioned definitions and current practices by summarizing blended learning as "...enriched, student-centered learning experiences made possible by the harmonious integration of various strategies, achieved by combining f2f interaction with ICT" (p. 366). Additionally, Güzer and Caner (2014) provided three categories in which blended learning research has emerged using aggregated data from Google Scholar to include definition period, popularity period, and perceptions. The results suggested that the most frequently cited definition was by Osguthrope and Graham,

blended learning combines face-to-face with distance delivery systems...but it's more than showing a page from a website on the classroom screen...those who use blended learning environments are trying to maximize the benefits of both face-to-face and online methods. (as cited in Güzer and Caner, 2014, p. 4598)

Adding to further discussion Whitelock and Jelfs (2003) defined BL as the integrated combination of traditional learning with web-based online approaches, a combination of media and tools in an e-learning environment, and a combination of pedagogic approaches (as cited in Oliver and Trigwell, 2005, p. 17).

The word blended is also viewed as a bolting together of technologies with no clear vision of the result but focuses on thoughtful integration of these two worlds (Garrison et al., 2004). Graham, Allen, and Ure (2005) discussed the importance of defining blended learning and cautioned not to confuse terms such as distributed learning, e-learning, open and flexible learning, and hybrid courses. He stresses the use of three widely accepted definitions.

- Combining instructional modalities (or delivery media);
- Combining instructional methods; or
- Combining online and f2f instruction. (as cited in Graham, Allen, & Ure, 2005, p. 13)

The breadth of interpretations means that almost anything can be seen as BL and confuses future research without an agreed upon universal definition (Picciano, 2009; Oliver, 2005). Halverson, Graham, Spring, and Drysdale (2012) synthesized blended learning research by analyzing the most influential journal articles and books from the past decade. Their analysis suggested that the lack of consistency in blended learning research definitions might stem from a lack of discussion in the core distance education journals, misrepresented citation of articles, using the term online or distance in lieu of blended learning, or that most seminal work is not empirical in nature (Halverson et al., 2012). They suggested that most research aims to observe models or the potential of blended learning versus a true definition or purpose of the courses. As referenced above, the Garrison et al. (2004) work continues to be the most cited and reputable research available for blended learning research.

Further attempts to define and support blended learning models are think tanks such as the Clayton Christensen Institute for Disruptive Innovation (Horn & Staker, 2014). CCIDI believes that in order for a program to be considered blended it must include certain characteristics.

- a. at least in part through online learning, some element of student control over time,

place, path, and/or pace;

- b. at least in part supervised brick-and-mortar location away from home; and
- c. the modalities along each student's learning path within a course or subject are connected to provide an integrated learning experience. (CCIDI, 2015)

In addition, research extracted from Online Learning Consortium (OLC, formerly Sloan Consortium or Sloan-C) workshops defined blended learning as, “an integration of online learning with f2f instruction in a planned pedagogically valuable manner that does not simply combine these practices, but utilizes a trade-off method that best suits the learners” (Vignare, 2006, p. 2). The University of Central Florida has a similar definition and stated that blended learning courses (also known as hybrid or mixed-mode courses) are classes where a portion of the traditional f2f instruction is replaced by web-based online learning (UCF, n.d., para. 1).

Based on the literature it is difficult to locate one standard or philosophy that encompasses all definitions of blended learning. For the purpose of this study an amalgamation of the above terms and ideas are used to define blended learning as a combination of face-to-face instruction (25-75%) with online (various technological) self-guided modalities.

Evolution of blended learning. Equal to understanding the definition of blended learning is exploring the phases that have influenced the defining and redefining of this new method of learning. A great deal of research has been conducted around the topic of blended learning as can be seen in one example of an extensive bibliography of more than 75 studies regarding faculty readiness, competencies, and levels of experience for online teaching compiled by Patricia McGee and Maria Torres and spanning the years 2001-2015 (Appendix A). McGee & Torres are quite clear that the bibliography is not exhaustive, noting the multiple dissertations and other forms of analyses just in the area of online teaching competencies. It would simply not

be feasible to conduct an exhaustive literature of all things blended learning. Therefore, the focus in this research centers on how blended learning has evolved as a phenomenon. A study by Dziuban and Picciano (2015) articulated the phenomenon of blended learning in four waves.

Wave one. Dziuban and Picciano (2015) argued that online learning was the starting point of the natural evolution to blending learning, and began around 1990 with the emergence of the World Wide Web. However, during this infancy stage users depended on slow-speed and dial-up modem lines. The slow pace of the modems made viewing digital multimedia difficult and bogged down student's computers. Universities adapted by relying heavily on television, radio, course packs, and asynchronous learning by the student (Dziuban & Picciano, 2015, p. 2). Even with the difficulties of dial-up, this new wave of learning saw hundreds of thousands of students enrolling in online courses, and by 2002, Allen and Seaman (2013) estimated that nearly 1.6 million students were enrolling yearly in fully online courses.

Wave two. By the early 2000s, technology introduced high-speed cable modems or DSL, which allowed greater absorption of multimedia and student interaction. Dziuban and Picciano (2015) believed that the dominant pedagogical model of this wave was blended learning because faculty and teachers were using online learning to enhance their courses and replaced seat time in f2f courses. During this time higher educated adopted newer technologies such as: learning and course management systems such as Blackboard, Desire2Learn, and Moodle. In addition to the rapid expansion of for-profit colleges during this timeframe was an annual enrollment of 4.6 million students in online programs across private and public universities.

Wave three. In 2008, Massive Open Online Courses (MOOC) was introduced quickly influencing blended learning through 2013. MOOCs was created with the intent of offering free online courses to unlimited users while improving student access to higher education through

cost effectiveness measures (Baturay, 2015). However, the program resulted in dropout rates of 90% that were the results of the following issues:

1. glamorization of media due to private investors and venture philanthropies;
2. focus on MOOC technology, not pedagogical benefits;
3. computer-assisted-instruction (CAI) based on: read, watch, listen, and repeat;
4. lack of extensive interaction between students and faculty; and
5. failure of educational leaders and faculty to engage Ivy League schools exercised course materials in online/blended learning. (Dziuban & Picciano, 2015, p. 3)

Consequently, faculty and administrators blamed the MOOC providers for high drop rates and believed it was due to their elitism and arrogance. At the end of this wave, it was estimated that approximately seven million students were enrolled in online courses (Allen & Seaman, 2014).

Wave four. By 2014, blended learning technologies and MOOC content began to merge. A new understanding of pedagogical approaches, social/multimedia influences, and student portable devices expanded blended learning by incorporating learning analytics, adaptive or differentiated learning, competency-based instruction, open resources (including material meant to replace traditional textbooks), and gaming and multiuser virtual environments (Dziuban & Picciano, 2015, p. 4). Added to these new concepts were traditional approaches such as f2f class activities, traditional lectures, class discussions, laboratory work, and internships (Dziuban & Picciano, 2015, p. 4).

Dziuban and Picciano (2015) further believed that the current wave of blended learning should be considered a blended/MOOC model, which provided fertile ground for current and future research. A survey of college presidents published in the Chronicle of Higher Education on the future of online and blended learning programs revealed similar sentiments and is summarized below.

- **Direction:** Two-thirds of presidents of public institutions think that higher education is headed in the right direction, as do well over half of their private-campus peers.
- **Modality:** An overwhelming majority of presidents—three-quarters at private institutions and even more at public campuses—think that blended courses that contain both face-to-face and online components will have a positive impact on higher education.
- **Focus:** Presidents say that when it comes to innovation in higher education, reformers pay too much attention to cutting costs and not enough to changing the model of teaching and learning.
- **Change Drivers:** Two-thirds of public-institution presidents think that politicians are the most influential drivers of change in higher education, and half of private-campus presidents agree with that assessment. The presidents on both types of campuses believe strongly that faculty should be the number-one drivers of change. (Dziuban and Picciano, 2015, pp. 3-4)

Blended learning is quickly disrupting traditional online modalities based on rapid changes in technology and the agile demands of nontraditional students. Graham et al. (2005) identified three reasons for using BL: increased access and flexibility, improved pedagogy, and improved cost effectiveness and resource use (as cited in Graham, 2013; Wallace, 2010, p. 3). Similar categories by Matheos and Curry (2004) included: a) students: access, flexibility, and new, important skills for work in the global networked environment, b) faculty members: new skills and knowledge to transform teaching, and c) institutions; increased enrollment, improve teaching and learning outcomes, and more efficient resource use (as cited in Wallace, 2010, p. 3, Graham, 2013). Quality and retention are continual concerns throughout the waves of online and blended learning education. The following sections set the foundation of education and explain where quality checkpoints began and how this has influenced blended learning.

Institutional adoption & implementation. Blended learning (BL) has been referred to as the new normal and a new traditional model in higher education course delivery (Norberg, Dziuban, & Moskal, 2001; Ross & Gage, 2006). Graham et al. (2013) described an educational environment that has transitioned into this new phase of learning, but is unfamiliar with how to appropriately define and strategically adopt/implement BL (Oliver & Trigwell, 2005). Young

(2002) described this shift in education as, “the single-greatest unrecognized trend in higher education today” (p. 2), and Allen and Seaman (2007) stated “there is a belief among some that blended courses hold at least as much promise as fully online ones” (p. 1). Dziuban et al. (2015) argued that BL should be incorporated into the strategic initiatives of an institution due to its transformational effects in student achievements/success, satisfaction, access, and faculty satisfaction.

Considering the amount of attention BL has received in the past 10 years with limited research support, the need to implement a consistent BL framework moves beyond simply enhancing student learning to also positively effecting student access, flexibility, and cost effectiveness (Graham et al., 2013, p. 4). Researchers recognize that many universities have various forms of BL adoption and implementation guidance by individuals or organizations, but this does not include overall institutionalization (Casanovas, 2012). Without institutionalization a university may provide inconsistent experiences through BL, and the research suggests that in order for a BL model to succeed it is vital that clear institutional direction and policies are implemented (Garrison et al., 2004). Graham et al. (2013) attempted to conceptualize a consistent adoption/implementation BL framework by focusing on the following goals:

1. Identify and provide details about issues that administrators should recognize in order to guide their institutions towards a successful adoption and implementation of BL
2. Identify some markers related to institutional strategy, structure, and support that allows administrators to gauge their progress towards institutionalizing BL (pp. 4-5)

Through these guiding principles Graham et al. (2013) was able to identify the following categories that influence the adoption and implementation of BL: technology, ownership, definitions and seat time, incentives, evaluation, and BL support.

Technology was the simplest to identify since the basic platform for BL learning must include a physical and technological infrastructure that requires computers, additional hardware,

Internet access, and software (Garrison et al., 2004; Powell, 2011). Another common issue throughout the literature is defining BL in relation to intellectual property and ownership (Sharpe, Benfield, Roberts & Francis, 2006; Wallace & Young, 2001). It is important to establish policies that identify ownership and accessibility of materials (Graham et al., 2013). Professors also face concerns within the BL model regarding out of date policies that do not reflect the appropriate emphasis on classroom seat time contact hours versus online teaching components (Picciano, 2009; Wallace & Young 2001). This is becoming a major area of concern as institutions change their focus from time-based to master-based performance of student measurement (Piper, 2010). Additional areas of measurement that may influence successful adoption of BL models are professor incentives including financial compensation, release time, and equipment (Martin, 2003). Shea (2007) reported that professors are motivated to teach online through incentivizing and/or condition of employment. While incentivizing appears to assist with the adoption of BL by faculty, professors also believe that having set quality standards and accountability measures is equally important (Piper, 2010). A transition from inputs-based measurements of quality evaluation to measuring student opportunity and achievements may help determine the value of a BL strategy (Watson, 2011). Garrison et al. (2004) further emphasize that evaluation of teaching, learning, technology, and administration is important to BL implementation. Finally, professor support is a major cornerstone to the successful adoption and implementation of BL. Professors need pedagogical and technological professional development in blended learning (Martin, 2003). Graham et al. (2013) summarizes guidelines for professional development as,

- a. focus on proper use of educational technologies (Schneider, 2010),
- b. experiences with online coursework from a student perspective (Piper, 2010)

- c. faculty understanding of which classes are best suited for BL (Garrison et al., 2004; Picciano, 2006), and
- d. providing faculty successful prototype projects (Garrison et al., 2004; Picciano, 2006).

By identifying the institutional technology and policy structures Graham et al. (2013) was able to create a matrix for a BL adoption framework shown in Table 2.

Table 2

Blended Learning Adoption Framework

Category	Stage 1 Awareness/Exploration	Stage 2 Adoption/Early implementation	Stage 3 Mature implementation/growth
<u>Strategy</u>			
Purpose	Individual faculty & administrators informally identify specific BL benefits	Administrators identify purposes to motivate institutional adoption of BL	Administrative refinement of purposes for continued promotion/funding of BL
Advocacy	Individual faculty and administrators informally advocate	BL formally approved/advocated by university administrators	Formal BL advocacy by university admin/depts/colleges
Implementation	Individual faculty members implementing BL	Admins target implementation	Strategically facilitate widespread implementation
Definition	No uniform definition of BL proposed	Initial definition of BL formally proposed	Refined definition of BL formally adopted
Policy	No uniform BL policy in place	Tentative policies adopted and communicated	Robust policies in place with little need for revision, high level-community awareness
<u>Structure</u>			
Governance	No official approval or implementation system	Emerging structures primarily to regulate and approve BL	Robust structures involving academic unit leaders for strategic decision making
Models	No institutional models established	Identifying and exploring BL Models	General BL models encouraged not enforced
Scheduling	No designation of BL courses as such in system	Efforts to designate BL courses in system	BL designations or modality metadata available in system
Evaluation	No formal evaluations in place addressing BL learning outcomes	Limited institutional evaluations addressing BL learning outcomes	Evaluation data addressing BL learning outcomes systematically reviewed
<u>Support</u>			
Technical	Primary focus on traditional classroom technological support	Increased focus on BL online technological support for faculty and students	Well-established technological support to address BL/online needs of all stakeholders
Pedagogical	No course development process in place	Experimentation and building of a formal course development process	Robust course development process established and systematically promoted
Incentives	No identified faculty incentive structure for implementation	Exploration of faculty incentive structure for training and course development	Well-established faculty incentive structure for systematic training and implementation

Institutional policies regarding adoption and implementation are easier to contextualize using constructs between stages one thru three, and measurements through strategy, structure, and support evaluation (Graham et al., 2013, p. 7). The need for policy precedents, modification, or new policy stems from Wallace and Young's (2010) observation that institutionalization practice of BL is generally a gradual and negotiated process that may pit individual interests and agendas against one another. These situations require administrators to understand existing policies, articulate existing policies, and properly interpret, apply, or revise current policies/practices (Wallace & Young, 2010). Blustain (2008) describes the prevalent need for policy analysis:

Policies about uncontroversial things are routinely followed, seldom discussed, and sometimes not even written down. Policies that prove controversial or difficult to implement, on the other hand, throw into relief the clashing interest, the challenges to tradition, and the conflict over new behaviors that get lumped under the generic heading of 'resistance to change.' An uproar or high noncompliance indicates that the policy has hit a nerve. This is especially true in higher education, where institutions are sensitive to, and protective of, their prerogatives, autonomy, and *traditions*. Of a policy's many functions, therefore, one of the most potent is its role in the change process and policy study can be invaluable in planning and administration. In addition to serving as a barometer of attitudes, an analysis of policy can inform us how well behaviors are (or are not) aligned with new strategies, directions, or technologies (p. 29).

Graham et al. (2013) identified concerns around BL policy throughout the various stages of the BL Adoption Framework, and recognized the need for continuous evolution. Porter, Graham, Spring, and Welch (2014) further simplified Graham's (2013) model:

- a) Stage 1: Awareness/exploration-Institutional awareness of and limited support for individual faculty exploring ways in which they may employ BL techniques in their class,
- b) Stage 2: Adoption/early implementation Institutional adoption of BL strategy and experimentation with new policies and practices to support its implementation, and
- c) Stage 3: Mature implementation/growth-Well-established strategies, structure, and support that are integral to university operations. (p. 186)

Through the consolidation of constructs, three common themes emerge strategy,

structure, and support. These themes address measurable variables within BL adoption and implementation structures.

- Strategy: Addresses issues relating to the overall design of BL, such as definition of BL, forms of advocacy, degree of implementation, purpose of BL, and policies surrounding it
- Structure: Addresses issues relating to the technological, pedagogical, and administrative framework facilitating the BL environment, including governance, models, scheduling structures, and evaluation
- Support: Addresses issues relating to the manner in which an institution facilitates the implementation and maintenance of its BL design, incorporating technical support, pedagogical support, and faculty incentives. (Porter et al., 2014, p. 186).

Porter and Graham (2015) further evaluated the degree to which institutional strategy, structure, and support decisions facilitate or impeded BL adoption based on Graham's et al. (2013) Adoption Framework, and Rogers (2003) Diffusion of Innovations Theory. The author concluded that the availability of sufficient infrastructure, technological support, pedagogical support, BL evaluation data, and the alignment of faculty and administrators' purpose for adoption BL may have the most significant influence on adoption decisions (p. 12). Research also suggested that varying levels of innovation adopters affect the overall adoption of BL (Porter and Graham, 2015). Based on Rogers (2003) categories of adopters, faculty can range from innovator, early adopters, early majority, late majority, and laggards. Porter and Graham (2015) recommended that universities address the needs of early and late majority adopters for the most impactful adoption of BL.

Quality standards in higher education. In 1867, the USDE was established to collect information on schools and teaching that would help the States establish effective school systems (USDE, 2012). According to the USDE, significant changes to policies and economic events dramatically influenced our education system. There are misnomers regarding the purpose and power that the USDE has and are addressed later in this section. These misnomers primarily

revolve around the USDE's role in accreditation and quality standards.

It is important to highlight the influences the USDE has on education in order to understand what they cannot control. Even though the USDE is responsible for publishing a list of nationally recognized accrediting agencies, they do not address education concerns related to the establishment of schools and colleges, curricular development, enrollment and graduation requirements, state education standards, or the development or implementation of testing to measure whether states are meeting their education standards (USDE, 2015, pp. 9-10).

Furthermore, the USDE's Office of Postsecondary Education reiterates the USDE's role in accreditation by stating,

The USED does not accredit educational institutions and/or programs. However, the Secretary of Education is required by law to publish a list of nationally recognized accrediting agencies that the Secretary determines to be reliable authorities as to the quality of education or training provided by the institutions of higher education and the higher education programs they accredit. The United States Secretary of Education also recognizes States agencies for the approval of public postsecondary vocational education and nurse education. (USDE OPE, 2016, para. 1)

This is important to consider because even though the USDE has powerful influence in postsecondary education, they are not responsible for accreditation, curriculum, or state education standards. Instead, they recognize agencies such as CHEA (CHEA, 2012). CHEA is a private entity that is governed by policies adopted by a 20-member board of directors and is the largest institutional higher education membership in the United States with approximately 3,000 degree-granting colleges and universities and sixty recognized institutional/programmatic accreditation organizations (CHEA, 2015). CHEA is also responsible for ensuring the three different business accredited organizations meet quality assurance and quality improvement in higher education (CHEA, 2012). The major difference between the USDE and CHEA are that the USDE assures that accrediting organizations contribute to maintaining the soundness of

intuitions and programs that receive federal funds, and CHEA assures that accrediting organizations contribute to maintaining and improving academic quality (Eaton, 2012, p. 9).

There are currently three major types of accrediting bodies that seek CHEA certification—regional, national, and program (specialty) accreditation. There are six regional accrediting bodies in the United States with the purpose of accrediting higher education institutions. These regional associations incorporate 90% or more of degree-granting schools:

1. Middle States Commission on Higher Education (MSCHE),
2. New England Association of Schools and Colleges, Commission on Institutions of Higher Education (NEASC-CIHE),
3. Southern Association of Colleges and Schools Commission on Colleges (SACSCOC),
4. WASC Senior College and University Commission (WSCUC),
5. North Central Association of Colleges and Schools, Higher Learning Commission (NCACS-HLC), and
6. Northwest Commission on Colleges and Universities (NWCCU). (CHEA, 2015)

Six national faith or career related accreditation organizations operate throughout the United States and review entire institutions. Many institutions reviewed are focused on a specific mission such as education in information technology or other career vocations.

1. Association for Bible Higher Education Commission on Accreditation (ABHE),
2. Association of Advanced Rabbinical and Talmudic Schools, Accreditation Commission (AARTS),
3. Commission on Accrediting of the Association of Theological Schools (ATS),
4. Transnational Association of Christian Colleges and Schools Accrediting Commission (TRACS),
5. Accrediting Council for Independent Colleges and Schools (ACICS), and
6. Distance Education Accrediting Commission (DEAC). (CHEA, 2015)

Fifty specialized, or programmatic, accrediting organizations exist that cover a variety of academic disciplines. For the purpose of this study, only two of the three business school accreditation bodies were included: Accreditation Council for Business Schools and Programs (ACBSP), The Association to Advance Collegiate Schools of Business (AACSB), and International Assembly for Collegiate Business Education (IACBE). (Eaton, 2012)

It is important to note that not all accreditation bodies carry the recognition of both the USDE and CHEA. Though the USDE and CHEA are recognized as the gold standards for accreditation recognition, an accrediting body is not required to receive either organization's recognition confirmation. However, Uvalic (2002) acknowledged that the lack of accreditation recognition is a major concern for universities, businesses, and global organizations. Attending an institute of higher education that lacks reputable accreditation may jeopardize a student's future opportunities. An institution will typically seek accreditation from regional or national organizations, but may or may not choose to seek specialized accreditations for specific programs within various school departments.

Quality standards. While the focus for accreditation based on quality standards and measures is primarily sought from regional and national accreditation bodies, specialized accreditation varies from school to school. Recognition of these schools has been primarily focused on traditional students who attend classrooms in brick-and-mortar locations. However, statistics provided by the Institute of Education Sciences reported that in the fall of 2012 more than 70% of students enrolled in graduate level courses were attending a distance education course (USDE IES, 2014). The influx of distance and online learning has led to concerns over quality measurements in this area of education. In 1999, the USDE recognized the importance of including an institution's distance education (online) policies and procedures. The following year the USDE advised, "...at each review for renewal of recognition, an agency will be expected to demonstrate its evaluation of distance education and/or correspondence education in order to retain distance education and/or correspondence education in its scope of recognition" (Keil, 2014, para. 2).

CHEA (2001) reinforced the need for quality measurement by noting that seventeen of

the nineteen institutional accrediting organizations review standards and guidelines of schools that offer distance-learning programs. In 2006, the USDE Office of Postsecondary Education collaborated with twelve of the accreditation boards to address the following concerns.

1. develop, with the help of accrediting agencies and schools, guidelines or a mutual understanding that would lead to more consistent and thorough assessment of distance education programs including developing evaluative components for holding schools accountable for such outcomes, and
2. if necessary, requesting authority from the Congress to require that accrediting agencies use the guidelines in their accreditation efforts. (USDE Office, 2006, p. 2)

WestEd with Edvance Research, Inc. conducted research for the USDE and provided an evaluation of online learning challenges and strategies for success. The researchers recommended the following evaluation vehicles for assessing quality in higher education online learning.

1. Council for Higher Education Accreditation (CHEA).
2. Quality Matters (QM). QM is a multi-partner project funded in part by the USDE's Fund for the Improvement of Postsecondary Education (FIPSE). QM has created a rubric and process for certifying the quality of online courses.
3. Online Learning Consortium (OLC, formerly Sloan Consortium). The OLC is a consortium of institutions and organizations committed to quality online education. It aims to help learning organizations improve the quality of their programming, and has a report identifying five *pillars* of quality higher education online programs: learning effectiveness, student satisfaction, faculty satisfaction, cost effectiveness, and access. OLC also has a Web site that collects information about best practices within each of these areas. (Weston, 2008, p. 61)

Currently evaluation of online or blended learning programs can be broken down into three categories curricular content, curricular design, and curricular delivery. Further exploration of CHEA, QM, and OLC's standards for online learning measurements indicates the need for additional emphasis in these areas. These organizations are approved and recommended by the

USDE (USDE, 2008). In 2002, CHEA provided a report on Accreditation and Assuring Quality in Distance Learning to include a review of 5,666 institutions with accreditations from seventeen institutional accreditors. Of these institutions, 1,979 offered a forum for distance learning or courses that lead to degree acquisition. CHEA reported the three major challenges of online programs included design of instruction, providers of higher education, and expanded focus on training (CHEA, 2002, p. 2). Additional report findings highlighted that organizations struggle with ensuring the same level of quality exists in online environments comparable to traditional classroom models (CHEA 2002). This portion of the report questioned the overall design of instruction and whether these designs ensured students achieved objectives. Further exploration in this area highlighted and questioned if the design of said programs was in alignment with the quality and standards of the organization. CHEA asked accreditors to provide solutions to ensure that these providers sustain a level of quality commensurate with the standards of each respective organization. A final concern by CHEA highlighted limited training requirements and fast turnaround times for providers in order to meet the demands of the organization. An institution may not have thorough learning activities or training modules to properly equip professors adequately. Additional continuing education to ensure professors are adapting to the rapidly changing online environment creates growing concerns.

The report also included general adoptions of standards by the national and regional accrediting organizations. The results summarized seven questions to ask when evaluating the quality of distance learning:

1. Institutional Mission. Does offering distance learning make sense in this institution?
2. Institutional Organizational Structure. Is the institution suitably structured to offer quality distance learning?
3. Institutional Resources. Does the institution sustain adequate financing to offer quality distance learning?

4. Curriculum and Instruction. Does the institution have appropriate curricula and design of instruction to offer quality distance learning?
5. Faculty Support. Are faculty competent engaged in offering distance learning and do they have adequate resources, facilities, and equipment?
6. Student Support. Do students have needed counseling, advising, equipment, facilities, and instructional materials to pursue distance learning?
7. Student Learning Outcomes. Does the institution routinely evaluate the quality of distance learning based on evidence of student achievement? (CHEA, 2002, p. 7).

CHEA does not perform quality reviews of online programs, blended programs, or individual courses, but instead provides accreditation approval for regional, national, and specialized accreditation agencies. Each institution is responsible for setting individual quality standards for online or blended learning. QM and OLC are the only two USDE approved organizations to review quality standards for online/distance education, but both are optional choices for institutions. Both organizations offer program or course evaluation even if neither are 100% online. In other words, a course can have components of a blended learning format and still request an evaluation from either organization. Neither organization has criteria pertaining to the existence or quality of institutional policies and standards. A table comparing the two can be found in Appendix B.

The major difference between QM and OLC is the focus on which portion of an online or blended program or course is being evaluated. QM only reviews individual course design while OLC reviews the overall program. Both have comparable standards and deliverables to include course design, learning objectives, assessment, materials, activities, technologies, student support, and institutional support. However, the most notable difference is that QM does not provide a faculty support standard or feedback in this area. However, this does not deter other universities from using QM or OLC as a benchmark in providing minimal standards for blended or online programs.

Given the lack of overall institutional guidelines or policies for blended learning formats

and costly reviews by OLC or QM, universities have attempted to create their own rubrics for use with online/blended learning programs. California State University uses the Quality Online Learning and Teaching, which includes nine sections and fifty-four objectives (CSU, 2014). The Illinois Online Network has the QOCI Rubric & Checklist for reviewing six sections and twenty-two subsections (ION, 2010). Michigan Virtual University uses the Guidelines and Model Review Process for Online Courses, which contains five sections and fifty-two standards (MVU, 2013). The Monterey Institute for Technology and Education has developed the Online Course Evaluation Project, which has seven evaluation categories with fifty-two quality markers (MITE, 2015). The Nelson Marlborough Institute of Technology developed the Blended Learning Evaluation Rubric, which involves an eight-section review (Smythe, 2012). The Institute for Higher Education Policy uses Quality on the Line, which includes seven categories with twenty-four benchmarks (Phipps & Merisotis, 2000). Finally, the University of Southern Mississippi Learning Enhancement Center developed the Online Course Development Guide and Rubric, which includes six categories with thirty-five benchmarks (USM, n.d.).

As with QM and OLC, the individual mechanisms pertain to individual courses or programs and do not include guidance institutional policies or standard. The categories and supplemental benchmarks are inconsistent among these schools and do not provide an in-depth understanding of who is evaluating each program or course. Unlike QM and OLC there does not appear to be an unbiased third party completing each assessment. In addition, there does not appear to be a recurring theme to encourage strong institutional policies or guidelines when developing blended learning programs or courses.

Business environments. Parallels to blended learning exist within the business industry, and quality concerns regarding the preparedness of business graduates are a concern for business

degree educators (Cybinski & Forster, 2009). Students opting for business degrees concentrate their studies in areas such as organizational behavior, business policy and strategy, human resources, operations/project management, business communication, international management, entrepreneurship, ethics, and marketing. Benefits students gain from a blended course or program before moving into a specific industry include increased confidence in working in virtual teams, increased learner control of the educational experience, and enhanced dialog skill development (Arbaugh, Desai, Rau, & Sridhar, 2010, p. 40).

Clouse and Evans (2003) agreed that online elements infused into blended learning have a positive effect on learner outcomes, and Walker (2003) suggested that a blended environment helps students assimilate into future workplace situations. However, business educators have perpetuating concerns on how to incorporate technology into virtual learning (Lemak, Shin, Reed, & Montgomery, 2005). This concern could stem from the rapid changes in technology and lack of guidance when creating blended programs/courses. Arbaugh et al., (2010) further highlighted the inconsistency in blended learning across business disciplines. Some conceptual and topical questions are presented below.

- Are there differences between blended management education and online management education?
- What other participant characteristics should we be studying?
- How should we identify discipline-specific differences in online teaching and learning?
- Can we develop cross-disciplinary objective outcome measures? (Arbaugh et al., 2010, pp. 50-51)

These questions and concerns echo similar sentiment from the Arbaugh et al. (2009) publication, *Research in Online and Blended Learning in the Business Disciplines: Key Findings and Possible Future Directions*. Arbaugh's et al. (2009) main concern was over the rate of progress among business disciplines, the inconsistency in research, and the lack of discipline-

specific theories and untested conceptual frameworks results in inconsistent measures and results (2009, p. 71). Adding to the concern over quality, Perreault, Waldman, Alexander, and Zhao (2002) added, “the fact that most professors who teach online at AACSB International-accredited business schools are self-trained suggests that instructors have been relatively under-studied participants in online and blended business education” (as cited in Arbaugh et al., 2009, p. 80). The emphasis on inconsistency in blended learning ranging from quality concerns to self-taught professors further supports the need for consistency among institutional policies and standards.

Analysis of Supporting Theories

The question does not persist *if* or *should* education progress toward a blended format, but instead what methods or format should accompany this paradigm shift. The research shows the influence of technology has forced educators to adapt quickly with varying frameworks.

Research suggests that the foundation of blended learning is predicated on the unity of public and private worlds, information and knowledge, discourse and reflection, control and responsibility, and processes with learning outcomes (Garrison et al., 2008). The original Community of Inquiry (COI) MODEL was updated in 2015 and now represents the cohesive educational experience of the modern business student (Garrison et al., 2008).

The COI model is a framework for standards in the educational experience and the Complex Adaptive Blended Learning System (CABLS) Model adds granularity to the model by focusing on an institution’s strategy, support, service, and infrastructure (Garrison et al., 2008; Wang et al., 2015). The models compliment, enhance, or overlap one another to form a strong framework for blended learning models. According to Wang et al. (2015), the institution is a critical component to be addressed.

Including the institution as a subsystem in the framework elevates blended learning from the course level to the institutional level. In order to sustain blended learning, support

mechanisms should be provided at an institutional level and can include strategies, policies, support [sic] and service (Graham et al., 2013). These mechanisms are interrelated and informed by, the learner, the teacher, the technology, the content [sic], and the learning support. In turn, the institution becomes a major driving force behind the development of the subsystems around it. In summary, the emphasis on the interdependency and dynamic interaction between the subsystems clearly marks the difference between the CABLS framework and the existing blended learning models. (p. 384)

The CABLS Model further justifies the need for blended learning design to begin at the institutional level, and this benchmark should influence the design, policies, and support when creating new programs/courses. Wang et al. (2015) highlighted the growing concern over the lack of research regarding institutional involvement and influence by reviewing all research covering blended learning between 2013 and 2015. The results of this study demonstrated the percentage of which areas receive the most attention regarding blended learning: learner 95%, teacher 32%, content 79%, technology 54%, learning support 15%, and institution 17% (Wang et al., 2015, p. 385).

The lack of institutional support/focus suggests that growing concerns over quality and consistency begin at the top and influence all aspects of blended learning design. According to Graham et al. (2013), the need for a more robust framework for this mode of delivery begins with transitioning blended learning from simple interest to overall institutionalization (p. 13). The authors further identified that institutions of higher education have implemented differing degrees of blended learning policies and offer the following set of stages (constructs) as a recommendation in promoting consistency.

- Stage 1, awareness/exploration, is characterized by an institutional awareness of and limited support for individual faculty exploring ways in which they may employ BL techniques in their classes;
- Stage 2, adoption/early implementation, is characterized by institutional adoption of BL strategy and experimentation with new policies and practices to support its implementation.

- Stage 3, mature implementation/growth, is characterized by well-established BL strategies, structure, and support that are integral to university operations. (Graham et al., 2013, p. 13)

Each stage is then further broken down for closer examination in the areas of strategy, structure, and support. In stage one during awareness and exploration, the strategy stage involves the gathering of knowledge and ideas of faculty and administrators regarding blended learning programs (Graham et al., 2013, p. 14). The structure stage involves identifying any formal structure created by the institution to guide creation and development. The support stage explores if faculty has access to varying technical and pedagogical support (p. 15).

In stage two during adoption and early implementation, the strategy step involves reviewing strategic reasoning related to institutional expansion and access while emphasizing improved learning for students. The structure stage begins the analysis to determine if the governance structures align with the academic governance structures. The final step of support expands on Stage One by incorporating staff development and incentives (pp. 18-20).

During the final stage of mature implementation and growth, “institutions in the mature implementation and growth stage feature a long-established BL definition, advocacy, implementation process, policy and purpose” (Graham et al., 2013, p. 20). The structure stage should reflect robust structures that facilitate steady growth and institutionalization of blended learning on a campus, and the support stage provides evidence of well-established technological support (pp. 22-24).

Building on the research of Graham et al. (2013), VanDerLinden (2014) expressed concern over blended learning in the following categories.

- Definition: failing to define blended learning reduces the idea to the broadest understanding and is open to interpretation, and the absence undermines important distinctions. (p. 75)

- Unification: examining how an institution creates a unified approach to create a cohesive and meaningful approach to transforming student learning. (p. 76)
- Strategic Approach: strategy clarifies purpose and priorities, mobilizes motivation and resources, and sets directions for the future. (p. 76)

VanDerLinden (2014) further advocated for blended learning by stating, “the implementation of blended learning at colleges and universities needs to be positioned as an institutional strategy that can result in organizational learning” (p. 83). The push for an institutional effort to approach blended learning, as a strategy is further explored using the following questions.

- Has your institution provided a definition of blended learning that is widely known and disseminated?
- What is the rationale for blended learning at your institution? Is the rationale clear and included in the definition? Why is blended learning a priority at your institution?
- Is the rationale for blended learning and message framed consistently by leadership, administrators, and faculty—from the president to instructional designers to department chairs?
- What processes, structures, and support exist at the institution for blended learning? Who is the “change champion” for blended learning?
- What success stories exist in single courses and how does that success translate to institutional success?
- How will the institution know when blended learning is working—not just on a course-by-course basis but as an institution? How will the institution assess the impact of blended learning on the institution? (VanDerLinden, 2014, p. 83).

Through the exploration of these concerns and questions and the work of Graham et al. (2013), the third stage now includes measurements to gauge progress and ensures continuous growth (VanDerLinden, 2014, p. 77). The focus on these stages and a need for institutional involvement sets the framework for examining blended learning within the institution portion of the CABLS model. This research incorporates the focus on the institution portion to determine whether accredited business schools are examining strategy, support, service, and infrastructure and whether there is a consistent framework for blended learning models.

Related Research

A search for blended learning studies from 2006-2015 using UIW Primo Search tools ABI/Inform, EBSCOHost, ProQuest, LEXISNEXIS Academic, and Google Scholar was conducted based on key words: blended learning challenges, effectiveness, experiences, quality, student/faculty feedback, evaluation, design (conceptual framework/implementation), and assessment. Difficulties arose when attempting to locate specific empirical blended learning studies due to the newness of this mode of delivery. Many current research studies are centered on pedagogy, theoretical frameworks, mode delivery justification, strategy, design, and policy/practice. Unsurprisingly, research before 2006 that is specific to blended learning is minimal or nonexistent. In addition, research provided before this timeframe may not be reflective of rapid changes in technology.

To help understand the newness of blended learning research a baseline must be established to explain the challenges that lie ahead. A study by Allen and Seaman (2013) over a 10-year period helps confirm that blended learning is growing but pinpoint universally adopted solutions remains difficult. The study conducted from 2002-2012 was time relevant considering that the early 2000s introduced DSL cables and high-speed Internet that ushered options for online learning (Dziuban & Picciano, 2015). During this time, approximately 6.7 million students were engaged in some form of online/blended learning, which reflected a 9.3% growth rate and overall student enrollment rate of 32% (p. 4). The research team sampled 4,527 institutions and received 2,820 responses that provided a glimpse into the challenges and concerns with online/hybrid/blended learning. Some of these concerns included: quality of learning outcomes, time constraints on faculty, lack of discipline for students, low retention rates, and lack of acceptance by employers regarding students who participated in this mode of

delivery (p. 6). Consequently, the rapid growth in this area introduced additional concerns with overall strategy, design, and collaboration.

Synchronous versus asynchronous approaches. Researchers have long hypothesized there should be design differences between residential and distance learning (Park & Bonk, 2007). The evidence to support similarities and/or differences is reflected in Park and Bonk (2007) qualitative study that included eight graduate students of which four were residential and four were learning at a distance. The study examined the perceived benefits and challenges of synchronous interaction and if there was a difference between the two modes of delivery. Results showed that the students valued spontaneous feedback, meaningful interactions, multiple perspectives, instructor support and were mostly concerned about time constraints, lack of reflection, language barriers, tool-related problems, and network connection issues regardless of residential or distance learning (p. 245).

A similar study by Kennegwe and Kang (2013) focused on benefits of synchronous learning, support and diverse perspectives, social presence, structural/teacher assistance and preparedness, learning strategies, activity system analysis, and tools for integration. The research team conducted a comprehensive search of blended learning issues using ScienceDirect, ProQuest, ERIC, and Google Scholar and extracted forty-four peer-reviewed studies (Kennegwe & Kang, 2013, p. 481). From the forty-four studies only twenty-three empirical studies were selected thus eliminating the remaining 21 non-empirical studies. The researchers were able to cross-analyze these studies and synthesize emerging issues with blended learning. Concerns included lack of rigorous conceptual framework, effectiveness of teacher preparedness and executive, and lack of rules/enforcement of distance learning.

Park and Bonk (2007), and Kennegwe and Kang (2013) both observed the lack of

differentiating strategies for residential versus online/blended learning. The review of both studies confirmed the suspicion that blended learning models were being created using the same traditional classroom rules and did not provide an adequate framework to address this new preference in learning though difference strategies are applicable (Kennegwe & Kang, 2013; Means et al. 2009; Park & Bonk, 2007).

Collaboration concerns. Additional research described the need for students and professors to have well-balanced experiences with both online/blended environments and quality face-to-face interactions. Acknowledgment of this preference by educators seeking to design blended learning programs identified key challenges such as: student communication, support, and proper assessment of the course quality (Stubb, Martin, & Endlar, 2006). The students valued meaningful interactions through faculty support (Park & Bonk, 2007). Ginns and Ellis (2009) who evaluated 3209 responses from a Student Course Experience Questionnaire (SCEQ) confirmed additional support for student/teacher collaboration was needed. In this study, undergraduate student responses to the SCEQ described the need for a holistic experience that included meaningful face-to-face time with their instructors. Jagers and Xu (2013) survey study involving 678 student responses from twenty-three courses through two community colleges contends that interpersonal interactions between students and faculty drive meaningful outcomes and should be incorporated. Consequently, students view collaborative learning as a critical factor that is driven by the need to bridge the gap between psychological distance and social interaction (Güzer and Caner, 2014). Thus while technology is the main driver for this preference of learning, it does not replace the need for human-to-human collaboration and social interconnectedness.

Design and model concerns. In recent experimental and quasi-experimental studies

contrasting blends of online and face-to-face instruction with conventional face-to-face classes, blended instruction is more effective, providing a rationale for the effort required to design and implement blended approaches (Means et al., 2010, p. 20). One of the most powerful inferences from current research highlights BL design issues that should include a standard framework and clear guidelines, and a rigorous conceptual framework to guide alignment of BL course components (Kennegwe & Kang, 2013; Owens, 2012).

A two-year case study involving cohorts of approximately 200 undergraduate business students described key challenges around BL learner-centered design models (Stubbs, Marin, & Endlar, 2006). The researchers uncovered concerns about designing an appropriate framework around content, communication, and construction. Without addressing these core issues student-learning outcomes are impacted.

Additionally, BL lacks a coherent body of linked studies that systematically tests theory-based approaches in different contexts (Means et al., 2009). McGee and Reis (2012) conducted a qualitative meta-analysis and examined sixty-seven narratives to determine commonalities across expressed practices. The results highlighted a need for clearly vetted models, consistent best practice guides, effective course design/practices, and strategy/integration alignment across institutional systems (McGee & Reis, 2012). In 2012, Owens echoed these concerns in a survey conducted across fifty-four higher education institutions and 529 lecturer responses. The lecturers main concerns were over alignment of pedagogical design that drive BL teaching practices.

These results demonstrate a lack of institutional policies that govern the design of blended learning models. Current research does not necessarily address this top-down issue but has instead focused on the outcomes of blended learning programs.

Quality concerns. Bath (2011) stated “good practice in blended learning doesn’t necessarily mean adopting a wide range of technologies...it can mean simply using a few tools, but in effective ways in order to achieve quality” (p. 5). While universities have attempted to establish measurable quality standards, little empirical evidence exists that report a clear link between aspects of course quality and concrete student-level course outcomes (Jaggers & Xu, 2013). Organizations such as QM and OLC attempt to assist universities with addressing individual quality concerns using robust techniques that review courses/programs but universal adopted standards do not currently exist (Kleen & Soule, 2010, p. 153). A survey administered to fifty graduate students believed that using the QM rubric helped guide quality in BL/distance courses, but that inconsistencies existed among learning objectives and activities that may negatively influence learning outcomes (Kleen & Soule, 2010).

As researchers target challenges surrounding blended learning, common themes begin to emerge around strategy differentiation between traditional and online/blended learning formats, collaboration (social presences), design and model structure, and quality standards. Additional areas of improvement include institutional alignment, professor or lecturer preparedness and development, student/professor reflection, and assessment in student learning outcomes

The results of current research studies suggest a primary issue may exist due to the lack of institutionalization of blended learning formats. Perhaps, it may be that the absence of a universally adopted framework to establish standards and guidelines is the precursor to institutionalization. Adding to these concerns, the lack of quality standards makes it challenging to achieve institutional alignment for blended learning outcomes. Universities and professors agree that adoption of blended learning formats is critical to long-term sustainability in higher education, but few can agree on which principles should be adopted to determine a successful

program (Allen, 2013).

Furthermore, BL quality concerns are a relatively new topic brought to light in the early 2000s. Due to the newness of this subject, providing uniformed research does not currently exist. Robust, uniformed research is limited. As stated earlier most data collection instruments provide feedback based on a student or professor's perception of a course or program or specific facets of the course design, but does not provide evidence to support quality standard comparisons. As education shifts from traditional brick-and-mortar settings to blended learning formats, the literature suggests the main concern are about consistency in defining blended learning, consistency in quality standards, and lack of institutional guidance or policies for blended learning programs/courses.

Carmen (2005) stated, "there is not, and probably never will be, one unified General Theory of Adult Learning that will solve all our problems" (p. 8), and Marc Rosenberg argued, "the question is not if we should blend...rather the question is; what are the ingredients?" (Bonk & Graham, 2012, p. 13). Garrison et al. (2008) predicted this shift, "senior administrators have begun to recognize blended learning as the most viable means to address this challenge with finite resources...the new era in higher education is a continuous and progressive state of transformation. Blended learning is an important and timely approach to teaching and learning in higher education" (pp. 153-154).

Methodological Approach

This study used a data collection instrument based on Graham's et al. (2013) qualitative study on Blended Learning Adoption Frameworks (BLAF) and blended learning constructs Stage 1-awareness/exploration, Stage 2-adoption/early implementation, and Stage 3mature implementation/growth. Within each stage, the variables strategy, structure, and support help

determine a university's blended learning framework maturity. The data collection instrument was comprised of six sections, seventeen questions, and fifty-three statements that attempt to answer the research questions. The fifty-three statements were divided between strategy (fifteen statements), structure (twenty-one statements), and structure (seventeen statements).

This approach was chosen based on three theories that influenced the BLAF matrix: Organizational Change Theory (Markus & Robey, 1988), Diffusion of Innovation Theory (Rogers, 2003), and Incentive Theory (Ellingsen, 2008). VanDerLinden (2014) observed that elements of Organizational Change Theory are specific to Graham's et al. (2013) BLAF strategy stage through mobilization, implementation, and institutionalization of concepts and ideas. The strategy stage includes purpose, advocacy, implementation, definition, and policy (Graham et al., 2013). Within the implementation stage, a university is able to institutionalize a BL model by encouraging faculty and administrators to formally advocate the course or program. As the theory suggested change within an organization must begin with the top-down and create a call to action by mobilizing and implementing the preferred change.

The Diffusion of Innovation (DoI) theory was first observed in 1903 and focuses on the adoption of technology through various levels of users (Rogers, 2003). This theory has five categories of adopters ranging from innovators to laggards that may affect blended learning creation during the initial stages of planning (Kaminski, 2011). Similar to Organizational Change Theory, Diffusion of Innovation Theory is linked to the BLAF through the strategy stage but also the structure stage. The structure stage includes governance, models, scheduling, and evaluation (Graham et al., 2012). The introduction of newer technologies is paramount in the use of online technology for students and faculty. As the DoI suggests if either party is unwilling to adapt to these new uses this may affect blended learning creation and outcomes may be impacted. Merz

(2016) Blended Learning process and interactive environment supports the need for structure evaluation when laying the foundation for BL models. The evaluation outputs include learner achievement, learner attitudes, learner skills, and tutor performance and skills (Merz, 2016). VanDerLinden (2014) observation of Incentive Theory directly correlates with the BLAF's support variable. While technology concerns may affect faculty that are teaching blended learning programs, a larger challenge for faculty is lack of time, support, or incentives. The Incentive Theory in its simplest form describes how an individual's contribution or performance for a given task is highly influenced by incentives only (Ellingsen & Johannesson, 2008).

Chapter 3: Research Methodology

Overall Approach and Rationale

This descriptive study utilized a data collection instrument to describe the maturity of blended learning frameworks in the US. The survey measurement items were derived from the Graham et al. (2013) blended learning adoption framework (BLAF), which emerged from a 2012 qualitative study involving six institutions and interview protocol consisting of seventy-five questions (see Appendix C). The responses were analyzed for cross cutting themes and variations. Utilizing those themes, Graham et al. (2013) created the BLAF and recommended that institutions use the matrix to determine the maturity of their blended learning practices (p. 7). The purpose of the study was to guide institutions that have or will adopted blended learning platforms by providing a framework that focuses on strategic institutional policy and adoption issues.

A quantitative approach was chosen based on Creswell's (2012) guidance in determining best fit for the research instrument:

1. Step 1: Quantitative Research Design
2. Step 2: Non-Intervention Research
3. Step 3: Describing trends for a population of people
4. Step 4: Survey Research Instrument (p. 20)

Supporting the survey instrument approach, Sekaran and Bougie (2012) stated, "The survey strategy is very popular in business research, because it allows the researcher to collect quantitative and qualitative data on many types of research questions. Indeed surveys are used in exploratory, descriptive, and in casual research to collect data about people, events, or situations," (p. 102). A descriptive approach is appropriate for this study because the data sought

forms the basis for an attempt to describe or define a subject, often by creating a profile of a group or problems, people or events (Cooper & Schindler, 2008). According to Glass and Hopkins (1984) using this approach helps organize, tabulate, depict, and describe the data collection. Through a quantitative description approach, the researcher attempts to aggregate blended learning institutional policies and standards that help maintain consistent student learning outcomes from accredited business schools.

Research Questions

The purpose of this study was to determine (a) whether accredited business programs include blended learning courses or programs, and (b) whether accredited business programs that have blended learning courses or programs have standards or guidance related to blended learning based on Graham's et al. (2013) three stages in the adoption of blended learning based on:

1. Strategic maturity of blended learning frameworks,
2. Structural maturity of blended learning frameworks, and
3. Support maturity of blended learning frameworks

Participants

Creswell (2012) describes the setting of a research study as, "the setting or context, in which the individual experiences the central phenomenon" (p. 512). The settings for this research study are U.S. business schools accredited by the AACSB or ACBSP. Using a data collection instrument approach allowed the business school contact (determined by information provided through the AACSB and ACBSP website) to complete the data collection instrument from a personal computer, laptop, or mobile device.

Creswell (2012) stresses the importance of sampling size based on the characteristics of

the population surveyed. A general rule of recommendation is to select as large a sample as possible from the population (p. 146). Furthermore, Creswell (2012) estimated an educational researcher should use the following guidelines in survey research:

- Approximately 15 participants in each group in an experiment;
- Approximately 30 participants for a correlational study that relates variables;
- Approximately 350 individuals for a survey study, but this size will vary depending on several factors. (p. 146)

Sekaran and Bougie (2012) recommended a sample size larger than thirty and less than 500 to avoid Type II errors. Using this guidance only accrediting bodies that has been in existence for twenty-five or more years were used in this study. Based on these criteria, only AACSB and ACBSP accredited institutions were included in the data collection instrument. The final sample parameter was restriction to U.S. accredited institutions. By utilizing these guidelines and search tools from each organization's public search tools, as of April 16, 2016, the total number of universities surveyed included 495 AACSB business programs (excluding accounting) and 319 ACBSP business programs.

- AACSB U.S. Accredited Business Programs (excluding Accounting) = 495
- ACBSP U.S. Accredited Business Programs (excluding Accounting) = 319

A non-parametric approach was taken for this study and the data collection instrument were sent to all 814 accredited institutions to determine if they had blended learning courses and/or programs, and what institutional policies or guidelines were used in establishing this mode of delivery.

Research Instruments

The data collection instrument was administered through Survey Monkey from

September 1 thru October 1, 2016. The data collection instrument was an online survey and no interviews by phone or at a physical location took place. The initial survey was sent from the researcher's home computer through Survey Monkey and allowed the email to reflect its origin from the provided UIW student account: aaduarte@student.uiwtx.edu. A link inside of the email created by Survey Monkey allowed the user to participate and would not allow for duplicate responses.

Initially, the researcher contacted the AACSB and ACBSP Presidents requesting they send the data collection instrument to institutions accredited by their organizations (Appendix I). The email requests were sent on September 1, 2016, and a reminder email was sent approximately one week later. Both entities replied but referred the researcher to non-responsive or non-existent research departments. Due to the lack of participation, the researcher contacted each organization on September 15, 2016 thanking them for their initial interest and advising the data collection instrument would be gathered in another manner. On September 15, 2016 the researcher emailed 814 institutions based on the guidelines above (Appendix J). A reminder email was sent September 15, 2016, and a final email requesting survey participation by October 1, 2016 was sent on September 25, 2016. The data collection instrument was promptly closed on October 1, 2016.

In addition to a Mac laptop, the following software was used in data collection, analysis, and writing of the dissertation: Microsoft Excel, Microsoft Word, and SPSS. All equipment and software is password protected and only the researcher knows the password. SurveyMonkey was encrypted and no IP addresses or identifying information was collected. The technology and any related files are retained at the researcher's home address and are not accessible by any other individual.

The data collection instrument consisted of six sections and seventeen questions. The first section included descriptive questions that identify accreditation, type of institution, student population, types of degrees offered, inclusion of blended learning courses or programs, and the maturity of implementation of blended learning courses or programs. Sections two and three reviewed blended learning structure, strategy, support, and professor preparedness. The final section of the data collection instrument allowed the respondent to provide their institutions current policies/standards on blended learning where all personal identifiable information will be removed. The seventeen questions attempted to identify to which extent each institution has adopted institutional polices or guidelines based on Graham et al. (2013) BLAF.

Protection of Human Subjects: Ethical Considerations

Before the implementation of the research, approval was obtained from the University of the Incarnate Word Institutional Review Board (Appendix G). This researcher is certified through CITI Training, and carefully followed the guidelines of 45 CFR 46 from the US Department of Health and Human Services. Confidentiality was protected throughout the research. An informed consent stating participation was strictly voluntary was included in data collection (Appendix H). Participants were not identified by name or by demographic data collected.

Participation in this study was strictly voluntary and each participant was asked to electronically consent before participation. The consent form included an explanation of the purpose and benefits of the study and the role and time commitment of the participants. Individuals had the opportunity to ask questions to assure their understanding of the information. Participants were assured their decision to participate or not in this study would not affect their professional status. Complete anonymity was maintained. Names do not appear in any data

collected, and participants cannot be identified from what demographic data was collected. The data collection instrument was collected through Survey Monkey and did not include any audiovisual equipment. Only the researcher analyzed all data gathered from the surveys. After completion of the study all data will be destroyed. If this study is published, only group data will be used. There were no physical risks or expense related to participating in this study. Completing the data collection instrument was not stressful to the participants, and the participants were free to stop taking part in the study at any time.

Data Collection and Analysis

Using a web-based questionnaire allows the flexibility and speed of the Internet while allowing the researcher to design, gather, and analyze information quickly (Creswell, 2012). Creswell (2012) also identifies eight steps when determining the best usage of survey research (p. 403-404).

Step One. Decide if a Survey is the Best Design to Use. Surveys help describe the trends in a population, or describe the relationship among variables or compare groups. Additional advantages include reaching a geographically dispersed population, economical benefit, and may evaluate the success or effectiveness of programs. Using this approach allows the researcher to contact over 800 institutions in varying parts of the United States in a short amount of time.

Step Two. Identify the Research Questions. Using a survey to identify the research questions allows the researcher to describe the characteristics or trends of a population of people and compare groups. Only schools with AACSB or ACBSP business accreditation were solicited for this survey. This allows the researcher to make side-by-side comparisons based on accreditation. Seventeen questions in six sections were used in the data collection instrument.

Step Three. Identify the Population. The population was identified based on business

accreditation and allowed the researcher to define a specific sample size. Using search tools through the AACSB and ACBSP websites, approximately 814 institutions were included in this study.

Step Four. Determine the Survey Design. The data collection instrument design was based on Graham's (2013) three stages of adoption and implementation institutional guidance for blended learning formats. Seventeen questions are divided into four sections and administered through Survey Monkey.

Step Five. Develop and Instrument. A data collection instrument was developed by the researcher to collect the necessary data for this study. Current research did not provide an existing instrument of study.

Step Six. Administer the Instrument. The data collection instrument was administered through Survey Monkey and sent to business accredited institutions. An initial email was sent to the Presidents of the AACSB and ACBSP requesting they forward the email request to their accredited business schools (Appendix I). The Presidents were unable to assist with the initial request and 814 institutions were contacted (Appendix J). As of April 16, 2016, the following total number of institutions was included in the collection instrument request:

AACSB U.S. Accredited Business Programs (excluding Accounting) = 495

ACBSP U.S. Accredited Business Programs (excluding Accounting) = 319

Step Seven. Analyze the Data. Using SPSS tools the data collected was aggregated to provide similarities and consensus in blended learning institutional adoption and implementation.

Step Eight. Write the Report. The results of this study are provided in chapter four under *results*.

Cooper and Schindler (2011) advised that content analysis might be used in survey

studies and focuses on the outcomes of survey questions that included open-ended questions. The first step in analysis requires the selected audience to answer the research question and the results can then be categorized (p. 424).

The next step is using statistical analysis using SPSS to determine the correct interpretation of the data and this step is critical when analyzing the results (Sekaran & Bougie, 2013). Creswell (2012) stated, “These analysis consist of breaking down the data into parts to answer the research questions. Statistical procedures such as comparing groups or relating scores for individual provide information to address the research questions or hypothesis,” (p. 15).

The final step in data analysis includes interpreting the data. Sekaran and Bougie (2013) recommended a seven-step process in the hypothetico-deductive method and step seven is the interpretation of the data. During this step, the researcher determined how the results answer the research questions. Creswell (2012) advised the researcher must make sense of the information by ‘taking the data apart’ (p. 10). This involved drawing conclusions, representing the data in tables, using pictures to summarize information, and explaining conclusions in words.

Risk Analysis

Participants were asked demographic information regarding institution accreditation, institutional type, role at the institution, business program accreditation clarification, year of accreditation, types of degrees offered, student population, and types of courses/programs offered in a blended/hybrid format in the first part of the survey. The remainder of the survey asks questions surrounding Graham et al. (2013) stages of blended learning adoption and implementation. The questions included yes and no. The final question of the survey asked the participant if they are willing to share their institutional policies or standards regarding blended learning programs/courses. There was no risk involved, and no frequency or severity of risks. If

the participant felt uncomfortable about answering questions, they were allowed to stop at any moment of the survey. To minimize any possible level of risk, the researcher reminded participants they are free to exit at any point of the survey, and that their identity will be protected during the study, and after the findings are published.

Chapter 4: Results

Data Collection Process

The purpose of this study was to describe the current blended learning environment in accredited U.S. business schools and to determine the maturity of the blended learning frameworks in those schools using the blended learning adoption framework (BLAF) matrix developed by Graham, et al. (2013). The purpose of the study was not to measure the quality of blended learning frameworks adopted by accredited U.S. business schools.

The quantitative data collection was accomplished using an instrument based on the BLAF, which emerged from a 2012 qualitative study involving six institutions and 75 interview questions (Graham et al., 2013). Based on the BLAF, the data collection instrument for this study included 17 questions with 53 measurement items divided among demographics, adoption and implementation, structure, blended learning options, policies and performance standards, and the extent to which various aspects of blended learning were covered by institutionally adopted policies and performance standards (Appendix H). These six sections of the data collection instrument related to the research questions as follows.

1. Demographics. What is the status of blended learning in U.S. accredited business programs?
2. Adoption and implementation. What is the level of strategic maturity of blended learning frameworks in U.S. accredited business programs?
3. Structure, blended learning options, and policies and performance standards. What is the level of structural maturity of blended learning frameworks in U.S. accredited business programs?

4. Institutionally adopted policies and performance standards. What is the level of support maturity of blended learning frameworks in U.S. accredited business programs?

Response Rate

The survey was sent to 814 AACSB and ACBSP accredited business schools administered electronically via SurveyMonkey from September 1 through October 1, 2016. An initial email was sent to the AACSB and ACBSP Presidents requesting the data collection instrument be shared with currently accredited business school deans (Appendix I). After approximately two weeks of unacknowledged emails and telephone calls, the researcher sent a thank you email to both Presidents and advised alternative means of contacting participants would be utilized. The researcher then individually contacted each of the 814 business schools (Appendix J) via email on September 15, 2016, with a reminder email sent September 19, and a final reminder sent September 25, 2016. The SurveyMonkey protocol did not allow for duplicate responses from the same IP address or email to prevent respondents from participating more than once. The survey was promptly closed on October 1, 2016. At the end of the four-week period, 446 responses were received (Table 3).

Table 3

Response Rates

Description	<i>n</i>	Percentage
Consented to Participate	379	47%
Declined to Participate	21	3%
Non-deliverable	27	3%
Opted Out	19	2%
Non-response	368	45%

The total response rate was 55% based on the 446 responses, and the percentage included

declines, non-deliverables, and opt-outs. According to Babbie (1990), it is acceptable to not count against oneself sample members that were unreachable, and a response rate of at least 50% is generally considered adequate for analysis and reporting (pp. 182-183).

What is the status of blended learning in U.S. business accredited programs? After scrubbing the data to remove declines and opt-outs, 379 responses remained. Due to excessive missing data, additional cases were removed, reducing the usable number of responses to 227. The following figures and tables illustrate institution regional accreditation (Table 4), institutional type (Figure 6), role of respondent (Figure 7), and business program accreditation (Figure 8).

Table 4

Regional Accreditation (n = 227)

Regional Accreditation	<i>n</i>	Percentage
Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)	72	32%
Middle States Commission on Higher Education (MSCHE)	43	19%
Western Association of Schools and Colleges, Senior College and University Commission (WASCSCUC)	32	14%
North Central Association of Colleges and Schools, Higher Learning Commission (NCACS-HLC)	32	14%
New England Association of Schools and Colleges, Senior College and University Commission (NEASC-SCUC)	24	11%
Northwest Commission on Colleges and Universities (NCCU)	18	8%
Other	6	2%

The majority of the respondents were affiliated with the SACSCOC, the MSCHE, the WASCSCUC, and the NCACS-HLC.

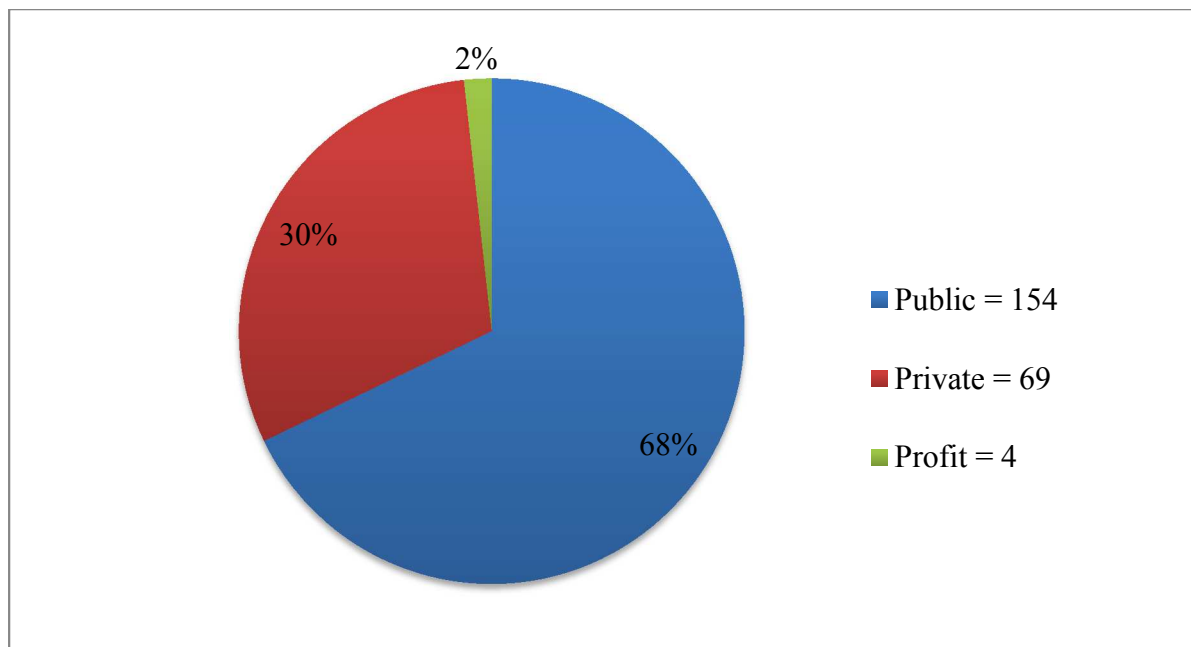


Figure 6. Institutional type ($n = 227$).

As indicated in Figure 6, the majority of respondents were from public institutions.

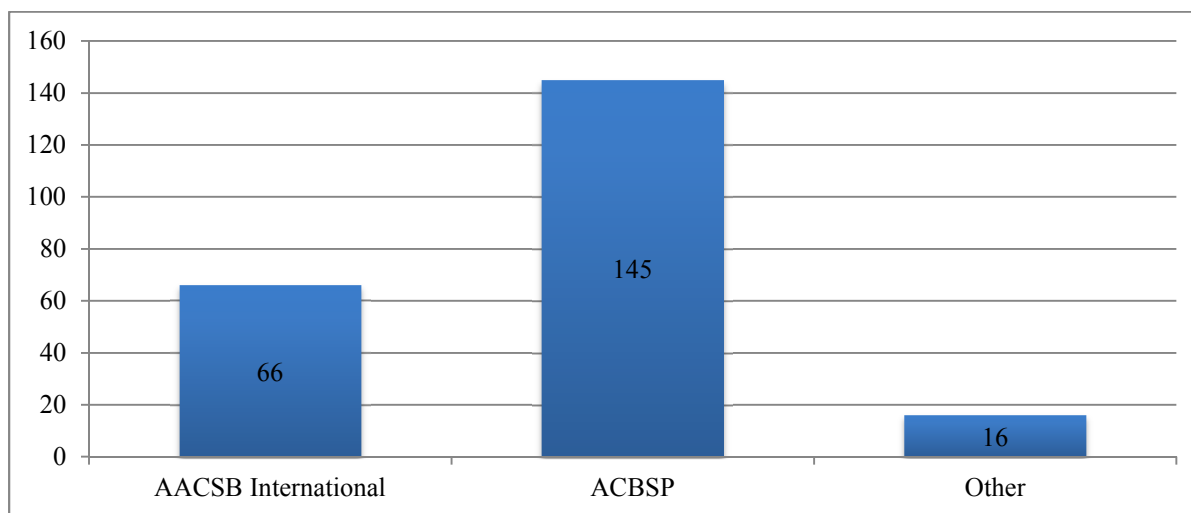


Figure 7. Institution business accreditation ($n = 227$).

AACSB accredited schools represented 60% of the total potential participants. However, as can be seen in Figure 7, more ACBSP institutions responded than did AACSB. Additionally, 16 respondents reported *other* which may be explained by the fact that individuals other than the dean completed the data collection instrument.

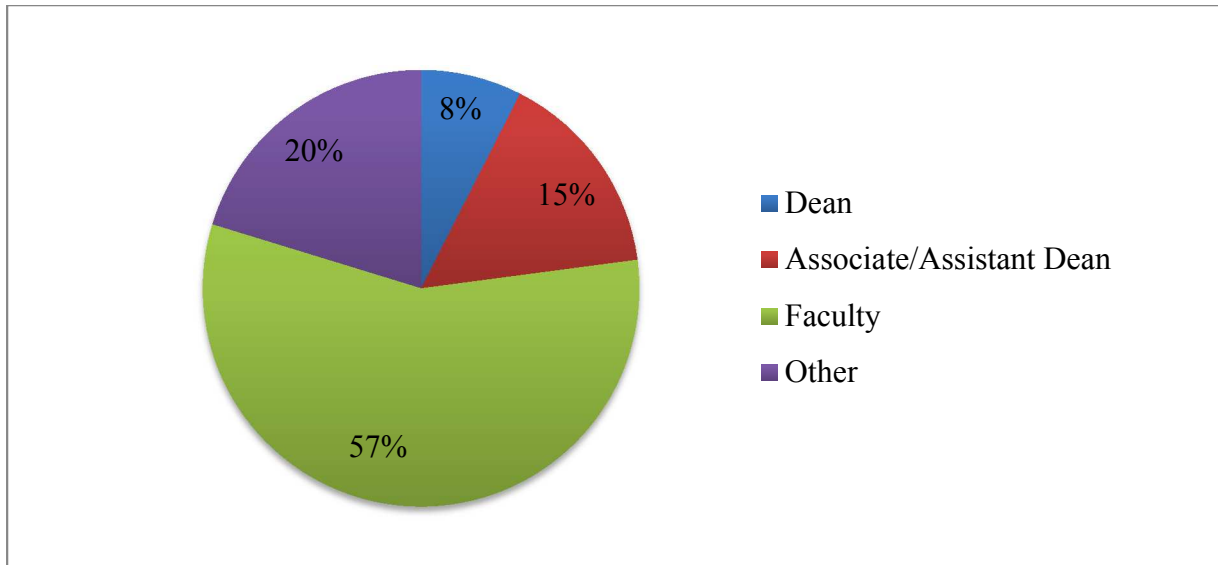


Figure 8. Role at Institution (n = 227).

The 20% of respondents represented by *other* included secretaries, students, and adjuncts. Therefore, it is difficult to determine whether these respondents had the requisite knowledge to complete the data collection instrument accurately.

The data collection instrument included measurement items for degrees offered and student enrollment totals. Sixteen combinations of degrees were available, however, respondents only identified ten combinations (Figure 9). The following abbreviations will be used throughout the remainder of this research to identify levels and combinations of degrees.

1. AD=Associate Degree
2. BD=Bachelor Degree
3. MD=Master's Degree
4. DD=Doctoral Degree
5. AD/BD/MD/DD=All levels of degrees
6. All other combinations

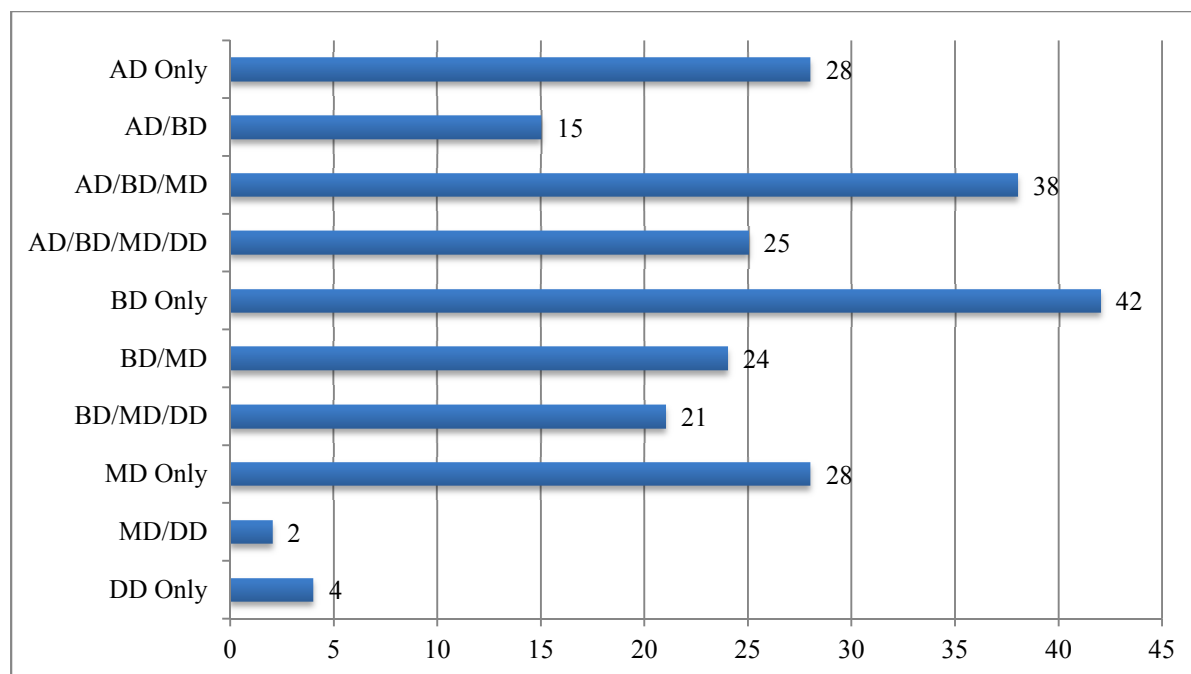


Figure 9. Business Degree Offered at AACSB & ACBSP Accredited Institutions ($n = 227$).

Figure 9 reveals the ten combinations of degree levels offered by respondents. To analyze the data in a more manageable way, the ten combinations were reclassified into six groups—AD only (28), BD only (42), MD only (28), DD only (4), AD/BD/MD/DD combinations (25), and all other degree combinations (100).

As can be seen in Figure 10 below, BD programs reported the highest numbers in each of the categories above less than 100. This is consistent with postsecondary education enrollment in general (IES NES, 2014). AD, MD, and DD programs reported the highest enrollment numbers in the lowest category (less than 100).

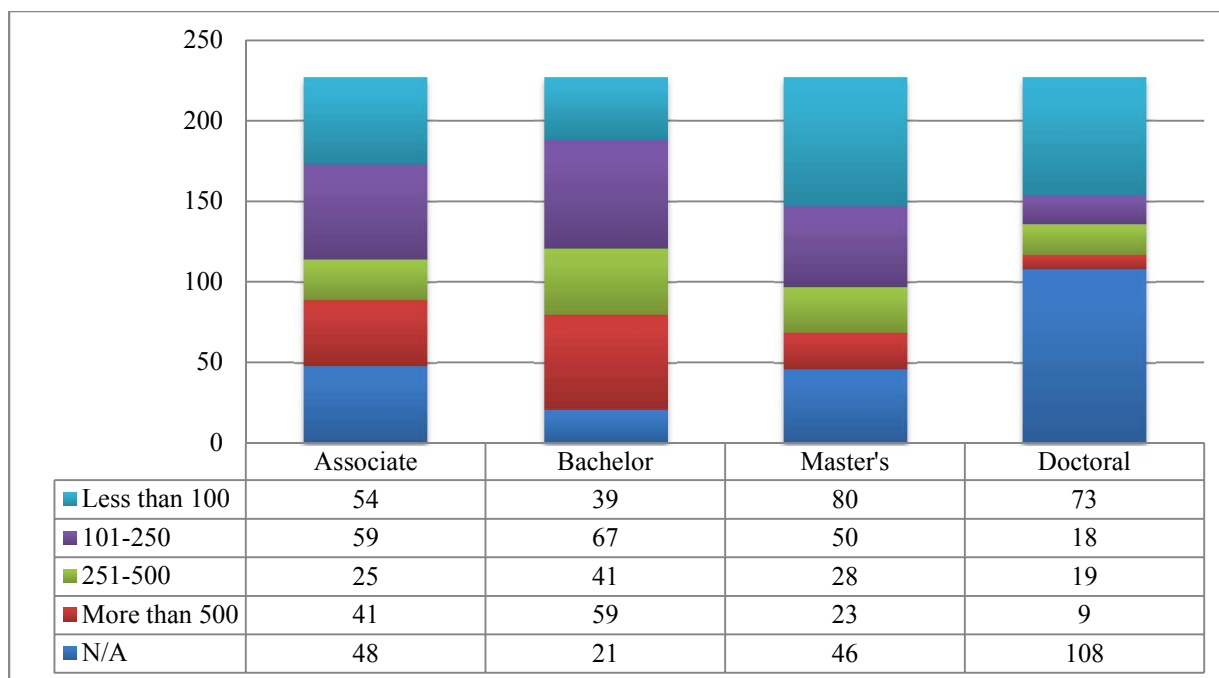


Figure 10. Business Degree Student Enrollment for the 2015-2016 Academic Year ($n = 227$).

Table 5 presents an overview of blended learning options currently offered by AACSB and ACBSP accredited business programs in the six categories utilized for this study. The disaggregated results can be found in Table 6 in Appendix K.

Table 5

Business Program Blended Learning Options (n=227)

Degree(s) Offered	Individual Courses	Entire Programs	Strategic Plan Component
AD Only	50	14	24
BD Only	27	49	27
MD Only	11	22	29
DD Only	2	6	6
AD/BD/MD/DD	23	14	21
All Other Combinations	111	105	100
Missing	3	11	20
Total	227	227	227

All six categories of degree levels report BL options as individual courses, entire degree programs, or as part of the strategic plan. BD programs show the highest occurrence of BL

programs.

Table 7 represents the level of maturity for each of the aforementioned degree programs.

Disaggregated results can be found in Appendix L, Table 8.

Table 7

Maturity of Blended Learning Implementation (n = 227)

Degree(s) Offered	< 1 Year	2 nd Year	> 2 Years	Fully Implemented
AD Only	29	45	28	23
BD Only	26	35	51	40
MD Only	15	21	33	25
DD Only	17	8	4	12
AD/BD/MD/DD	5	1	1	4
All Other Combinations	77	73	69	77
Missing	58	44	41	46
Total	227	227	227	227

The BD only and MD only categories show the highest levels of maturity with blended learning options in existence for more than two academic years and fully implemented programs with graduates.

The final demographic measurement item related to BL options in eight business disciplines for each degree level (Table 9). The eight business disciplines included management, marketing, finance, accounting, economics, international business, data analytics, and management of information systems. While BL options are available across all eight disciplines and at all degree levels, the disciplines that show the highest levels of BL are marketing, finance, and accounting.

Table 9

Degree Levels and Disciplines Offering Blended Learning Options (n = 227)

Degree(s)	MGMT	MRKT	FIN	ACCT	ECON	INT BUS	DA	MIS	Total
AD Only	18	34	25	13	13	29	19	19	168
BD Only	32	35	46	53	38	41	31	38	310
MD Only	28	22	24	22	29	21	27	24	196
DD Only	15	8	6	2	16	8	11	10	71
AD/BD/MD/DD	10	19	17	20	14	17	13	17	127
Other	61	87	83	83	68	86	57	63	611
None	37	12	14	17	22	12	31	26	168
Missing	26	10	12	17	27	13	38	30	165
Total	227	227	227	227	227	227	227	227	1816

Management, data analytics, and management of information systems (MIS) had the fewest blended options.

What is the level of strategic maturity of blended learning frameworks in U.S. business accredited programs? For Tables 10 through 13, means are displayed based on the Likert scale responses of strongly agree=1, agree=2, neither agree/disagree=3, disagree=4, and strong disagree=5. The data instrument addressed strategic maturity by utilizing 23 measurement items. Table 10 presents the results for strategic maturity. A disaggregated view of the entire matrix for all three stages and each of the six respondent categories is available in Appendix M, and frequency results can be found in Appendix N.

Table 10

Strategy Mean Scores (n = 227)

Highest Mean Scores in Each Stage						
Strategy	AD (n = 28)	BD (n = 42)	MD (n = 28)	DD (n = 4)	AD/BD/MD/DD (n = 25)	All other combos (n = 100)
Purpose	S3 = 2.36 S3 = 2.68* S3 = 2.68*	S1 = 2.61* S1 = 2.46 S1 = 2.59*	S3 = 2.50 S3 = 2.69* S3 = 2.42	S2 = 2.50 S1 = 2.75* S1 = 2.25	S3 = 2.08 S1 = 2.24 S2 = 2.44	S3 = 2.29 S1 = 2.32 S3 = 2.42
Advocacy	S1 = 2.41	S2 = 2.54*	S1 = 2.50	S2 = 2.75*	S2 = 2.16	S2 = 2.38
Implementation	S2 = 2.92*	S2 = 2.51*	S3 = 2.73*	S3 = 3.33**	S1 = 2.24	S2 = 2.45
Definition	S1 = 3.15* S1 = 3.07*	S3 = 2.73* S1 = 3.00*	S2 = 2.69* S2 = 2.69*	S3 = 3.67** S3 = 4.33**	S1 = 3.04* S1 = 2.84*	S1 = 3.05* S1 = 3.08*
Policy	S3 = 2.88*	S3 = 2.61*	S3 = 2.73*	S3 = 4.00**	S3 = 2.40	S3 = 2.60*

KEY: S1=Stage 1; S2=Stage 2; S3=Stage 3; *Mean score closest to *neither agree nor disagree* response; **Mean score closest to *disagree* response

For the strategy construct, AD only, BD only, and MD only response means were predominantly neither agree/disagree for all three stages with very few means indicating a response of agree. While DD only responses included means indicating disagree, there were only four respondents, which is a sample size too small to make inferences. AD/BD/MD/DD and all other combinations response means were closer to agree, with the exception of definition and policy, which indicated neither agree/disagree.

What is the level of structural maturity of blended learning frameworks in US accredited business programs? Measurement item 12 on the data collection instrument included 16 measurement items to describe the structural maturity of BL frameworks in US accredited business schools. Appendix O contains frequency tables for AD only, BD only, MD only, DD only, AD/BD/MD/DD, and all other combinations. A summarized view showing the

highest means for each stage is provided in Table 11. The disaggregated means matrix for each respondent grouping can be found in Appendix M.

Table 11

Structure Mean Scores (n = 227)

Highest Mean Scores in Each Stage						
Structure	AD (n = 28)	BD (n = 42)	MD (n = 28)	DD (n = 4)	AD/BD/MD/DD (n = 25)	All other combos (n = 100)
Governance	S2 = 3.00* S1 = 3.07*	S1 = 2.71* S1 = 2.63*	S3 = 2.41 S1 = 2.39	S1 = 3.75** S1 = 3.50*	S3 = 2.08 S1 = 2.24	S1 = 3.08* S1 = 3.32*
Models	S1 = 3.32* S3 = 3.16*	S1 = 2.95* S2 = 2.85*	S1 = 2.61* S2 = 2.56*	S1 = 3.25* S3 = 3.75**	S2 = 2.44 S2 = 2.16	S1 = 3.20* S3 = 3.21*
Scheduling	S1 = 3.07*	S2 = 2.85*	S3 = 2.80*	S3 = 3.50*	S1 = 2.24	S1 = 3.72**
Evaluation	S1 = 2.96*	S3 = 3.00*	S2 = 2.79*	S2/3 = 3.25*	S1 = 3.04*	S1 = 3.36*

KEY: S1=Stage 1; S2=Stage 2; S3=Stage 3; KEY: S1=Stage 1; S2=Stage 2; S3=Stage 3; *Mean score closest to *neither agree nor disagree* response; **Mean score closest to *disagree* response

All AD only and BD only respondents neither agree/disagree that their programs have structurally mature BL options. MD only respondents neither agree/disagree that models, scheduling, and evaluation are structurally mature but agree that governance is structurally mature at the Stage 1 level. AD/BD/MD/DD respondents found agreement with structural maturity in Stage 3 governance, Stage 2 models, and Stage 1 evaluation, but neither agree/disagree with structural maturity of evaluation. DD only is the only category that has two components that skew towards disagree but overall is neither agree/disagree. However, DD only had only four respondents, which is a sample size too small to make inferences.

What is the level of support maturity of blended learning frameworks in US accredited business programs? Measurement items 13 through 15 addressed the final research question. Measurement item 13 included 14-measurement items specific to the BLAF. Table 12

presents the results for support maturity. Appendix M provides disaggregated degree level information, and Appendix P shows the frequencies for support maturity of BL options.

Table 12

Support Mean Scores (n = 227)

Highest Mean Scores in Each Stage						
Support	AD (n = 28)	BD (n = 42)	MD (n = 28)	DD (n = 4)	AD/BD/MD/DD (n = 25)	All other combos (n = 100)
Technical	S1 = 3.50* S1 = 3.71**	S3 = 3.17* S1 = 3.24*	S1 = 2.74* S2 = 2.79*	S3 = 3.67** S3 = 4.33**	S1 = 2.60* S1 = 3.44*	S3 = 2.61* S2 = 3.42*
Pedagogical	S2 = 3.29*	S3 = 3.10*	S2 = 2.79*	S2/3 = 4.00**	S3 = 2.56*	S3 = 2.81*
Incentives	S1 = 3.54* S3 = 3.43*	S1 = 3.17* S3 = 3.29*	S3 = 3.07* S3 = 3.26*	S2 = 3.67** S3 = 4.00**	S1 = 3.25* S2 = 3.04*	S1 = 3.19* S3 = 3.00*

KEY: S1=Stage 1; S2=Stage 2; S3=Stage 3; KEY: S1=Stage 1; S2=Stage 2; S3=Stage 3; *Mean score closest to *neither agree nor disagree* response; **Mean score closest to *disagree* response

The categories AD only, BD only, MD only, and all other combinations reflect attitudes of neither agree/disagree. DD only respondents on average disagree, however, the sample size is too small to make inferences.

The final section of the data collection instrument addressed respondent perception regarding BL policy and adopted performance standards (Appendix R). Measurement items 14 and 15 addressed how extensively institutional policies and/or adopted performance standards for BL were present. These measurement items covered professor readiness, professor preparedness, curricular content, use of technology, learner support, percentage of time face-to-face required, blended learning definition, technological support, and pedagogical support. The means are displayed based on the Likert scale responses of very extensively=1, extensively=2, somewhat=3, not at all=4, and I don't know=5 (Tables 13-14).

Table 13

Institutional Policy on Blended Learning (n = 227)

Aspects of BL	Highest Mean Scores					
	AD (n = 28)	BD (n = 42)	MD (n = 28)	DD (n = 4)	AD/BD/MD/DD (n = 25)	All other combos (n = 100)
Professor Readiness	2.46	2.49	2.36	2.75*	2.16	2.50
Professor Preparedness	2.68*	2.50	2.18	2.75*	2.28	2.40
Curricular Content	2.59*	2.48	2.43	2.50	2.00	2.41
Use of Technology	2.68*	2.57*	2.37	2.50	1.92	2.42
Learner Support	2.93*	2.74*	2.59*	2.75*	1.92	2.45
Percentage of Time f2f	3.00*	2.76*	2.64*	3.00*	2.24	2.60*
BL Definition	2.82*	2.59*	2.61*	2.25	2.12	2.52*
Technology Support	2.68*	2.62*	2.32	2.75*	1.84	2.50
Pedagogical Support	2.74*	2.80**	2.07	3.00*	2.20	2.89*

*Mean score closest to *somewhat* response; **Mean score closest to *not at all* response

Approximately 46% (25 out of 54) of the means indicate institutional policies somewhat cover the nine different aspects of blended learning. However, MD respondent means indicate professor readiness, professor preparedness, technology support, and pedagogical support are extensively covered by institutional policy. Respondents offering all four levels of degrees (AD/BD/MD/DD) indicate extensive institutional policy in all nine areas. All other combinations indicate means falling midway between somewhat and extensively for six of the nine areas.

The areas reflecting the least amount of institutional policy support are learner support, percentage of time f2f required, BL definition, and pedagogical support. The areas reflecting the highest extent of institutional policy support are professor readiness and professor preparedness.

Table 14

Institutionally Adopted Performance Standards (n = 227)

Aspects of BL	Highest Mean Scores					
	AD (n = 28)	BD (n = 42)	MD (n = 28)	DD (n = 4)	AD/BD/MD/DD (n = 25)	All other combos (n = 100)
Professor Readiness	2.68*	2.40	2.32	3.00*	2.20	2.52*
Professor Preparedness	2.74*	2.40	2.33	2.75*	2.28	2.50
Curricular Content	2.68*	2.44	2.46	2.75*	2.32	2.43
Use of Technology	2.93*	2.69*	2.32	2.75*	2.33	2.51*
Learner Support	2.82*	2.71*	2.25	2.75*	2.38	2.58*
Percentage of Time f2f	2.82*	2.71*	2.39	3.00*	2.56*	2.56*
BL Definition	2.85*	2.48	2.48	2.50	2.36	2.57*
Technology Support	2.89*	2.69*	2.43	2.75*	2.24	2.54*
Pedagogical Support	3.00*	2.73*	2.29	2.75*	1.76	2.89*

*Mean score closest to *somewhat* response; **Mean score closest to *not at all* response

As with institutional policy, many of the respondent means for institutional performance standards related to BL indicated a response of somewhat. Respondents with all four levels of degrees (AD/BD/MD/DD) indicated means closer to a response of extensively for all areas except percentage of time f2f required. The AD only respondents, with means reflecting somewhat in all nine areas indicate the lowest levels of institutionally adopted performance standards followed by DD only and all other combinations.

Finally, respondents were asked if they were able/willing to share their policies/standards on BL (Table 15).

Table 15

Willingness to Share Policies/Standards (n=227)

Response	Response Rate	Percentage
Yes	62	27%
No	161	71%
No Response	4	2%

The majority of respondents indicated they were unwilling to share their institutional policies or standards on BL options. Even though 63 respondents indicated a willingness to share, none were received at the close of data collection.

Instrument Reliability

In addition to examining how the results provided answers to the research question, it was important to determine if the BLAF represented groupings of statements that were related in a meaningful way. Therefore, the constructs (strategy, structure, and support) were analyzed to determine inter-rater item reliability using the Cronbach alpha coefficient. Figure 11 presents the number of data instrument measurement items included in each grouping.

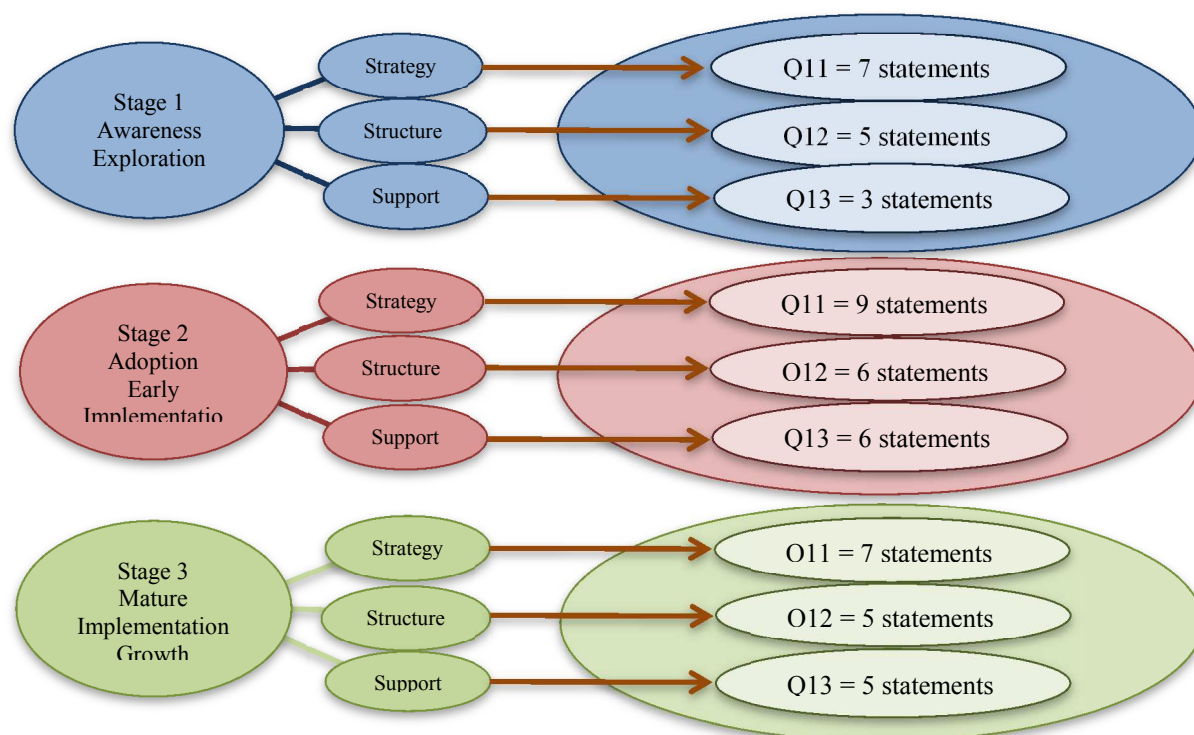


Figure 11. Data collection constructs and related measurement item tallies.

The inter-rater item reliability statistics for each scale created for each degree level are presented in Appendix S.

Cronbach's Alpha was chosen because it is one of the most widely used measurements of reliability in the social and organizational sciences and is referred to as a measure of 'internal consistency' (Bonett & Wright, 2014, p. 3). The internal consistency test or scale of reliability is expressed as a number between 0 and 1 and describes the extent to which all items in a test measure the same concept or constructs (inter-relatedness) of items within the test (Tavakol & Dennick, 2011, p. 53). Another important step when using Cronbach's Alpha is determining an optimal sample size of reliability testing; if a sample size is too small the test will lack power, however, if the size is too large it is a waste of resources (Bonett, 2002, p. 335). Literature recommendations vary widely with examples of 15-20 to 300 being the minimum requirement to run alpha testing (Bonett, 2002; Fleiss, 1986; Nunnally & Bernstein, 1994). Bonett and Wright (2002) argued that the optimal sample size should be based on criteria such as the desired power and effect size or desired precision, α -level, and number of parts rather than simple and often misleading rules of thumb (p. 339). Furthermore, researchers should use a sample size that will provide the desired level of confidence and it is acceptable to combine reliability two or more studies (Bonett & Wright, 2015, p. 8). In all cases except DD only ($n = 4$), the responses met the minimum recommended sample size to conduct reliability testing.

Once a numeric value of alpha is applied to the test results, acceptable values must be examined and reported. Tavakol (2011) asserts that a value between .70 - .1 is acceptable as illustrated in Figure 12.

Cronbach's alpha	Internal consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Figure 12. Making Sense of Cronbach's Alpha. From "Cronbach's Alpha: Simple Definition, Use and Interpretation" by S. Sundberg, 2016. Copyright 2016 by S. Sundberg. Reprinted with permission.

The internal consistency chart was used to determine if the statements associated with the BLAF are properly organized (see Using the BLAF as a data collection instrument). Fifty-three data measurement items were grouped into 23 strategy statements, 16 structure statements, and 14 support statements to evaluate the inter-rater item reliability of the scales (Table 16)

Table 16

Data Collection Instrument Statement Matrix (n = 53)

	Stage 1- Awareness/Exploration	Stage 2-Adoption/Early Implementation	Stage 3-Mature Implementation/Growth
Strategy	7 statements	5 statements	3 statements
Structure	9 statements	6 statements	6 statements
Support	7 statements	5 statements	5 statements

Table 17 provides the combined alphas for each grouping of scaled items by BLAF stage. Each element within stage 1 is measured for internal consistency using Cronbach's Alpha. The categories are broken down by degree levels and then rated between 0-1. Using an acceptable rate of .70-1 each degree plan and stage is properly described and rated between excellent, good, acceptable, questionable, poor, and unacceptable. Further discusses are provided in chapter 5

regarding recommendations that may be taken to remedy unfit results.

Table 17

Business School's Level of Awareness and Exploration (n = 227)

	Cronbach's alpha value for scaled items					
	AD (n = 28)	BD (n = 42)	MD (n = 28)	DD (n = 4)	AD/BD/MD/ DD (n = 25)	All other combinations (n = 100)
Stage 1 Strategy	.749 ^c	.777 ^c	.741 ^c	.758 ^c	.665 ^d	.717 ^c
Stage 1 Structure	.863 ^b	.693 ^d	.804 ^b	.658 ^d	.791 ^c	.827 ^b
Stage 1 Support	.655 ^d	.676 ^d	.464 ^f	-3.474 ^f	.508 ^e	.453 ^d

^aExcellent; ^bGood; ^cAcceptable; ^dQuestionable; ^ePoor; ^fUnacceptable

Nine of the 18 statements (50%) were either *good* or *acceptable* in terms of inter-rater item reliability. However, 50% of the items fell below the acceptable range to either questionable (0.6 to 0.7) or poor (0.5 to 0.6). The DD only response indicated a negative and unacceptable alpha. The fit for this particular section is further examined in the discussion section.

The Cronbach alpha coefficient results revealed that for each of the stages, the score would increase if items were deleted. For Stage 1-Strategy, removing the statements *there is no uniform definition of BL currently proposed at our institution* and *there is no uniform policy in place at our institution* would result in alpha increases. However, it would only elevate the level of reliability from questionable to acceptable in one category (AD/BD/MD/DD). The other categories would all remain in the acceptable level of reliability for scaled items. This is insufficient justification for deleting the item.

For Stage 1-Structure, removal of the statement *there are no formal evaluations in place addressing BL outcomes at our institution* would result in an increased alpha for the

AD/BD/MD/DD group. This would improve reliability from acceptable to good but only for this group. Removal of the statement would have no impact on the reliability level of the other five-degree groups.

For Stage 1-Support, removal of the item *the primary focus of technological support at our institution is on the traditional classroom* would increase MD only reliability from *unacceptable* to *questionable*. Removal of the statement *our institution does not have an identified faculty incentive structure for implementation of BL options* would increase the BD only reliability from *questionable* to *acceptable*. Because the support construct only contains three statements per stage, rather than removing items to improve inter-rater item reliability a better course of action would be to increase the number of items to five or more to provide a more robust interpretation of BL support.

Stage 2 of the BLAF included 21 statements to gauge the level of adoption and early implementation of BL formats. This stage moves beyond exploration and focus to adoption, advocacy, and formal adoption and developmental processes.

Table 18

Business School's Level of Adoption/Early Implementation (n = 227)

	Cronbach's alpha value for scaled items					
	AD (n = 28)	BD (n = 42)	MD (n = 28)	DD (n = 4)	AD/BD/MD/DD (n = 25)	All other (n = 100)
Stage 2 Strategy	.868 ^b	.791 ^c	.859 ^b	.962 ^a	.896 ^b	.887 ^b
Stage 2 Structure	.848 ^b	.760 ^c	.698 ^d	.932 ^a	.817 ^b	.673 ^d
Stage 2 Support	.856 ^b	.852 ^b	.755 ^c	.987 ^a	.764 ^c	.849 ^b

^aExcellent; ^bGood; ^cAcceptable; ^dQuestionable; ^ePoor; ^fUnacceptable

Approximately 89% (16 out of 18) of the Stage 2 scales have combined alpha scores in

the acceptable to excellent ranges. Only two of the items fell below the acceptable range to questionable (0.6 to 0.7). These items are indicated in the MD only and all other combinations levels.

The Cronbach alpha coefficient results revealed that for each of the stages, the score would increase if items were deleted. There were no unacceptable responses for stage 2-strategy or stage 2-support, indicating a good fit for the measured items in this section. For stage 2-structure, removing the statement *there are limited institutional evaluations addressing BL at our institution* would result in alpha increases. However, the reliability score for MD only and all other combinations would only increase to acceptable. The other categories would all remain in the acceptable to excellent levels of reliability for scaled items. This is insufficient justification for deleting the item. Stage 3 of the BLAF explores the level of mature implementation and growth of BL frameworks. In this section an institution is considered at the final level of maturity within their BL options.

Table 19

U.S Business School's Level of Mature Implementation & Growth (n = 227)

	Cronbach's alpha value for scaled items					
	AD (n = 28)	BD (n = 42)	MD (n = 28)	DD (n = 4)	AD/BD/MD/DD (n = 25)	All other (n = 100)
Stage 3 Strategy	.856 ^b	.852 ^b	.755 ^c	.987 ^a	.764 ^c	.849 ^b
Stage 3 Structure	.858 ^b	.787 ^c	.829 ^b	.914 ^a	.920 ^a	.881 ^b
Stage 3 Support	.712 ^c	.593 ^e	.664 ^d	.898 ^b	.315 ^f	.534 ^e

^aExcellent; ^bGood; ^cAcceptable; ^dQuestionable; ^ePoor; ^fUnacceptable

Fourteen of the 18 statements (78%) ranged from acceptable to excellent in terms of inter-rater item reliability. Three of the items (22%) fell below the acceptable range to either

questionable or poor and one item was unacceptable in terms of fit.

The Cronbach alpha coefficient results revealed that for each of the stages, the score would increase if items were deleted. There were no unacceptable responses for stage 3-strategy or stage 3-structure, indicating a good fit for the measured items in this section. For Stage 3-Support, removing the statements *there is a well-established tech support to address BL needs of all stakeholders at our institution* would result in alpha increases. The removal of this statement for AD only, MD only, DD only, and all other combinations raise the alpha to *good* and *excellent*. BD only increases to acceptable with the *removal of our institution have a well-established faculty incentive structure for systematic BL training*. The other categories would all remain in the *acceptable* level of reliability for scaled items. This is insufficient justification for deleting the item.

The alpha for AD/BD/MD/DD increases to good with the removal of *our institution has a well-established faculty incentive structure for implementation of BL options*. However, this does not change the other categories that indicate a good and excellent fit.

Comparing the three stages, stage 1 (9 out of 18) had the overall lowest alpha scores that were acceptable or higher within the matrix. However, stage 1-strategy and structure showed the strongest fit based on consistency reliability. Stage 1-support did not meet the acceptable to excellent criteria in any categories, which is further evaluated in the discussions section.

Stage 3 measurement items (14 out of 18 items) showed an inter-rated fit of approximately 78%. All items in stage 3-strategy and structure met the consistency reliability ranges of acceptable to excellent. However, the majority of stage 3-support responses ranged from questionable to unacceptable.

Stage 2 measurement had the majority of acceptable to excellent alpha scores (16 out of

18). All items for stage 2-strategy/support met the inter-rater reliability and do not indicate a need to remove any measurement items. However, stage 2-structure has two categories where the alpha is questionable.

Summary

Based on the results, BL exists within all six regional accreditation geographic areas, the majority was public and ACBSP accredited institutions, BL is offered at one or more levels of business degrees, and student enrollments range from less than 100 to more than 500. All respondents indicated that BL is evident in their individual courses, entire degree programs, and future strategic planning.

While BL options range from first year of implementation to full implementation with graduates, BD only and MD only show the highest levels of activity and maturity with BL options in place two or more years and with graduates. BL options are present in the core business disciplines with highest activity in marketing, finance, and accounting. The disciplines with the lowest BL options are management, data analytics, and management of information systems.

There were very few exceptions, and the majority of respondents neither agree/disagree that there is strategic, structural, or support maturity of BL in their institutions. Respondents indicated some degree of institutional policy regarding the nine aspects of BL with MD only and AD/BD/MD/DD respondents indicating the most extensive institutional policy coverage. The areas reflecting the least amount of institutional policy support are learner support, percentage of time f2f required, BL definition, and pedagogical support. The areas reflecting the highest extent of institutional policy support are professor readiness and professor preparedness. Only AD/BD/MD/DD respondents indicated extensive support in the area of institutionally adopted

performance standards. AD only respondents had the lowest levels of institutionally adopted performance standards followed by all other combinations of degrees.

A reliability analysis of the data collection instrument revealed that the grouping of statements comprising each stage (1, 2, and 3) and level (strategy, structure, and support) of BL maturity were acceptable or good for Stage 1 strategy and structure, all three areas of Stage 2, and Stage 3 strategy and structure. The reliability scores for the support grouping of items for both Stage 1 and 3 were questionable, poor, or unacceptable with very few exceptions.

Chapter 5: Recommendations and Conclusions

Blended learning (BL) has been referred to as the *new normal* and a *new traditional model* in higher education course delivery (Norberg, Dziuban & Moskal, 2011; Ross & Gage, 2006). The purpose of this study was to determine (a) whether accredited business programs include blended learning courses or programs, and (b) whether accredited business programs that have blended learning courses or programs have standards or guidance related to blended learning based on Graham's et al. (2013) three stages in the adoption of blended learning based on:

1. Strategic maturity of blended learning frameworks,
2. Structural maturity of blended learning frameworks, and
3. Support maturity of blended learning frameworks (Graham et al., 2013)

The first step was to explore and define the term *blended learning*. The literature provided multiple examples on how to define BL however, locating a universally adoption definition was not available. McGee (2012) described an environment where the literature is not clear on one proposed definition and terms such as *hybrid*, *flex*, and *blended* are used interchangeably. Based on Halverson's (2012) aggregation of influential journal articles and books from the last decade, Graham (2005) emerged as the most cited definition of BL. Graham's (2005) definition combines instructional modalities, instructional methods, and/or online and face-to-face instruction. For the purpose of this study, the researcher defined BL as a *combination of face-to-face instruction (25-75%) with online (various technological) self-guided modalities*.

Discussion

Once BL was clearly defined, the researcher used data collection measurement items derived from the Graham et al. (2013) Blended Learning Adoption Framework (BLAF).

Discussion, conclusions, and recommendations are detailed in the following sections and attempt to describe the status of BL frameworks in accredited U.S. business programs, and the strategic, structural, and support maturity of respondents within the BLAF.

What is the status of blended learning in U.S. accredited business programs? Based on the respondent sample size, it is difficult to generalize BL maturity to all business schools across the United States. Since respondents represent all six regional accreditation agencies, and are mostly ACBSP accredited public institutions, assumptions cannot be made that the results reflect the entire landscape of AACSB and ACBSP accredited business programs.

However, based on the data received all respondents currently have some form of BL options available at either the course or program level. For those who do not at this time, almost all indicated BL as part of their future strategic planning. This may be reflective of the typical business professional that enrolls in business school and demands a work/home life balance. Institutions may be moving toward this format of learning to attract, accommodate, and retain this non-traditional student (Schuetze & Slowey, 2002). Van Laer, DePryck, Blicke, and Zhu (2015) stated, “blended learning is becoming more and more attractive for adult learners, especially for those who have to combine their studies with work, family and social responsibilities” (p. 955). Studies have indicated that some benefits for enrolling in BL options are an increased confidence in working with virtual teams, increased learner control of the educational experience, and enhanced dialog skills (Arbaugh, Desai, Rau, & Sridhar, 2010 p. 40).

Additionally, bachelor and master’s degree programs showed the highest level of activity and maturity in BL, which also may be reflective of the demographics of the students enrolling. Individuals enrolling at the master’s level are typically individuals that have been in industry for

a few years and may have corporate sponsorship. Unlike an associate degree student who is new to higher education and may be unsure of their degree major, individuals at the BD and MD level are more focused and are typically either beginning their career or advancing in their profession. BL options must be focused and benefit the student quickly in order for student retention. Business professionals are fact users and integrators who need the guidance of professors to help understand how to interpret these facts in a timely manner (Bennis & O'Toole (2005).

Overall, based on the results BL options are available throughout US business schools and primarily focused at the BD and MD levels. However, the levels of integration and maturity are spread across a wide spectrum, and there is no indication of consistency. Finally, the perception of BL options may vary with future testing since the majority of respondents were faculty members rather than deans, as was the original target for this study.

What is the level of strategic maturity of blended learning frameworks in US accredited business programs? Key elements in determining the strategic maturity level of BL frameworks include identifying the purpose, advocacy, implementation, definition, and policies of these options. The majority of respondents neither agree/disagree with their institution's strategic maturity of BL options (Table 10). The only levels that skewed toward *agree* were AD only (Stage 1-Strategy) and AD/BD/MD/DD (Stages 1 & 2-Strategy). These responses were too insufficient to imply the overall sample perceives their institutions as strategically mature.

Respondents were either unaware of how BL is perceived, promoted, and/or endorsed, or BL takes place in silos, has not become institutionalized, and rises above individual awareness. Given the majority of respondents were faculty members; this lends support to "the fact that most professors who teach online at AACSB International-accredited business schools are self-trained suggests that instructors have been relatively under-studied participants in online and

blended business education” (as cited in Arbaugh et al., 2009, p. 80). Based on Arbaugh et al. (2009) faculty may not be part of the decision making process and, if not, would not have the proper information to complete the instrument for this study. Consequently, if in fact BL has been institutionalized, there is a clear indication that the information has not been properly disseminated throughout the university and throughout faculty/administrator levels.

What is the level of structural maturity of blended learning frameworks in US accredited business programs? Structural maturity according to the BLAF matrix is determined by evaluating a course/program’s governance, models, scheduling, and evaluation. The majority of respondents neither agree/disagree with the structural mature of their institution’s BL options which is similar to strategy responses (see Table 11). AD/BD/MD/DD were the only level that skewed towards agree in the governance, models, and scheduling category, perhaps indicating more experience in these areas given all four levels of degrees are offered at their institution. The DD sample size is insufficient and a generalization cannot be determined.

Overall assumptions concerning the structural maturity of BL options across all degree levels are simply not made. Similar to structure, in general respondents are on the fence and have no opinion whether or not their institution has structural maturity. Either an insufficient number of questions was asked within this portion of the matrix, the respondent did not have the understanding or knowledge of BL structure, or BL is not yet prevalent enough that faculty could confidently respond to the structure issues related to BL.

What is the level of support maturity of blended learning frameworks in US accredited business programs? To answer the research questions regarding the support maturity of BL frameworks, the BLAF matrix addresses technical support, pedagogical support,

and incentives. All respondents neither agree/disagree that the institution has support maturity for BL options unlike the strategy and structure stages that had a few exceptions (see Table 12). DD responses skew toward disagree but the sample size is insufficient and generalizations should not be made.

Similar to the first two stages of blended learning adoption and frameworks, the respondents either did not have the knowledge or understanding to explain BL at their institution, or the information had not been properly disseminated, or BL is in its infancy stages and had not been rigorously explored.

The final support section within the data collection instrument assessed institutional policies and institutionally adopted performance standards (see Tables 13-14). Universities with AD/BD/MD/DD degree levels responded that policies and performances standards are well covered, reflecting similar responses to the above research questions. This may be a clear indication that schools with experience in all four degree levels are the most equipped simply because they have students enrolled in every aspect of BL.

However, the majority of respondents indicated their institutions somewhat cover policies surrounding BL. Without proper policy coverage it may be impossible for an institution to have relevant performance standards as indicated in chapter 4. The lack of policies and standards may have influenced the strategy, structure, and support responses since the respondents may be unclear of the direction of their institutions. Finally, results from all three sections demonstrate an emerging trend and confirm that before assessing BL maturity, institutions should adopt a common framework for comparison to other intuitions as a way to measure success and growth.

Conclusions

Based on the above discussion we can conclude that there is no evidence of adherence to

a common framework for BL adoption and implementation. However, BL is making inroads in the business disciplines, and the non-traditional student who chooses to continue their education while working in the business industry may influence this. BL is available throughout all degree levels and crosses the major core areas, but has not been institutionalized even though some programs have been in place long enough to have graduates. The lack of institutional policy at most levels and in most of the nine areas (see Tables 13-14) is indicative of a trend that is still in its infancy stages even though BL has been around for many years (Dziuban & Picciano, 2015). Following the lack of policy guidance, policies on performance standards would also suffer since it is difficult to identify a level of performance in the absence of policy guidelines. The BLAF is a good start and administering it in a data collection format revealed that BL has not yet taken a strong foothold in accreditation business programs even though there seems to be a high level of activity.

Limitations

The main limitation for this study was lack of a valid survey instrument. The literature on BL does provide past studies regarding student perception, faculty perception, and outcomes, but quantitative studies specific to BL adoption and implementation is minimal. The only study available was by Graham (2012) but used qualitative methods. The researcher attempted to translate the qualitative elements into data collection measurements but had no indication if the statements fit within the correct of the matrix without first applying an internal consistency test.

Another limitation of this study was the data collection methods. The researcher attempted to engage the presidents at the AACSB and ACBSP for assistance with sending the data collection instrument to all accredited schools. Without the help of the presidents, the researcher located dean/assistant dean's emails from each school based on the AACSB and

ACBSP search tools. The tools could have been outdated and provided incorrect data, or the emails on each website could have been inaccurate. In addition, since the researcher is unknown, emails could have been sent into a spam folder and never viewed.

Final responses were completed by a variety of individuals (secretaries, students, and adjuncts) for whom the data collection instrument was not originally intended. The researcher had no way of controlling who the dean or assistant dean allowed to take the data collection instrument on their behalf. This may have skewed the responses, because the respondent may not have direct knowledge of the BL options within their university.

Recommendations

The results of this research may assist with recommendations for institutional policies and procedures in the creation, execution, and assessment of blended learning programs and courses. Future researchers may consider reorganizing the statements within the BLAF matrix and retesting to meet the internal consistency reliability test and construct validity. This may take several iterations to ensure an adequate sample size across institutions is captured. A retest of the data collection instrument should leverage the affiliation of the AACSB, ACBSP, and possibly the IACBE to better engage all accredited business schools within the US. Engaging the research departments, if available, with each business accrediting body may capture more participants and avoid emails being filtered out. Future researchers may also want to include phone calls for participants to take the survey on a live call, or as a simple reminder to complete the survey link via email.

The data collection instrument utilized in this study was administered with an attitudinal response scale of strongly agree to strongly disagree for items contained within the BLAF matrix. Because reliability testing did not reveal major issues with the grouping of items within

each stage and related to each construct, perhaps an alternative iteration of the data collection instrument in which respondents were asked to identify the statement which best describes their institution would be more illuminating as to the maturity of BL in business degree programs. The data collection could also be conducted in other disciplines and other program or specialty accreditations.

Another recommendation is to focus on bachelor programs because the majority of students and disciplines are concentrated in this area. By focusing on this section of the population, future researchers may capture a more representative sample of the population in higher education.

Finally, future researchers may consider engaging QM, OLC, CHEA, or the USDE to further support and carry the study to other institutions. QM and OLC may assist with strengthening the data collection instrument by adding elements of their quality standards into the matrix. CHEA and USDE may help open up the responses by distributing to institutions across the nation and limiting the research to business schools only.

Summary

The purpose of the study was to describe the current blended learning environment in accredited U.S. business schools and to determine the maturity of blended learning frameworks in those schools using the BLAF matrix developed by Graham et al. (2013). I embarked on this journey due to personal experiences between traditional and non-traditional degree plans. I am a non-traditional student that has worked full time throughout all aspects of each degree that included fully traditional degrees, a fully online degree, and a blended learning degree. Given my experience in all three models, it was important for me to understand the future of education that influences the business industry. Like many of my business peers, many chose blended programs

based on personal and professional demands. It is difficult for individuals to gauge what BL options are considered the most qualified or mature. My suspicions were confirmed that many institutions are moving towards a BL preference, but a lack of adoption standards and implementation of these standards provide an inconsistent experience for the faculty and student.

I hope that my research influences the development of a consistent framework for BL policies and standards that lead to a consistent BL learning experience. Finally, that the adoption of universal standards bridges the gap between academia and business industries by enhancing teaching models and producing world-class business professionals.

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Appendices

Appendix A
Permission to Use Faculty Readiness, Competencies, and Levels of Experience for Online
Teaching. Bibliography: Patricia McGee and Maria Torres

From: Patricia McGee <Patricia.McGee@utsa.edu>
Date: October 27, 2016 at 9:24:57 AM CDT
To: "Duarte, Anida A." <aaduarte@student.uiwtx.edu>
Subject: Re: Permission Request from The University of The Incarnate Word: Doctoral
Candidate - Anida Duarte

You have my permission.

Rikki (Patricia) McGee, Phd.

On Oct 26, 2016, at 6:48 PM, Duarte, Anida A. <aaduarte@student.uiwtx.edu> wrote:

Dear Dr. McGee,

I am requesting permission to incorporate into my appendix on BL frameworks:

1. McGee, P. & Torres, M. (n.d.) Faculty Readiness, Competencies, and Levels of Experience for Online Teaching: Bibliography

A reply to this email is sufficient to indicate your permission for my use of the above-mentioned material. By replying to this email, you give ProQuest/UMI the right to supply copies of this material on demand as part of my doctoral dissertation. Please attach any other terms and conditions for the proposed use of this item below. If you no longer hold the copyright to this work, please indicate to whom I should direct my request.

Thank you for your time and attention to this matter, and I look forward to answering any additional questions you may have about my study.

Sincerely,

Anida Duarte

Bibliography: Patricia McGee And Maria Torres

Topics: online course competencies, faculty readiness, levels of experience, support in developing online teaching abilities. Please note that this is a very limited sampling of literature in this area. There exist multiple dissertations and institutional analyses of online teaching competencies. If you are a research or looking for strategies appropriate to institutional type, consider conducting a narrow and well-defined search. A related bibliography focuses on eCollaboration as a strategy to develop social/teaching presence for instructor and students.

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Appendix B
Quality Matters and Online Consortium Comparison

Table 20

Quality Matters and Online Consortium Comparisons

	QUALITY MATTERS	OLC
Endorsement	USDE	USDE
Purpose	Faculty, Peer-Review Process: Collaborative, Collegial, Continuous, Centered	Five Pillars: Learning, Faculty, Students, Scale and Access
Focus	Reviews course design only	Examines entire online program
Pros/Cons	Pros: provides a process for peer-to- peer feedback for faculty to improve and certify their course Cons: not the complete answer to QA but can be a critical component	Pros: overall review of course Cons: administrators give inputs rather than OLC facilitators reviewing data first
Review Process	Course Institutions & Faculty Course Developers National Standards, Literature, Rubric, Faculty Reviewers, & Training Peer Course Review Feedback Course Revision Course Meets Quality Expectations	Self-Scoring – program administrator develops justification and submits documenting artifacts Scorecard reviewers examine each score, justification and artifact Feedback Course Awarded OLC Logo
Measurement	QM Rubric	Quality Scorecard
Measurement Standards	General Standards (GS) 8 key areas of course quality 43 specific review Standards 21 essential Alignment Standards Detailed annotations within the forty-three Standards	Scorecard Handbook 75 unique quality indicators worth up to 225 points Contains adaptations of the 24 quality standards identified by the Institute of Higher Education Policy Report ¹

¹ The Quality Scorecard contains adaptations of the 24 quality standards identified by the Institute for Higher Education Policy report, *Quality on the Line: Benchmarks for Success in Internet-based Distance Education* (2000).

Standards Details	<p>GS1: The overall design of the course is made clear to the learner at the beginning of the course</p> <p>GS2: Learning objectives or competencies describe what learners will be able to do upon completion of the course</p> <p>GS3: Assessment strategies are integral to the learning process and are designed to evaluate learner progress in achieving the stated learning objectives or mastering the competencies</p> <p>GS4: Instructional materials enable learners to achieve stated learning objectives or competencies</p> <p>GS5: Course activities facilitate and support learner interaction and engagement</p> <p>GS6: Course technologies support learners' achievement of course objectives or competencies</p> <p>GS7: The course facilitates learner access to support services essential to learner success</p> <p>GS8: The course design reflects a commitment to accessibility and usability for all learners</p>	<p>Institutional Support Technology Support Course Development & Instructional Design Course Structure Teaching and Learning Social and Student Engagement Faculty Support Student Support Evaluation and Assessment</p>
Tools	<p>Interactive Scorecard OLC Advisory Services and OLC Mentor Program</p>	<p>OLC Online Repository Virtual and Online Consultation</p>
Research Support	<p>The Quality Scorecard 2014 (QM, 2015)</p>	<p>OLC Appendix (OLC, 2015)</p>
Subscribers	<p>900+ subscribing institutions 150+ individual subscribers (QM, 2015)</p>	<p>4,000 learners attending institute programs 49 U.S. states and global partnerships in Asia, Europe, the Middle East, and South America (OLC, 2015)</p>

Appendix C
Graham Consent to Translate Qualitative Study

From: charles.r.graham@gmail.com <charles.r.graham@gmail.com> on behalf of Charles Graham <charles.graham@byu.edu>
Sent: Thursday, July 21, 2016 5:23 PM
To: Craven, Dr. Annette E.
Cc: Duarte, Anida A.
Subject: Re: Blended Learning in Higher Education

Thanks for contacting me. I very much support your initiative to translate the categories into something that can be analyzed a little more quantitatively - certainly the qualitative protocol would not be practical in your case.

We did a little of this but maybe not as comprehensively as you have with a group of hundreds of university faculty at our sister institution BYU-Idaho. (We were looking at issues of faculty adoption in that study as opposed to institutional adoption.)

I will include a couple of these studies for you to look at (from Wendy Porter's dissertation) because they might further inform your work. I would love to hear from you when you are done and see what you have learned if you are willing to pass along the dissertation and/or any publications that result from it.

Porter, W. W., Graham, C. R., Spring, K. A., & Welch, K. R. (2014). Blended learning in higher education: Institutional adoption and implementation. *Computers & Education*, 75, 185–195. doi:10.1016/j.compedu.2014.02.011

Porter, W. W., & Graham, C. R. (2016). Institutional drivers and barriers to faculty adoption of blended learning in higher education. *British Journal of Educational Technology*, 47(4), 748–762. doi:10.1111/bjet.12269

Porter, W. W., Graham, C. R., Bodily, R., & Sandberg, D. (2016). A qualitative analysis of institutional drivers and barriers to blended learning adoption in higher education. *Internet and Higher Education*, 28(1), 17–27. doi:10.1016/j.iheduc.2015.08.003

Warm Regards,
Charles

Appendix D
Permission to Use Cabls Model

From: Yuping Wang <y.wang@griffith.edu.au>
Sent: Monday, February 22, 2016 5:14 PM
To: Duarte, Anida A.
Cc: hanxb@mail.tsinghua.edu; juan-yang@mail.tsinghua.edu.cn
Subject: Re: Permission Request from The University of The Incarnate Word: Doctoral Candidate-Anida Duarte

Dear Anida,
 Thank you very much for your interest in our article. Yes, you have our permission to use the figure in your thesis. Good luck to your research
 Best Regards
 Yuping

On Mon, Feb 22, 2016 at 12:01 PM, Duarte, Anida A. <aaduarte@student.uiwtx.edu> wrote:
 February 21, 2016

Dear Dr. Wang, Dr. Han, & Dr. Yang,

I would like to request your permission to include one figure from the following publication in my dissertation on Blended Learning Programs:

1. Wang, Y., Han, X., & Yang, J. (2015). Revisiting the blended learning literature: Using a complex adaptive systems framework. *Journal of Educational Technology & Society*, 18(2), 380-393. Retrieved from <http://search.proquest.com.uiwtx.idm.oclc.org/docview/1683511641?accountid=7139>
 - o Figure 1. The Framework of Complex Adaptive Blended Learning Systems (CABLS)

I am currently evaluating institutional standards on quality for blended learning programs across the United States in higher education. I have cited your CABLS model in portions of my literature review. Please note that the source will receive full credit in the manuscript. A reply to this email is sufficient to indicate your permission for my use of the above-mentioned material. By replying to this email, you give ProQuest/UMI the right to supply copies of this material on demand as part of my doctoral dissertation. Please attach any other terms and conditions for the proposed use of this item below. If you no longer hold the copyright to this work, please indicate to whom I should direct my request. Thank you for your time and attention to this matter, and I look forward to answering any additional questions you may have about my study.

Sincerely,

Anida Duarte
 11020 Huebner Oaks #1536, San Antonio, TX 78230
 469-939-7620

Appendix E

Permission to Use Blended Learning Conceptualization of Blended Learning and Blending with Purpose-The Multimodal Model

From: Picciano, Anthony <APicciano@gc.cuny.edu>
Sent: Monday, July 25, 2016 4:20 AM, **To:** Duarte, Anida A.
Subject: RE: Permission Request from UIW: Doctoral Candidate-Anida Duarte

Dear Anida,

Please accept this email as my permission to use the two figures described in your email below. Please give proper citation. Good luck with your research.

Dr. Anthony G. Picciano, Professor & Executive Officer, 212-817-8281

From: Duarte, Anida A. [aaduarte@student.uiwtx.edu]
 Sent: Sunday, July 24, 2016 11:34 PM, To: Picciano, Anthony
 Subject: Permission Request from UIW: Doctoral Candidate-Anida Duarte

Dear Dr. Picciano:

I would like to request your permission to include two figures from the following publication in my dissertation on Blended Learning Programs:

1. Picciano, A. G. (2006). Blended learning: Implications for growth and access. *Journal of asynchronous learning networks*, 10(3), 95-102. Figure 1: Broad Conceptualization of Blended Learning. 2. Picciano, A.G. (2009). Blending with purpose: The multimodal model. *Journal of the Research Center for Educational Technology*, 5(1), 4-14. Figure 3. Blending with Purpose: The Multimodal Model

I am currently evaluating key standards/policies concerning the quality of blended learning programs across the United States in higher-education. My literature review includes references to QM and OLC, and I have cited your study within this section of my dissertation. Please note that the source will receive full credit in the manuscript. A reply to this email is sufficient to indicate your permission for my use of the above-mentioned material. By replying to this email, you give ProQuest/UMI the right to supply copies of this material on demand as part of my doctoral dissertation. Please attach any other terms and conditions for the proposed use of this item below. If you no longer hold the copyright to this work, please indicate to whom I should direct my request. Thank you for your time and attention to this matter, and I look forward to answering any additional questions you may have about my study.

Sincerely, Anida Duarte

Appendix F
Permission to Use Time-Based Blending

From: Anders Norberg <anders.norberg@umu.se>
Sent: Monday, July 25, 2016 3:23 AM, **To:** Duarte, Anida A.
Subject: Re: Permission Request from UIW: Doctoral Candidate-Anida Duarte

Hi Anida!

Permission granted. Thanks for the interest in this paper, and good luck with the finalization of your dissertation work. I am unsure if my university has a ProQuest subscription at the moment, but perhaps you can send a pdf copy of your dissertation when ready. By the way, in presentations on my Researchgate account https://www.researchgate.net/profile/Anders_Norberg and on my Slideshare account <http://www.slideshare.net/mobile/Edueye>, there are also other illustrations and graphs trying to put “blended learning” in new and different light if interested. If you find anything interesting here, just use it as well (if it is not something I cited/borrowed myself from elsewhere). Best, Anders (not a PhD yet, but in January hopefully: “From ‘blended learning’ to learning onlife?”)

On 25 July 2016, at 05:40, Duarte, Anida A. <aaduarte@student.uiwtx.edu> wrote: July 24, 2016

Department of Applied Educational Science, UMEA University, Naturvetarhuset plan 3, 90187

Dear Dr. Norberg:

I would like to request your permission to include one figure from the following publication in my dissertation on Blended Learning Programs:

1. Norberg, A., Dziuban, C. D., & Moskal, P. D. (2011). A time-based blended learning model. *On the Horizon*, 19(3), 207-216. Figure 1: Some possibilities for time-based blending

I am currently evaluating key standards/policies concerning the quality of blended learning programs across the United States in higher education. My literature review includes references to QM and OLC, and I have cited your study within this section of my dissertation. Please note that the source will receive full credit in the manuscript. A reply to this email is sufficient to indicate your permission for my use of the above-mentioned material. By replying to this email, you give ProQuest/UMI the right to supply copies of this material on demand as part of my doctoral dissertation. Please attach any other terms and conditions for the proposed use of this item below. If you no longer hold the copyright to this work, please indicate to whom I should direct my request. Thank you for your time and attention to this matter, and I look forward to answering any additional questions you may have about my study.

Sincerely,
Anida Duarte

Appendix G
IRB Human Subject Research Determination



8/31/2016

Anida Ann Duarte
11020 Huebner Oaks #1536
San Antonio, TX 78230

RE: Not Human Subject Research Determination

Anida:

The University of the Incarnate Word's Human Subject Institutional Review Board (IRB) has received your request to determine whether or not the proposed project *Blended Learning: Institutional Frameworks for Adaptation and Implementation* meets the regulatory definition of research with human subjects and will require further review by the IRB.

Your proposed project was reviewed and found to not meet federal regulatory requirements for human subject research and does not require approval via the IRB process.

Please use IRB number: **NHSR-16-003** when inquiring about or referencing this determination.

No further review of the project as proposed is required. Should you determine at any point you wish to add additional elements to the project, please contact us before initiating those components, as this may impact the determination.

For information regarding the IRB or the review process, please contact myself or Osman Ozturgut, Ph.D., Dean of Research and Graduate Studies at ozturgut@uiwtx.edu or (210) 805-5885.

Sincerely,

Ana Wandless-Hagendorf, PhD, CPRA
Research Officer, Office of Research Development
Office of Research and Graduate Studies
University of the Incarnate Word □ 4301 Broadway, CPO 1216 □ San Antonio, Texas 78209 □
(210) 805-3036 □
wandless@uiwtx.edu

Appendix H

Informed Consent and Blended Learning Survey

Informed Consent

I am a doctoral candidate at University of the Incarnate Word working towards a Doctor of Business Administration. You are being asked to take part in a dissertation research study regarding institutional frameworks for adoption and implementation of blended learning courses and/or programs. We want to learn if accredited business schools are using similar strategies, structure, and support when adopting and implementing blended learning models. You are being asked to take part in this study because your institution has been identified as being accredited by either AACSB or ACBSP.

If you decide to take part, you will complete the following web-based survey with questions covering demographics about your business programs and attitudes about blended learning at your institution. The strongly agree to strongly disagree scales relate to a deeper understanding of your institutional approach to blended learning models specifically in the areas of (a) strategy; (b) structure, and (c) support.

The duration of the survey should be no longer than 30 minutes and there are less than minimal risks associated with your participation in this research. We do not guarantee that you will benefit from taking part in this study. Everything we learn about you in the study will be confidential. If we publish the results of the study, you will not be identified in any way. Your decision to take part in the study is voluntary. You are free to choose not to take part in the study or to stop taking part at any time. Participation in this survey will not affect your employment status or credibility.

If you have questions, feel free to ask us. If you wish to report a problem that may be related to this study, contact Dr. Annette Craven at the University of the Incarnate Word at 210-283-5031 or craven@uiwtx.edu, or Anida Duarte at 469-939-7620 or aaduarte@student.uiwtx.edu. The University of the Incarnate Word committee that reviews research on human subjects, the Institutional Review Board, will answer any questions about your rights as a research subject (210-829-2759, Dean of Graduate Studies and Research).

* 1. I wish to take part in this survey

Demographics

2. What is your institution's regional accreditation?

- Middle States Commission on Higher Education
- New England Association of Schools and Colleges Commission on Institutions of Higher Education
- Southern Association of Colleges and Schools Commission on Colleges
- Western Association of Schools and Colleges, Senior College and University Commission
- North Central Association of Colleges and Schools, Higher Learning Commission
- Northwest Commission on Colleges and Universities
- Other (please specify)

3. What is your institutional type?

- Public
- Private
- For Profit

4. What is your role in your institution?

- Dean
- Associate/Assistant Dean
- Faculty
- Other (please specify)

5. What is your business program accreditation?

- AACSB International
- ACBSP
- Other (please specify)

6. We offer the following levels of business degrees.

- Associate's Degree
- Bachelor's Degree
- Master's Degree
- Doctoral Degree

7. Approximately how many students were enrolled in each of the business degree programs for the 2015-2016 academic year?

	Associate's degree business program(s)	Bachelor's degree business program(s)	Master's degree business program(s)	Doctoral degree business program(s)
Number of enrolled students	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

8. What blended learning options do you offer your business degree programs? Check all that apply.

	Associate's Degree	Bachelor's Degree	Master's Degree	Doctoral Degree	None
Individual blended courses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Entire blended programs (e.g. Bachelor of Business Administration)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blended learning options are part of our strategic plan for the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. If you offer blended learning options in your business degree programs, what is the maturity of the implementation? Check all that apply.

	Associate's Degree	Bachelor's Degree	Master's Degree	Doctoral Degree	None
Do not offer blended learning options	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Less than one academic year	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In the second academic year of implementation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
More than two academic years of implementation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have graduates from fully implemented blended learning options	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. If you offer blended learning options in your business degree programs, please identify the degree levels and disciplines in which this format is offered. Check all that apply.

	Associate's Degree	Bachelor's Degree	Master's Degree	Doctoral Degree	None
Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marketing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Finance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accounting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Economics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
International Business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data Analytics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Management of Information Systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Adoption and Implementation Stages of blended learning

11. Please indicate your level of agreement with the following statements regarding the **strategy** for blended learning options at your institution

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
Individual faculty informally identify specific blended learning benefits.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Individual administrators informally identify specific blended learning benefits.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Administrators identify purposes to motivate institutional adoption of blended learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is administrative refinement of purposes for continuous promotion of blended learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is administrative refinement of purposes for continuous funding of blended learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Individual faculty informally advocate blended learning options.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Individual administrators informally advocate blended learning options.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blended learning is informally approved by university administrators.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blended learning is formally advocated by university administrators.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is formal blended learning advocacy by university departments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
Individual faculty implement blended learning options at our institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Administrators target implementation of blended learning in high impact areas at our institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Administrators target implementation of blended learning among high impact faculty at our institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
University departments strategically facilitate widespread faculty implementation of blended learning at our institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is no uniform definition of blended learning currently proposed at our institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is no uniform blended learning policy in place at our institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An initial definition of blended learning has formally been proposed at our university.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tentative policies have been adopted for blended learning in our institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tentative blended learning policies have been communicated to stakeholders at our institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tentative blended learning policies have been revised as needed at our institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
Our institution has formally adopted a refined definition of blended learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our institution has robust blended learning policies in place.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our institutional blended learning options have a high level of community awareness.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Please indicate your level of agreement with the following statements regarding the structure for blended learning options at your institution					
	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
There is currently no official approval structure for blended learning options at our institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is currently no official implementation structure for blended learning options at our institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our institution has emerging structures to regulate blended learning options.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our institution has emerging structures to approve blended learning options.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our institution has robust structures involving academic unit leaders for strategic decision making about blended learning options.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are no institutional models of blended learning at our institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
Our institution is identifying blended learning models.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our institution is exploring blended learning models.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our institution encourages general blended learning options.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our institution does not enforce general blended learning options.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is no designation of courses as blended in our university course registration system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our institution is making efforts to designate blended learning courses in the course registration system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blended learning designations are clearly available in our course registration system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are no formal evaluations in place addressing blended learning outcomes at our institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are limited institutional evaluations addressing blended learning outcomes at our institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The evaluation of blended learning outcomes is systematically reviewed at our institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. Please indicate your level of agreement with the following statements regarding the support for blended learning options at your institution

Institutional Policies and Performance Standards

14. Please identify to what extent the following aspects of blended learning are covered by institutional policies.

	Very Extensively	Extensively	Somewhat	Not at all	I do not know
Professor readiness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professor preparedness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Curricular content	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use of technology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learner support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Percentage of time face-to-face required	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blended learning definition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technology support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pedagogical support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. Please identify to what extent the following aspects of blended learning are covered by institutionally adopted performance standards.

	Very Extensively	Extensively	Somewhat	Not at all	I do not know
Professor readiness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professor preparedness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Curricular content	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use of technology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learner support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Percentage of time face-to-face required	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blended learning definition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technology support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pedagogical support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Final Questions

16. Would you be willing to share your institutional policies/standards for blended/hybrid learning formats?

- Yes
 No

17. If you are willing to share your institution's blended learning policies/standards, please indicate the manner in which you would like to do so:

- I will email them to you at aaduarte@student.uivtx.edu
 We have no institutional blended learning policies/standards
 Other - I would like to provide either an email for you to contact me directly or a URL which contains our blended learning standards/policies at our university website please specify.

*** Any personal identifiable information (PII) such as but not limited to, name or URL provided, will not be included in any published results, individually or in the aggregate. ***

Appendix I
Letter Requests to the AACSB And ACBSP

From: Duarte, Anida A. <aaduarte@student.uiwtx.edu>
Sent: Thursday, September 1, 2016 9:30 PM
To: jalderman@acbsp.org
Cc: Craven, Dr Annette E.; mdorning@acbsp.org; sparscale@acbsp.org;
dianahallerud@acbsp.org
Subject: Dissertation Research Request: Blended Learning: Institutional Frameworks for Adoption and Implementation Survey

September 1, 2016

ACBSP, Jeffrey Alderman, President/CEO
11520 West 119th Street, Overland Park, KS 66213

Dear Mr. Jeffrey Alderman,

I am a doctoral candidate at the University of the Incarnate Word (UIW) located in San Antonio, Texas working towards a Doctor of Business Administration. UIW is the largest Catholic university and fourth largest private institution in the state of Texas. Additional information can be located here: <http://www.uiw.edu/dba/index.html>

I am requesting your assistance with sharing my dissertation survey on blended learning formats with business schools accredited through your organization. Current research suggests that schools are moving towards a blended format (traditional classroom learning combined with online learning) for a variety of reasons including competitiveness, facility constraints, and student adaptability. However, researchers are concerned with the level of quality and consistency that is used when developing, implementing, and measuring these courses/programs.

Using a conceptual and theoretical framework approach, my study aims to identify current accredited AACSB/ACBSP business schools that have blended learning courses/programs and the depth in which schools are administering their programs. The goal is to provide future researchers and institutions with a collective and consistent framework for a blended learning model that will benefit future learners. Your participation will assist with the future of blended learning and help strengthen the framework for this growing medium. The survey results from this dissertation will be provided to your organization upon the conclusion of a successful defense. If you wish to participate, please share the following link with your schools: <https://www.surveymonkey.com/r/BLModels>. Thank you for your consideration and if you have any questions, concerns, or comments do not hesitate to reach out to me and/or my dissertation chair Dr. Annette Craven.

Very Respectfully,
Anida Duarte, DBA Candidate, 469-939-7620

From: Duarte, Anida A. <aaduarte@student.uiwtx.edu>
Sent: Thursday, September 1, 2016 9:48 PM
To: tom.robinson@aacsb.edu
Cc: robyn.hall@aacsb.edu; cathyane.guillaume@aacsb.edu; Craven, Dr Annette E
Subject: Dissertation Research Request: Blended Learning Institutional Frameworks for Adoption and Implementation Survey

September 1, 2016

AACSB International
Tom Robinson, President/CEO
777 South Harbour Island Boulevard, Suite 750
Tampa, FL 33602

Dear Dr. Robinson,

I am a doctoral candidate at the University of the Incarnate Word (UIW) located in San Antonio, Texas working towards a Doctor of Business Administration. UIW is the largest Catholic university and fourth largest private institution in the state of Texas. Additional information can be located here: <http://www.uiw.edu/dba/index.html>

I am requesting your assistance with sharing my dissertation survey on blended learning formats with business schools accredited through your organization. Current research suggests that schools are moving towards a blended format (traditional classroom learning combined with online learning) for a variety of reasons including competitiveness, facility constraints, and student adaptability. However, researchers are concerned with the level of quality and consistency that is used when developing, implementing, and measuring these courses/programs.

Using a conceptual and theoretical framework approach, my study aims to identify current accredited AACSB/ACBSP business schools that have blended learning courses/programs and the depth in which schools are administering their programs. The goal is to provide future researchers and institutions with a collective and consistent framework for a blended learning model that will benefit future learners.

Your participation will assist with the future of blended learning and help strengthen the framework for this growing medium. The survey results from this dissertation will be provided to your organization upon the conclusion of a successful defense. If you wish to participate, please share the following link with your schools: <https://www.surveymonkey.com/r/BLModels>

Thank you for your consideration and if you have any questions, concerns, or comments do not hesitate to reach out to me and/or my dissertation chair Dr. Annette Craven.

Very Respectfully,
Anida Duarte, DBA Candidate, 469-939-7620

Appendix J
Letter Sample to AACSB and ACBSP Business Accredited Schools

Date

Dear Sir/Madam,

I am a doctoral candidate at the University of the Incarnate Word (UIW) located in San Antonio, Texas working towards a Doctor of Business Administration. UIW is the largest Catholic university and fourth largest private institution in the state of Texas.

I am requesting your assistance with participating in my dissertation survey on blended learning formats specific to your university or institution. Current research suggests that schools are moving towards a blended format (traditional classroom learning combined with online learning) for a variety of reasons including competitiveness, facility constraints, and student adaptability. However, researchers are concerned with the level of quality and consistency that is used when developing, implementing, and measuring these courses/programs.

Using a conceptual and theoretical framework approach, my study aims to identify current accredited AACSB/ACBSP business schools that have blended learning courses/programs and the depth in which schools are administering their programs. The goal is to provide future researchers and institutions with a collective and consistent framework for a blended learning model that will benefit future learners.

Your participation will assist with the future of blended learning and help strengthen the framework for this growing medium. If you wish to participate, please use the following link below.

Thank you for your consideration and if you have any questions, concerns, or comments do not hesitate to reach out to me and/or my dissertation chair Dr. Annette Craven.

Very Respectfully,

Anida Duarte
UIW DBA Candidate
469-939-7620

Appendix K
Blended Learning Degree Plans Offered

Table 6

Additional Business Program Blended Learning Options (n = 227)

Degree(s) Offered	Individual BL Courses	Entire BL Programs	Strategic Plan
AD Only	50	14	24
AD/BD	28	22	21
AD/BD/MD	28	17	15
AD/BD/MD/DD	23	14	21
AD/MD	1	0	0
AD/MD/DD	1	0	0
AD/DD	3	0	3
BD Only	27	49	27
AD/MD	25	30	19
BD/MD/DD	10	11	14
BD/DD	0	5	2
MD Only	11	22	29
MD/DD	2	2	4
DD Only	2	6	6
None	13	24	22
Subtotal	224	216	207
Missing	3	11	20
Total	227	227	227

Key: AD=Associate Degree; BD=Bachelor Degree; MD=Master's Degree; DD=Doctoral Degree

Appendix L
Blended Learning Degree Plans Maturity

Table 8

Additional Degree Plans Blended Learning Implementation Maturity (n = 227)

Degree(s) Offered	< 1 Academic Year	2 nd Academic Year	> 2 Academic Years	Fully Implemented BL Options
AD Only	29	45	28	23
AD/BD	10	12	7	7
AD/BD/MD	6	4	7	6
AD/BD/MD/DD	5	1	1	4
AD/MD	0	1	1	2
AD/MD/DD	0	1	0	1
AD/DD	1	4	1	2
BD Only	26	35	51	40
AD/MD	3	8	15	17
BD/MD/DD	1	2	2	9
BD/DD	1	1	0	1
MD Only	15	21	33	25
MD/DD	5	3	2	3
DD Only	17	8	4	12
None	50	37	33	29
Subtotal	169	183	186	181
Missing	58	44	41	46
Total	227	227	227	227

Key: AD=Associate Degree; BD=Bachelor Degree; MD=Master's Degree; DD=Doctoral Degree

Table 21

Degree Levels – Strategy, Structure, and Support Maturity Levels

Associates Only (n = 28)	Stage 1 Measurement	Mean	Stage 2 Measurement	Mean	Stage 3 Measurement	Mean
<u>Strategy</u> Purpose	Individual faculty informally identify specific BL benefits	1.93	Administrators identify purposes to motivate institutional adoption of BL	2.28	There is administrative refinement of purposes for continuous promotion of BL	2.36
	Individual administrators informally identify specific BL benefits	2.15		There is administrative refinement of purposes for continuous funding of BL	2.60	
Advocacy	Individual faculty informally advocate BL options	2.52	BL is informally approved by university administrators	2.64	There is formal BL advocacy by university departments	2.68
	Individual administrators informally advocate BL options	2.41	BL is formally advocated by university administrators	2.20		
Implementation	Individual faculty implement BL options at our institution	2.41	Administrators target implementation of BL in high impact areas at our institution	2.92	University departments strategically facilitate widespread faculty implementation of BL at our institution	2.64
			Administrators target implementation of BL among high impact faculty at our institution	2.72		

Definition	There is no uniform definition of BL currently proposed at our institution	3.15	An initial definition of BL has formally been proposed at our university	2.88	Our institution has formally adopted a refined definition of BL	2.56
Policy	There is no uniform BL policy in place at our institution	3.07	Tentative policies have been adopted for BL in our institution	2.88	Our institution has robust BL policies in place	2.80
			Tentative BL policies have been communicated to stakeholders at our institution	2.80	Our institutional BL options have a high level of community awareness	2.88
			Tentative BL policies have been revised as needed at our institution	2.76		
<u>Structure</u>						
Governance	There is currently no official approval structure for BL options at our institution	2.86	Our institution has emerging structures to regulate BL options	3.00	Our institution has robust structures involving academic unit leaders for strategic decision making about BL options	2.71
	There is currently no official implementation structure for BL options at our institution	3.07	Our institution has emerging structures to approve BL options	2.79		
Models	There are no institutional models of BL at our institution	3.32	Our institution is exploring BL models	2.57	Our institution encourages general BL options	2.29
			Our institution is identifying BL models	2.54	Our institution does not enforce general BL options	2.89
Scheduling	There is no designation of courses as blended in our university course registration system.	3.07	Our institution is making efforts to designate BL courses in the course registration system	2.79	BL designations are clearly available in our course registration system	2.50
Evaluation	There are no formal evaluations in place addressing BL outcomes at	2.96	There are limited institutional evaluations	2.75	The evaluation of BL outcomes is systematically	2.86

	our institution		addressing BL at our institution		reviewed at our institution	
<u>Support</u> Technical	The primary focus of technological support at our institution is on the traditional classroom.	3.50	There is an increased focus on BL technological support for faculty at our institution	2.71	There is well-established tech support to address BL needs of all stakeholders at our institution	2.68
			There is an increased focus on BL technological support for students at our institution	2.64		
Pedagogical	Our institution does not have a course development process in place for BL options	3.71	Our institution is experimenting with formal BL course development process	3.11	Our institution has a robust BL course development process established	2.75
			Our institution is building a formal BL course development process	3.29		
Incentives	Our institution does not have an identified faculty incentive structure for implementation of BL options	3.54	Our institution is exploring a faculty incentive structure for BL course development	3.46	Our institution has a well-established faculty incentive structure for systematic BL training	3.29
			Our institution is exploring a faculty incentive structure for BL faculty training	3.36		
BD Only (<i>n</i> = 42)	Stage 1 Measurement Item	Stage 1 Mean	Stage 2 Measurement Item	Stage 2 Mean	Stage 3 Measurement Item	Stage 3 Mean
<u>Strategy</u> Purpose	Individual faculty informally identify specific BL benefits	2.61	Administrators identify purposes to motivate	2.24	There is administrative refinement of purposes for	2.56

			institutional adoption of BL		continuous promotion of BL	
	Individual administrators informally identify specific BL benefits	2.46			There is administrative refinement of purposes for continuous funding of BL	2.41
Advocacy	Individual faculty informally advocate BL options	2.66	BL is informally approved by university administrators	2.59	There is formal BL advocacy by university departments	2.44
	Individual administrators informally advocate BL options	2.83	BL is formally advocated by university administrators	2.54		
Implementation	Individual faculty implement BL options at our institution	2.61	Administrators target implementation of BL in high impact areas at our institution	2.41	University departments strategically facilitate widespread faculty implementation of BL at our institution	2.83
			Administrators target implementation of BL among high impact faculty at our institution	2.51		
Definition	There is no uniform definition of BL currently proposed at our institution	2.68	An initial definition of BL has formally been proposed at our university	2.68	Our institution has formally adopted a refined definition of BL	2.73
Policy	There is no uniform BL policy in place at our institution	3.00	Tentative policies have been adopted for BL in our institution	2.76	Our institution has robust BL policies in place	2.95
			Tentative BL policies have been communicated to stakeholders at our institution	2.57	Our institutional BL options have a high level of community awareness	2.61
			Tentative BL policies have been revised as needed at our institution	2.68		

<u>Structure</u>						
Governance	There is currently no official approval structure for BL options at our institution	2.71	Our institution has emerging structures to regulate BL options	2.62	Our institution has robust structures involving academic unit leaders for strategic decision making about BL options	2.65
	There is currently no official implementation structure for BL options at our institution	2.63	Our institution has emerging structures to approve BL options	2.77		
Models	There are no institutional models of BL at our institution	2.80	Our institution is exploring BL models	2.85	Our institution encourages general BL options Our institution does not enforce general BL options	2.65 2.90
			Our institution is identifying BL models	2.95		
Scheduling	There is no designation of courses as blended in our university course registration system.	2.85	Our institution is making efforts to designate BL courses in the course registration system	2.79	BL designations are clearly available in our course registration system	2.83
Evaluation	There are no formal evaluations in place addressing BL outcomes at our institution	2.85	There are limited institutional evaluations addressing BL at our institution	2.74	The evaluation of BL outcomes is systematically reviewed at our institution	3.00
<u>Support</u>						
Technical	The primary focus of technological support at our institution is on the traditional classroom.	2.56	There is an increased focus on BL technological support for faculty at our institution	3.05	There is well-established tech support to address BL needs of all stakeholders at our institution	3.17
			There is an increased focus on BL technological support for students at our institution	2.95		
Pedagogical	Our institution does not have a course development process in place for BL options	3.24	Our institution is experimenting with formal BL course development process	3.21	Our institution has a robust BL course development process established	2.98

			Our institution is building a formal BL course development process	2.95	Our institution systematically promotes a robust BL course development process	3.10
Incentives	Our institution does not have an identified faculty incentive structure for implementation of BL options	3.17	Our institution is exploring a faculty incentive structure for BL course development	3.12	Our institution has a well-established faculty incentive structure for systematic BL training	3.26
			Our institution is exploring a faculty incentive structure for BL faculty training	3.07	Our institution has a well-established faculty incentive structure for implementation of BL options	3.29
MD Only (<i>n</i> = 28)	Stage 1 Measurement Item	Stage 1 Mean	Stage 2 Measurement Item	Stage 2 Mean	Stage 3 Measurement Item	Stage 3 Mean
<u>Strategy Purpose</u>	Individual faculty informally identify specific BL benefits	2.11	Administrators identify purposes to motivate institutional adoption of BL	2.27	There is administrative refinement of purposes for continuous promotion of BL	2.50
	Individual administrators informally identify specific BL benefits	2.29			There is administrative refinement of purposes for continuous funding of BL	2.69
Advocacy	Individual faculty informally advocate BL options	2.36	BL is informally approved by university administrators	2.35	There is formal BL advocacy by university departments	2.42
	Individual administrators informally advocate BL options	2.50	BL is formally advocated by university administrators	2.35		
Implementation	Individual faculty implement BL options at our institution	2.18	Administrators target implementation of BL in high impact areas at our	2.54	University departments strategically facilitate widespread faculty	2.73

			institution		implementation of BL at our institution	
			Administrators target implementation of BL among high impact faculty at our institution	2.69		
Definition	There is no uniform definition of BL currently proposed at our institution	2.64	An initial definition of BL has formally been proposed at our university	2.69	Our institution has formally adopted a refined definition of BL	2.62
Policy	There is no uniform BL policy in place at our institution	2.68	Tentative policies have been adopted for BL in our institution	2.58	Our institution has robust BL policies in place	2.73
			Tentative BL policies have been communicated to stakeholders at our institution	3.08	Our institutional BL options have a high level of community awareness	2.65
			Tentative BL policies have been revised as needed at our institution	2.81		
<u>Structure</u>						
Governance	There is currently no official approval structure for BL options at our institution	2.14	Our institution has emerging structures to regulate BL options	2.20	Our institution has robust structures involving academic unit leaders for strategic decision making about BL options	2.41
	There is currently no official implementation structure for BL options at our institution	2.39	Our institution has emerging structures to approve BL options	2.24		
Models	There are no institutional models of BL at our institution	2.61	Our institution is exploring BL models	2.44	Our institution encourages general BL options	2.41
			Our institution is identifying BL models	2.56	Our institution does not enforce general BL options	2.44

Scheduling	There is no designation of courses as blended in our university course registration system.	2.57	Our institution is making efforts to designate BL courses in the course registration system	2.80	BL designations are clearly available in our course registration system	2.41
Evaluation	There are no formal evaluations in place addressing BL outcomes at our institution	2.79	There are limited institutional evaluations addressing BL at our institution	2.60	The evaluation of BL outcomes is systematically reviewed at our institution	2.67
<u>Support</u> Technical	The primary focus of technological support at our institution is on the traditional classroom.	2.74	There is an increased focus on BL technological support for faculty at our institution	2.46	There is well-established tech support to address BL needs of all stakeholders at our institution	2.43
			There is an increased focus on BL technological support for students at our institution	2.79		
Pedagogical	Our institution does not have a course development process in place for BL options	2.78	Our institution is experimenting with formal BL course development process	2.79	Our institution has a robust BL course development process established	2.43
			Our institution is building a formal BL course development process	2.79	Our institution systematically promotes a robust BL course development process	2.32
Incentives	Our institution does not have an identified faculty incentive structure for implementation of BL options	2.59	Our institution is exploring a faculty incentive structure for BL course development	2.75	Our institution has a well-established faculty incentive structure for systematic BL training	3.07
			Our institution is exploring a faculty incentive structure for BL faculty training	2.96	Our institution has a well-established faculty incentive structure for implementation of BL options	3.26

DD Only (<i>n</i> = 4)	Stage 1 Measurement Item	Stage 1 Mean	Stage 2 Measurement Item	Stage 2 Mean	Stage 3 Measurement Item	Stage 3 Mean
<u>Strategy Purpose</u>	Individual faculty informally identify specific BL benefits	2.00	Administrators identify purposes to motivate institutional adoption of BL	2.50	There is administrative refinement of purposes for continuous promotion of BL	2.33
	Individual administrators informally identify specific BL benefits	2.75			There is administrative refinement of purposes for continuous funding of BL	2.67
Advocacy	Individual faculty informally advocate BL options	2.25	BL is informally approved by university administrators	2.00	There is formal BL advocacy by university departments	1.67
	Individual administrators informally advocate BL options	1.50	BL is formally advocated by university administrators	2.75		
Implementation	Individual faculty implement BL options at our institution	1.75	Administrators target implementation of BL in high impact areas at our institution	2.50	University departments strategically facilitate widespread faculty implementation of BL at our institution	3.33
			Administrators target implementation of BL among high impact faculty at our institution	2.75		
Definition	There is no uniform definition of BL currently proposed at our institution	3.50	An initial definition of BL has formally been proposed at our university	2.75	Our institution has formally adopted a refined definition of BL	3.67
Policy	There is no uniform BL policy in place at our institution	2.75	Tentative policies have been adopted for BL in our institution	2.75	Our institution has robust BL policies in place	4.33

			Tentative BL policies have been communicated to stakeholders at our institution	2.50	Our institutional BL options have a high level of community awareness	4.00
			Tentative BL policies have been revised as needed at our institution	2.75		
<u>Structure</u>						
Governance	There is currently no official approval structure for BL options at our institution	3.75	Our institution has emerging structures to regulate BL options	3.25	Our institution has robust structures involving academic unit leaders for strategic decision making about BL options	3.50
	There is currently no official implementation structure for BL options at our institution	3.00	Our institution has emerging structures to approve BL options	3.50		
Models	There are no institutional models of BL at our institution	2.75	Our institution is exploring BL models	3.25	Our institution encourages general BL options	3.25
			Our institution is identifying BL models	2.75	Our institution does not enforce general BL options	3.75
Scheduling	There is no designation of courses as blended in our university course registration system.	3.00	Our institution is making efforts to designate BL courses in the course registration system	2.75	BL designations are clearly available in our course registration system	3.50
Evaluation	There are no formal evaluations in place addressing BL outcomes at our institution	2.50	There are limited institutional evaluations addressing BL at our institution	3.25	The evaluation of BL outcomes is systematically reviewed at our institution	3.25
<u>Support</u>						
Technical	The primary focus of technological support at our institution is on the traditional classroom.	3.50	There is an increased focus on BL technological support for faculty at our	3.33	There is well-established tech support to address BL needs of all stakeholders at	3.67

			institution		our institution	
			There is an increased focus on BL technological support for students at our institution	3.33		
Pedagogical	Our institution does not have a course development process in place for BL options	3.00	Our institution is experimenting with formal BL course development process	3.67	Our institution has a robust BL course development process established	4.33
			Our institution is building a formal BL course development process	4.00	Our institution systematically promotes a robust BL course development process	4.00
Incentives	Our institution does not have an identified faculty incentive structure for implementation of BL options	3.25	Our institution is exploring a faculty incentive structure for BL course development	3.67	Our institution has a well-established faculty incentive structure for systematic BL training	3.67
			Our institution is exploring a faculty incentive structure for BL faculty training	3.67	Our institution has a well-established faculty incentive structure for implementation of BL options	4.00

AD/BD/MD/DD (n = 25)	Stage 1 Measurement Item	Stage 1 Mean	Stage 2 Measurement Item	Stage 2 Mean	Stage 3 Measurement Item	Stage 3 Mean
<u>Strategy</u> Purpose	Individual faculty informally identify specific BL benefits	1.96	Administrators identify purposes to motivate institutional adoption of BL	1.80	There is administrative refinement of purposes for continuous promotion of BL	2.08
	Individual administrators informally identify specific BL benefits	2.24			There is administrative refinement of purposes for continuous funding of BL	2.20

Advocacy	Individual faculty informally advocate BL options	2.28	BL is informally approved by university administrators	2.44	There is formal BL advocacy by university departments	2.38
	Individual administrators informally advocate BL options	1.92	BL is formally advocated by university administrators	2.16		
Implementation	Individual faculty implement BL options at our institution	2.24	Administrators target implementation of BL in high impact areas at our institution	2.16	University departments strategically facilitate widespread faculty implementation of BL at our institution	2.20
			Administrators target implementation of BL among high impact faculty at our institution	2.12		
Definition	There is no uniform definition of BL currently proposed at our institution	3.04	An initial definition of BL has formally been proposed at our university	2.24	Our institution has formally adopted a refined definition of BL	2.24
Policy	There is no uniform BL policy in place at our institution	2.84	Tentative policies have been adopted for BL in our institution	2.16	Our institution has robust BL policies in place	2.28
			Tentative BL policies have been communicated to stakeholders at our institution	2.08	Our institutional BL options have a high level of community awareness	2.40
			Tentative BL policies have been revised as needed at our institution	2.24		
<u>Structure</u> Governance	There is currently no official approval structure for BL options at our institution	3.08	Our institution has emerging structures to regulate BL options	2.60	Our institution has robust structures involving academic unit leaders for strategic decision making	2.16

	There is currently no official implementation structure for BL options at our institution	3.32	Our institution has emerging structures to approve BL options	2.32	about BL options	
Models	There are no institutional models of BL at our institution	3.20	Our institution is exploring BL models	2.24	Our institution encourages general BL options	2.12
			Our institution is identifying BL models	2.40	Our institution does not enforce general BL options	3.21
Scheduling	There is no designation of courses as blended in our university course registration system.	3.72	Our institution is making efforts to designate BL courses in the course registration system	2.76	BL designations are clearly available in our course registration system	2.20
Evaluation	There are no formal evaluations in place addressing BL outcomes at our institution	3.36	There are limited institutional evaluations addressing BL at our institution	3.28	The evaluation of BL outcomes is systematically reviewed at our institution	2.36
<u>Support</u> Technical	The primary focus of technological support at our institution is on the traditional classroom.	2.60	There is an increased focus on BL technological support for faculty at our institution	2.28	There is well-established tech support to address BL needs of all stakeholders at our institution	2.32
			There is an increased focus on BL technological support for students at our institution	2.16		
Pedagogical	Our institution does not have a course development process in place for BL options	3.44	Our institution is experimenting with formal BL course development process	2.68	Our institution has a robust BL course development process established	2.72
			Our institution is building a formal BL course development process	2.44	Our institution systematically promotes a robust BL course	2.56

Incentives	Our institution does not have an identified faculty incentive structure for implementation of BL options	3.25	Our institution is exploring a faculty incentive structure for BL course development	3.12	development process Our institution has a well-established faculty incentive structure for systematic BL training	3.08
			Our institution is exploring a faculty incentive structure for BL faculty training	3.04	Our institution has a well-established faculty incentive structure for implementation of BL options	2.68
<hr/>						
All other combinations (<i>n</i> = 100)	Stage 1 Measurement Item	Stage 1 Mean	Stage 2 Measurement Item	Stage 2 Mean	Stage 3 Measurement Item	Stage 3 Mean
<u>Strategy</u> Purpose	Individual faculty informally identify specific BL benefits	2.21	Administrators identify purposes to motivate institutional adoption of BL	2.22	There is administrative refinement of purposes for continuous promotion of BL	2.29
	Individual administrators informally identify specific BL benefits	2.32			There is administrative refinement of purposes for continuous funding of BL	2.27
Advocacy	Individual faculty informally advocate BL options	2.27	BL is informally approved by university administrators	2.39	There is formal BL advocacy by university departments	2.42
	Individual administrators informally advocate BL options	2.37	BL is formally advocated by university administrators	2.39		
Implementation	Individual faculty implement BL options at our institution	2.20	Administrators target implementation of BL in high impact areas at our institution	2.45	University departments strategically facilitate widespread faculty implementation of BL at our institution	2.60
			Administrators target implementation of BL among high impact	2.49		

			faculty at our institution			
Definition	There is no uniform definition of BL currently proposed at our institution	3.05	An initial definition of BL has formally been proposed at our university	2.59	Our institution has formally adopted a refined definition of BL	2.45
Policy	There is no uniform BL policy in place at our institution	3.08	Tentative policies have been adopted for BL in our institution	2.47	Our institution has robust BL policies in place	2.56
			Tentative BL policies have been communicated to stakeholders at our institution	2.53	Our institutional BL options have a high level of community awareness	2.60
			Tentative BL policies have been revised as needed at our institution	2.45		
<u>Structure</u>						
Governance	There is currently no official approval structure for BL options at our institution	3.15	Our institution has emerging structures to regulate BL options	2.44	Our institution has robust structures involving academic unit leaders for strategic decision making about BL options	2.49
	There is currently no official implementation structure for BL options at our institution	3.23	Our institution has emerging structures to approve BL options	2.47		
Models	There are no institutional models of BL at our institution	3.33	Our institution is exploring BL models	2.28	Our institution encourages general BL options	2.18
			Our institution is identifying BL models	2.35	Our institution does not enforce general BL options	3.16
Scheduling	There is no designation of courses as blended in our university course registration system.	3.37	Our institution is making efforts to designate BL courses in the course registration system	2.34	BL designations are clearly available in our course registration system	2.33

Evaluation	There are no formal evaluations in place addressing BL outcomes at our institution	3.21	There are limited institutional evaluations addressing BL at our institution	2.85	The evaluation of BL outcomes is systematically reviewed at our institution	2.55
<u>Support</u> Technical	The primary focus of technological support at our institution is on the traditional classroom.	2.68	There is an increased focus on BL technological support for faculty at our institution	2.30	There is well-established tech support to address BL needs of all stakeholders at our institution	2.61
			There is an increased focus on BL technological support for students at our institution	2.44		
Pedagogical	Our institution does not have a course development process in place for BL options	3.42	Our institution is experimenting with formal BL course development process	2.87	Our institution has a robust BL course development process established	2.74
			Our institution is building a formal BL course development process	2.76	Our institution systematically promotes a robust BL course development process	2.81
Incentives	Our institution does not have an identified faculty incentive structure for implementation of BL options	3.19	Our institution is exploring a faculty incentive structure for BL course development	2.86	Our institution has a well-established faculty incentive structure for systematic BL training	3.01
			Our institution is exploring a faculty incentive structure for BL faculty training	2.84	Our institution has a well-established faculty incentive structure for implementation of BL options	3.00

Appendix N
Stages 1, 2, & 3-Strategic Maturity Frequency Results for All Degree Levels

Table 22

Strategic Maturity for All Degree Levels

Stage 1 Awareness/Exploration-Strategy for Associate Degrees Only (<i>n</i> = 28)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
Individual faculty informally identify specific BL benefits	8	14	6			
Individual administrators informally identify specific BL benefits	5	14	9			
Individual faculty informally advocate blended learning options	4	10	11	2	1	
Individual administrators informally advocate BL options	4	11	12		1	
Individual faculty implement BL options at our institution	4	11	10	1	1	1
There is no uniform definition of BL currently proposed at our institution	4	2	12	5	5	
There is no uniform BL policy in place at our institution	3	6	8	7	4	
Total	32	68	68	15	12	1

Key: SA=Strongly Agree; A=Agree; NA/D=Neither Agree or Disagree; D=Disagree; SD=Strongly Disagree

Stage 2 Adoption/Early Implementation-Strategy frequencies for Associate Degrees Only (<i>n</i> = 28)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
Administrators identify purposes to motivate institutional adoption of BL	5	13	9	1		
BL is formally approved by university administrators	2	10	11	3	1	1
BL is formally advocated by university administrators	6	12	9	1		
Administrators target implementation of BL in high impact areas at our institution	2	8	12	3	2	1
Administrators target implementation of	2	12	9	4	1	

BL among high impact faculty at our institution						
An initial definition of BL has formally been proposed at our university	3	10	8	3	4	
Tentative policies have been adopted for BL in our institution	2	10	10	3	3	
Tentative BL policies have been communicated to stakeholders at our institution	3	8	12	3	2	
Tentative BL policies have been revised as needed at our institution	3	9	10	2	3	1
Total	28	92	90	23	16	3

Stage 3 Mature Implementation/Growth-Strategy frequencies for Associate Degrees Only ($n = 28$)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is administrative refinement of purposes for continuous promotion of BL	6	10	8	4		
There is administrative refinement of purposes for continuous funding of BL	4	9	11	1	2	1
There is formal BL advocacy by university departments	3	14	6	2	3	
University departments strategically facilitate widespread faculty implementation of BL at our institution	1	13	10	3	1	
Our institution has formally adopted a refined definition of BL	5	10	9	2	2	
Our institution has robust BL policies in place	3	8	11	3	2	1
Our institutional BL options have a high level of community awareness	3	5	14	3	2	1
Total	25	69	69	18	12	3

Stage 1 Awareness/Exploration-Strategy frequencies for Bachelor Degrees Only ($n = 42$)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
Individual faculty informally identify specific BL benefits	7	13	13	8	1	

Individual administrators informally identify specific BL benefits	6	15	16	5		
Individual faculty informally advocate blended learning options	8	11	14	3	5	1
Individual administrators informally advocate BL options	4	15	12	7	4	
Individual faculty implement BL options at our institution	7	15	16	3	1	
There is no uniform definition of BL currently proposed at our institution	8	11	13	6	4	
There is no uniform BL policy in place at our institution	3	10	16	10	3	
Total	43	90	100	42	18	1

Stage 2 Adoption/Early Implementation-Strategy frequencies for Bachelor Degrees Only ($n = 42$)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
Administrators identify purposes to motivate institutional adoption of BL	10	16	12	4		
BL is formally approved by university administrators	6	14	13	6	2	1
BL is formally advocated by university administrators	7	11	15	7	1	1
Administrators target implementation of BL in high impact areas at our institution	8	13	15	5	1	
Administrators target implementation of BL among high impact faculty at our institution	8	12	15	4	3	
An initial definition of BL has formally been proposed at our university	7	9	17	7	1	1
Tentative policies have been adopted for BL in our institution	4	13	16	8	1	
Tentative BL policies have been communicated to stakeholders at our institution	5	16	11	8	1	1
Tentative BL policies have been revised as needed at our institution	5	9	19	5	2	2
Total	60	113	133	54	12	6

Stage 3 Mature Implementation/Growth-Strategy frequencies for Bachelor Degrees Only ($n=42$)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is administrative refinement of purposes for continuous promotion of BL	7	13	15	6	1	
There is administrative refinement of purposes for continuous funding of BL	9	13	15	4	1	
There is formal BL advocacy by university departments	7	15	16	3	1	
University departments strategically facilitate widespread faculty implementation of BL at our institution	5	12	12	9	3	1
Our institution has formally adopted a refined definition of BL	5	10	20	5	2	
Our institution has robust BL policies in place	4	11	13	11	3	
Our institutional BL options have a high level of community awareness	5	17	11	8	1	
Total	42	91	102	46	12	1

Stage 1 Awareness/Exploration-Strategy frequencies for Master's Degrees Only ($n = 28$)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
Individual faculty informally identify specific BL benefits	5	18	2	3		
Individual administrators informally identify specific BL benefits	3	15	9	1		
Individual faculty informally advocate blended learning options	7	10	6	4	1	
Individual administrators informally advocate BL options	4	13	6	3	2	
Individual faculty implement BL options at our institution	5	16	4	3		
There is no uniform definition of BL currently proposed at our institution	1	15	5	7		
There is no uniform BL policy in place at	5	8	7	7	1	

our institution							
	Total	30	95	39	28	4	
Stage 2 Adoption/Early Implementation-Strategy frequencies for Master's Degrees Only (<i>n</i> = 28)							
Measurement Items	SA	A	NA/D	D	SD	Missing	
Administrators identify purposes to motivate institutional adoption of BL	2	18	6	2			
BL is formally approved by university administrators	3	14	9	2			
BL is formally advocated by university administrators	3	17	5	3			
Administrators target implementation of BL in high impact areas at our institution	3	13	7	3	2		
Administrators target implementation of BL among high impact faculty at our institution	4	11	5	7	1		
An initial definition of BL has formally been proposed at our university	1	13	8	3	2	1	
Tentative policies have been adopted for BL in our institution	4	11	7	5	1		
Tentative BL policies have been communicated to stakeholders at our institution	2	8	7	7	3	1	
Tentative BL policies have been revised as needed at our institution	4	10	6	5	3		
	Total	26	115	60	37	12	2
Stage 3 Mature Implementation/Growth-Strategy frequencies for Master's Degrees Only (<i>n</i> = 28)							
Measurement Items	SA	A	NA/D	D	SD	Missing	
There is administrative refinement of purposes for continuous promotion of BL	4	14	5	3	2		
There is administrative refinement of purposes for continuous funding of BL	2	11	10	4	1		
There is formal BL advocacy by university departments	5	12	6	4	1		
University departments strategically	2	12	9	3	2		

facilitate widespread faculty implementation of BL at our institution						
Our institution has formally adopted a refined definition of BL	4	11	6	4	2	1
Our institution has robust BL policies in place	3	9	8	6	1	1
Our institutional BL options have a high level of community awareness	1	13	9	3	1	1
Total	21	82	53	27	10	3

Stage 1 Awareness/Exploration-Strategy frequencies for Doctoral Degrees Only (n = 4)

<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
Individual faculty informally identify specific BL benefits	2		2			
Individual administrators informally identify specific BL benefits		2	1	1		
Individual faculty informally advocate blended learning options	2	1			1	
Individual administrators informally advocate BL options	2	2				
Individual faculty implement BL options at our institution	1	3				
There is no uniform definition of BL currently proposed at our institution		1	1	1	1	
There is no uniform BL policy in place at our institution		2	1	1		
Total	7	11	5	3	2	

Stage 2 Adoption/Early Implementation-Strategy frequencies for Doctoral Degrees Only (n = 4)

<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
Administrators identify purposes to motivate institutional adoption of BL		3		1		
BL is formally approved by university administrators	1	2	1			
BL is formally advocated by university administrators		1	3			

Administrators target implementation of BL in high impact areas at our institution		3		1	
Administrators target implementation of BL among high impact faculty at our institution		2	1	1	
An initial definition of BL has formally been proposed at our university		2	1	1	
Tentative policies have been adopted for BL in our institution		2	1	1	
Tentative BL policies have been communicated to stakeholders at our institution		3		1	
Tentative BL policies have been revised as needed at our institution		2	1	1	
Total	1	20	8	7	

Stage 3 Mature Implementation/Growth-Strategy frequencies for
Doctoral Degrees Only ($n = 4$)

<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is administrative refinement of purposes for continuous promotion of BL		3		1		
There is administrative refinement of purposes for continuous funding of BL	1	2		1		
There is formal BL advocacy by university departments	1	2				1
University departments strategically facilitate widespread faculty implementation of BL at our institution		2	1		1	
Our institution has formally adopted a refined definition of BL		1	1	2		
Our institution has robust BL policies in place				3	1	
Our institutional BL options have a high level of community awareness		1	1	1	1	
Total	2	11	3	8	3	1

Stage 1 Awareness/Exploration-Strategy frequencies for
Associate, Bachelor, Master's, and Doctoral Degrees ($n = 25$)

<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
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Individual faculty informally identify specific BL benefits	5	17	2	1		
Individual administrators informally identify specific BL benefits	3	15	5	2		
Individual faculty informally advocate blended learning options	4	12	7	2		
Individual administrators informally advocate BL options	7	13	3	1		1
Individual faculty implement BL options at our institution	5	12	5	3		
There is no uniform definition of BL currently proposed at our institution	3	6	5	9	2	
There is no uniform BL policy in place at our institution	4	7	4	9	1	
Total	31	82	31	27	3	1

Stage 2 Adoption/Early Implementation-Strategy frequencies for Associate, Bachelor, Master's, and Doctoral Degrees (<i>n</i> = 25)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
Administrators identify purposes to motivate institutional adoption of BL	10	11	3	1		
BL is formally approved by university administrators	3	14	3	4	1	
BL is formally advocated by university administrators	6	12	5	1	1	
Administrators target implementation of BL in high impact areas at our institution	6	14	1	3	1	
Administrators target implementation of BL among high impact faculty at our institution	7	10	6	2		
An initial definition of BL has formally been proposed at our university	6	11	4	4		
Tentative policies have been adopted for BL in our institution	6	12	4	3		
Tentative BL policies have been communicated to stakeholders at our institution	7	11	5	2		

Tentative BL policies have been revised as needed at our institution	7	9	5	4		
Total	58	104	36	24	3	

Stage 3 Mature Implementation/Growth-Strategy frequencies for Associate, Bachelor, Master's, and Doctoral Degrees (<i>n</i> = 25)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is administrative refinement of purposes for continuous promotion of BL	5	12	6	2		
There is administrative refinement of purposes for continuous funding of BL	5	12	6	2		
There is formal BL advocacy by university departments	6	9	5	2	2	1
University departments strategically facilitate widespread faculty implementation of BL at our institution	7	9	6	3		
Our institution has formally adopted a refined definition of BL	5	13	3	4		
Our institution has robust BL policies in place	6	11	4	3	1	
Our institutional BL options have a high level of community awareness	4	14	1	5	1	
Total	38	80	31	21	4	1

Stage 1 Awareness/Exploration-Strategy frequencies for the remaining combination of degrees (<i>n</i> = 100)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
Individual faculty informally identify specific BL benefits	16	57	16	7	2	2
Individual administrators informally identify specific BL benefits	16	49	23	7	3	2
Individual faculty informally advocate blended learning options	20	42	26	7	2	3
Individual administrators informally advocate BL options	17	43	25	9	3	3
Individual faculty implement BL options at our institution	17	50	24	5	1	3
There is no uniform definition of BL	7	29	23	30	9	2

currently proposed at our institution						
There is no uniform BL policy in place at our institution	8	29	21	28	12	2
Total	101	299	158	93	32	17
Stage 2 Adoption/Early Implementation-Strategy frequencies for the remaining combination of degrees ($n = 100$)						
Measurement Items	SA	A	NA/D	D	SD	Missing
Administrators identify purposes to motivate institutional adoption of BL	24	44	16	12	2	2
BL is formally approved by university administrators	17	40	28	9	3	3
BL is formally advocated by university administrators	18	44	22	11	3	2
Administrators target implementation of BL in high impact areas at our institution	16	40	28	10	3	3
Administrators target implementation of BL among high impact faculty at our institution	18	37	26	14	3	2
An initial definition of BL has formally been proposed at our university	11	39	33	12	3	2
Tentative policies have been adopted for BL in our institution	13	43	27	13	2	2
Tentative BL policies have been communicated to stakeholders at our institution	15	30	40	11	2	2
Tentative BL policies have been revised as needed at our institution	12	43	29	10	2	4
Total	144	360	249	102	23	22
Stage 3 Mature Implementation/Growth-Strategy frequencies for the remaining combination of degrees ($n = 100$)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is administrative refinement of purposes for continuous promotion of BL	23	40	21	11	3	2
There is administrative refinement of purposes for continuous funding of BL	26	35	26	8	3	2

There is formal BL advocacy by university departments	13	47	24	11	3	2
University departments strategically facilitate widespread faculty implementation of BL at our institution	16	33	31	11	7	2
Our institution has formally adopted a refined definition of BL	20	31	27	14	3	5
Our institution has robust BL policies in place	13	38	27	13	5	4
Our institutional BL options have a high level of community awareness	14	36	26	18	4	2
Total	125	260	182	86	28	19

Appendix O
Stages 1, 2, & 3-Structural Maturity Frequencies for All Degree Levels

Table 23

Structural Maturity for All Degree Levels

<u>Measurement Items</u>	Stage 1 Awareness/Exploration-Structure frequencies for Associate Degree Only (<i>n</i> = 28)				
	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>
There is currently no official approval structure for BL options at our institution	5	7	8	3	5
There is currently no official implementation structure for BL options at our institution	4	7	6	5	6
There are no institutional models of BL at our institution	1	7	9	4	7
There is no designation of courses as blended in our university course registration system.	1	8	12	2	5
There are no formal evaluations in place addressing BL outcomes at our institution	2	7	12	4	3
Total	13	36	47	18	26

Key: SA=Strongly Agree; A=Agree; NA/D=Neither Agree or Disagree; D=Disagree; SD=Strongly Disagree

<u>Measurement Items</u>	Stage 2 Adoption/Early Implementation-Structure frequencies for Associate Degree Only (<i>n</i> = 28)				
	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>
Our institution has emerging structures to regulate BL options	1	7	13	5	2
Our institution has emerging structures to approve BL options	3	7	13	3	2
Our institution is exploring BL models	2	14	9		3
Our institution is identifying BL models	4	12	8	1	3
Our institution is making efforts to designate BL courses in the course registration system	3	7	13	3	2
Total	13	47	56	12	12

Stage 3 Mature Implementation/Growth-Structure frequencies for Associate Degree Only (<i>n</i> = 28)					
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>
Our institution has robust structures involving academic unit leaders for strategic decision making about BL options	4	7	12	3	2
Our institution encourages general BL options	6	11	9	1	1
Our institution does not enforce general BL options	4	7	9	4	4
BL designations are clearly available in our course registration system	4	10	11	2	1
The evaluation of BL outcomes is systematically reviewed at our institution	1	11	10	3	3
Total	19	46	51	13	11

Stage 1 Awareness/Exploration-Structure frequencies for Bachelor Degree Only (<i>n</i> = 42)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is currently no official approval structure for BL options at our institution	4	15	12	9	2	
There is currently no official implementation structure for BL options at our institution	4	18	10	10		
There are no institutional models of BL at our institution	4	13	14	10	1	
There is no designation of courses as blended in our university course registration system.	2	14	14	10	1	1
There are no formal evaluations in place addressing BL outcomes at our institution	5	8	18	10	1	
Total	19	68	68	49	5	1

Stage 2 Adoption/Early Implementation-Structure frequencies for Bachelor Degree Only (<i>n</i> = 42)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>

Our institution has emerging structures to regulate BL options	7	9	15	9	2	
Our institution has emerging structures to approve BL options	3	13	16	10		
Our institution is exploring BL models	2	11	21	5	3	
Our institution is identifying BL models	3	11	14	9	4	1
Our institution is making efforts to designate BL courses in the course registration system	5	11	11	13	2	
Total	20	55	77	46	9	3

Stage 3 Mature Implementation/Growth-Structure frequencies for Bachelor Degree Only ($n = 42$)

<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
Our institution has robust structures involving academic unit leaders for strategic decision making about BL options	4	13	16	8	1	
Our institution encourages general BL options	6	13	14	8	1	
Our institution does not enforce general BL options	4	8	22	5	3	
BL designations are clearly available in our course registration system	3	14	14	9	2	
The evaluation of BL outcomes is systematically reviewed at our institution	2	9	18	9	2	2
Total	19	57	84	39	9	2

Stage 1 Awareness/Exploration-Structure frequencies for Master's Degree Only ($n = 28$)

<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is currently no official approval structure for BL options at our institution	6	15	4	3		
There is currently no official implementation structure for BL options at our institution	5	12	6	5		
There are no institutional models of BL at	2	13	8	4	1	

our institution						
There is no designation of courses as blended in our university course registration system.	6	9	7	3	3	
There are no formal evaluations in place addressing BL outcomes at our institution	3	7	11	7		
Total	22	56	36	22	4	
Stage 2 Adoption/Early Implementation-Structure frequencies for Master's Degree Only (<i>n</i> = 28)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
Our institution has emerging structures to regulate BL options	6	14	5	2	1	
Our institution has emerging structures to approve BL options	5	15	5	2	1	
Our institution is exploring BL models	5	11	8	2	1	1
Our institution is identifying BL models	1	12	10	4		1
Our institution is making efforts to designate BL courses in the course registration system	3	8	9	6	1	1
Total	20	60	37	16	4	3
Stage 3 Mature Implementation/Growth-Structure frequencies for Master's Degree Only (<i>n</i> = 28)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
Our institution has robust structures involving academic unit leaders for strategic decision making about BL options	4	13	8	1	2	
Our institution encourages general BL options	3	15	7	2	1	
Our institution does not enforce general BL options	5	10	9	3	1	
BL designations are clearly available in our course registration system	4	12	8	2	1	1
The evaluation of BL outcomes is systematically reviewed at our institution	2	12	7	5	1	1

Total	18	62	39	13	6	2
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Stage 1 Awareness/Exploration-Structure frequencies for Doctoral Degree Only ($n = 4$)

<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is currently no official approval structure for BL options at our institution		1		2	1	
There is currently no official implementation structure for BL options at our institution	1		1	2		
There are no institutional models of BL at our institution	1		2	1		
There is no designation of courses as blended in our university course registration system.	1		1	2		
There are no formal evaluations in place addressing BL outcomes at our institution	1	1	1	1		
Total	4	2	5	8	1	

Stage 2 Adoption/Early Implementation-Structure frequencies for Doctoral Degree Only ($n = 4$)

<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
Our institution has emerging structures to regulate BL options		1	1	2		
Our institution has emerging structures to approve BL options		1	1	1	1	
Our institution is exploring BL models		2	1		1	
Our institution is identifying BL models		2		1	1	
Our institution is making efforts to designate BL courses in the course registration system		2	1	1		
Total		8	4	5	3	

Stage 3 Mature Implementation/Growth-Structure frequencies for Doctoral Degree Only ($n = 4$)

<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
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Our institution has robust structures involving academic unit leaders for strategic decision making about BL options	1	1	1	1
Our institution encourages general BL options	2		1	1
Our institution does not enforce general BL options		2	1	1
BL designations are clearly available in our course registration system		3	1	
The evaluation of BL outcomes is systematically reviewed at our institution		3	1	
Total	3	9	5	3

Stage 1 Awareness/Exploration-Structure frequencies for Associates, Bachelors, Master's, and Doctoral Degrees ($n = 25$)

<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is currently no official approval structure for BL options at our institution	3	7	3	9	3	
There is currently no official implementation structure for BL options at our institution	2	4	6	10	3	
There are no institutional models of BL at our institution	1	7	6	8	3	
There is no designation of courses as blended in our university course registration system.		2	7	12	4	
There are no formal evaluations in place addressing BL outcomes at our institution	2	4	4	13	2	
Total	8	24	26	52	15	

Stage 2 Adoption/Early Implementation-Structure frequencies for Associates, Bachelors, Master's, and Doctoral Degrees ($n = 25$)

<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
Our institution has emerging structures to regulate BL options	2	13	4	5	1	
Our institution has emerging structures to approve BL options	3	15	4	2	1	

Our institution is exploring BL models	4	14	5	1	1
Our institution is identifying BL models	2	14	7	1	1
Our institution is making efforts to designate BL courses in the course registration system	3	11	3	5	3
Total	14	67	23	14	7

Stage 3 Mature Implementation/Growth-Structure frequencies for Associates, Bachelors, Master's, and Doctoral Degrees ($n = 25$)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
Our institution has robust structures involving academic unit leaders for strategic decision making about BL options	5	14	4	1	1	
Our institution encourages general BL options	4	16		3	2	
Our institution does not enforce general BL options	1	6	6	9	2	1
BL designations are clearly available in our course registration system	7	11	3	3	1	
The evaluation of BL outcomes is systematically reviewed at our institution	4	14	3	2	2	
Total	21	61	16	18	8	1

Stage 1 Awareness/Exploration-Structure frequencies for remaining combination of degrees ($n = 100$)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is currently no official approval structure for BL options at our institution	5	27	22	34	10	2
There is currently no official implementation structure for BL options at our institution	6	24	21	35	12	2
There are no institutional models of BL at our institution	5	22	22	34	15	2
There is no designation of courses as blended in our university course registration system	4	17	31	28	17	3
There are no formal evaluations in place	5	24	26	29	12	4

addressing BL outcomes at our institution							
Total	25	114	122	160	66	13	
Stage 2 Adoption/Early Implementation-Structure frequencies for remaining combination of degrees (<i>n</i> = 100)							
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>	
Our institution has emerging structures to regulate BL options	15	38	32	13		2	
Our institution has emerging structures to approve BL options	13	40	29	14	1	3	
Our institution is exploring BL models	15	49	23	7	3	3	
Our institution is identifying BL models	11	50	25	7	2	5	
Our institution is making efforts to designate BL courses in the course registration system	19	38	26	15		2	
Total	73	215	135	56	6	15	
Stage 3 Mature Implementation/Growth-Structure frequencies for remaining combination of degrees (<i>n</i> = 100)							
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>	
Our institution has robust structures involving academic unit leaders for strategic decision making about BL options	17	37	24	17	3	2	
Our institution encourages general BL options	16	52	24	3	1	4	
Our institution does not enforce general BL options	7	23	27	28	11	4	
BL designations are clearly available in our course registration system	19	38	26	15		2	
The evaluation of BL outcomes is systematically reviewed at our institution	12	39	27	19		3	
Total	71	189	128	82	15	15	

Appendix P
Stages 1, 2, & 3-Support Maturity Frequencies for All Degree Levels

Table 24

Support Maturity for All Degree Levels

Stage 1 Awareness/Exploration-Support frequencies for Associate Degree Only (<i>n</i> = 28)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
The primary focus of technological support at our institution is on the traditional classroom.	1	5	10	6	3	3
Our institution does not have a course development process in place for BL options	2	5	8	3	4	6
Our institution does not have an identified faculty incentive structure for implementation of BL options	3	5	9	2	3	6
Total	6	15	27	11	10	15

Key: SA=Strongly Agree; A=Agree; NA/D=Neither Agree or Disagree; D=Disagree; SD=Strongly Disagree

Stage 2 Adoption/Early Implementation-Support frequencies for Associate Degree Only (<i>n</i> = 28)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is an increased focus on BL technological support for faculty at our institution	4	11	7	3	1	2
There is an increased focus on BL technological support for students at our institution	5	7	11	4	1	
Our institution is experimenting with formal BL course development process	3	8	9	3	1	4
Our institution is building a formal BL course development process	1	8	11	3	5	
Our institution is exploring a faculty incentive structure for BL course development	1	6	12	2	2	5
Our institution is exploring a faculty incentive structure for BL faculty training	1	6	13	2	2	4
Total	15	46	63	17	12	15

Stage 3 Mature Implementation/Growth-Support frequencies for Associate Degree Only ($n = 28$)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is a well established tech support to address BL needs of all stakeholders at our institution	3	10	11	2	1	1
Our institution has a robust BL course development process established	4	7	11	5		1
Our institution systematically promotes a robust BL course development process	3	9	10	5		1
Our institution has a well-established faculty incentive structure for systematic BL training	3	5	8	8	1	3
Our institution has a well-established faculty incentive structure for implementation of BL options	1	5	11	6	2	3
Total	14	36	51	26	4	9

Stage 1 Awareness/Exploration-Support frequencies for Bachelor Degree Only ($n = 42$)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
The primary focus of technological support at our institution is on the traditional classroom.	13	9	11	1	5	3
Our institution does not have a course development process in place for BL options	2	8	18	8	4	2
Our institution does not have an identified faculty incentive structure for implementation of BL options	5	8	13	10	3	3
Total	20	25	42	19	12	8

Stage 2 Adoption/Early Implementation-Support frequencies for Bachelor Degree Only ($n = 42$)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is an increased focus on BL technological support for faculty at our	1	15	14	7	3	2

institution						
There is an increased focus on BL technological support for students at our institution	6	11	13	5	5	2
Our institution is experimenting with formal BL course development process	3	10	13	9	5	2
Our institution is building a formal BL course development process	4	13	11	10	3	1
Our institution is exploring a faculty incentive structure for BL course development	2	11	17	9		3
Our institution is exploring a faculty incentive structure for BL faculty training	4	10	14	8	3	3
Total	14	49	51	31	16	7
Stage 3 Mature Implementation/Growth-Support frequencies for Bachelor Degree Only ($n = 42$)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is a well established tech support to address BL needs of all stakeholders at our institution	3	6	19	10	3	1
Our institution has a robust BL course development process established	9	5	14	9	2	3
Our institution systematically promotes a robust BL course development process	3	9	19	6	2	3
Our institution has a well-established faculty incentive structure for systematic BL training	4	7	13	12	4	2
Our institution has a well-established faculty incentive structure for implementation of BL options	3	9	11	12	6	1
Total	22	36	76	49	17	10
Stage 1 Awareness/Exploration-Support frequencies for Master's Degree Only ($n = 28$)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
The primary focus of technological support at our institution is on the traditional classroom	2	12	6	5	2	1

Our institution does not have a course development process in place for BL options	2	12	8	3	3	
Our institution does not have an identified faculty incentive structure for implementation of BL options	3	13	7	3	2	
Total	7	37	21	11	7	1

Stage 2 Adoption/Early Implementation-Support frequencies for
Master's Degree Only ($n = 28$)

<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is an increased focus on BL technological support for faculty at our institution	2	17	5	3	1	
There is an increased focus on BL technological support for students at our institution	2	11	9	4	1	1
Our institution is experimenting with formal BL course development process	5	8	6	7	1	1
Our institution is building a formal BL course development process	5	6	10	5	1	1
Our institution is exploring a faculty incentive structure for BL course development	2	13	7	3	2	1
Our institution is exploring a faculty incentive structure for BL faculty training	3	8	8	6	2	1
Total	19	63	45	28	8	5

Stage 3 Mature Implementation/Growth-Support frequencies for
Master's Degree Only ($n = 28$)

<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is a well established tech support to address BL needs of all stakeholders at our institution	3	14	7	4		
Our institution has a robust BL course development process established	6	11	6	4		1
Our institution systematically promotes a robust BL course development process	8	9	7	3		1

Our institution has a well-established faculty incentive structure for systematic BL training	1	12	6	4	3	2
Our institution has a well-established faculty incentive structure for implementation of BL options	3	11	6	5	1	2
Total	21	57	32	20	4	6

Stage 1 Awareness/Exploration-Support frequencies for Doctoral Degree Only ($n = 4$)

<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
The primary focus of technological support at our institution is on the traditional classroom		1	1	1	1	
Our institution does not have a course development process in place for BL options	1		1		2	
Our institution does not have an identified faculty incentive structure for implementation of BL options		1	2		1	
Total	1	2	4	1	4	

Stage 2 Adoption/Early Implementation-Support frequencies for Doctoral Degree Only ($n = 4$)

<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is an increased focus on BL technological support for faculty at our institution		1	2		1	
There is an increased focus on BL technological support for students at our institution		1	2		1	
Our institution is experimenting with formal BL course development process		1	2		1	
Our institution is building a formal BL course development process		1	1	1	1	
Our institution is exploring a faculty incentive structure for BL course development			2		1	1
Our institution is exploring a faculty incentive structure for BL faculty training		1	2	1		

Total	5	11	2	5	1
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Stage 3 Mature Implementation/Growth-Support frequencies for
Doctoral Degree Only ($n = 4$)

<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is a well established tech support to address BL needs of all stakeholders at our institution			2	2		
Our institution has a robust BL course development process established				3	1	
Our institution systematically promotes a robust BL course development process			2	1	1	
Our institution has a well-established faculty incentive structure for systematic BL training	1			2	1	
Our institution has a well-established faculty incentive structure for implementation of BL options			1	1	1	1
Total	1		5	9	4	1

Stage 1 Awareness/Exploration-Support frequencies for Associate,
Bachelor, Master's, and Doctoral Degrees ($n = 25$)

<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
The primary focus of technological support at our institution is on the traditional classroom	2	4	4	13	2	
Our institution does not have a course development process in place for BL options	1	6	5	9	2	2
Our institution does not have an identified faculty incentive structure for implementation of BL options	2	8	3	6	3	3
Total	5	18	12	28	7	5

Stage 2 Adoption/Early Implementation-Support frequencies for
Associates, Bachelors, Master's, and Doctoral Degrees ($n = 25$)

<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
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There is an increased focus on BL technological support for faculty at our institution	5	14	2	3		1
There is an increased focus on BL technological support for students at our institution	6	13	4	1		1
Our institution is experimenting with formal BL course development process	2	12	6	3	1	1
Our institution is building a formal BL course development process	3	14	4	3		1
Our institution is exploring a faculty incentive structure for BL course development		11	7	3	1	3
Our institution is exploring a faculty incentive structure for BL faculty training		12	7	2	1	3
Total	16	76	30	15	3	10

Stage 3 Mature Implementation/Growth-Support frequencies for Associates, Bachelors, Master's, and Doctoral Degrees ($n = 25$)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is a well established tech support to address BL needs of all stakeholders at our institution	4	14	4	2		1
Our institution has a robust BL course development process established	4	11	1	6	3	
Our institution systematically promotes a robust BL course development process	4	12	2	6		1
Our institution has a well-established faculty incentive structure for systematic BL training	2	10	4	4	3	2
Our institution has a well-established faculty incentive structure for implementation of BL options	4	10	6	2	1	2
Total	18	57	17	20	7	6

Stage 1 Awareness/Exploration-Support frequencies for remaining combination of degrees ($n = 100$)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
The primary focus of technological support	15	34	23	21	4	3

at our institution is on the traditional classroom						
Our institution does not have a course development process in place for BL options	6	22	30	16	13	13
Our institution does not have an identified faculty incentive structure for implementation of BL options	13	24	26	11	12	14
Total	34	80	79	48	29	30

Stage 2 Adoption/Early Implementation-Support frequencies for remaining combination of degrees (<i>n</i> = 100)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is an increased focus on BL technological support for faculty at our institution	16	50	23	6	2	3
There is an increased focus on BL technological support for students at our institution	15	42	27	10	2	4
Our institution is experimenting with formal BL course development process	6	42	26	10	7	9
Our institution is building a formal BL course development process	7	44	27	10	4	8
Our institution is exploring a faculty incentive structure for BL course development	8	36	29	10	9	8
Our institution is exploring a faculty incentive structure for BL faculty training	8	35	32	10	9	6
Total	60	249	164	56	33	38

Stage 3 Mature Implementation/Growth-Support frequencies for remaining combination of degrees (<i>n</i> = 100)						
<u>Measurement Items</u>	<u>SA</u>	<u>A</u>	<u>NA/D</u>	<u>D</u>	<u>SD</u>	<u>Missing</u>
There is a well established tech support to address BL needs of all stakeholders at our institution	16	34	28	14	4	4
Our institution has a robust BL course development process	14	30	29	19	4	4

established						
Our institution systematically promotes a robust BL course development process	14	26	29	25	2	4
Our institution has a well-established faculty incentive structure for systematic BL training	15	26	23	16	13	7
Our institution has a well-established faculty incentive structure for implementation of BL options	12	27	28	16	10	7
Total	71	143	137	90	33	26

Appendix Q
Permission to Use Cronbach's Alpha: Simple Definition, Use and Interpretation

From: Stephanie Sundberg <andalepublishing@gmail.com>
Date: October 21, 2016 at 12:14:26 PM CDT
To: "Duarte, Anida A." <aaduarte@student.uiwtx.edu>
Subject: Re: Permission Request from the University of the Incarnate Word - Doctoral Candidate Anida Duarte
That's fine. Good luck.

On Fri, Oct 21, 2016 at 1:07 PM, Duarte, Anida A. <aaduarte@student.uiwtx.edu> wrote:
October 21, 2016

Statistics How To

Dear Stephanie,

I would like to request your permission to include one figure from the following publication in my dissertation on Blended Learning Programs:

1. Cronbach's Alpha: Simple Definition, Use and Interpretation.
Retrieved, <http://www.statisticshowto.com/cronbachs-alpha-spss/>
 - o Figure 1. Rule of thumb for interpreting Alpha

I am currently evaluating adoption and implementation standards for blended learning options in higher education. My results section uses Cronbach's Alpha to measure fit for quantitative measures that were translated from a qualitative study. Your graph will receive full citation in my study.

A reply to this email is sufficient to indicate your permission for my use of the above-mentioned material. By replying to this email, you give ProQuest/UMI the right to supply copies of this material on demand as part of my doctoral dissertation. Please attach any other terms and conditions for the proposed use of this item below. If you no longer hold the copyright to this work, please indicate to whom I should direct my request.

Thank you for your time and attention to this matter, and I look forward to answering any additional questions you may have about my study.

Sincerely,

Anida Duarte

Appendix R
Institutional Policy and Adopted Performance Standards

Table 25

Blended Learning Policies and Standards

Institutional Policy on Blended Learning (<i>n</i> = 227)						
<u>Aspects of BL</u>	<u>VE</u>	<u>E</u>	<u>SW</u>	<u>NA</u>	<u>IDK</u>	<u>Missing</u>
Professor Readiness	46	71	77	22	8	3
Professor Preparedness	39	89	69	20	8	2
Curricular Content	39	86	74	15	8	5
Use of Technology	51	65	82	15	11	3
Learner Support	45	63	77	19	15	8
Percentage of Time F2F Required	34	64	83	32	11	3
Blended Learning Definition	43	66	80	23	12	3
Technology Support	41	76	76	22	7	5
Pedagogical Support	33	65	79	33	13	4

VE=Very Extensively; E=Extensively; SW=Somewhat; NA=Not at all; IDK=I Don't Know

Institutionally Adopted Performance Standards (<i>n</i> = 227)						
Professor Readiness	43	79	70	19	13	3
Professor Preparedness	36	87	66	24	11	3
Curricular Content	42	81	65	24	12	3
Use of Technology	35	72	83	23	9	5
Learner Support	34	77	72	25	13	6
Percentage of Time F2F Required	30	82	73	23	16	3
Blended Learning Definition	42	68	74	26	13	4
Technology Support	35	71	81	27	9	4
Pedagogical Support	22	74	84	25	18	4

Appendix S
Cronbach's Alpha Scores if Items Deleted

Table 26

Cronbach's Alpha Scores if Item Deleted for All Degree Levels

Stage 1 Strategy (n = 215)						
<u>Measurement Item</u>	AD (n = 27; $\alpha = .749$)	BD (n = 37; $\alpha = .777$)	MD (n = 28; $\alpha = .741$)	DD (n = 4; $\alpha = .758$)	AD/BD/ MD/DD (n = 24; $\alpha = .665$)	All others (n = 95; $\alpha = .717$)
Individual faculty informally identify specific BL benefits	.746	.742	.731	.637	.580	.659
Individual administrators informally identify specific BL benefits	.768	.746	.712	.627	.603	.673
Individual faculty informally advocate BL options	.678	.716	.674	.744	.579	.655
Individual administrators informally advocate BL options	.682	.745	.714	.767	.666	.663
Individual faculty implement BL options at our institution	.655	.723	.696	.742	.601	.671
There is no uniform definition of BL currently proposed at our institution	.756*	.798*	.742*	.626	.645	.710
There is no uniform BL policy in place at our institution	.722	.766	.694	.848**	.723**	.754*

*Cronbach's Alpha increases between .001-.089 with the removal of this statement for the corresponding degree.

**Cronbach's Alpha increases by .090 or greater for the corresponding degree.

Stage 1 Structure (n = 221)						
<u>Measurement Item</u>	AD (n = 28; $\alpha = .863$)	BD (n = 41; $\alpha = .693$)	MD (n = 28; $\alpha = .804$)	DD (n = 4; $\alpha = .658$)	AD/BD/ MD/DD (n = 25; $\alpha = .791$)	All others (n = 95; $\alpha = .827$)
There is currently no official approval structure for BL options at our institution	.863***	.575	.747	.935**	.677	.772
There is currently no official implementation structure for BL options at our institution	.817	.646	.805*	.282	.753	.774

There are no institutional models of BL at our institution	.853	.648	.788	.448	.719	.803
There is no designation of courses as blended in our university course registration system	.821	.673	.763	.422	.753	.799
There are no formal evaluations in place addressing BL outcomes at our institution	.814	.669	.721	.465	.830*	.814
Stage 1 Support (n = 221)						
<u>Measurement Item</u>	AD (n = 28; $\alpha = .655$)	BD (n = 41; $\alpha = .676$)	MD (n = 27; $\alpha = .464$)	DD (n = 4; $\alpha = -3.474$)	AD/BD/ MD/DD (n = 24; $\alpha = .508$)	All others (n = 97; $\alpha = .453$)
The primary focus of technological support at our institution is on the traditional classroom	.619	.524	.660**	-26.667 ^a	.426	.657
Our institution does not have a course development process in place for BL options	.630	.488	-.057 ^a	.960	.308	.113
Our institution does not have an identified faculty incentive structure for implementation of BL options	.382	.718*	.336	-20.000 ^a	.488	.061
Stage 2 Strategy (n = 211)						
<u>Measurement Item</u>	AD (n = 25; $\alpha = .868$)	BD (n = 37; $\alpha = .791$)	MD (n = 26; $\alpha = .859$)	DD (n = 4; $\alpha = .962$)	AD/BD/ MD/DD (n = 25; $\alpha = .896$)	All others (n = 94; $\alpha = .887$)
Administrators identify purposes to motivate institutional adoption of BL	.893*	.772	.857	.950	.881	.876
BL is informally approved by university administrators	.858	.755	.850	.959	.929*	.874
BL is formally advocated by university administrators	.855	.758	.851	.974*	.866	.870
Administrators target implementation of BL in high impact areas at our institution	.846	.779	.841	.950	.890	.872

Administrators target implementation of BL among high impact faculty at our institution	.848	.749	.827	.954	.877	.877
An initial definition of BL has formally been proposed at our university	.868	.771	.850	.960	.886	.878
Tentative policies have been adopted for BL in our institution	.835	.793*	.830	.954	.873	.875
Tentative BL policies have been communicated to stakeholders at our institution	.838	.771	.838	.950	.879	.871
Tentative BL policies have been revised as needed at our institution	.830	.785	.845	.960	.871	.875
Stage 2 Structure (<i>n</i> = 215)						
<u>Measurement Item</u>	AD (<i>n</i> = 28; α = .848)	BD (<i>n</i> = 39; α = .760)	MD (<i>n</i> = 25; α = .698)	DD (<i>n</i> = 4; α = .932)	AD/BD/ MD/DD (<i>n</i> = 25; α = .817)	All others (<i>n</i> = 94; α = .673)
Our institution has emerging structures to regulate BL options	.805	.698	.625	.904	.778	.596
Our institution has emerging structures to approve BL options	.806	.703	.628	.915	.751	.582
Our institution is exploring BL models	.809	.726	.653	.920	.771	.578
Our institution is identifying BL models	.810	.726	.687	.909	.748	.569
Our institution is making efforts to designate BL courses in the course registration system	.799	.753	.633	.909	.808	.644
There are limited institutional evaluations addressing BL at our institution	.894*	.742	.718*	.949*	.856*	.775
Stage 2 Support (<i>n</i> = 220)						
<u>Measurement Item</u>	AD (<i>n</i> = 28; α = .856)	BD (<i>n</i> = 42; α = .852)	MD (<i>n</i> = 28; α = .755)	DD (<i>n</i> = 3; α = .987)	AD/BD/ MD/DD (<i>n</i> = 25; α = .764)	All others (<i>n</i> = 94; α = .849)

There is an increased focus on BL technological support for faculty at our institution	.862*	.816	.779*	.983	.732	.831
There is an increased focus on BL technological support for students at our institution	.844	.819	.780*	.983	.761	.833
Our institution is experimenting with formal BL course development process	.846	.849	.732	.983	.752	.835
Our institution is building a formal BL course development process	.804	.824	.681	.988*	.762	.826
Our institution is exploring a faculty incentive structure for BL course development	.792	.814	.670	.983	.702	.813
Our institution is exploring a faculty incentive structure for BL faculty training	.834	.843	.638	.983	.640	.804
Stage 3 Strategy ($n = 212$)						
<u>Measurement Item</u>	AD ($n = 25$; $\alpha = .858$)	BD ($n = 41$; $\alpha = .787$)	MD ($n = 26$; $\alpha = .829$)	DD ($n = 3$; $\alpha = .914$)	AD/BD/ MD/DD ($n = 24$; $\alpha = .920$)	All others ($n = 93$; $\alpha = .881$)
There is administrative refinement of purposes for continuous promotion of BL	.873*	.748	.801	.881	.919	.862
There is administrative refinement of purposes for continuous funding of BL	.832	.781	.825	.871	.903	.869
There is formal BL advocacy by university departments	.804	.756	.816	.932*	.899	.867
University departments strategically facilitate widespread faculty implementation of BL at our institution	.823	.749	.798	.896	.908	.865
Our institution has formally adopted a refined definition of BL	.864*	.778	.805	.924*	.919	.860
Our institution has robust BL policies in place	.810	.779	.786	.897	.897	.865

Our institutional BL options have a high level of community awareness	.847	.717	.810	.889	.904	.862
Stage 3 Structure (<i>n</i> = 215)						
<u>Measurement Item</u>	AD (<i>n</i> = 28; α = .712)	BD (<i>n</i> = 40; α = .593)	MD (<i>n</i> = 27; α = .664)	DD (<i>n</i> = 4; α = .898)	AD/BD/ MD/DD (<i>n</i> = 24; α = .315)	All others (<i>n</i> = 92; α = .534)
Our institution has robust structures involving academic unit leaders for strategic decision making about BL options	.585	.535	.485	.825	.163	.322
Our institution encourages general BL options	.602	.555	.636	.822	.114	.364
Our institution does not enforce general BL options	.816*	.545	.714*	.829	.600	.796
BL designations are clearly available in our course registration system	.611	.588	.606	.879	.098	.377
The evaluation of BL outcomes is systematically reviewed at our institution	.668	.462	.586	.957*	.179	.326
Stage 3 Support (<i>n</i> = 224)						
<u>Measurement Item</u>	AD (<i>n</i> = 28; α = .859)	BD (<i>n</i> = 42; α = .752)	MD (<i>n</i> = 28; α = .821)	DD (<i>n</i> = 3; α = .867)	AD/BD/ MD/DD (<i>n</i> = 25; α = .797)	All others (<i>n</i> = 98; α = .908)
There is a well-established tech support to address BL needs of all stakeholders at our institution	.866*	.671	.836*	.944*	.721	.911*
Our institution has a robust BL course development process established	.818	.704	.771	.829	.757	.891
Our institution systematically promotes a robust BL course development process	.794	.674	.782	.762	.734	.881
Our institution has a well-established faculty incentive structure for systematic BL training	.833	.790*	.782	.825	.750	.886

Our institution has a well-established faculty incentive structure for implementation of BL options	.831	.688	.742	.762	.827*	.865
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